QUALITY AND BUSINESS MANAGEMENT CONFERENCE
Business Innovation - Imperative for Knowledge Economy

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CONFERENCE PROCEEDINGS
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Preface

Innovation Arabia 9 Congress 2016, was held under the patronage of His Highness Sheikh Hamdan Bin Mohammed Bin Rashid Al Maktoum, Crown Prince of Dubai and President of HBMSU. The Congress was held at the Jumeirah Beach Hotel Dubai from 07 – 09 March, 2016. The main theme of the Congress this year was “Accelerating Innovation towards Sustainable Economy”. This theme endorses our belief that innovation is the engine that can drive sustainable economic and social development for the Arab region. Economies based on innovation and knowledge can help in promoting greater growth and spur competitiveness.

Keeping up with the tradition, Innovation Arabia 9 featured three scientific conferences under its umbrella, having their themes in line with the main theme of the Congress.

- Quality and Business Management Conference
- Smart Learning Conference
- Health and Environment Conference

The main objectives of Innovation Arabia 9 Congress are:

1. To discuss theoretical and applied research related to innovation in Quality & Business Management, Smart Learning, and Health and Environment.
2. To analyze current issues and challenges facing the Arab world and the role of innovation in creating sustainable development.
3. To provide a forum for exchange of research ideas and practices and the creation of new ideas to assess the current state of knowledge and development of the discipline in theory and practice.
4. To provide an environment for the discussion of new concepts, research developments, and applications in innovation in Quality, Smart Learning, and Health and Environment.

One important purpose of the Congress was to unleash the economic opportunities in the region as well as spread the culture of innovation in the private and government research institutes, universities and the private sector, in order to capitalize on the successes and potential of the Arab World.

This Congress served as a platform to give scholars, researchers, thinkers and practitioners the opportunity to share thoughts, debate issues and exchange knowledge, with the aim to discuss and address trends, solutions and challenges in the development of sustainable economies and societies in the Arab world through innovation.

The Congress featured many other activities including keynote talks, best practices presentations, social media panels, workshops, research papers and poster presentations, and several formal and informal networking opportunities including an exclusive Gala Dinner, bringing together researchers, industry leaders from local, regional and international organizations, government entities, the corporate sectors and NGOs.

Professor Moustafa Hassan

Chair, Innovation Arabia 9 Congress, 2016
Lean Implementation in Jordanian Pharmaceutical Industry: The Case of Hikma Company

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Abstract
The main objective of the current study was to investigate the impact of visual management, 5S, work standards, and waste reduction on the productivity of Hikma Pharmaceutical Company. Quantitative research approach was defined as the viable method of research for the current study. A survey questionnaire was developed by the researcher. The questionnaire was refined and validated before it was distributed to 217 Hikma employees, was used to analyze and interpret the results of the current study. Regressions model was performed to answer the research question and to test the hypotheses. The results of the regressions test revealed that visual management, 5S, and work standards had statistical significant impact on Hikma productivity. Waste management had no statistical significant impact on Hikma productivity.

Keywords: Lean Management, Pharmaceutical industry, visual management, 5S, work standards, waste management, productivity, process industry, regressions analysis.

Introduction
Sohal (1996) argued that lean production solves problems through continuous improvements by eliminating unnecessary processes. Lean management implements some set of lean practices to identify and eliminate process that do not create value for the end users. Womack and Jones (1996) confirmed that, irrespective to the type of business, lean management is concerned as an adding value activity to customers.

However, Avinash (2015) argued that it is essential to examine whether adoption of lean in process industries (e.g. Pharmaceutical) is significantly beneficial for the business or not. For instance, Pharmaceutical Companies have continuous processes; non discrete materials that can’t be conducted without containerization\(^1\). Thus, Pharmaceutical Companies

\(^1\) Note that lean concept was first applied by Toyota to reduce waste during production and that such types of industries applied discrete materials.
can’t apply some lean techniques such as just-in-time (JIT); since these companies have long setup times with large batch sizes. Therefore, the level of inventory will be high in the whole supply chain with very low material efficiencies (Shah, 2005). Furthermore, Pharmaceutical Companies have seasonal availability of raw materials and huge processing equipments (Melton, 2005), and thus, raw materials, finished goods, and auxiliary materials occupy huge spaces. Cox and Chicks (2005) suggested that lean can assist in achieving better utilization of space and equipments.

Pharmaceutical Companies have high degree of automation and thus, processing can’t be stopped in between because it yields to a huge loss of productivity. Sharma et al. (2005) suggested that lean practices such as 5S and total productive maintenance are the most effective way to keep them working all the time without breakdowns. Also, setup time is an important issue in Pharmaceutical processes since it consists of cleaning of processing equipments. Billesbach (1994) confirmed that setup time reduction and quick changeover techniques can be very effective to reduce cost.

An additional advantage of lean management in Pharmaceutical industry is that lead time reduction (Cook and Rogowski, 1996). Shah and Ward (2003) reported that lean tools are widespread in all industries regardless of its type. Moreover, Sohal and Egglestone(1994) found that substantial benefits can be achieved through implementation of lean despite of the type of industry.

The main aim of this paper was to investigate the impact of lean practices on productivity at Hikma Company and to determine the best lean tools that are suitable to the company.

The results revealed that visual management, standard work, and 5S tools have a significant effect on increasing productivity. The results revealed that waste reduction tools do not have a significant impact on productivity.

**Literature review: Lean management**

According to Charron et al (2014)lean concept was first found through the Japanese automobile Industry after the end of the Second World War, but since its development, it has been adopted by almost all world-wide industries. This initiation was a response to the need for minimizing of used resources during manufacturing, and that the Japanese industries desire to lower expenses and better production practices.

As Womack, Jones &Roos (1990) explained, the expression Lean was first mentioned by James Womack in his1990 book, “The Machine that Changed the World”. The story started in the spring of 1950, when Eiji Toyota a young Japanese engineer, went to Ford Company to study their plant. After his return to Japan, with the assistance of Taiichi Oho they did a study, requiring a new production model different than the mass production model that was applied in Ford to improve the economic status and success of the Japanese automobiles Industry. Toyota sought to develop a production model that aimed to reduce waste of all kinds during production. The main benefit that Toyota gained from developing such a model was a flexible production cycle with shorter changeover times and lower inventory values. Both the cost and quality return that Toyota was able to extract from its new production model allowed Toyota
Company to flourish and succeed while keeping its competitors facing many losses. This model or what has been known thereafter as the Toyota Production System (TPS) has become the roots of what is today generally referred to as Lean Management. The great success that TPS achieved has led to the adoption of Lean Management in nearly the majority of manufacturing companies (not only the automobile) as well as non-manufacturing companies, such as banks, NGO’s, and hospitals. Lean Management has grown up to be a mature business management methodology depending on the principle of maximizing end value of a product as received on the end of the consumer through eliminating waste, or superfluous activities.

Continuous change is the best expression that describes the nature of modern societies that we live in and it perfectly determines the challenges that companies, regardless of their business, are facing. Technology advances, high demands of diversified customers, increasing in numbers and complexity of finished products, tightening of the manufacturing regulations, spreading of the international networks all over the world and strong competition that places pressure on the market, old methods that had been used previously to maintain a growing performance for companies can no longer attain the same results nor sustain the companies’ position in the market (Kotter, 2007).

To overcome these challenges and to be successful, businesses must have the ability to understand, react, perform, and adapt to the changes should be built. Some researchers argued that the ability to adjust to new conditions quickly is the kind of competitive advantage that businesses need and that management of change needs to be set in an everyday plan on the table of the senior managers to reach a successful re-structuring of processes and the influential tools and techniques to overcome obstacles. (Kovacheva, 2010)

Davis (2009) suggested that adapting lean management techniques in every day operation can guarantee the achievement of lowering the costs and improving the quality. Lean Management is considered to be an effective approach in improving a company’s performance. Many studies proposed that Lean Management system is the reason for the effectiveness and continuing success of the Japanese manufacturing industries, which started in Toyota’s plants to eliminate the waste in resources, and that it is a fully integrated system that any Company can adapt as a new management approach to improve all processes throughout its hierarchy. Applying Lean Management will develop a stronger and more systematic operation that is flexible to change, responsive to new demand or product complexity, efficiency in resources utilization, expediting production changeover and reducing inventory cost and days in warehouses. It inspires operations by focusing attention on the continuous improvements of manufacturing by eliminating valueless adjuncts while performing the valued ones professionally.

Lean has become a widely acknowledged strategy to continually improve the processes of various companies. By entering Lean Management ideas into companies, the focus of the managers are redirected from new investments in assets and technologies to a continuous improvement in already existing assets and creating processes that demand less human resources, space, capital, and time to make the products and services of traditional business systems. Companies are able to respond to changing customer needs with high variety, high quality, lower cost, and at extremely fast throughput times. Thereby, information management also becomes much simpler and more accurate.
There are many references explaining how to apply Lean tools in diverse industries. However, in applying Lean Management, companies should pay attention to the special considerations and environments of each Industry. For best results, improvement should be continually measured utilizing different points of view, in operations, finance, etc, and surely, the benefits that will be gained of improvement should be higher than its cost. (George, 2003)

Companies in all industries will of course benefit by applying Lean Management in a correct way. A Lean Company understands the importance of customer value and directs its key processes to continuously better it. The ultimate goal is to provide exceptional value to the customer through creation or manufacturing process that has zero waste (Wang, 2011).

In order to apply Lean Management methodology, different tools and practices might be applied. Some of Lean Management tools and practices that might be mentioned in this paper may include:

- **Waste Reduction**
  According to Toyota Production System (TPS), there are seven main sources of valueless adjuncts (Waste) or what is known as (Muda) in the Japanese Language. Womack(2011) described those wastes that could be found in any business or manufacturing process should be avoided in Lean Management to create more a value for the customer. Those Wastes are:
  
  a. **Defects**: Any which will require a reworking to improve the finished product quality, loss of the employees’ efforts, and consumption of the company’s resources.
  
  b. **Overproduction**: There are more finished products than necessary for the customer. Overproduction may have another meaning that is: manufacturing more than the needed or faster than it is needed for the next production stages in the production cycle.
  
  c. **Transportation**: unneeded transportation and shipping of materials or parts that is required to get the finished product.
  
  d. **Waiting**: Of employees during the manufacturing process resulting from downtime, changeover, quality assurance, etc.
  
  e. **Inventory**: Extra raw and packaging materials (RPM), Work in process (WIP) and finished goods (FG) in warehouses leading to more utilized space in the warehouses, expiration costs, and loss of shelf life in the end product.
  
  f. **Motion**: unneeded employees’ movements, such as: searching for tools or materials.
  
  g. **Over-processing or incorrect processing**: superfluous steps or inspections during manufacturing. Over-processing might mean manufacturing items with higher quality than the customer needs.

- **5S**
  George (2003) showed that the name of this tool is derived from five Japanese words that start with the letter “S”: “Seiri, Seiton, Seiso, Seiketsu and Shitsuke”. Those words have conveniently been translated to five similar English words that start with “S”, which are:
a. Sort: categorize and organize by separating the needed activities from the unneeded activities.
b. Straighten: arrange their positions so as to easily identify their use.
c. Shine: clean, polish, and use different methods to keep it clean as is.
d. Standardize: maintain, observe and monitor the above three "S"s.
e. Sustain: control, regulate and stick to the rules.

- Standard Work
Coffey (2008) defined standard work as the primary steps in the process and allows the repeating of the process all the time achieving the same result without any variation, in the most efficient way. By standardizing the processes, all the reworks and defects will be decreased.

- Visual Management
Mann (2010) explained visual Management as one of lean management tools that provides the employees with the necessary information using signal, signs, alerts and charts, etc, which makes information available for all employees instead of using text.

Research Methodology and Data Collection

Research Context
Lean management concept can be described as a management technique in which customers are guaranteed to receive the needed product on time with high quality at the lowest possible cost, while achieving profits on the business side. Pharmaceutical Industry is one of the top performers on applying and benefiting from lean management. Although Pharmaceutical Industry might be seen as a good applier for Lean as it has been mentioned above, but in fact some may disagree about whether this type of management is appropriate for the Pharmaceutical Industry or not.

Pharmaceutical Industry has its own little secret, where such an industry faces extra challenges than other industries face, that its operations are far from efficient, even if they are searching for the best quality. For most of its operations, the general picture is that they are known with long production cycle time for the batch, high amount of inventory, and sometime the need of rework and inflexibility, which go against lean management concept.

In addition, Pharmaceutical Industry is constrained with regulations and legal issues by the health agencies that need to guarantee good quality, effectiveness, and safety of the drug finished product. That means there are many requirements for quality assurance such as: continues testing that starts from the raw and packaging material and ends up with the finished product. Inspection all over the process line, documentation for each single manufacturing step or test documentation that are blamed for high pharmaceutical manufacturing costs and may be described in Lean Management as waste or non-value added activities.

Furthermore, Pharmaceutical Industry aims to satisfy customers demand correctly without any delay. Thus, Pharmaceutical companies apply continuous operations system, where the pull concept of Lean/ or in other words Toyota Discrete system of production could
not be applied and it also means that a buffer of the inventory whether for the raw material or the finished product should be there in the warehouses, where the JIT concept could not be applied.

In addition to the customer demands, the quality of the raw and packaging materials must be tested to ensure safety, where quality tests are performed and these procedures, though lengthen the overall Lead time, or what can be called in Lean Management the increasing in the non-value added time.

To sum up, some companies in the Pharmaceutical Industry may see Lean Management with all its benefits not an applicable decision in the Pharmaceutical Industry, since it might cost them more than its benefits. But the huge changes that faced the Pharmaceutical Industry in the market and the increasing in the competitive environment, lead many well-known Pharmaceutical Industry to adopt this culture to keep competitive in the market.

In contract others argued that Lean Management culture could be adopted in the Pharmaceutical Industry, as well as in other sectors, but with rationalizing between what Lean tools are offering for the industry against what the Company can really use. In fact, most pharmaceutical operations have only been performed a limited number of Lean Management tools that fit with the Pharmaceutical Industry characteristics, that ends up with same concept but different approach (Coffey, 2008).

**Research Methodology**

The paper aimed at analyzing lean practices that could influence operational performance (productivity) of Hikma Company. The time span for data collection was from March, 2015 to May, 2015. The paper used a quantitative approach based on a survey questionnaire, which was divided into five sections. This questionnaire was reviewed by experts in the field for the internal validity. The selection of lean tools was based on literature review, experts, and staff members at Hikma. These tools are visual management, 5S, standard work, and waste reduction. The questionnaire consisted of two parts. The first part contained questions about gender, country, job title, and age. The second part covered the questions related to each lean tool or technique² (five sections). Table-1 summarizes sample descriptive statistics.

**Table 1: Sample Characteristics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Valid Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>79</td>
<td>74.5</td>
</tr>
<tr>
<td>Female</td>
<td>27</td>
<td>25.5</td>
</tr>
</tbody>
</table>

² Note that a five point Likert scale was used to measure the effect of lean practices on productivity, whereas, 1=“strongly disagree” and 5= “strongly agree”.

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Note that out of 217 questionnaires sent to Hikma’s employees (managers, supervisors, and operators), 153 responses were used with a response rate of 71%. Also, note that not all of them answered the demographic questions.

Results

Descriptive Statistics

Table 2 presents the average and standard deviation for each lean management tool. On average, it appears that respondents had high scores (above 3.8) for all lean practices, except for waste reduction; the average is 3.42. This result suggests that 5S, standard work, and visual management have an effect on productivity greater than waste reduction. Further analyses were needed to determine the statistical significance of each lean management tool.

Table 2: Lean Practices-Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FiveS</td>
<td>3.83</td>
<td>1.207</td>
<td>153</td>
</tr>
<tr>
<td>Wastred</td>
<td>3.42</td>
<td>.935</td>
<td>153</td>
</tr>
<tr>
<td>Standwok</td>
<td>4.10</td>
<td>.638</td>
<td>153</td>
</tr>
<tr>
<td>Vismangt</td>
<td>3.88</td>
<td>.698</td>
<td>153</td>
</tr>
<tr>
<td>Productivity</td>
<td>3.94</td>
<td>.632</td>
<td>153</td>
</tr>
</tbody>
</table>
**Research validity and reliability**

To validate the appropriateness of the proposed framework, the researchers applied a confirmatory factor analysis (CFA) to confirm whether the items actually belong to the factors for which they are theoretically designed. Next, the researchers tested the reliability of the analysis (how the items in the test are interrelated among themselves). The Cronbach’s Alpha was 0.70, which suggests that the model is reliable.

**The effect of lean practices on productivity**

To test the effect of lean practices (5S, Waste Reduction, Standard Work and Visual Management) on the productivity, the researchers conducted a multiple regression analysis (stepwise). The results (Table-3) showed that visual management, standard work, and 5S are significant at 5 percent level. The P-value is less than 0.05. The above result confirms that the model is valid and was able to explain 30.4% of the productivity at Hikma Company.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>VM</td>
<td>.499a</td>
<td>.249</td>
<td>.244</td>
<td>.550</td>
<td></td>
</tr>
<tr>
<td>VM and SW</td>
<td>.542b</td>
<td>.294</td>
<td>.284</td>
<td>.535</td>
<td>1.497</td>
</tr>
<tr>
<td>VM, SW, and 5S</td>
<td>.564c</td>
<td>.318</td>
<td><strong>.304</strong></td>
<td>.527</td>
<td></td>
</tr>
</tbody>
</table>

Where, VM is visual management, and SW is standard work.

**Conclusion**

Historically, the Pharmaceutical Industry has been very profitable. However, more competitors have appeared in recent years which lead these pharmaceutical companies to focus on cost reduction to sustain their profits. Lean Management has been adopted in international pharmaceutical companies to achieve cost reduction. Lean culture, which was first developed by Toyota, is recommended as a mean to achieve a competitive advantage in the manufacturing operations. Lean Management is one of the known strategies currently used to eliminate various hidden wastes that don’t add value to products/customers’.

Proceeding from this point, the aim of this research was to investigate the effect of lean management on the Operational Performance at Hikma Pharmaceutical Company. In conclusion the paper reported that lean practices such as visual management, 5S, and standard work have a significant impact on productivity.

**Future Research and Recommendations**

The current research was conducted as a case study on Hikma pharmaceuticals, Jordan branch was the main unit of study, the sample of this study was 153 participants. The researcher is
recommending to conduct the same research adding more quality dimensions and increase the sample size, or may be using more than one company in future research.

References


**Appendix**

**Questionnaire in English**

<table>
<thead>
<tr>
<th>Category</th>
<th>Q #</th>
<th>Questions</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5S</strong></td>
<td>1</td>
<td>Organizing the needed and unneeded activities are applied in our Company operations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Arranging the position of tools and materials are a requirement in our Company to use them easily</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>We do a continuous cleaning and polishing of the working place during process</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Recognition is given to the person who get everything shine and arranged all the time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Waste Reduction</strong></td>
<td>5</td>
<td>We face some defect during our processes which require a rework to improve the finished product,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>that lead to lose of the employees’ effort, and consuming of the Company’s resources</td>
</tr>
<tr>
<td>6</td>
<td>We manufacture more than our needed for the next production stages</td>
</tr>
<tr>
<td>7</td>
<td>Unneeded shipping of material and employee's movement are occurring</td>
</tr>
<tr>
<td>8</td>
<td>We have some non-value added activities that lead to an increase in our employees waiting time during the manufacturing process</td>
</tr>
<tr>
<td>9</td>
<td>Having SOP during manufacturing will result with more efficient work for us</td>
</tr>
<tr>
<td>10</td>
<td>Following the Guidelines during manufacturing will give us the results without variances</td>
</tr>
<tr>
<td>11</td>
<td>Determine the main steps of the process will allow the repeating with the same results at all time</td>
</tr>
<tr>
<td>12</td>
<td>By standard our processes all the reworks and the defects will be decreased</td>
</tr>
<tr>
<td>13</td>
<td>Signals and Signs such as safety signs are applied in our Company to make our management easier</td>
</tr>
<tr>
<td>14</td>
<td>Texts present information to the workers in a simple way</td>
</tr>
<tr>
<td>15</td>
<td>Signals and signs make important information visible to all workers in our Company</td>
</tr>
<tr>
<td>16</td>
<td>Texts give alert and prevent overload of information to the workers</td>
</tr>
<tr>
<td>Productivity Improvement</td>
<td>21</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>22</td>
</tr>
</tbody>
</table>
Results Based Costing (RBC) System
As an Alternative Management Accounting System to ABC

Nizar M. Alsharari
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Abstract
This paper aims to introduce Results Based Costing (RBC) System as an alternative management accounting system to ABC, by focusing on ‘Results’ instead of ‘Activities’. It investigates its manifest and underlying agendas as a newly innovative idea, with a view to determining its degree of cost management focus and Results Based Management (RBM) and accounting foundations. Adoption of ABC in different countries especially developed countries has not fulfilled early expectations. Its influence on organizational performance, depending upon how successful performance is defined, has not been noticeable (see Langfield-Smith 2008). The study thus uses historical and website analysis methodologies for investigating innovative diffusion philosophies and practices as well as contemporary accounting systems design and management accounting philosophies related to ABC practices and discourse. These are examined through the theoretical lenses of institutional logics theories. It thus distinguishes between institutional logics and situated logics, and their variances. ABC implementation can be characterized as an encounter between the ABC’s inscribed institutional logic and the situated institutional logic that is embedded in the existing technology-supported practices in a given organization. The paper moves on to consider the surrounding emergence of RBM approach and then introduces RBC as new costing system and management accounting approach along with its developments, its processes, intentions and claimed advantages. RBC’s dominant agenda are overhead cost reduction, cost management, performance management and results orientation. Cost efficiencies and productivity emerge as key RBC output foci. Accounting research into the management accounting system and its processes is much needed. This has been largely neglected in favor of management accounting change and innovative diffusion literature. In a world dominated by technological industries, RBC system as a centre of organizational and accounting management merits greater attention by researchers. Contemporary accounting innovations and developments merit greater recourse to, and acknowledgement of their historic roots. Practitioners in this way can better design and implement systems that build on past knowledge and learning. While such innovations as RBC may carry potential for improved organizational performance, care is needed with respect to their balancing of agendas and suitability for their institutional and cultural environments. Organizational change has become a dominant part of social engineering in most knowledge based economies today. Such innovations as RBC must be considered in terms of the existing rules and routines into which they are introduced: how they reflect and adapt to these rules and routines, and what impacts they may also have on the prevailing culture itself. This study thus presents itself as a first study about RBC currently available in the accounting and management research literatures. It also represents one of the very few referred studies of the Results Based Accounting in the accounting research literature globally.

Keywords: Results Based Costing, ABC, Cost Reduction, Institutional Logics, Innovative Diffusion
Introduction

Results Based Management (RBM) is an approach to maintain the focus of organizational management on its mission and objectives, and to integrate performance information into decision-making, management, and reporting. It can be represented as a ‘life cycle’ where ‘results’ are central to planning, budgeting implementation, monitoring and evaluation, reporting and ongoing decision-making (UNDG 2010). By focusing on ‘results’ instead of ‘activities’, it assists organizational management to better articulate its vision and support for targeted results by minimizing overhead costs, and to monitor the progress using KPIs, targets and baselines. The Government Accounting Standards Board (GASB) (2012) defines the RBM approach as

“A comprehensive approach to aiding public policy [i.e. organizational strategy] and administrative organizations to focus on their missions, goals, and objectives. It establishes the accomplishment of those goals and objectives as the primary endeavor for the organization, and provides a systematic method for carrying out that endeavor. It requires the (1) establishment of performance measures, (2) use, and (3) reporting of those measures; so that management, elected officials and the public can assess the degree of success the organization has in accomplishing its mission, goals, and objectives (see also, Aristigueta and Sikkander 2010:2,3).

The transition to the RBM approach is a major change for most organizations. Business leaders must be aware of the organizational culture and understand that they are leading organizational change. Building skills on the human side of change will help managers in overcoming resistance and facilitating RBM approach. This approach builds capacity in change management specifically related to strategic planning, cost management, and RBM practices (MOPSD 2012). A focus on results, as envisioned by the new financial management, implies that programs contributing to the same or similar results should collaborate to ensure that goals are consistent and, when appropriate, program efforts are mutually reinforcing. Organizations, whether (non-) profit seeking, can use their strategic and annual performance plans as tools to drive collaboration with other organizations and partners, and establish complementary goals and strategies for achieving results. Such plans can also reinforce accountability for the collaboration (teamwork) by aligning organizational goals and strategies with those of the collaborative efforts. Accountability for collaboration is reinforced through public reporting of results for each organization (GAO 2005).

RBM approach is thus a management as well as accounting approach focused on realizing results; it is a broad management strategy intended at changing the way the organization operates, with improved performance (realizing results) as the central orientation (OECD 2000). It must be supplemented by organizational policies and strategies, such as human resources, information technology and learning strategies, if it is to have the planned impact on organizational effectiveness. Thereafter, RBM has a strategic, future-oriented approach to the deployment of resources to achieve significant results. Notably, the RBM initiative works best in an atmosphere of TQM and a culture of performance excellence. TQM principles must be integrated with existing accounting practices and systems to result in quality and excellence in any organization (that is, quality products and services, and satisfied customers). Organizations use continuous improvement as one vehicle for promoting a “culture
of performance” whereby organizations develop a RBM approach to administering programs and allocating resources to improve performance (DBM 2012).

Results Based Accounting (RBA) can be considered as an integral part of RBM. Accordingly, the focus of management accounting has shifted from inputs and control of expenditure into accountability for results and efficient allocation of resources, with the emphasis on making management more accountable in financial terms (Humphrey et al. 1993; Gray and Jenkins 1995). In the Results Based Accounting (RBA) process, the costing and budgeting systems are considered as an integral part of planning process in management accounting. Planning process sketches the path and permits the setting of priorities and strategies. Costing and budgeting systems provide financial resources to implement the strategic plans, and to achieve organizational objectives. On the one hand, the organizational objectives and KPIs as in the strategic plan are normally used as a basis for budget demands; at the same time, the strategic plans drives the budget requests (DBM 2012). KPIs, which are derived directly from strategic objectives, connect between strategic plan and budget, as key elements of the strategic management process (Poister and Streib 2005). One the other hand, Results Based Costing (RBC) has changed the focus of the costs on achieving the results instead of activities, and the allocation base of the overhead costs based on the outputs rather than inputs. This approach developed transparency and accountability for the purposes of resources allocation and the efficiency of their use. RBC can be viewed as a comprehensive integrated costing system including accounting subsystems: budget management system; costs management, revenue management; procurement management; payables and receivables management; cash management; and general ledger.

Since RBC is based on connecting budgeted costs with performance, it makes sense to compare the cost with the service or benefit. It is one of the main challenges of reporting on achieved results. It seeks to shift attention away from activities to communicating significant results that the program or project has achieved at the organizational output and outcome levels (UNDG 2010). The decision-making and reporting process along with RBC usually takes place after a series of organizational actions such as setting strategic objectives, keeping objectives in mind while allocating resources, managing programs to achieve results, measuring performance, and reporting results. These actions help the organization to determine its progress towards its desired ends (OCA 2002). Similarly, Results Based Budgeting (RBB) communicates management’s plans throughout the organization. It forces managers to think about and plan for the future. The budgeting process provides a means of allocating resources to those parts of the organization where they can be used most effectively. The budget process can uncover potential bottlenecks before they occur. Budgets coordinate the activities of the entire organization by integrating the plans of its various parts, and define goals and objectives that can serve as benchmarks for evaluating subsequent performance (Garrison et al. 2003).

To summarize, the aim of the current study is to introduce RBC as an alternative accounting system to ABC. It investigates its manifest and underlying agendas as a newly innovative idea, with a view to determining its degree of cost management focus and Results Based Management (RBM) foundations. The study uses institutional logics and innovations diffusion as theoretical lens to inform the study and how they relate to its central aim. The paper begins with a discussion of recent research and evidence about the influence of RBM
upon cost accounting systems especially RBC system. Research into ABC and ABM is then critically reviewed, particularly in the context of management accounting research, discussing the contemporary underlying agendas in management accounting innovation and change that researchers have identified. The paper moves on to consider the surrounding emergence of RBM approach and then introduces RBC as new costing system and management approach along with its developments, its processes, intentions and claimed advantages.

**Innovations Diffusion in Management Accounting**

A large proportion of management and accounting publications deal with the diffusion of innovation (Rogers 1995). “An innovation is an idea, practice, or object perceived as new by an individual or other unit of adoption” (ibid:1). Diffusion of innovation attempts to determine the innovation’s diffusion curve over time and to recognize the factors explaining its shape. A large size of studies with a positivist and rational approach are concerned with the diffusion of innovation. However, the models and concepts employed by most of this type of research are not easily transposed to the study of managerial innovations (Lundblad 2003). Furthermore, positivist research in management (accounting) often prefers to ignore power struggles and conflicting logics, as well as rationalities other than technical ones, which are significantly influence the diffusion of new systems and practices (Baxter and Chua 2003). These boundaries lead us towards alternative research in management accounting, which is interpretive and non-positivist approach.

Unlike rational approach, interpretive approach examines accounting as a part of social system that is influenced by power and conflicting logics. It considers accounting as a discipline of the social science and it seemed important to us to understand it in the context of a broader set of discourses from the social sciences. Although many scholars have clarified that conflict and negotiation mark in the emergence of new institutional fields (Hoffman 1999; Hargrave and Van de Ven 2006; Purdy and Gray 2009), empirical research on conflicting logics has largely focused on change within mature fields (Greenwood et al. 2002; Greenwood and Suddaby 2006; Lounsbury and Crumley 2007; Lounsbury 2008) where a dominant logic has eventually prevailed. In some emerging fields, situations such as pressure and goal similarity enhance rapid consensus on a single organizing logic, making rapid institutionalization possible (Maguire et al. 2004). However, other scholars have clarified that institutional innovations may remain contested (Fliqstein 1996; Scott et al. 2000; Marquis and Lounsbury 2007), that diffusion of innovations does not always result in institutionalization (Abrahamson 1991), and that emerging fields may not always mature toward stability and institutionalization (Greenwood and Suddaby 2006). Thus, under some situations, institutionalization of a single new organizational system may not be a taken for granted conclusion (Purdy and Gray 2009). Tension between these clarifications is particularly evident when one considers an emerging field marked by conflicting logics where a new population of organizations is struggling to become institutionalized (ibid.).

Existing models of institutionalization describe a diffusion stage in which a dominant logic emerges within a field (Strang and Meyer 1993; Greenwood et al. 2002). Stage models of field evolution characterize the final stage of institutionalization as “structuration,” when practices acquire legitimacy (Morrill 2006), or as reinstitutionalization, when new logics
become “taken for granted […] as appropriate arrangements for all organizations within the field” (Hinings et al. 2004: 315). These models leave open the prospect that institutionalization may be weak (Hinings et al. 2004) or that “contradictory patterns of human activity” may “be organized, made sense of, and navigated” (Morrill 2006: 5-6), yet the processes by which this might occur remain underspecified. Some evidence suggests that geographic variations induce different diffusion rates and changes in what gets diffused (Hays 1996; Schneiberg and Soule 2005; Marquis and Lounsbury 2007; Purdy and Gray 2009). However, scholars have called for a fuller understanding of the mechanisms by which multiple institutional logics may be diffused and the conditions supporting the determination of multiple institutional logics within a field (Strang and Soule 1998; Davis and Marquis 2005). As Lounsbury (2008) discuses that,

“By focusing on how fields are comprised of multiple logics, and thus, multiple forms of institutionally-based rationality, institutional analysts can provide new insight into practice variation and the dynamics of practice. Multiple logics can create diversity in practice by enabling variety in cognitive orientation and contestation over which practices are appropriate. As a result, such multiplicity can create enormous ambiguity, leading to logic blending, the creation of new logics, and the continued emergence of new practice variants. Recent efforts to combine social movement analysis and institutional theoretic approaches has highlighted how collective action often underlies these processes … (Lounsbury 2008: 354)”.

Institutionalists suppose that practices are fundamentally embedded in cultural and cognitive systems that are “structured as an embodiment of the range of activities, social conflicts, and moral dilemmas that individuals are compelled to engage with as they go about negotiating the sorts of everyday events that confront them in their lives” (Mohr 1998: 353). Although an institutional approach to practice argues that action must be understood as fundamentally constituted by institutional rules and institutions, to be relevant to practice scholars, institutionalists must go beyond their structuralist treatment of practice as a cloud level observation of diffusion processes (Mohr 1998; Lounsbury 2008). ABC implementation can be characterized as conflicting logics between the ABC inscribed institutional logic and the legacy institutional logic that is embedded in the existing technology-supported practices in the adopting organization. Implementation of an ABC, thus, provides the ideal opportunity to explore how micro-level processes within an organization are activated to translate the ABC institutional logic. ABC has instigated a number of articles in accounting and management. For example, Bjørnenak (1997) examined the diffusion of ABC across the Norwegian manufacturing industry. He describes three types of diffusion processes. The first depends upon skilled workers moving about and causing change. Contagious diffusion, on the other hand, takes place when information is spread in a smooth and random way. Hierarchical diffusion happens when information is dispersed through a trickle down process. Bjørnenak studied how diffusion is affected by certain variables and looked at the relation between Cooper’s (1988) statements of when ABC is necessary and adoption rates of ABC. Unlike Cooper’s predictions, he found that ABC was more common in firms experiencing less competition, and with lower product diversity, than their adopter counterparts. Thus, he reported a weak correlation between the demand for information by organizations and adoption rates. A much fuller explanation arises if the suppliers of innovation are studied, where certain agents endorse the benefits and use of the innovation that they promote (Lapsley and Wright 2004).
In a similar way, Malmi (1999) examined ABC diffusion across Finnish firms, building on a conceptual matrix by Abrahamson (1991). Most adoptions are assumed to occur because of the benefits and efficiencies gained through implementation. However, Abrahamson adds three other perspectives to this ‘efficient-choice’ selection. Forced selection results if one supplier has influence over all interested parties and thus the motive of the adopter may not play a part in implementation. The fashion perspective is applied when many potential adopters are implementing the innovation yet still retain a choice over whether to implement or not. Finally, the fad perspective describes organizations adopting a technique in order to appear legitimate and retain a competitive advantage, rather than for reasons that are more rational. Malmi found the matrix useful in explaining the diffusion process. The earliest adopters usually fall under the efficient choice perspective, or forced selection. The fashion perspective plays a more important role in the increasing rate of adoption. Malmi concluded that there was little evidence of the fad perspective because it is unlikely that management accountants would implement a new technique without any rational basis—a perspective that we challenge, below. Malmi’s paper provides a useful analysis of innovation diffusion and highlights the different reasons for adoption at different stages in the diffusion process. These findings have potential relevance to the public sector and its initiatives from the centre to operational points of public service (Lapsley and Wright 2004).

Innovations in management accounting are necessary to meet the developments in the business environment that have occurred. As a result of the lack of innovation, management accounting has lost its relevance today. Johnson and Kaplan (1987) assert that management accounting lost its relevance after the significant development in technology and information systems. Johnson and Kaplan (1987) introduce a great opportunity to discuss and encourage use of innovations techniques. New management accounting means that innovations or so-called advanced management accounting techniques, such as Activity-Based Costing (ABC), Operational Control System (OCS), and Balanced Scorecard (BSC) (Kaplan 1998), can be introduced. Although many companies modify their management accounting practices, the changes are in the methods of management accounting used, rather than the use of new systems or techniques (Scapens and Burns 2000). A variety of innovation systems have been suggested as a solution for the substitution of traditional management accounting systems in order to respond to the changes that have occurred within business environment. These innovation systems were: ABC (Cooper and Kaplan 1992; Granlund and Lukka 1998; Sharman 2003; Kaplan and Anderson 2004), balanced scorecard (Kaplan and Norton 1992; Kaplan and Norton 1996; Johnson 1998; Kaplan et al. 1998; Bach et al. 2001; García-Valderrama et al. 2009; Huang 2009), and strategic management accounting (Dixon and Smith 1993; Collier and Gregory 1995; Dixon 1998; Guidling et al. 2000; Lord 2007). However, the direction of the research, especially its assumptions, has been criticized by other researchers (Drury 1990; Bakke and Hellberg 1991; Drury et al. 1993; Drury and Tayles 1995; Tangen 2004; Geri and Ronen 2005; Thompson and Mathys 2008; Bobillo et al. 2009).

Furthermore, many researchers have criticized new management accounting systems. According to Malmi (1997), many companies suffer problems with implementing ABC (Malmi 1997). Although ABC is used by some of the UK’s largest companies, Innes and Mitchell...
(1990) highlight that it has been rejected by around 13% of UK companies after assessment. Scapens and Burns (2000) points out that in many organizations, the change was taking place in management accounting systems and techniques. However, this change was in the methods of management accounting used, rather than the adoption of new advanced management accounting systems and techniques such as ABC, BSC, and Strategic Management Accounting (SMA) (ibid.). This led to look to the institutional logics that are manifested beyond this diffusion and implementation.

**Institutional Logics**

The notion of institutional logics was introduced by Alford and Friedland (1985) to describe the contradictory practices and beliefs inherent in the institutions of modern Western societies. They describe capitalism, state bureaucracy and political democracy as three contending institutional orders which have different practices and beliefs that shape how individuals engage in power struggles. A separate, albeit related, notion of institutional logics was developed by Jackall (1988). In his ethnographic study of ethical conflicts in corporations, Jackall (1988:112) defines institutional logic as “the complicated, experientially constructed, and thereby contingent set of rules, premiums and sanctions that men and women in particular contexts create and recreate in such a way that their behavior and accompanying perspective are to some extent regularized and predictable. Put succinctly, an institutional logic is the way a particular social world works”.

Friedland and Alford (1991:232) further developed the notion in the context of exploring the interrelationships between individuals, organizations and society. They view “institutions as supra-organizational patterns of activity rooted in material practices and symbolic systems by which individuals and organizations produce and reproduce their material lives and render their experiences meaningful”. Jackall (1988), like Friedland and Alford (1985), views institutional logics as embodied in practices, sustained and reproduced by cultural assumptions and political struggles (Thornton and Ocasio 2008). But the emphasis, for Jackall (1988), is on the normative dimensions of institutions and the intra-institutional contradictions of contemporary forms of organization; in contrast, the focus for Friedland and Alford (1985) is on symbolic resources and the inter-institutional contradictions of the inter-institutional system (ibid.). Developing ideas by both Jackall (1988) and Friedland and Alford (1991), Thornton and Ocasio (1999:804) defined institutional logics as “the socially constructed, historical pattern of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality”.

According to this definition, institutional logics offer a relation between individual agency and cognition and socially constructed institutional practices and rule structures. While Friedland and Alford’s approach represents both the structural and symbolic, and Jackall’s includes both the structural and normative, Thornton and Ocasio’s (1999) approach to institutional logics integrates the structural, normative, and symbolic as three necessary and complementary dimensions of institutions, rather than separable structural (coercive), normative, and symbolic (cognitive) carriers, as suggested by alternative approaches (e.g., DiMaggio and Powell 1991; Scott 1995). However, institutional logics emphasize how
historical and cultural change is important in understanding the patterns of power and control in organizations (Fligstein 1987; Brint and Karabel 1991). This notion dates back to Weber (1922) and his classification of historically situated ideal types: control by individual charisma, by tradition, and by legal bureaucracy (Thornton and Ocasio 1999). Institutional logics thus encompass both the material and symbolic - they present the formal and informal rules of action, interaction and interpretation that guide and constrain decision-makers in achieving the organization’s actions and in obtaining social status, credits, penalties and rewards in the process (Ocasio 1997). These rules constitute a set of assumptions and values, usually implicit, about how to interpret organizational reality, what constitutes appropriate behavior, and how to succeed (Jackall 1988; March and Olsen 1989).

Although the institutional logics approach shares with Meyer and Rowan (1977), Zucker (1977), DiMaggio and Powell (1983, 1991) and Scott (1995) a concern with how cultural rules and cognitive structures shape organizational structures, it differs from them in its center of attention. The focus is no longer on isomorphism, be it in the world system, society, or organizational fields, but on the effects of separated institutional logics on individuals and organizations in a larger variety of contexts, including markets, industries, and populations of organizational forms. Hence institutional logics shape rational, mindful behavior, and individual and organizational actors have some hand in shaping and changing institutional logics (Thornton 2004). In doing so, institutional logics still focus on ‘rationality’ and ‘ideal forms’ and depend on mathematical models that are grounded in neoclassical theory. In addition, these studies emphasize institutional change as the replacement of a one dominant logic by another and assume that organizational practices are guided by a single logic; in fact, organizational practices that operate in multiple institutional spheres often have plural logics. This means that these studies have viewed the isomorphism from a single viewpoint (Dunn and Jones 2010). Furthermore, some scholars have studied the institutional change at societal level, such as Meyer and Rowan (1977), and others have focused on the organizational field level, such as DiMaggio and Powell (1983). More recently, Alsharari (2013) as well as Dillard et al. (2004) have developed a new institutional framework which integrates multiple levels of institutional change. This framework has a more comprehensive view of accounting and reveals the multiple logics in the role of accounting in the institutionalization process. By providing a link between institutions and action, this alternative model of institutional logics provides a bridge between the societal-level, macro perspectives of Meyer and Rowan (1977), DiMaggio and Powell (1983) and Scott (1995; 2001) at organizational field level, and Zucker’s more micro-process approach. Situated levels of analysis are linked with beliefs and practices in wider institutional environments in ways that address the study of power conflicts and diffusion studies (Hasselbladh and Kallinikos 2000; Thornton and Ocasio 2008).

Since the initial statement on institutional logics by Friedland and Alford (1991), there has been steady growth in the development of theory and empirical research. The Institutional Logics Perspective (Thornton et al. 2012) integrates this line of analysis into a multidimensional, cross-level model and framework, presenting a focal point for the gathering of scholars forging a new wave of institutional theorizing. Research on institutional logics, started in North America but with contributions now regularly produced by both European and North American scholars (almost equally), has extended over the past decade or so to focus not
only on the effects of shifts in dominant logics, but also on understanding the implications of plural logics and how organizations respond to institutional complexity. This development reflects a growing recognition that conflicting and overlapping pressures stemming from multiple institutional logics create interpretive and strategic ambiguity for organizational leaders and participants (Greenwood et al. 2011). At the center of the imagery laid out is the notion of institutional contradiction and the fact that institutional logics must be understood as simultaneously material and symbolic (Lounsbury and Boxenbaum 2013). On the one hand, Greenwood et al. (2010) showed how potentially incompatible demands stemming from plural institutional logics are perceived and get worked out inside organizations. On the other, Greenwood et al. (2011) provide a theoretical framework to capture how the structural dimensions of fields and organizational attributes affect organizational responses to institutional complexity. This double volume contains numerous works that contribute to advancing insight into how organizations respond to multiple logics across an array of institutional fields. An additional approach to studying actions and interactions with institutional effects is reflected in the institutional entrepreneurship and work literatures (e.g., Lawrence and Suddaby 2006; Battilana et al. 2009). Engaging the theoretical conversation on logics, scholars have focused on how actors negotiate environments that are constituted by plural logics (Boxenbaum 2006; Kraatz and Block 2008). For instance, Battilana and Dorado (2010) showed how organizations can successfully hybridize two logics by attending to their human resource selection and socialization processes. Lawrence et al. (2009) further draw attention to the potentially unintended institutional effects of actors’ behaviors and interactions in contexts characterized by multiple logics.

Some literature proposes that institutional change occurs when one logic is overthrown by another (Thornton 2002) through a dialectical process (Seo and Creed 2002). At the same time, others have suggested that competing institutional logics can co-exist (Reay and Hinings 2005; Marquis and Lounsbury 2007; Purdy and Gray 2009; Reay and Hinings 2009) even though they are contradictory (Smith-Doerr 2005). While some argue this co-existence occurs through separation (Lounsbury 2007), others indicate that actually people can accept living with contradictions, mobilizing one logic in the context of one decision or action and another in the context of a different decision or action (Swan et al. 2010; Kandathil and Newell 2011). In emerging fields, particularly, resolving the conflicts that ensue is difficult since “the greater the range and intensity of schisms, the more difficult will be the task of developing acceptable norms” (Greenwood et al. 2002: 75-76). To build acceptance of new institutional arrangements, institutional entrepreneurs promote opportunities for change, seek to fit into prevailing systems, mobilize support from institutionalized actors (Beckert 1999), and strive to prove the value of the new forms (Reay et al. 2006).

Institutional change ultimately happens when an alternative logic replaces a prevailing logic (Garud et al. 2002; Lounsbury 2002; Thornton 2002). However, the mechanisms institutional entrepreneurs use to diffuse new logics in emerging fields may differ from those they use in established fields. As multiple new ideas begin to diffuse, actors may draw selectively from them, exploiting some and ignoring others to advance their own interests; thus, variations emerge to suit local needs (Hays 1996; Scott et al. 2000; Lounsbury 2007). Besides, social learning, politics, and contextual factors can result in reinvention of innovations (Hays
If no dominant logic emerges and common standards do not diffuse, organizations may deviate from their initial missions in order to secure needed resources (Oliver 1991) and seek the legitimacy (Suchman 1995) they need to survive (Purdy and Gray 2009). The implementation of ABC confirms the practice variance between the institutional logics and situated logics as evident in different companies. While ABC implementation does not automatically transfer the institutional logic of action inscribed in the software into the practices of the adopting organization (Dery et al. 2006; Grant et al. 2006). Research has demonstrated that this is because the logic inscribed in the ABC can conflict with the existing, structures, institutions and practices, that is, with the legacy institutional logic, of the adopting organization (Yoo et al. 2007). Nevertheless, most organizations do ‘muddle through’ with their ABC and eventually create a ‘working information system’ (Wagner and Newell 2006), albeit this often relies on significant customization (Brehm et al. 2001) as well as organizational change (Volkoff et al. 2007). Customization indicates that the institutional logic inscribed in the ABC has been modified in some way to accommodate certain local beliefs and practices (Pollock and Williams 2008). Thus, an ABC implementation can be characterized as an encounter between the ABC inscribed institutional logic and the legacy institutional logic that is embedded in the existing technology-supported practices in the adopting organization.

**ABC and ABM Systems**

Adoption of ABC in developing countries, especially UK and USA, has however not fulfilled early expectations. Adoption rates internationally peaked at around 20-30% of various surveys’ respondents, with 10-20% of respondents rejecting the whole notion even in its early manifestations in the early 1990s. By the mid 2000 period, the percentage of companies’ adopting ABC had stagnated or declined, the percentage of companies rejecting its adoption had increased, and a larger proportion of companies declared they would not consider it (Innes and Mitchell 1990; Innes et al. 2000; Cotton et al. 2003; Langfield-Smith 2008). While the reasons for this trend remain unclear, one recurring theme has been the perceived cost and complexity of installing and implementing such a system (Gosselin 2007). In Australia, research has shown up some unique features of adoption, namely that activity based management practices are more widely employed than overseas, with up to 86% of business units surveyed claiming such use (Baird et al. 2004).

The question remains as to what the underlying intent and focus of ABC and ABM have proven to be? A veritable smorgasbord of potential uses has been identified: stock valuation, product and service design and pricing, output decision-making, cost reduction, value-adding analysis, budgeting, customer profitability analysis, cost modelling and performance measurement (Innes et al. 2000). However the evidence in general overwhelmingly points to two major foci upon which ABC and ABM have settled: cost reduction and performance improvement, the latter with a pronounced financial emphasis (Anderson and Young 1999; Innes et al. 2000; Ittner et al. 2002; Cotton et al. 2003; Gosselin 2007). In this focus and pursuit, ABC and ABM are intrinsically related and involved, targeting the elimination of non-value adding activities, and ‘heat-seeking’ cost efficiency opportunities. ABM is the process management cousin of the ABC approach, analyzing all activities and restructuring and streamlining them for cost advantage (Gosselin 2007; Langfield-Smith 2008). However their impact on organizational performance, depending upon how successful performance is defined,
has not been noticeable (Langfield-Smith 2008). Survey respondents have been found to claim moderate financial benefits but not necessarily been able to quantify them (Cinquini and Mitchell 2005). Ittner et al’s (2002) study found no significant effect on financial return on assets. Nonetheless, after more than 20 years of ABC and ABM application, there is a scarcity of evidence pointing to their significant impact on organizational performance (Gosselin 2007).

Armstrong (2002:101-2) mounts a persuasive argument regarding the overhead office cost reduction agenda that ABC and ABM have been designed to prosecute. In his view, they commenced an attempt to dismantle the ‘shelter’ of fixed overhead, observing:

The destruction of the staff department as a shelter is not incidental to ABM: it is the heart of it.’ (Armstrong 2002:102)

In this process, ABM transfers control and accountability from the staff performing their roles and actions to the ABC/ABM monitors, operating in and reinforcing a climate of suspicion. ABC and ABM thus become tools for invasive control of staff labour and for the axing of any activities and staff considered surplus to value-adding cost efficiency. Armstrong likens this dismantling of the staff office processual black box to scientific management’s earlier breaking open the black box of craft production. Thus in his words:

“The destruction of the staff department as an employment shelter is not an unintended consequence of ABM; it is precisely the point…”

(Armstrong 2002:109)

It must be said that all has not been ‘beer and skittles’ with ABC and ABM. Surveys reveal significant reservations about the system expressed by employees subjected to it, problems with its perceived narrow financial focus, and its sometimes incommensurability with existing organizational culture (Malmi 1997; Innes et al. 2000). Often ignored by its proponents have been the social consequences of ABC/ABM employment, especially as its implementation and impacts are invariably a matter of perception by those involved and subject to them (Armstrong 2002). Many researchers have investigated the factors that influence the manner and outcomes of ABC implementation, more recently finding that the answers depend in part on the stage of implementation being examined. However the variety of influences is nonetheless considerable, including top management and trade union support, clarity of objectives, quality orientation, embedding within organization structure and practice, resourcing and staff training, non-accounting staff attitudes, potential complexity and associated implementation costs, links to performance evaluation and reward systems, likelihood of associated staff layoffs, and perceived relationship to successful financial impacts (Anderson and Young 1999; Innes et al. 2000; Ittner et al. 2002; Cotton et al. 2003; Cinquini and Mitchell 2005; Gosselin 2007). The authors studied different types of businesses and concluded that business units exhibiting an outcomes oriented culture including competitive expectations of high performance tend to adopt ABC/ABM processual approaches focusing on cost reduction, efficiency and effectiveness gains and competitively pitched product and service pricing (ibid.). This may offer some indications as to the drivers behind the introduction of RBC system as alternative to ABC.

As mentioned earlier, the implementation of ABC confirms the practice variance between the institutional logics and situated logics as evident in different companies. While ABC implementation does not automatically transfer the institutional logic of action inscribed
in the software into the practices of the adopting organization (Dery et al. 2006; Grant et al. 2006). Research has demonstrated that this is because the logic inscribed in the ABC can conflict with the existing structures, institutions and practices, that is, with the legacy institutional logic, of the adopting organization (Yoo et al. 2007). The significant variances have been faced in the implementation of ABC, so that:

“Over the past 15 years, activity-based costing has enabled managers to see that not all revenue is good revenue and not all customers are profitable customers. Unfortunately, the difficulties of implementing and maintaining traditional ABC systems have prevented them from being adopted on any significant scale” (Kaplan and Anderson 2004:138).

There are two most common motives for ABC adoption in Finland; lack of trust in information from traditional costing in modern organizations and the failure of traditional systems to meet managers’ requirements (Granlund and Lukka 1998). However, Parker et al. (2008) confirms that ABC causes many problems with managers at high organizational levels. Also, there has been considerable resistance to ABC from marketing managers (Parker et al. 2008). Sharman (2003) proclaims that ABC systems design was too complex. He declares that that may be true, although there are other issues to be considered over why ABC implementations have failed that can be summarized (Sharman 2003) as follows. First, software has not been information technology incorporated, because accountants and managers require cost accounting to be an important component of their integrated general ledger, monthly reporting, analysis, performance measurement and the associated network of operational systems. Second, ABC/M/B/P implementations are generally not integrated into organization measurement and management systems. Third, implementations have been applied very weakly, because problems have arisen over agreement of what ABC is and how it must be arranged. Also, there are some critical points when using the ABC-accounting philosophy, which can be summarized (Bakke and Hellberg 1991:14-16) as follows: First, ABC-analysis presents no obvious or non-controversial action alternatives. Second, there is a danger that ABC-analyses motivate conservative strategies that are possibly devastating in the light of the future competitive environment. Third, in some recent ABC-case studies from Sweden the cost of Work in Process (WIP) and other inventory costs are neglected. Fourth, the potential impact of the ABC-philosophy is unlimited to long-term strategies.

Geri and Ronen (2005:135) assert that ABC is essentially a refinement of absorption costing; it suffers from the weaknesses that are typical of absorption costing and may be criticized as follows. First, ABC is based on subjective arbitrary cost allocation. So the main difference between traditional absorption costing and ABC is the number of allocation bases, or cost drivers, in ABC terminology. Second, ABC ignores constraints and does not differentiate a bottleneck from resources with excess capacity. Third, ABC regards the relation between activities and resource consumption as linear, absolute and certain. ABC has been successful in large industrial companies in improving the operational performance by providing suitable and correct information on the allocation of resources (Gunasekaran and Singh 1999). However, in New Zealand companies were contrasting perceptions on the success and importance of some ABC applications (Cotton et al. 2003). Also, it has not received significant attention from small companies (Gunasekaran and Singh 1999). The adoption of ABC in small companies has received less attention than in larger companies (Askarany et al. 2010). Many
companies are suffering complications with ABC implementation (Malmi 1997). In the UK’s largest companies, ABC is used by some of them (Innes et al. 2000). They indicate that ABC has been refused by a large number. Also, they mention that about 13% of UK companies have rejected ABC after assessment. However, Scapens (2000) points out that many organizations were changing what was taking place in management accounting systems and techniques. There was change in the method by which management accounting has been employed, rather than the use of new management accounting systems and techniques, such as ABC (Scapens and Burns 2000).

In this way, an ABC implementation has been proven as practice variance, and as a conflict between ABC inscribed institutional logic and situated logic that is embedded in the existing technology-supported practices in a such organization. As a result, many researchers claim that there is a need for more specific information about the organizational activities, as traditional management accounting systems especially ABC are unable to provide that information to decision-makers (Johnson and Kaplan 1987; Cooper 1988; Cooper and Kaplan 1992; Drury et al. 1993; Drury and Tayles 2006). The requirement manner aids managers to make right decisions about product cost, design, pricing, marketing, and mix, performance evaluation, and encourages continual operating improvement. Such observations raise the question of the underlying agenda and orientation of RBC design and management, to which the following analysis of RBC system and practices now turns.

**Results Based Accounting or Accountability (RBA) Approach**

Management accounting system is supposed to produce information for the decision-maker, and a system producing information leading to decisions or actions that maximize decision-makers expected utility is therefore selected. If a proposed system leads to better decisions than the existing system, and the expected benefits from the proposed system exceed the cost of its implementation, the new system is adopted (Feltham 1972; Demski 1980). Management accounting change is also seen as a reform where innovations are created and adopted to bring practice into line with advances in information technology (Kaplan 1986; Johnson and Kaplan 1987; Anderson 1995). Except for those studies that find the origins of accounting in the social conflicts and power struggles inside organizations (i.e. using dialectics as a frame of reference); (Cooper 1980; Tinker et al. 1982; Hopper et al. 1986; Covaleski and Dirsmith 1988a; Hopper and Armstrong 1991), the literature explains development and change via teleology; the organization's goals are the cause for action (Malmi 1999). In this way, Results Based Accounting can be considered as an integral part of the Results Based Management (RBM).

RBA is defined as a management and accounting tool toward RBM approach that can facilitate collaboration among organizations, as a system of decentralizing services, and as an innovative regulatory process. At a minimum, the term implies that expected results (also known as goals) are clearly articulated, and that data are regularly collected and reported to address questions of whether results have been achieved. RBA can be developed and used at different levels: state, organization, community, agency, or program. A cohesive RBA system includes the following components: a strategic planning process, goals and indicators, benchmarks or targets, and mechanisms for regular public reporting. Strategic planning process is an essential first step in the development of a RBA system. Successful systems begin by
stepping back and examining core values, then articulating a plan for the future based on these values. A strategic plan includes a vision or conceptual image of the core values of the state, organization, community, agency, or program; goals; and targets to measure progress. States most successful in designing RBA efforts have developed processes to include all stakeholders in the articulation of the strategic plans. Articulations of goals and objectives as well as specification of measurable indicators are the next steps in RBA efforts. The articulated goals - or expected results - reflect the values identified in the strategic plan and are statements of the desired conditions of well-being. Objectives, derived from the goals, are statements of the short-term conditions needed to achieve the desired conditions of well-being for communities in the long-term. Indicators are quantifiable measures which enable decision-makers to assess progress towards achievement of intended outputs, outcomes, goals, or objectives. They always specify time-frames and are expressed in measurable terms. An important component of a RBA approach is the articulation of target levels of performance expressed in measurable terms and specified time-frames, against which actual achievement is compared. Regular reporting of results to the public is an essential aspect of a RBA effort. While public reporting of data is one of the last steps in developing a RBA approach, it is important to consider audience, reporting criteria, and mechanisms early in the design and implementation of the effort. Failure to consider these vital components can jeopardize usefulness of RBA data. Public reports of RBA data should include the strategic planning framework (including the vision), goals and objectives, benchmark or targets, and indicators (measures of progress). Often, the first public reports will include goals and objectives that do not yet have measurable indicators. Nonetheless, such goals are important because they provide the public with information about organizational values and priorities3 (see also, Alsharari 2013).

RBM together with RBA approaches deal with the tasks that any business has to discharge for results, performance, and cost management. They attempt to organize these tasks so that decision-makers can perform them systematically, purposefully, with understanding, and with reasonable probability of accomplishment. They also try to develop the perspectives, concepts and approaches for finding what should be done and how to go about doing it. That decision-makers give neither sufficient time nor sufficient thought to the future is a universal complaint. Every decision-maker voices it when he talks about his own working day and when he talks or writes to his associates. It is a recurrent theme in the articles and in the books on management and accounting. It is a valid complaint. Decision-makers should spend more time and thought on the future of their business. They also should spend more time and thought on a good many other things, their social and community responsibilities for example. Both they and their businesses pay a rigid penalty for these neglects. And yet, to complain that decision-makers spend so little time on the work of tomorrow is futile. The neglect of the future is only a symptom: the decision-maker slights tomorrow because he cannot get ahead of today. That too is a symptom. The real disease is the absence of any foundation of knowledge and system for tackling the tasks in business and managing for results approach (Drucker 1999). Like RBM, RBA assumes that,

“Firstly, neither results nor resources exist inside the business. Both exist outside. There are no profit centers within the business; there are only cost centers. The only thing one can say with certainty about any business activity, whether engineering or selling, manufacturing or accounting, is that it consumes efforts and thereby incurs costs. Whether it contributes to results remains to be seen. Results depend neither on anybody within the business nor on anything within the control of the business. They depend on somebody outside - the customer in a market economy, the political authorities in a controlled economy. It is always somebody outside who decides whether they become so much waste and scrap. Indeed, business can be defined as a process that converts an outside resource, namely knowledge, into outside results, namely economic values. Secondly, results are obtained by exploiting opportunities, not by solving problems. All one can hope to get by solving a problem is to restore normality. All one can hope, at best, is to eliminate a restriction on the capacity of the business to obtain results. The results themselves must come from the exploitation of opportunities. Thirdly, resources, to produce results, must be allocated to opportunities rather than to problems. Needless to say, one cannot shrug off all problems, but they can and should be minimized. The pertinent question here is not how to do things right but how to find the right things to do, and to concentrate resources and efforts on them. Finally, economic results are earned only by leadership, not by mere competence. Profits are the rewards for making a unique, or at least a distinct, contribution in a meaningful area; and what is meaningful is decided by market and customer” (Drucker 1999: 4-5).

Accounting and accountability became important weaponry in the tracking and controlling of efficiency targets and cost/profit outcomes (Parker 1986), through costing systems, standard costing and budgetary control (Parker and Lewis 1995). The underlying agenda was one of improving productivity so that efficiency gains and associated cost reductions would lead to higher profits. Hard work was eulogized, while at the same time indolence and waste were viewed as an anathema (Parker and Ritson 2011; Dent and Bozeman 2014). Engineers, managers, accountants, and consultants experimented with its application, from operational efficiency standards, to standard costing, to budgetary control. Efficiency was the name of the game (Parker 1986), supported by the underlying institutional logics principles of authority-based control, results orientation, costs management, disciplinary control, coordinative control, control tools, and exception control (Parker 1986; Parker and Lewis 1995).

Many accounting changes in organizations are direct consequences of the diffusion of innovations. Although management accounting history is not rich in such innovations (Johnson and Kaplan 1987), the introduction of RBC system can provide an interesting opportunity to study the mechanisms of such innovative diffusion. Studies on the implementation of RBC system among organizations might also enrich our understanding of the motivation for change at the level of a single organization (Malmi 1999). RBA style whereby a set of objectives is used to determine if results are contributing to an organization's mission and goals. RBC is mainly based on the concepts of “RBA” and “cross functionality”: Before being a costing system, RBC is first and foremost a mode of modeling the functioning of organizations. Such an approach is a lot more ambitious than a simple cost calculation technique. Instead of picturing an organization as a juxtaposition of responsibility centers, the organization becomes a network of processes or activities (Alcouffe et al. 2008).
Results Based Costing (RBC) System

RBC system emerges as an alternative system to ABC, by focusing on ‘Results’ instead of ‘Activities’. This innovative model enables organizations to link products and services back to their mission value and costs. This allows better investment decisions and costs management in relation to the results orientation. RBC can be viewed as a comprehensive integrated costing system including accounting subsystems: budgeting system; costs management, revenue management; procurement management; payables and receivables management; cash management; and general ledger. Since RBC is based on connecting budgeted costs with performance, it makes sense to compare the cost with the service or benefit. It is one of the main challenges of reporting on achieved results. It seeks to shift attention away from activities to communicating significant results that the program or project has achieved at the organizational output and outcome levels (UNDG 2010). The decision-making and reporting process along with RBC usually takes place after a series of organizational actions such as setting strategic objectives, keeping objectives in mind while allocating resources, managing programs to achieve results, measuring performance, and reporting results. These actions help the organization to determine its progress towards its desired ends (OCA 2002).

RBC as other costing systems can be considered as an information system. It requires a specific type of information or cost drivers such as direct labor hours and units produced, to be of value. It starts from the input data that product costs and other information are determined according to followed methodology. The results obtained in RBC system are used in different ways than ABC system. As RBC system can provide information to help minimize waste and cost reduction, at the same time it is not wasteful in itself. In other words, the resources required to design, implement and maintain RBC system will be less than the benefit derived from the use of the system as usage cost of ABC. It has been developed for tracking spending and activities of organizations in relation to the results they are trying to achieve. It is a way to recast planning, budgeting, management, and reporting in direct relation to what organization wants (or is expected) to accomplish. The ideas behind RBC (like RBA) are necessary approach: to identify the needs an organization is trying to address; to develop an overall plan (mission, goals, objectives, and strategies) for addressing those needs; to come up with policies, programs, and services to meet those needs; to organize and implement budgeting, accounting, and management systems that support the strategies, goals, and objectives laid out in the overall plan; and finally, to develop and track cost and performance data that allow the organization to measure its progress in reaching its goals and objectives, and changing (or modifying) strategies, programs, policies, management systems, or budgets when necessary.

Approaching organization operations, whether profit or not-profit seeking, in such terms can have powerful impacts on organizational decision making and results. RBC system is comprised of a set of forms, processes, controls, and reports that are designed to aggregate and report to management about revenues, costs, and profitability. The areas reported upon can be any part of an organization, including: management, customers, departments, activities, processes, products and services, research and development, and value chain. It is designed to monitor the costs incurred by an organization, to trace products and services directly to specific,
measurable mission results, and to make informed decisions. It thus helps business owners and managers figure out the cost for certain activities and processes. Through the use of financial computations or cost allocation bases, companies can take basic information relating to resources, such as raw materials and direct labor as well as inputs, and transform the data into useful costs for setting the price of goods and services. Organizations can put together different cost models based on their needs, whether financial or operational. RBC can be used in both private and public organizations in their daily operations. Because the goal of private organizations is to maximize the economic value for owners and shareholders, finding ways to lower costs is a crucial step in achieving this goal. Since RBC is based on connecting budgeted costs with performance, it makes sense to compare the cost with the objective or result. Efficiency KPIs\(^4\) and targets in public organizations can be developed, as a rather to cost drivers in private organizations, as a way of demonstrating that public organizations are not wasting government revenue. RBC system is a useful system for tracking the use of resources and measuring efficiency KPIs in the public sector.

RBC system thus is a management accounting approach focused on realizing results; it is a broad management strategy intended at changing the way the organization operates, with improved performance (realizing results) as the central orientation (OECD 2000). It must be supplemented by organizational policies and strategies, such as human resources, information technology and learning strategies, if it is to have the planned impact on effectiveness. Thereafter, RBC has a strategic, future-oriented approach to the deployment of resources to achieve significant results. Notably, the role of technology can play a critical role in the implementation of RBC system through providing an alternative to the traditional ABC plant-wide and departmental approaches to defining cost classifications and selecting allocation bases. RBC has appeal in today’s business environment because it uses more cost classifications and unique measures of activity to better understand the costs of managing and sustaining products and services in the organizations (Garrison et al. 2003).

RBC system can contribute to institutional stability, and helps to make ‘organizing durable’ and ‘scaffolding’ organizational practices (Orlikowski 2007). Besides, IT can play a significant role as a carrier and diffusion vehicle for institutional change across an organizational field. This is especially the case in relation to packaged software, which organizations increasingly resort to rather than developing custom-built software. Such packages, hereafter referred to as RBC system, are material carriers of institutional logics - of beliefs, norms and rationalities about how best to structure different kinds of organizational activities (Gosain 2004). However, despite the rhetoric of software vendors, RBC implementation does not automatically transfer the institutional logic of action inscribed in the software into the practices of the adopting organization (Dery et al. 2006; Grant et al. 2006). Rather, it will take place progressively over the time through enacting and reenacting the processes and practices of RBC implementation in the adopting organization. Moreover, top management support and cross-functional team should be created to design and implement the RBC system. They should have a good knowledge of different departments of an organization’s operations that is necessary for designing an effective RBC system. This will reduce the

\(^{4}\) KPIs: Key Performance Indicators
resistance to change because they will be involved in the implementation process. On the other hand, if the accountants have tried to implement the RBC system on their own without top management support and cross-functional involvement, their results will be ignored.

**The Implementation Processes of RBC System**

Since RBC is a new system of planning, budgeting, and performance measurement that highlights the relationship between amounts budgeted and results expected and achieved, it has become an inclusive approach that involves all organizational members through the development of the organizational strategy, identifying spending (costs) priorities and performance measures (indicators). RBC also has a long-term perspective by linking spending with strategic planning, and by focusing on results it makes sure managers are held accountable for certain performance indicators (USAID 2012a). The following model shows the main processes within the implementation of RBC system. The main assumption of RBC system is that the costs at different levels of the organization should be hierarchy linked to the objectives of these levels through correlated performance measures. Cost objects at bottom level such as products or services can generate activities that are followed to related department. Such an activity consumes resources. A resource causes costs. RBC system thus helps to trace and link the costs with objectives through identifying how products and services affect costs at different levels among the organization.

**Figure 1: RBC Model**

![RBC Model Diagram](image-url)
The implementation of organizational strategy along with RBC system can be achieved by following a top-down approach, where the objectives – at organizational level - introduced monitoring practices and organizational priorities including production and customer service policy. The implementation of RBC system can be prepared by following a bottom-up approach, where the system is first implemented at bottom level to prepare the consumption of resources and related costs that are required for expected outputs (products or services). RBC is thus a life-cycle approach to management that integrates strategy, resources, outputs and measurements to improve decision-making, transparency and accountability. The approach focuses on achieving results, implementing performance measurement, learning and changing, and reporting performance. Thereafter, RBC generates performance information to support the decision-making process during planning and implementation of organizational policies (OECD 2004).

The process of measuring performance and taking action to ensure desired results are the main components of the RBC system. The purpose of this process is to make sure that actual performance meets the set objectives, and to ensure that employees comply with organizational strategy and objectives. The first process is establishing objectives and standards. These standards can be divided into two standards: output standards and input standards. On the one hand, output standards measure the performance results in terms of quantity, quality, and cost. On the other hand, input standards measure effort in terms of amount of work expended in task performance. The second process is measuring the actual performance, and identifying the differences between the actual results and original plan, based on selected performance measures. The third process aims to compare the actual results (performance) with the set objectives and standards (desired performance). The final process is taking corrective action when a discrepancy or variance exists.

Conclusions
RBC’s application in today’s business world reflects two preceding influences: results based management and activity based cost management. Their manifestation through the RBC system and process bears hallmarks of institutional logics theory and innovative diffusion theory. RBC system also shares common ideas and orientations with its predecessors ABC, ABM and RBM. All three have tended to be adopted by organizations having very strong outcomes orientations. ABC and ABM have tended to prosper better in organizations with competitive performance cultures that are particularly focused upon securing cost reductions and cost efficiencies. RBC shares this same focus, arguably inherited from RBM philosophies. Interestingly, the experience of implementing ABC and ABM may provide forewarnings for ABW.

The former processes have after many years still only been taken up long term by a minority of corporate, and indeed many have rejected ABC or experimented with and then discarded it. While numerous reasons have been advanced, most often cited have been the high cost and complexity of implementing ABC. These may prove to be similar for the significant physical, structural, and technical factors required for implementing RBC system. It has been argued that ABC and ABM are tools for controlling labor and associated activities, particularly being intent upon reducing overhead cost activities and volumes seen to be surplus to
requirements. This philosophy, albeit manifested in variant forms, has evidently flowed through to RBC system.

RBC system thus emerges as a rather more complex office management and accountability development that may have first appeared. This study set out to ascertain the primary strategic agenda underpinning the RBC development and has found it to be predominantly a cost management agenda. This has become clear through the conclusions regarding the study's two supporting research questions. In response to the first research question, cost management has indeed emerged as the dominant focus. This has become manifest via RBC-sponsored fixed overhead cost reductions, operational cost efficiencies and staff and floor space productivity design strategies. This agenda has clearly been centre stage in both RBC implementation practice and consultants and adopters’ discourse. With respect to the second research question concerning any persistent undercurrent of RBM philosophy, the latter has clearly been at the heart of the RBC intent. It bears close similarities to the scientific management concepts that drove office design and management of the early 20th century. This has indeed been acknowledged directly in the contemporary research literature on system design and management as well as implicitly within RBC literature discourse of the present day.

References


Pavlov’s Consumers: A Behaviorist Approach to the Idea of Quality in Advertisements

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Abstract  
This paper discusses the idea of quality in a psychological aspect and observes the quality and its construction in the minds of consumers. The authors of this paper claim that psychological conditioning processes in advertisements effect both expectation and understanding of quality in consumers’ mind and also plays a vital part concerning production of concept of quality and also consumption of quality. This study will observe psychological and sensational preparation process of consumers via advertisements. The thesis of the study is how quality is redefined according to the product in each advertisement.

Introduction  
When discussing quality in most times we look from the material side of the matter and miss the psychological components of it. By doing so quality and it’s all components stay as a matter of material calculation. One of important reasons of this approach is to produce quality in a global standard. Quality must be observable, recordable and repeatable for our understanding. Also, such an approach enables us to mass produce quality in larger scales. Thanks to modern science and economy quality is not just an item fort the aristocracy like it used to be in former history, it is a commodity for all. For this reason it is observed that most of the time, concerning the production of quality, most of the focus is on either engineering of it or marketing. This leaves us with the fact that the sensation of quality is missed or just mentioned in the advertisement slogans.

Quality is a Learned Pattern  
The first research on learning and behavior was conducted by American and Russian scientists at the beginning of the previous century. The most famous and undisputed from among these are Ivan Pavlov and his dog experiments (Pavlov, 2003). Followed, of course, by the experiments conducted by Watson and Thorndike in the U.S. How humans and animals act in certain situations has been researched and observed in all of these studies (Wills, 2003). Because the theory focuses on action, it also gets its name from here and is called Behaviorism.

According to this school, the task of learning is defined as the act of establishing a relationship between the stimulator and the action. The *stimulus* is the effect causing the organism to react (set into motion). Anything that can be felt or experienced, such as sound,
light, image, taste or smell is a part of the stimulus category (McLeod, 2013). It will be more explanatory to restructure and state the definition in light of our topic: In the direct application of this hypothesis in advertisements, learning is defined by establishing a connection between the stimulus (advertisement) and behavior (purchasing). The stimulus is the effect putting the organism (the consumer) into motion. Sound (soundtrack or jingle), light (laser show), image (animation) taste (tester), smell (free sample), in other words, anything experienced falls into the stimulus category.

According to the *theory of behaviorism*, the stimulus has the power to affect the organism/consumer. The physiological (mouthwatering, rapid heart beating etc.) and psychological (excitement, tranquility, irritation) change caused by the stimulus is referred to as the *response* (McLeod, 2013). According to the hypothesis, if stimulants are organized in a controlled manner, the desired behavior can be obtained from the organism, in other words, the desired behavior can be taught to the organism and this can be continued repeatedly over time. According to *behaviorism*, there are three basic methods of learning causing the change of behavior, these are Classical Conditioning, Operant Conditioning, and learning through observation (McLeod, 2013).

At the beginning of his study on learning through classic conditioning, which won him the 1904 Nobel Prize, Pavlov was researching the digestive system of dogs. Dogs had been brought to the laboratory to be studied, a portion of their cheeks had been surgically removed in order to easily observe their saliva movement (Pavlov, 2010). However, Pavlov soon realized that while the dog needed to physiologically secrete the saliva that launched digestion when food entered its mouth, the dog began salivating when it saw the food, and even when it saw the person bringing the food. The research began heading in a different direction than only focusing on the digestive system. The relationship between saliva and food is automatic and natural. Because of this, food is an *unconditioned stimulus*, whereas saliva is an *unconditioned response*. Correspondingly, the sound of the bell, generated in a laboratory environment is an *artificial stimulus*, and the salivating response to this stimulus is a *conditional response* (Fredholm, 2001).

**Quality Equation in Minds of Consumers**
Pavlov attempts to transfer the response the dogs gave to the person bringing their food in advance, and even to their footsteps, to the sound of a bell. The sound of a bell is given to the dog in a controlled and regular manner, prior to the meal. After the bell = food relationship is repeated several times, it was observed that the dog also salivated to the sound of the bell, even when food wasn’t brought to it. From another perspective, the dog equated food and the sound of the bell, and saw them as being one in the same. This perspective is important for us. This is because commercials constantly display the ability to equate, forget apples with oranges, but apples with computers (Apple computers), jewelry with blouses, (Lanvin for H&M), ice cream with Daniel Craig (Del Monde Smoothies), and not only that, but also to sell these products successfully. We must keep in mind that all the former mentioned images jewelry, famous actors, famous places are all confirmed symbols of quality in the mindset of the populous.

Educator Robert Gagne, who had obtained his real claim for fame during the Second World War by training fighter pilots for the American military, describes classic conditioning
as a coding process (Gagne, 1962). According to this, the formula functions as follows: The stimulus given before the unconditioned stimulus, is the fore bearer of the unconditioned stimulus. In Pavlov’s study, the bell was the fore bearer of the meat. In other words, the behavior was coded as bell = meat, and the dogs had begun responding to each sound of the bell as if it were meat. Traffic signs, phone rings, door bells, horns, that steer us towards conditioning in our daily lives are learnings that transpire in the same manner. In fact, the Second World War is way behind us however; the experience to train fighter pilots is still quite contemporary. We don’t know what Ivan Pavlov’s problem with dogs were other than scientific curiosity however, Robert Gagne’s dilemma was this: to find a method that could teach large masses of people (to expand upon, this would refer to a country full of 18-35 year old, high school graduate American men) an extremely complicated task such as flying an airplane, within a very short period of time (before the Japanese attacked for a second time), in the most perfect way possible (meaning that they would need to remain alive) (Gagne, 1962). What he did was to take Pavlov’s classic conditioning and transform this into a coding and sign learning process. The result was to the benefit of the American army. The advertising sector thanks Gagne, the same method is being used today in commercials, from Visa Card granting bonuses kind commercials to Lanvin commercials, or may be rewritten as; from bonus Card conditioning to Lanvin conditioning.

One of the stages in which the conditioning and reward hypothesis is used in commercials is the stage of matching symbols. The power symbol, success symbol, commanding symbol(s) are the same for almost all commercial viewers and have the same meanings. In order to ensure this association of meaning, they work on behaviorist-cognitive hypotheses once again during the initial stage. Once symbol X in the advertisement is matched with symbol Y (in other words, once the image of the product in the psyche matches with the symbols of power, success, sexuality, command etc.), that’s when the real psychological activity begins.

Symbol X is matched with symbol Y:

The Lanvin for him H&M 2010 commercial promotion shoot reflects a typical Ivan Pavlov application in the fashion world: it is an example of matching the X (diamond necklace) with Y (Lanvin blouse) process. However, this is only the beginning of course. Advertising
psychology doesn’t make due with this much alone, and delves deeper into the human psyche.

A symbolic man: a dimwit, has found an equation solver that would, under normal conditions, cause the symbol woman: a hottie in the hotel room, to take her top off: a diamond necklace. However, the formula doesn’t work because the conditions (conditionings) have changed, and this is written in the thought balloon: “I want a Lanvin, not a diamond!” and the door shuts close, leaving our dimwit standing there. Later on, a Lanvin blouse given to the lady really does have the effect of a diamond necklace, and in excuse of trying the blouse the blond model instantly takes her overcoat off right there on the spot, in front of the man. In other words, she undresses.

At this point, let’s remember Pavlov’s bell experiment. The purpose of the conditioning was to ensure the dogs salivate by conditioning them with \( \text{bell} = \text{meat} \). In the Lanvin commercial however, the man salivating for the girl and all consumers on his behalf, are passing through the \( \text{diamond} = \text{Lanvin} \) conditioning. The man receives the meat prize, only when he realizes this conditioning: a blond hottie showing her body.

**Quality Learned Via Model**

Even though the learning of complicated information by people cannot be explained, it is assumed that some responses we give to a certain object or event is learned through classic conditioning. It’s like remembering the same emotions once again when a place in which fond memories were experienced is revisited, and is continuing. The learning of positive feelings and the continuation of the conditions it is repeated in is important for us because this time, the learning process and the positive/happy feeling following it in the advertising process is constructed upon a product being purchased.

According to the operant conditioning hypothesis put forth by Frederic Skinner (Koren, 2013), we see that in consumers’ behaviors, for instance the general behavior of consumers about rewards programs, when viewed from the perspective of the hypothesis, the consumers will go to a competing company with another campaign offer when the program is expired. In other words, the client comes on board with a bonus, and leaves for another company’s gift promotion. In situations like this, the loyalty of the consumers remains only at the level of an escort. Because of this, banks, gas stations, super markets and other retail sellers, as if not wanting to leave the father of operant conditioning Dr. Skinner embarrassed, can’t somehow withdraw from the money-points programs.

In the behaviorist approach, it is argued that the individual observes the actions and results of those around him in some instances, and models them. According to this, while the individual draws the positive results of observed actions as a model; he avoids those with negative results. In the behaviorist hypothesis however, this is referred to as learning through modelling and observation. In advertisements, a situation and a mode of action is put forth. If the viewing audience likes this situation, they commit the same action in the same situation (i.e.: the act of purchasing). The action in the commercials is coded and modelled. The principles of creating a want, making one feel an affinity towards the results in advertisements
and liking them in such a manner. However, if we are to detail this, it is necessary to identify in order to generalize, and for this to happen, it is necessary to establish similarities. In order to cause identification, either a person who is admired (someone people would look up to and want to be like) or quite an ordinary person (representing the concept of *us*) is chosen. Belief, happiness, fear and all other sorts of feelings and desires are put forth through the identified person as a *catharsis* experience in the commercial; or in other words, it is experienced as a moment of discharge and is copied as a scheme in daily life afterwards, and simulated. This explains the behaviorist psychology used in commercials. There are models in behaviorist psychology, the person selecting a model walks like the modelled person, looks like him, and imitates him. The advertising industry frequently makes use of this principle. Advertisements create this effect by using people everyone wants to model, stars. One of the examples in which this can clearly be observed is the *Feel Like a Star* commercial campaign by Turkish Airlines, featuring Kevin Costner.

**Turkish Airlines “Feel Like a Star Commercial”**

**Example of Behavioristic Constructed Sense of Quality Advertisement**

In behaviorist model, an original model creating desired action loads those actions onto people imitating him. Even if the model later disappears, he loads his situation and actions to all people after him through merely being an example himself.

The interpretation of *Feel Like a Star* commercial is as follows: Whenever you fly with THY, you feel like Kevin Costner. In fact, you’ll be Mr. Costner himself. So much so that we watch Kevin Costner being entertained on a plane belonging to THY airlines throughout the commercial, but for some reason, there’s something odd. Mr. Costner acts charmingly, as would be expected of him, signs signatures on napkins brought to him, hands them to hostesses, however, even though people are not directly objecting his actions, they’re smirking secretly, in disdain.

---

At the end of the commercial, Mr. Costner hands out smiles befitting his *celebrity* personality, in fact he uncharacteristically runs into frames of family photos and strikes pirate poses. Of course, as the viewer, we see the confused faces of the people experiencing this in the commercial, as if they were thinking “what’s going on here?”, instead of them getting excited for meeting a *celebrity*. There really is something odd happening.

Finally, the curtain of mystery is unveiled: A regular THY passenger has taken the “Feel Like a Star” motto and concept a step further and has not only felt like a *celebrity*, but has become the *celebrity*. The classic “feel like this celebrity” message of commercials reflects on the screen in the most basic, uncultivated manner it dissolves in the psyche: an ordinary person representing the target audience hasn’t just remained feeling like a star in the, he has become Kevin Costner himself. He is Kevin in his fantasy, only as long as a THY trip. At the end of the commercial, he is in the stage of returning back to his ordinary self at the exit of the terminal (airport).

When the trip is over, the model celebrity Kevin Costner completes his task and returns to the world of the mirrors: remaining in the star emblems inside a mirror at the THY airport (almost as if a ghost remaining under the ownership of the owners of the commercial). Our happy passenger however, leaves after waving Costner goodbye, as an ordinary person touching the sky. The level of acceptance of the commercial shows the level of acceptance of the offered model.

**Conclusion**
Achievements in most times is being looked at from the material side ignoring the psychological components of it, leading quality to be perceived as a matter of material calculations, missing the sensation of quality which becomes only mentioned in the slogans of advertisements. However, according to this research the psychological conditioning processes in advertisements affect both the expectations and the understanding of quality within consumer
minds, playing a vital role concerning the concept and consumption of quality. This research tackles how quality is could be redefined according to the type of product and the behaviorist approach of consumers.

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THY Corporate, TurkishAirLines1933, Dir. Callingaard F., (07 Feb 2009), Feel Like a Star! https://www.youtube.com/watch?v=TnLJtU4rCuc
SERVQUAL Model Impacts on the Sustainability of the Public Service Excellence

Loay Mahmoud Ibrahim Helless
Hamdan Bin Mohammed Smart University, UAE.

Abstract
This research paper discusses the role of the Service Quality (SERVQUAL model) within an organization in the public sector in UAE. I’ll focus on the actual role that service quality can play in service based organizations. Where customers / clients may enjoy the highest levels of service defects free, and offered on a quick pace.
Many organizations (the service based ones) benefited from this model, but unfortunately some other organizations did not. The failure results of those organizations, which did not benefit from the SERVQUAL Model, resulted from the weak implementation of this model, which caused total damage of the service level that provided to customers with tons of complaints raised by angry customers who are looking for leaving your organization (this is against the customer loyalty goals).
This research paper is going to reflect the impacts of the SERVQUAL Model in service excellence sustainability within the public sector entities and how it is going to be impeded within the operational models of any public sector based organizations, and it will measure how the customers’ will sense the quality of the provided services from international based service standards; in addition to this, how the SERVQUAL model is going to increase the customers’ happiness (delight), and how it will enrich the customers’ experience.

Introduction
The Service Quality (SERVQUAL) Model has been introduced since 1993 to many organizations; however more highlights and researches have been developed this model dramatically over the past 3 decades.

We always hear about customer service, and customer delight or happiness indicators. These efforts, which aim to improve the services that can be provided to the customers, need to be managed in more proactive and powerful tools; Therefore, I have reached to many conclusions that make this research paper very realistic and it contains problem solving for the implementation of the “SERVQUAL” Model within governmental entities. I’m writing this research paper in order to elaborate further to reach more and more of accurate information and to more practical solutions in implementing this paper’s outcomes in the field of SERVQUAL model, and the customer superior service.

I’m planning to conduct Focus Group Sessions and more interviews closely with service providers at the government entities.
This research paper and its related information has consumed a researching efforts of total 45 days starting from 10 November to 20 December, 2015). The key resources obtained during this research paper is based on:

- Interviews (Focus Group Session),
- Public Records from UAE official Authorities; and
- Published journals locally and internationally during the past 5 years.

Services need to be controlled, and need to be fulfilling the customers’ needs and wants, in addition to this, it requires to be a close translation of the organization’s vision and mission, and to maintain and sustain the current organization’s core values.

Customer service has 2 integral parts, which are Customers, and the employees who are serving them (this is the human side); and the second part which is the (non-human part), and it is called service.

Services need to be controlled, and delivered in a systematic, measurable, and sensible approach that can be easily evaluated for improvement. Since, services are not tangible, therefore, and firm/organization has to strive to measure it and to use a world-wide approved standards in this field.

SERVQUAL Model (Service Quality) is a combination of two main fundamentals and key terminologies, which is a reflection from the Quality Management System, and service delivery system. Where the quality control tools can control and assure the service provision with the minimum or zero level of defects; At the same time this model will deliver the service maintaining the same level of the intended customer service values.

(Kellogg, D., and Nie, W.), defined the Services as a framework is needed to foster strategic thinking in services. The important feature of the service process is the degree of customer influence on the service process. The unique characteristic of the service package is that it consists of both tangible and intangible aspects. (Kellogg, D., and Nie, W.)

Also, SERVQUAL model can extend your services through something known as “the service package” which is described by the degree of customization found in those tangible and intangible elements. Strategic competencies are identified and discussed along the service process dimension, the service package dimension, and the main diagonal of the matrix. (Kellogg, D., and Nie, W.)

Service firms can use a matrix to gain strategic insights by aligning the type of service package offered with the type of process used to create the service and to have a better understanding of their service operations strategy.
Literature Review

The Design of the Service Quality (SERVQUAL)

In order to make your service unique and belong to you organization (customized services), this can be defined as follows:

The Quality Service design is the specification and construction of processes that deliver valuable capacities for action to a particular customer; for example in Health Services, it has the basic form of diagnostic assessments and prescriptions. In Educational Services, it has the form of a promise to produce a new capacity for the customer to new promises. (Commands, on 2010)

While a service designer can prescribe the exact configuration of a product, s/he cannot prescribe in the same way the result of the interaction between customers and service providers, nor can s/he prescribe the form and characteristics of any emotional value produced by the service. (Holmlid, 2011)

Consequently, service design is an activity that, among other things, suggests behavioral patterns or “scripts” to the actors interacting in the service. (Holmlid, 2012). This opens up more degrees of freedom to the customer and for employees to adapt to the customers’ behavior. (One year later Holmlid says, on 2012)

The SERVQUAL (Service Quality) Model

When businesses using SERVQUAL to measure and manage service quality deploy a questionnaire that measures both the customer expectations of service quality in terms of the five gaps (which will be presented in the upcoming research pages), and their perceptions of the service they receive.

Managing Customers’ Expectations

All organizations shall manage their customers’ expectation, where the customers shall get what they are being promised with; otherwise it will turn them to angry customers who are
willing to spoil your organization’s reputation (Corporate Image), in front of the potential other customers (who might be your future revenues). So, when customer expectations are greater than their perceptions of received delivery, service quality is deemed low.

As described by (Zeithaml, Parasuraman & Berry 1988-2002) the group of researchers in the field of Business Development, highlighted on 5 gaps that customers could experience while perceiving services; below are the 5 Gaps for Customer Satisfaction:-

**Gap 1:** between consumer expectation and management perception.

**Gap 2:** between management perception and service quality specification

**Gap 3:** between service quality specification and service delivery

**Gap 4:** between service delivery and external communication

**Gap 5:** between expected service and experienced service

The above gaps need to be highlighted and addressed carefully by the top management before implementing the SERVQUAL Model, where the 10 Determents of SERVQUAL shall be aligned along within the model itself in order to eliminate or reduce the occurrence of the previous 5 gaps. Those 10 determents are as per as follows:

1. **Competence:** is the possession of the required skills and knowledge to perform the service.

2. **Courtesy:** is the consideration for the customer's property and a clean and neat appearance of contact personnel, manifesting as politeness, respect, and friendliness.

3. **Credibility:** includes factors such as trustworthiness, belief and honesty.

4. **Security:** enables the customer to feel free from danger, risk or doubt including physical safety, financial security and confidentiality.

5. **Access:** is approachability and ease of contact. For example, convenient office operation hours and locations.

6. **Communication:** means both informing customers in a language they are able to understand and also listening to customers.

7. **Knowing the customer** means making an effort to understand the customer's individual needs, providing individualized attention, recognizing the customer when they arrive and so on. This in turn helps to delight the customers by rising above their expectations.

8. **Tangibles:** are the physical evidence of the service, for instance, the appearance of the physical facilities, tools and equipment used to provide the service; the appearance of personnel and communication materials and the presence of other customers in the service facility.

9. **Reliability:** is the ability to perform the promised service in a dependable and accurate manner. The service is performed correctly on the first occasion, the accounting is correct, records are up to date and schedules are kept.
10. **Responsiveness**: is the readiness and willingness of employees to help customers by providing prompt timely services, for example, mailing a transaction slip immediately or setting up appointments quickly.

**The 10 Determents Summarization to “RATER” Tool for SERVQUAL:**

By the early 1990s, the authors (Zeithaml, Parasuraman & Berry) had refined the model to five factors that enable the SERVQUAL abbreviation of RATER tools for SERVQUAL:

- **Reliability**: the ability to perform the promised service dependably and accurately
- **Assurance**: the knowledge and courtesy of employees and their ability to convey trust and confidence
- **Tangibles**: the appearance of physical facilities, equipment, personnel and communication materials
- **Empathy**: the provision of caring, individualized attention to customers
- **Responsiveness**: the willingness to help customers and to provide prompt service.

The simplified RATER model allows customer service experiences to be explored and assessed quantitatively and has been used widely by service delivery organizations, and this study was comprehended during 1990 to 2010. (Zeithaml, Parasuraman & Berry and other independent researchers).

**Research Objectives**

This research paper attempts to answer three vital questions with regard to the Role of the SERVQUAL Model in enhancing the customers experience and customers’ satisfaction during their service journey within the company. The research questions are defined as follows:

**The Research Questions**

1. **Is SERVQUAL Model implemented as of today?**
2. **Do Top Executives in organizations believe in SERVQUAL Model?**
3. **Do customers experience / feel the benefits from the SERVQUAL Model?**

**Hypotheses**

*Hypothesis 1*: The Implementation of the SERVQUAL Model is Increasing Nowadays.

*Hypothesis 2*: Top Executive in organizations increasingly believe in SERVQUAL Model.

*Hypothesis 3*: The increase of the implementation of the SERVQUAL Model increases the Customers’ Satisfaction Rate.

**Research Method**

*The Mixed-Research Methodology*

The main research resources are based on the Qualitative analysis approach, which are available in journals, books and electronic forms for the quantitative analysis, and interviews (done by a Focus Group session), which promotes the **Qualitative approach** here.
To get deeper analysis of this research paper, the Hypotheses are tested through a comparison conducted between the Focus Group session’s outcomes, and the published journals and books in this field from international researchers and other scientific magazines and organizations in the field of Customer Service, and SERQUAL Model facilitation / Afflation. I enforced the numbers for the analysis to have more measurable tools for this research, and this confirms the **Quantitative approach**.

**Details on the Sample Data and Data Set**
A Limited sample of 15 employees and managers were selected based on their availability and willingness to participate, and they are working on or supervising the customer service supervision within Organization and Dubai Police. The main instrument used to collect the data was a Focus Group session’s feedback (the Outcomes) containing three questions with three closed answers (Yes, No, and I don’t know). The response rate was 100% and the percent of respondents who selected “I don’t know” as an answer never exceeded 2%. All answers were coded, entered into the computer and analyzed using SPSS and MS Excel Sheet.

**Results**

**SERVQUAL Model Implementation within Organizations**
Studies confirmed that SERVQUAL Model can improve the internal culture within and organization, even can increase the employees’ satisfaction towards their organizations too. Since some organizations are profit based organizations, where the key concern to those organizations is the customers’ satisfaction, and to increase the customers’ loyalty through different loyalty programs, researchers (Zeithaml, Parasuraman & Berry) between 1999 to 2008, found that customers’ loyalty helps in increasing the employees’ the loyalty to the organizations.

The justification of the above researches that employees feel more confident about themselves and their organizations when they deal with the same customers for longer period of time. So, SERVQUAL can work perfectly as a customer based service tools / model, and it can be implemented internally within the organizations to increase employees’ loyalty and productivity.

**The Top Executives Believe in SERVQUAL Model**
The recent researches conducted by (Ron Kaufman – the Founder of Up Your Service based on Singapore) on 2009-2014 that leaders in many organizations believe in customer service, and they can classify the service levels as per as the UP! Your Service Model, which contains formal service levels that proposed by (Kaufman on 2009). Also, he referred to the SERVQUAL model as a powerful tool that can be adapted by the Top Management to implement within the organization against the best practices.
Also, (Zeithaml, Parasuraman & Berry - 2005), confirmed that the Top Management in many service based organizations started to believe more and more in SERVQUAL model, where it sustains the revenues of the organizations, by increasing the customers who are interested to deal and to invest with our organization.

**SERVQUAL Model Impact on the Customers’ Satisfaction Rates**

Many studies released from big research companies and management consultancy like: KPMG, Deloitte, and McKinsey confirmed during the past decade (2002 to 2013) that customers are satisfied more when they receive an innovative and defect free services, and they started to feel more comfortable about those companies / or organizations and they would like to deal with them again, and they may (70%) will recommend to their relatives / friends to deal with this company / organization.

Also, (Kellogg, D., and Nie, W. on 2007), confirmed while writing their research about designing services, the SERVQUAL model can be implemented into many different organizations and can be publicized or revealed as a powerful service management tool.

**Focus Group Session’s Outcomes Analysis**

<table>
<thead>
<tr>
<th>Gender:</th>
<th>Age Group</th>
<th>Positions:</th>
<th>Educational Qualifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male: 9</td>
<td>25-35: 11</td>
<td>Senior 5</td>
<td>NA</td>
</tr>
<tr>
<td>Female: 6</td>
<td>35-45: 4</td>
<td>Junior 10</td>
<td>NA</td>
</tr>
<tr>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>
We see from the above graph that 80% of Focus Group Session Respondents agree that SERVQUAL Model is increasing nowadays.

**Testing Hypothesis 1:** The Implementation of the SERVQUAL Model is Increasing Nowadays.

\( H_0: \) The percent of respondents not believing that the implementation of ServQual model is increasing = 50%

\( H_1: \) The percent of respondents believing that the implementation of ServQual Model is increasing > 50%

To test the hypothesis, I conducted one-sample t-test. The results in the below table show that significance associated with the calculated t is less than 5% which means that \( H_0 \) can be rejected.

**Conclusion**
There is enough evidence that implementation of the SERVQUAL model is increasing.

**One-Sample Test**

<table>
<thead>
<tr>
<th></th>
<th>Test Value = .5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>ServQual_imp</td>
<td>2.806</td>
</tr>
</tbody>
</table>

Q1: Do you think that SERVQUAL Model is increasingly implemented nowadays?

- Yes: 80%
- No: 7%
- IDK: 13%

Q2: Do you think that the Top Executives in your organization are increasingly using SERVQUAL?

- Yes: 80%
- No: 7%
- IDK: 13%
We notice from the above graph that 80% of Focus Group Session Respondents agree that the Top Executives within the organization are increasingly using the SERVQUAL Model.

**Testing Hypothesis 2:** Top Executive in organizations increasingly believe in SERVQUAL Model.

$H_0$: The percent of respondents believing that executive increasingly believe in SERVQUAL model $= 50\%$

$H_1$: The percent of respondents believing that executive increasingly believe in SERVQUAL model $> 50\%$

To test the hypothesis, I conducted one-sample t-test. The results in the below table show that significance associated with the calculated $t$ is less than 5% which means that $H_0$ can be rejected.

**Conclusion**

There is enough evidence that that executives increasingly believe in SERVQUAL model.

<table>
<thead>
<tr>
<th>One-Sample Test</th>
<th>Test Value = .5</th>
</tr>
</thead>
<tbody>
<tr>
<td>$t$</td>
<td>$df$</td>
</tr>
<tr>
<td>ServQual_Increased</td>
<td>2.806</td>
</tr>
</tbody>
</table>

We notice from the above graph that 100% of Focus Group Session Respondents agree that the implementation of the SERVQUAL Model or other related Customer Service Tools will definitely increase the customers’ satisfaction.
Testing Hypothesis 3: The increase of the implementation of the SERVQUAL Model increases the Customers’ Satisfaction Rate.

H₀: The percent of respondents believing that the increase of the implementation of the SERVQUAL Model increases the Customers’ Satisfaction Rate = 50%

H₁: The percent of respondents believing that the increase of the implementation of the SERVQUAL Model increases the Customers’ Satisfaction Rate > 50%

To test the hypothesis, I conducted one-sample t-test. But since all respondents answered yes for this questions without any difference this test can’t be computed.

Conclusion
Based on the descriptive analysis all respondents believe that the increase of the implementation of the SERVQUAL Model increases the Customers’ Satisfaction Rate

One-Sample Statistics

<table>
<thead>
<tr>
<th>ServQual_Cust_Sat</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>1.00</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

a. t cannot be computed because the standard deviation is 0.

Additional Research Questions
1. Does SERVQUAL Model helps you in business today?
2. Do the Leaders within Organizations believe in the implementation of the SERVQUAL Model?
3. Do customers benefit from the SERVQUAL Model?
4. Do you as an employee at Public Sector benefited from the SERVQUAL Model?

Additional Hypotheses
Hypothesis 1: The SERVQUAL Model helps you in business today.

Hypothesis 2: The Leaders in PUBLIC ORGANIZATION believe in the implementation of the SERVQUAL Model.

Hypothesis 3: PUBLIC ORGANIZATION’s Customers benefited from the implementation of the SERVQUAL Model.

Hypothesis 4: PUBLIC ORGANIZATION’s employees benefited from the implementation of the SERVQUAL Model.

The Additional Results Analysis
Focus Group Session’s Outcomes Analysis

This is another Focus Group Analysis for the additional hypothesis.
Demographic Data Analysis: (Total Respondents/ Interviewees = 20)

<table>
<thead>
<tr>
<th>Gender:</th>
<th>Age Group</th>
<th>Positions:</th>
<th>Educational Qualifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male: 14</td>
<td>25-40: 13</td>
<td>Senior 7</td>
<td>NA</td>
</tr>
<tr>
<td>Female: 6</td>
<td>41-56: 7</td>
<td>Junior 13</td>
<td></td>
</tr>
</tbody>
</table>

We see from the above graph that 90% of Focus Group Session Respondents agree that SERVQUAL Model is helping the employees in today’s business.

Testing Hypothesis 1: The SERVQUAL Model helps in business today.

H₀: The percent of respondents believing that the ServQual Model is helping in business today = 50%

H₁: The percent of respondents believing that the ServQual Model is helping in business today > 50%

To test the hypothesis, I conducted one-sample t-test. The results in the below table show that significance associated with the calculated t is less than 5% which means that H₀ can be rejected.

**Conclusion**

There is enough evidence that the SERVQUAL Model is helping employees in business today.

**One-Sample Test**

<table>
<thead>
<tr>
<th></th>
<th>Test Value = .5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T</td>
</tr>
<tr>
<td></td>
<td>2.960</td>
</tr>
</tbody>
</table>

The SERVQUAL Model helps in Business Today

- Yes: 90%
- I Don’t Know: 10%
- No: 0%
We notice from the above graph that 80% of Focus Group Session Respondents agree that the Leaders in PUBLIC ORGANIZATION (Organization) are implementing the SERVQUAL Model within PUBLIC ORGANIZATION.

Testing Hypothesis 2: The Leaders in PUBLIC ORGANIZATION believe in the implementation of the SERVQUAL Model.

H₀: The percent of respondents believing that PUBLIC ORGANIZATION’s Leaders believe in SERVQUAL model = 50%

H₁: The percent of respondents believing that PUBLIC ORGANIZATION’s Leaders believe in SERVQUAL model > 50%

To test the hypothesis, I conducted one-sample t-test. The results in the below table show that significance associated with the calculated t is less than 5% which means that H₀ can be rejected.

**Conclusion**
There is enough evidence that that PUBLIC ORGANIZATION’s Leaders believe in SERVQUAL model implementation within PUBLIC ORGANIZATION.

**One-Sample Test**

<table>
<thead>
<tr>
<th></th>
<th>Test Value = .5</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBLIC ORGANIZATION N’s Leaders Believe in SERVQUAL</td>
<td></td>
<td>2.801</td>
<td>16</td>
<td>.015</td>
<td>.300</td>
<td>.07 to .53</td>
</tr>
</tbody>
</table>
We notice from the above graph that 95% of Focus Group Session Respondents agree that the SERVQUAL Model or other related Customer Service Tools increases the customers’ satisfaction level, and made them benefited from it.

**Testing Hypothesis 3:** PUBLIC ORGANIZATION’s Customers benefited from the implementation of the SERVQUAL Model.

H0: The percent of respondents believing that the implementation of the SERVQUAL Model increases the Customers’ Satisfaction Rate = 50% (because they benefited from it)

H1: The percent of respondents believing that the implementation of the SERVQUAL Model increases the Customers’ Satisfaction Rate > 50% (because they benefited from it)

To test the hypothesis, I conducted one-sample t-test. But since all respondents answered yes for this question without any difference this test can’t be computed.

**Conclusion**

Based on the descriptive analysis 95% of respondents believe that the implementation of the SERVQUAL Model increases the Customers’ Satisfaction Rate.

We notice from the above graph that 95% of Focus Group Session Respondents agree that the implementation of the SERVQUAL Model increases the employees’ satisfaction rate too.

**Testing Hypothesis 4:** PUBLIC ORGANIZATION’s Employees benefited from the implementation of the SERVQUAL Model.
H₀: The percent of respondents believing that the implementation of the SERVQUAL Model increases the Employees’ Satisfaction Rate = 50% (because they benefited from it)

H₁: The percent of respondents believing that the implementation of the SERVQUAL Model increases the Employees’ Satisfaction Rate > 50% (because they benefited from it)

To test the hypothesis, I conducted one-sample t-test. But since all respondents answered yes for this question without any difference this test can’t be computed.

Conclusion
Based on the descriptive analysis 95% of respondents believe that the increase of the implementation of the SERVQUAL Model increases the Employees’ Satisfaction Rate too, because they benefited from it.

Discussions
We notice from the previous Focus Group sessions that the employees are happy with SERVQUAL model implementation and other Quality Management System Tools, such as TQM (Total Quality Management), and EFQM (European Foundation for Quality Management); However the Top Management is not utilizing these tools very well, and they are wasting huge resources for improper implementation of it, or poor understanding to it.

From Customers’ side, they confirmed that they are lucky that organizations can use these customers friendly tools, especially in service provision management, such as an advanced CRM system (Client Relationship Management), where this smart system can capture and understand the customers’ requirements and can effectively manage the customers’ expectations.

The key stakeholders of the organizations that implementing the SERVQUAL model are happy with these tools; However, the key executives and who are executing these tools are a bit delaying it because they consider it as “extra burdens on Managers’ shoulders”.

Conclusions and Recommendations
We conclude that the SERVQUAL model is usable for developing a sustainable relationship with customers, and to innovate more and more business solutions, and to shape us a strategic a balanced relationship between customers and other key stakeholders.

SERVQUAL model has key fundamentals and service conceptualization tools which help to fine-tune the provided services to customers, and service can easily monitored and efficiently controlled by the organization.

Many organizations which implemented the SERVQUAL model, achieved a better customers’ satisfaction results, and generated more sales revenues too. When customers feel comfortable and they can get what they are looking for (customers’ perception), they move to
customers’ loyalty ahead; simply, when customer can get whatever s/he looking for, therefore will be a bit satisfied, and when s/he gets what was unexpected, then they feel loyal and will tell other hundreds of people.

Below are the key conclusions and recommendations, for the best practices uses:

<table>
<thead>
<tr>
<th>Conclusions &amp; Findings</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>The SERVQUAL Model is very prestigious customer service management tool, to enable the management to manage the customers’ relationships proactively and effectively.</td>
<td>The Management shall plan and adapt the SERVQUAL model in order to manage the customer relationships.</td>
</tr>
<tr>
<td>There are many management tools that aims to professionally manage the services which are provided to customers.</td>
<td>The management can choose among the most fitting management tool/ model to manage the customer service, such as: ISO 9001, TQM, SERVQUAL, CRM, and so on.</td>
</tr>
<tr>
<td>SERVQUAL Model has its 10 Determents, which have been later improved and abbreviated to “RATER”.</td>
<td>The management shall integrate these key fundamentals in the SERVQUAL Model, which can be used as a full service management solution, and as an enhancement tool.</td>
</tr>
<tr>
<td>Many employees think these models are just theories, and have nothing to do with customers’ requirements.</td>
<td>Top Management shall allow the employees to participate and to get aware of the usefulness of the SERVQUAL Model, and how can they benefit out of it in serving and delighting their customers.</td>
</tr>
<tr>
<td>Some employees may resist the SERVQUAL model, and they may miss-interpret it.</td>
<td>Organizations shall not hesitate in introducing and implementing new service management tools/ matrices that help in improving the customer service culture within the organization.</td>
</tr>
<tr>
<td>The Majority of customers believe in SERVQUAL and on other service management tools that help them to get what they want and makes their lives much easier while dealing with the service providers.</td>
<td></td>
</tr>
</tbody>
</table>

References


Moritz 2005, p. 66.


Organization for Enterprises Development “Focus Group Session”.


www.upyourservice.com


**Appendix**

Focus Group Session on “The Role of SERVQUAL Model on Increasing the Customers’ Satisfaction” – The Old Focus Group Session

Name: ………………… Gender: M / F Age: ……. Position: …………………

**Hypotheses:**

**Hypothesis 1:** The Implementation of the SERVQUAL Model is Increasing Nowadays.

Do you think that SERVQUAL Model is increasingly implemented nowadays?

☐ Yes □ No □ I Don’t Know

**Hypothesis 2:** Top Executive in organizations increasingly believe in SERVQUAL Model.

Do you think that the Top Executives in your organization are increasingly using it?

☐ Yes □ No □ I Don’t Know

**Hypothesis 3:** The increase of the implementation of the SERVQUAL Model increases the Customers’ Satisfaction Rate.

Do you think the implementation of the SERVQUAL Model is increasing the customers’ satisfaction?

☐ Yes □ No □ I Don’t Know

**Appendix 2**

Focus Group (the additional) Session on “The Role of SERVQUAL Model on Increasing the Customers’ Satisfaction” – The Old Focus Group Session
Name: ………………...  Gender: M / F  Age: ………  Position: …………………

Hypotheses:

Hypothesis 1: The Implementation of the SERVQUAL Model is used in Business Today.

Do you think that SERVQUAL Model is used in business today?

☐ Yes  ☐ No  ☐ I Don’t Know

Hypothesis 2: PUBLIC ORGANIZATION’s Leaders believe in SERVQUAL Model.

Do you think that PUBLIC ORGANIZATION’s Leaders believe in SERVQUAL Model?

☐ Yes  ☐ No  ☐ I Don’t Know

Hypothesis 3: The SERVQUAL Model increases the Customers’ Satisfaction Rate.

Do you think that the implementation of the SERVQUAL Model increases the customers’ satisfaction?

☐ Yes  ☐ No  ☐ I Don’t Know

Hypothesis 4: The SERVQUAL Model increases the Employees’ Satisfaction Rate.

Do you think that the SERVQUAL Model increases the Employees’ satisfaction?

☐ Yes  ☐ No  ☐ I Don’t Know
Change Management Individual Final Paper

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Introduction
Why change is successful in certain organizations while, it fails in others? The answer to this question is very easy, but when practicing it, it is very challenging. It is the change leadership, the engine that makes change happens very fast. Change exists in every organization, whether they want or not, but the process of controlling change differs from organization to another. Managing change, putting it under control, reducing the risks, especially the resistance, which is the main barrier to change, is an art. In other words, it is a leadership art. In this paper, am going to talk in detail about the concept of change leadership and its main role in managing change in any organization. My focus will be on the change leader, who is the main driver in the change Journey. If the driver is skilled, qualified, knowledgeable about change leadership and change management, the journey to the target goal will be easy and fast, but if the driver has poor skills in change leadership and change management the journey will end up with failure. In another meaning, change will be resisted. Furthermore, at the end of this paper, I will share a successful case study of change leadership in one of the government authorities in Dubai called Knowledge and Human Development Authority.

Change Management vs. Change Leadership, what is the Difference?
There is a big difference between change management and change leadership. Peter Drucker (1909-2005) defines management as doing things right, and leadership as doing the right thing (Martin, 2012). Change management is a set of basic tools or structures intended to keep any change effort under control, the goal is to minimize the distractions and impacts of the change (International, 2011). Another definition of change management is that it’s a set of processes and mechanisms that are designed to make sure that when you do try to make some changes, A, it doesn’t get out of control, and B, the number of problems associated with it such as rebellion, bleeding of cash that you can’t afford it does not happen. However, change leadership has another meaning which is putting an engine on the whole change process to make it happens faster, smarter, and more efficiently. In more detail, change leadership is communicating the vision (the end game) and what the journey will look like (but not in detail), engaging staff and other stakeholders, role modeling new behaviors and supporting when they get tough (Martin, 2012). The world nowadays needs change leadership more than change management especially with the big change initiatives. Change leaders are the charismatic and successful people who make change happen. The main responsibility of the change leaders is to communicate the vision of the change with all the employees; they should always listen to staff concerns, and to give the chance to express their feelings and thoughts. Furthermore, change leaders should engage their staffs not only intellectually but also emotionally. If employees trust the change leaders, the change will happen fast and smoothly. In addition, change is not a
list of checklist; however, change leaders should know the mood of the organization and should provide guidance needed to move forward.

**Change leaders within the Organization: Characteristics and Roles**

Leading a change is the most challenging role for any leader. There are two types of change, the first type is called the planned change, which is initiatives that are driven from top to down in the organization, and the second type is called the emergent change, which is initiatives, which come from any level in the organization (Cornelius & Associates, 2012). Leaders’ role in both types is important. The change should start firstly with the change leaders.

In more details, leaders cannot ask for change if they do not adapt the change. They should firstly live the change; feel the importance and urgency of the change. They should have a clear picture of the end of this change. Also, they should have a clear picture of what the future will look after the change, they should clearly know how this change will affect the various roles within the organization and how it will impact the organization policies, procedures. Not anybody is qualified to be a change leader as there are certain soft skills, qualities, and attributes for any successful change leader. The Followings are the characteristics of the most successful change leaders:

- Honesty/Integrity/trustworthy
- Inspiring
- Competent
- High degree of emotional intelligence
- Self-confidence/awareness
- The strong drive/energy to achieve
- Openness to new ideas/change
- Strong interpersonal skills such as being creditable, accountable, accessible

Change leadership is a big responsibility, thus change leaders should play the following roles to ensure that the change initiative happens successfully:

1. **Ensure that change vision is communicated clearly with all the staffs**

   Once the vision of the change is clear to the change leaders, they should call all the staffs to explain to them the rationale behind the change. The answer of the following questions should be given in detail to all the staff:

   - What is the change?
   - Why are we doing this?
   - How we are going to go about it?
   - How long will it take us to do it?
   - What will the role be for each department and each individual?

2. **Ensure that there is a proper communication plan before starting the change**

   A detailed communication plan should be designed prior starting the change. When communicating the change following points should be addressed with all the staff:

   - Things that will stay the same
   - Things that will leave behind
   - New things that we will have that we have never had before.
3. **Ensure the availability of proper support elements**

There are certain support elements that should be designed prior starting the change process, the elements are as follows:

- There should be a realistic and a detailed project plan for the change initiative.
- There should be an organization structure for managing the change.
- There should be internal change agents.
- There should be a formal training plan that includes all the skills, trainings required for the change initiative and the list of people who should have these trainings.
- There should be a clear, detailed barrier removal plan.
- There should be a system of period audits and feedback.

**Case Study**

I have selected to do my case study for this paper about Knowledge and Human Development Authority. The change effort that I will be talking about is in the customer relations department. The reason that made me select this organization is that KHDA is a very good example of Change & Innovation. In other words, the soul of this organization is based on change and Innovation. Every time, you hear a new initiative in this organization, comparable to many government authorities in Dubai. The other reason of choosing this organization, especially the customer relations is that the achievement KHDA did was unbelievable. In 2011, KHDA was ranked 21 out of 22 in government excellence program in the customer services. In 2012, KHDA became 4th, in 2013 KHDA became 3rd and in 2014 KHDA became 1st. Within 3 years only, KHDA jumped from almost the worst organization in the customer relations to be in 2014 the best ever organization proving excellent customer services to the community. What happened!!! This is the question that drove me to KHDA and made me curious to know what is the secret behind this dramatic change, there must be an interesting journey of change that worth listening. I have met the chief of customer relations Mr. Abdurrahman Al Nassir. Before going into the details of the change journey, I would like to give a brief overview about the organization.

Knowledge and Human Development Authority (KHDA) is a government authority that opened its doors in 2007 to be responsible for the growth, direction, and quality of the private education sector of different ranges in Dubai. Dr. Abdullah Al Karam is the chairman. KHDA is located at the Dubai Academic City and is considered as a medium size company of 300 employees. Students are the most priority elements in KHDA. The vision is to have lifelong learning to fulfill Dubai’s aspirations. (KHDA, 2014). KHDA is focusing on having an environment that supports growth and innovation. In addition to their passion for quality, we can describe their work through their strategy as follows:

1- Quality of education – Dubai Private schools
2- Access to learning
3- Engagement with the society through partnership

KHDA consists of six different entities, which are: Dubai Schools Inspection Bureau, Dubai School Agency, Emirates Nationals Development Program (ENDP), EDAAD, National Institute for Vocational Education (NIVE) and Tamkeen.
Each one of these entities is responsible for a specific aim, for example: EDAAD is a scholarship program that offers opportunities to the locals who have strong academic achievements beside their leadership skills to continue their studies in well-known universities all over the world. The EDAAD main objective is to produce a high skilled employee who serves the society.

The Journey of Change in the Customer Relations

I have started my interview with Mr. Abdurrahman by congratulating him first for the great achievement, then I asked him what is the secret behind the success you have made. With a very beautiful smile, and a confident look, he answered me it was not me Asmaa, it was the leadership of Dr. Abdulla the chairman of KHDA, also a great team that worked day and night on this achievement.

The story of the change journey in the customer relations department, happened in five phases which are as follows:

Phase One: Customer Services in KHDA

In 2008, a decision has been made that the Dubai Education zone (DEZ) is going to be merged with KHDA. In the same year, the education zone moved to KHDA. The customer service was managed by the DEZ. The services mainly were provided to students, parents, and schools. The nature of the work was based on paper, there was no any electronic system. The system they used to keep the information was through something called the blue book. Basically, the blue book is a hard copy book that includes the details of all the students, such as their grades in all the subjects, in all academic years. Every school used to have a blue book. Usually, the information in this book is updated by the school at the beginning and at the end of the year. The information is updated manually usually by school coordinators.

Phase Two: KHDA is 21 out of 22

In 2010, KHDA was ranked 21 out of 22 in the Dubai Government Excellence program in the customer services. As a result, the top management made a decision to hire Mr. Abdurrahman Al Nassir to be the director of the customer services department. Abdul Rahman was the director of the Human Resource in KHDA and he has another successful change story in the human resource department as well.
Unfortunately, the DEZ resisted Abdurrahman as they were resisting initially to be merged with KHDA, so they were very protective on their work, and they did not want to share anything with him and with his team. This period was an exploring period for Abdurrahman to know what this team is doing. They used various smart ways to learn from them, they tried a lot, unfortunately, the amount of information they were getting was very little. In December 2010, another decision was made that the merge is cancelled, and DEZ are going to leave KHDA. DEZ was assigned to focus on the government schools and KHDA will focus on the private schools. In June 2011, the DEZ left KHDA. It was a sudden move, happened very quickly, the move happened within one week only.

This was the most challenging period Abdurrahman said in the change journey as DEZ left KHDA without sharing anything with the KHDA customer service team. So the KHDA customer service team was not prepared to handle this big responsibility, which was given to them suddenly. Lack of knowledge was another issue, as Abdurrahman said they did not know even where to stamp either at the back of the paper or in the front. The other challenging issue was that DEZ left KHDA in June which was the peak of customer service as schools are about to close their doors. 20,000 customers used to come to KHDA everyday.

Abdurrahman said we started from ZERO and here the urgency and the need for a quick change was initiated. He put a new structure for the department; customer service has been changed to customer relations. He started to build a new team of customer relations. I asked him how did you manage to provide services for the 20,000 customers who were coming every day for two months. Abdurrahman answered me that “it was the spirit of the team, he himself was doing the customer service job as well, there was no code of conduct, which they extremely needed to assess the school cases. He said I told the whole team that your criteria in making decisions is based on one thing only which is to put the student as the most priority element and the decision should be made for the benefit of the student.

In this busy and stressful time, Abdurrahman was supporting the team emotionally, he was always reminding them that the services they are providing to the customers is something valuable, customers only need a smile and do the service fast for them. I asked Abdurrahman, who was supporting you, he answered the top management were always supporting me, especially Dr. Abdullah, who was trusting him and was confident that Abdurrahman will make a significant change in this department. Whatever Abdurrahman was asking has been supported by Dr. Abdullah. The vision of change in the customer relations was extremely clear for Dr. Abdullah and to Abdurrahman as well.

*Phase three: the core of the change*

Abdurrahman said the core of the change started due to an incident happened when they were extremely busy in serving the customers in June 2010. By the end of the day around 3 PM, a lady called Nabeeha who is a school coordinator was sitting and working on updating manually the blue book. An old man was sitting next to her he was helping her. Abdurrahman passed by them and asked Nabeeha what are you doing, she said am updating the blue book, and he asked who is this man, she said he is my husband. Abdurrahman noticed that the man was looking very tired and sick, he asked him you look very tired are you ok, he said am sick, I just had my chemo session. Abdurrahman said, when the man said this I don’t know what
happened to me. He was shocked by what he heard, he could not sleep that night. He stayed many days thinking only about this old lady and her sick husband who are staying hours on the blue book which takes lots of time and efforts from them. Abdurrahman said on the same day he made a decision that no more blue book to be used and an electronic system will be created very soon. He went at the same day to Dr. Abdullah and told him about his decision and the reason; Dr. Abdullah extremely supported him and gave him the approval to start the journey on finding a proper electronic system.

This was the peak of the resistance time as Abdurrahman said. He got resistance not only from the schools, parents and students, but also internally where some of the top management were not agreeing with him to stop using the blue book which has been used almost 40 years. Abdurrahman said the two things that were giving him a great passion for this change were the picture of the old lady which was all the time coming to his mind, he did not want to see the same example again. The other thing was the great support of Dr. Abdullah and some of the top management as well. The vision of the change was very clear to Dr. Abdullah and to Abdurrahman as well. The vision was creating an effective electronic system, which will help customers get what they want from their homes rather than wasting their time and waiting in a long Q to get an operational service. There was a strong belief that the electronic system will save lots of time and efforts and also the information will be more accurate. Abdurrahman played a vital role in communicating the vision with all the staffs, especially with his team. The team trusted Abdurrahman and they were supporting him in the change effort. Abdurrahman engaged the team in all the change process, the team was engaged emotionally and intellectually, he was very open and honest with them. He was listening to their concerns and trying to help them as much as he can.

**Phase four: KHDA established its own school system**

The long story of change happened as well in the process of initiating an electronic system. To make the story short, the system started with an excel sheet and then developed in a very short period to be a smart electronic system that has extremely supported the schools, students and parents. A huge communication channels took place with the schools to accept this change as schools got used with the blue book for 40 years. The communication with schools was happening on a daily basis. Lots of workshops, have been conducted for the schools to train them how to use the system. The system created a transparent environment; lots of schools which were playing with the grades were closed. In other words, the e-system filtered the schools. The schools that used to cheat were shut down. In 2012, the result of the change appeared, KHDA was ranked the 4th in the customer service in Dubai government excellent program. It was a big move from 21 to be the 4th only in one year. All this shows that this change was led by a great change leader who is Abdurrahman.

**Phase five: KHDA is the 1st in 2014**

The journey of the change did not stop; still they did not reach their goals. The schools started to collaborate with Abdurrahman especially school coordinators. Lots of excellent feedback was coming from the parents and the students on the quality of the service provided to them. In 2013, the system was officially launched and it was ready. The result being KHDA was ranked the 3rd in the customer services in Dubai government excellence program.
After putting the basic building blocks, which was the electronic system, innovation started. Dr. Abdulla was always telling Abdurrahman that he wants the service to be given to the customer in a different way; he wanted the KHDA customer service to be looked differently than other authorities. He suggested a great idea, which is turning customer service to a 5 star hotel. In other words, when the customer comes KHDA should welcome him, serve him, and finish his service in seconds, rather than a customer waiting in a long Q.

From here the concept of the customer service was changed, offices were removed, a Marhaba team was created, a coffee shop was created only for the customers, also a playing area for the customer children was created. The whole concept of customer services was changed to a 5 star hotel. In this big achievement, KHDA was rewarded to be the 1st in the most innovative customer services in 2014.

At the end of the wonderful discussion I had with Abdurrahman I asked him and then what are you planning, he said I want to maintain this record minimum for 7 years and he wants the customer satisfaction to be 99.9 %.

**Conclusion**

Change is not an easy thing, but when change is led by a successful change leader, change will be a successful story. It will be an interesting journey that started with a clear vision, and engaging people emotionally and intellectually in every step of the change. People, are the core of the change, especially managing their fears and stress and concerns. Change leadership is an art, it is different from a leader to another, but all change leaders agree that success is what they are looking for, so all their efforts are spent for the purpose of making this change successful.

**References**


Research on Evaluating and Enhancing the Culture of Innovation in the Public Health and Safety Department in Dubai Municipality

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Abstract
Nowadays, innovation is what makes many markets around the world to survive. Without innovation, there is a great chance for the organizations to disappear. Innovation in organizations means providing new services, new products to the customers. In this era, customers have many options, are smart, and are always looking for new things. Therefore, innovation should be a culture in the organization that exists firstly in the vision and mission and in the strategic objectives of the organization. Furthermore, the management should put a plan on how to convert their organization to an innovative organization. Particularly, this research paper evaluates the culture of innovation in the public health and safety department in the Dubai Municipality through identifying the strength existing in the culture and the areas that need improvements with regards to innovation. Furthermore, this research provides recommendations that will assess in making the culture more innovative.

Basically, this research paper is going to answer three questions. The first questions is what are the existing strengths in the culture of public health and safety department, the second questions is what are the areas that need to be improved in order to create an innovative culture in the public health and safety department, and the third questions is what is recommended to be done in order to achieve an innovative culture in the public health and safety department. The researcher used qualitative and quantitative methodology to collect the data. The qualitative data has been collected through conducting two interviews and conducting two focus groups and the quantitative data has been collected through conducting an electronic survey that has been sent to 54 staff. 25 staffs have filled the survey and data has been collected and analyzed through using the survey monkey website.

In Summary, the finding of this paper was the public health and safety department is on its way to become innovative. The researcher has come out with eight strengths, two areas of improvements. In addition, the researcher has suggested four recommendations to make the public health and safety department more innovative.

Background about Dubai Municipality
This research paper is conducted in the Public Health and Safety department in the Dubai Municipality. The origin of Dubai Municipality was founded in 1954 commencing its activities with a cadre of seven employees undertaking simple tasks in cleaning the city. The first decree establishing the Municipality was on February 28, 1957, whereby 23 municipal council members had been appointed from the elders of the country and traders with limited powers, the most important of which was to take care of the health and architectural affairs of the city as well as to organize the construction and beautification of the city and provide constructive
suggestions to the government (Dubai Government, 2015). The Municipality continued its
development coinciding with the growth of the Emirate of Dubai and reached to 11,000
employees working in 33 departments under six sectors, namely:

- International Affairs & Partnership Sector.
- General Support Sector.
- Environmental Health & Safety Control Sector.
- Environmental & Public Health Services Sector.
- Planning & Engineering Sector.
- Corporate Support Sector.

Hence the Dubai Municipality is regarded as one of the largest governmental
institutions in terms of services rendered and projects executed. Thus, the municipality is the

**DM Vision:** creating an excellent city that provides the essence of success and comfort of
sustainable living.

**DM Mission:** working to plan, design, build and manage the municipal infrastructure,
facilities and services through the appropriate investment in our human and other resources
maintaining the sustainable development.

In the quest towards achieving our strategic vision and our grand mission at all levels;
we act based upon the following core values:

- Employees: The real asset
- Stakeholders: Commitment to partnership and appreciation of their needs and expectations
- Transformation: Appreciation of change and strive for positive development
- Performance: Doing the right things right.
- Interdependence: Focus on teamwork through cooperation and sharing of ideas.
- Innovation: The adoption of initiatives and the recognition of innovators.
Below is the organizational chart of the Dubai Municipality:

**Figuer 1: organizational chart of Dubai**

**Background about Public Health and Safety Department**

Public Health and Safety department is under the sector of environmental health and safety control. The vision of the department is to achieve highest Standards in health and safety in our strive towards sustainability. The mission of the department is to formulate and apply efficient strategies, policies, and controls to maintain and enhance health and safety level in Dubai and develop prime awareness (Dubai Government, 2015). There are four sections under this department, which are Health Control section, Public Health and Safety, Occupational Health and Safety section, and Consumer Products section.

The strategic objectives of the department are as following:

1. Proposing the adoption of or developing standard specifications and criteria relating to the public safety and health, and healthy practices and procedures, and preparing and updating relevant technical guideline and manuals, in coordination with the cornered authorities.

2. Controlling and inspecting the public and industrial facilities and establishments in addition to the premises linked to public health, and dealing with consumer products, projects sites as find labor accommodation and others, to ensure compliance with approved safety and health requirements and taking the necessary action according to the approved legislations.

3. Controlling and inspecting the inhabited buildings revelation places, and entertainment venues festivals and celebrations, sites public swimming pools and the public health facilities and children toys playgrounds and consumer products imported and traded in
the local market, to ensure their compliance with public safety and health regulations in coordination with the concerned authorities and implementing all necessary actions.

4. Controlling and inspecting the employees in the premises and industries which deal with healthy supplements and cosmetics to assure their professional competency and inspecting the employees working in high risk occupations to inform compliance.

5. Implementing a program to control the quality of the indoor air quality and systems (ventilation and air conditioning,) in addition to water quality (other than drinking water) and water systems in establishments related to the public health, buildings and public institutions, swimming pools, recreation, cure and cosmetic pools waters, to ensure their compliance with the approved specifications, and also controlling the compliance with non-smoking regulations in the public places.

6. Carrying out investigations in the accidents resulting from the absence of safety measures in the industrial establishments and the work projects sites and other work sites, in coordination with the concerned pasties, and monitoring and analyzing those accidents and measuring the level of safety and health in the Emirate and taking all necessary steps to maintain it at the target levels.

7. Preparing and implementing awareness programs in relation to the public safety and health, in addition to the safety of the consumer products in coordination with the concerned authorities and comparing the level of awareness at the institutions, and consumers and identifying the problems and proposing suitable solutions.

8. Managing the institutional emergency and risk management system in all related organizational units, and supporting them to prepare and apply the contingency plans, and coordinating with crises and risk committee in the Emirate, and executing all works, activities and plans required by the municipality.

9. Restricting, evaluating and classifying the negative effects and risks in work places as per activities, and the nature of work affecting the employees, and taking the necessary measures that reduce the accidents and injuries of labor, and coordinating with institutional excellence department to register the systems and operations, to control them to meet the specification requirements of (OHSAS 18001).

10. Supporting the department of conformity in evaluations and providing employees to work as technical evaluators to approve the efficiency of the inspection bodies working in the safety field.

Introduction

Management Delimma and Problem Statement

The public health and safety department is considered as one of the biggest departments in Dubai Municipality. The performance of the department compared to other departments is very weak due to many reasons. The major reason is the top management, who has a bad leadership style in the department. In more detail, they are not committed in achieving the vision and mission and are not role models for their staff. Also, they are not looking after their employees in providing a good work environment for them. There are a lot of employees, who were not promoted for a long time. They have been working for 10 years and they are getting the same salaries. In addition, many employees are working with low grades and they have good qualifications. The top management keeps promising staff to improve their conditions, but until
now nothing happened. Due to the bad work environment, there are lots of absences, complain and resignation.

Last year 2014 in April, a great change happened in the department. The top management of the Dubai municipality hired a new director for the department, Mr Marwan Mohammad and a new head for the planning and development office Mrs Noura Mohamed. Mrs Noura stated that “the responsibility we have been given is not easy at all, we worked from the scratch in this department, there are lots of issues need to be fixed, the most important thing is to satisfy the staff through promoting them and finally this happened last year in November, now we are working on enhancing the work environment and creating a culture full of innovation, positiveness and productiveness.” (Mohamed, 2015).

The work environment is one of the most important areas the management in this department is working on this year. With the work environment I mean the physical environment and the emotional environment. In more details, one of the sections of this department is staying in an old caravan compared to the other three sections, who are living in a luxury building equipped with nice furnitures and have all the facilities. Also, Most of the sections don’t have the main equipments to do their job. For examples, some of the inspectors, don’t have a computer or a car to visit the field. This affects the productivity level. With the emotional environment, staffs are not being sent to trainings, or being involved in the decisions made in the department. When they make suggestions, their suggestions are not being taken into consideration. The staffs feel they are treated unfairly compared to the staffs in other departments. One of the staff stated that they have the qualifications and capabilities why they are living in a very old environment, why they are not being allowed to innovate. Another staff stated that they work like machines, though the new management are doing a great job in changing the culture they have been living for a long time, but still the remains of the old management are still exsiting.

With regards to innovation, Mrs Noura stated that “ Innovation is the trend of the Dubai market nowadays, his highness Mohamed Bin Rashied urged all the management in the Dubai government entities to create a culture of innovation for their staffs, so the outcome of this paper will help us a lot in improving our culture and deploying innovation in daily life ” (Mohamed, 2015). Furthermore, Mrs Noura stated that “ we are pleased to provide you with any data that will help us to know our level in innovation and we are looking forward to hear your recommendations on what to do to increase our innovation level” (Mohamed, 2015).

Research Objective
Basically, the main objective of this research paper is to evaluate the level of innovation in the public health and safety department through identifying their areas of strengths and areas of improvements. Also, to provide the management with a list of recommendations that will help them to create an innovative culture.

Management Question
The managements question that is related to this research paper is what are the strengths and areas of improvements their culture needs in order to be innovative.

Research Questions
This research paper is going to answer the following three questions:
What are the existing strengths in the culture of public health and safety department?

What are the areas that need to be improved in order to create an innovative culture in the public health and safety department?

What is recommended to be done in order to achieve an innovative culture in the public health and safety department?

**Research Type**

This research is purely a qualitative exploratory research that follows an inductive approach as am going to evaluate the level of innovation in the culture of public health and safety department through identifying their areas of strengths and areas of improvements. Also, am going to provide the management with a list of recommendations that will help them to have an innovative culture.

**Literature Review**

Globalization made the world very small that companies from various regions are competing each other. The level of competitions between companies is very high and there is a great chance for many companies to disappear from the market if they do not innovate. Thus, innovation is what give companies the power and makes them alive. There are various definitions for innovation. According to Peter Drucker “ innovation is organized, systematic, rational work in which everyone who can face up to decision making can learn to be entrepreneurial and Andrew Hargadon and Robert argue that innovation is everything to do with organization and attitude and little to do with nurturing genius” (Leavy, 2005).

Innovation in companies means providing new services for the customers, and coming up with new ideas. It is the talented staff who brings these ideas. Companies are not born with talented staff, but companies have skills to attract these type of staff and also, have skills in retaining and developing these types of staffs. It is an art to learn how to motivate, and encourage staff to produce new products, concepts and services. Innovative companies empower staff to innovative, also open opportunities for them to get knowledge through attending conferences, trainings globally, and networking and benchmarking with other companies. In other words, innovative companies motivate their staffs to think out of the box. In addition, in the past it was the responsibility of the managers to produce new ideas, but todays, everybody participates in producing new products and services. Great managers are those who involve their staff in everything and gives them the trust, motivation to think out of the box. Furthermore, people within the company can also stimulated each other through cross-fertilization of ideas by the contributions from people from different locations with different perspectives (Kanter, 2015).

All companies who succeeded in creating an innovative company such as Apple, Nokia, and IBM, all share are at least four climate-setting factors that are fundamental to their success and creating an innovative culture (Leavy, 2005):

- Placing of people and ideas at the heart of the management philosophy.
- Giving people room to grow, to try things and learn from their mistakes.
- Building a strong sense of openness, trust and communicate across the organization.
- Facilitating the internal mobility of talent.
There are certain characteristics of the innovative staffs. The characteristics are they are self-driven, emotional and mentally relaxed, but get stimulated by new ideas, smart, love fun, but discipline at the same time, they love to think out of the box. The following guidelines help recruiters to be successful in employing innovative people:

- Select individual that has various skills, abilities, and interests.
- Select people with different background and personalities.
- Involve peers in meeting candidates and to give their opinion.

Theory and Hypotheses
This research is not going to invent a new theory, however, it is going to emphasize on ideas that have been mentioned in other researches. The hypothesis in this research is that the innovation level in the Public Health and Safety department is low.

Methodology
Description of Research Method
As I have explained above, this research is a qualitative exploratory following an inductive approach in identifying the strengths that exist in the culture of the department and also identifying the areas of improvements and finally coming up with a list of recommendations that will help the department to create an innovative culture. The primary data in this research has been collected by two ways quantitative methodology, through conducting an electronic survey and qualitative methodology through conducting interviews and focus groups. Two interviews have been conducted the first one was with the head of planning and development office Mrs Noura Mohamed, and the second interview was with Mr Marwan Mohammad the director of the Public Health and Safety department. Furthermore, two focus groups have been conducted, every focus group included 7 staff who were randomly selected from the four sections.

Research Design Flow Chart
In brief, this research is designed as follows:


**Research Assumptions and Clarifications**

This is the first research conducted in the public health and safety department to evaluate and enhance the culture of innovation. Therefore, there is no previous results that I can compare it with this study.

**Research Target/Subjects**

There were two major targets for this research paper as follows:

The first target was the top management, who were Mr Marwan Mohammad, the director of the department, then Mrs Noura Mohamed, head of the planning and development office in this department. Firstly, I have met Mrs Noura on the 12 of May, 2015. The purpose of the meeting was to explain to her my research topic and I explained to her in brief the structure of the research and what am looking for. The second purpose was to understand the performance of the department in term of the culture and how innovative is the culture, and what challenges the department is facing . The third purpose was to agree on the research questions, also we have agreed on the next meeting, which will be with Mr Marwan to introduce myself and my research paper outline to him in more detail. Mrs Noura got back to me after the meeting for a few days and gave me appointment with Mr Marwan to meet him on the 16 of May, 2015. Also, she has arranged to conduct two focus groups on the 17th of May. The second target was the staff of the departments. On the 17th of May, I have conducted two focus groups who were selected randomly from the four sections. Every focus group included 7 staffs. The purpose of the focus group was to understand the existing strengths in the culture and how innovative is the department from their point of view. Also, I wanted to know their recommendations in creating an innovative culture in the public health and safety department. In fact, the focus group helped me to design the survey through selecting the right questions and deciding on the type of the questions and the overall number of questions in the survey. Furthermore, the focus groups helped me to understand the culture more, the issues the staffs are suffering from. Also, to hear their suggestions in making their culture more innovative. In addition, I have informed the participants that am going to conduct a survey and it will be sent to them through an email on the 20th of May. I have emphasized on them to inform their colleagues about the survey and encourage them to participate in it.

**Data Collection Plan, Sample Size, and Survey Design**

The plan I have designed to collect the primary data was through following the three instruments, which are as follows:

The first instrument is following qualitative methodology through conducting interviews. The target was the top management so I was able to conduct two interviews with Mrs Noura and one interview with Mr Marwan. The first interview with Mrs Noura was helpful a lot as it let me decide that research questions. I have emphasized to Mrs Noura that I want my paper to truly benefit the department and increase the level of innovation. The interview with Mr Marwan, helped me to understand the vision and mission of the department and also what the management is looking forward from my research paper. Mr Marwan is really a great leader, honest and very transparent, he stated “ I know there are lots of issues this department...
is having, and that it will take time to fix the issues, am very positive that the next two years this department will not stay as it is” (Mohammad, 2015).

The second instrument was to conduct focus groups. Due to shortage of time I have conducted only two focus groups which were done on the 17th of May. Every group included 7 staffs who were randomly selected from the four sections. The focus groups helped me to understand the culture more, lots of issues were raised with regards to innovation. I felt the staffs were really hungry to innovate, I found their ideas, suggestions very beneficial to my study. Furthermore, the staff were happy about the new management, and they have a great trust that lots of positive changes will happen in this department.

The third instrument was following a quantitative methodology through conducting an electronic survey. I have found a ready survey, but amended few things in the survey to be adjusted with my research paper. The survey has been designed through the survey monkey website. The survey includes 10 questions, every question evaluates a certain part in the innovation. The survey needs 15 minutes to be filled. The survey has been sent to all the staff through a link which I have sent it to Mrs Noura and she forwarded to all the staffs in the public health and safety department. The total number of staff in the public health and safety department is 54.

Data collection
The initial source of information was Mrs Noura. After our first meeting on the 12 of May, Mrs Noura sent me some documents that helped me to understand the function of the department. The documents were the vision and mission and the strategic objectives of the public health and safety department. Also, Mrs Noura advised me to check the Dubai municipality website which is www.dm.gov.ae I have found lots of useful information about the department that am going to conduct my paper.

The second source was Mr Marwan, who was very supportive to my paper. He told in brief the strengths that exist and areas that need to be improved in order to create an innovative culture. The interview with Mr Marwan helped me to put the right questions for the focus groups. He gave me the green light to ask whatever I want in the focus groups, the most important thing to him was the findings of this research paper. Mr Marwan said that they will translate my research paper and distribute on the head sections and then they will put into action plans for every recommendation. I have promised him that I will provide them with all my support and knowledge as well.

The third source was the focus groups who I asked them three questions, what are the strengths existing in this department, what needs to be improved in order to have an innovative culture and what are their suggestions. Before asking the participants the questions I have explained to them the topic of my paper, and then briefed them about the importance of having an innovate culture.

The fourth source was the survey, which has been created through the survey monkey website and this is the link https://www.surveymonkey.com/r/BR38636. The link has been sent to Mrs Noura and then she forwarded to the staff. Mrs Noura stated in the email that filling this survey is mandatory as it will help to make our culture of innovative.
Results of Pilot Study
When I have finished from designing the survey, I have sent it to Mrs Noura to give me her feedback. Mrs Noura, said she does not have any comment and that it looks very good, I have asked her to send the survey to 3 staff to check if the survey is ok, she sent it and I have received the responses. On the 20th of May, the survey has been sent to the staff by email. On the same day I have received 24 responses. They have been given a deadline of 3 days to fill the survey.

Data Validation
Data validation was not an issue as the survey has been designed through the survey monkey website. The survey included 10 questions. Very questions tested an areas related to innovation. The areas of assessment were:

- Q1 Innovation Knowledge Base
- Q2 Innovation Awareness
- Q3 Orientation Toward Opportunity
- Q4 Budget Assigned for Innovation
- Q5 Q6 Implementation Process for Major Innovation
- Q7 Process for Sourcing Innovation
- Q8 Aligned Strategy and Planning Process
- Q9 Innovation Leadership
- Q10 Openness and Trust

Furthermore, the type of all the questions was scale. The answers were strongly disagree, somewhat disagree, not sure, somewhat agree, strongly agree.

Summary of Collected Data
With regards to the survey, a total of 25 out of 54 have filled the survey. Below is summary of the collected data.

<table>
<thead>
<tr>
<th>Q1 On a consistent basis, more than 25% of our revenues come from major new products (services) that have been developed within the last five years (do not include incremental product improvements or products extensions.</th>
<th>Response Percent</th>
<th>Response Count</th>
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<td>0.0%</td>
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<td>23</td>
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<tr>
<td>skipped question</td>
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</tbody>
</table>

Figure 3: response results to question 1
**Q2** We view innovation as more than technology or new products (e.g., process innovation, business models, innovative strategies, etc.).

<table>
<thead>
<tr>
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<th>Response Percent</th>
<th>Response Count</th>
</tr>
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<tbody>
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<td>Comments</td>
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**Figure 4: response results to question 2**

**Q3** We have the processes and the skills to manage major innovation initiatives, including the ability to manage the higher levels of risk and organizational resistance associated with it.

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**Figure 5: response results to question 3**

**Q4** We have a dedicated budget for pursuing major innovation opportunities.

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**Figure 6: response results to question 4**
Q5 We have an effective system for generating, collecting and resourcing new ideas from within the organization.

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answered question   24
skipped question    1

Figure 7: response results to question 5

Q6 We have an effective system for searching for potential sources of innovation that are external to our organization.

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answered question   24
skipped question    1

Figure 8: response results to question 6

Q7 We have an effective system for completely understanding that needs of our customers, which drives innovation within our organization.

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answered question   24
skipped question    1

Figure 9: response results to question 7
Q8 We have the ability to intentionally develop major innovation in strategically targeted areas within our organization.

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<tr>
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Figure 10: response results to question 8

Q9 Our management team is continuously focused on ways to increase innovation and is skilled at using intelligent risk for exploring new opportunities.

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<tr>
<td>Not Sure</td>
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<td>Somewhat Agree</td>
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<tr>
<td>Strongly Agree</td>
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Figure 11: response results to question 9

Q10 Members of our organization are encouraged and empowered to develop and advance innovation without fear or punishment for failure.

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<tr>
<th>Answer Options</th>
<th>Response Percent</th>
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Figure 12: response results to question 10
Findings

Graphical Representation

Q1 On a consistent basis, more than 25% of our revenues come from major new products (services) that have been developed within the last five years (do not include incremental product improvements or products extensions).

Basic Statistics

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Q2 We view innovation as more than technology or new products (e.g., process innovation, business models, innovative strategies, etc.).

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</table>
Q3 We have the processes and the skills to manage major innovation initiatives, including the ability to manage the higher levels of risk and organizational resistance associated with it.

Answered: 23   Skipped: 2

![Pie chart showing responses to Q3]

Basic Statistics

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Q4 We have a dedicated budget for pursuing major innovation opportunities.

Answered: 24   Skipped: 1

![Pie chart showing responses to Q4]
Basic Statistics

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**Q5** We have an effective system for generating, collecting and resourcing new ideas from within the organization.

Answered: 24  Skipped: 1

- Somewhat Disagree 41.67% (10)
- Not Sure 4.17% (1)
- Strongly Agree 58.33% (12)

Basic Statistics

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</table>

**Q6** We have an effective system for searching for potential sources of innovation that are external to our organization.

Answered: 24  Skipped: 1

- Somewhat Disagree 12.50% (3)
- Not Sure 50.00% (12)
- Somewhat Agree 25.00% (6)
- Strongly Agree 12.50% (3)
### Basic Statistics

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</table>

Q7 We have an effective system for completely understanding that needs of our customers, which drives innovation within our organization.

Answered: 26 Skipped: 1

- Strongly Agree: 40.00% (11)
- Somewhat Agree: 30.00% (12)
- Not Sure: 4.57% (4)

### Basic Statistics

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Q8 We have the ability to intentionally develop major innovation in strategically targeted areas within our organization.

Answered: 26 Skipped: 1

- Strongly Agree: 62.50% (16)
- Somewhat Agree: 20.87% (5)
- Not Sure: 5.36% (5)
- Somewhat Disagree: 11.54% (3)
- Strongly Disagree: 4.17% (1)
Basic Statistics

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Q1 Our management team is continuously focused on ways to increase innovation and is skilled at using intelligent risk for exploring new opportunities.

- Strongly Agree: 45.0% (18)
- Somewhat Agree: 22.0% (9)
- Somewhat Disagree: 8.3% (2)
- Not Sure: 8.3% (2)

Answered: 34, Skipped: 1

Basic Statistics

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Q10 Members of our organization are encouraged and empowered to develop and advance innovation without fear or punishment for failure.

- Somewhat Agree: 24.7% (10)
- Strongly Agree: 52.1% (22)
- Somewhat Disagree: 8.3% (2)
- Not Sure: 8.3% (2)

Answered: 35, Skipped: 2

Basic Statistics

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Conclusions and Recommendations

Results Summary

There are four levels of innovation in the organization. The first level is that the organization is a truly innovative organization. The second level is that the organization is on its way to becoming an innovative organization. The third level is that the organization is minimal or incremental innovation likely centered on new products. The last level is that the organization is in significant need of innovation development.

After collecting the qualitative data through the two interviews and the two focus groups and collecting the quantitative data through the survey, the researcher come up with a level of innovation to the public health and safety department that the department is on it is way to becoming an innovative organization.

Furthermore, the researcher has come up with the following points that are considered as strengths of the department with regards to culture innovation:

1. The staff in the department have awareness about the basic knowledge of innovation.
2. The department has processes and the skills to manage major innovation initiatives, including the abilities to manage the higher levels of risk and organizational resistance associated with it.
3. The department has an effective system for generating, collecting and resourcing new ideas from within the organization.
4. The department has an effective system for searching for potential sources of innovation that are external to their organization.
5. The department has an effective system for completely understand the needs of their customers, which drives innovation within their organization.
6. The staffs have the ability to intentionally develop major innovation in strategically targeted areas within their organization.
7. The management team is continually focused on ways to increase innovation and is skilled at using intelligent risk for exploring new opportunities.
8. Staffs in this department are encouraged and empowered to develop and advance innovation without fear or punishment for failure.

Following are the areas of improvements:

1. There is a lack of basic knowledge in innovation.
2. There is a lack of budge dedicated for innovation.

Recommendations

The followings are the recommendations to encourage the culture to become more innovative:

1. The Management should ensure that staffs are being informed about the innovation initiatives and that they are being involved in certain decision making.
2. The management should take the staffs recommendations into consideration.
3. The Management should open more communication channels with the staffs, through weekly meetings, or a gathering outside the work once a month.
4. The management should assign an enough budget that should be spent on innovation initiatives.

Appendices

Appendix- A: Interview Template with the Head of Planning and Development Office.

First Interview: on the 12 of May, I did an Interview with Mrs Noura Mohamed who is head of Planning and Development office in the Public Health and Safety department. Following is the template I have used for the interview:

Interview Template

<table>
<thead>
<tr>
<th>Date:</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewee:</td>
<td>Job Title:</td>
</tr>
</tbody>
</table>

I have started the meeting by introducing myself.

Following are the questions, which I have asked the Interviewee:

1. Explain to me in brief the overall role of Dubai Municipality

2. What is the vision, mission, and values of DM?

3. What is the role of the health and safety department?

1. Describe the culture of the department in term the good things that exist in this culture and the things that need improvements

2. How innovation is implemented in this department and what are the challenges the department is facing?

7. What findings the management would like to gain from my research paper?
Appendix- B: Interview Template with the Director of the Department.

On 16 May I did an interview with the management Mr. Marwan Mohamed, Director of health and safety department,

Interview Template

<table>
<thead>
<tr>
<th>Date:</th>
<th>Time:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviewee:</td>
<td>Job Title:</td>
</tr>
</tbody>
</table>

Agenda of our Meeting

- Introduce myself
- The purpose of my meeting
- Confidentiality
- Introduce my research paper

The structure of my research paper
- Topic: creating a culture of innovation
- To briefly give background about the topic
- The benefits of my paper
- Research questions:

- What are the existing strengths in the culture of public health and safety department?
- What are the areas that need to be improved in order to create an innovative culture in the public health and safety department?
- What is recommended to be done in order to achieve an innovative culture in the public health and safety department?

- My Research scope
  - The four sections of the public health and safety department
- My Research Methodology
  - Interviews (Management)
  - Focus Group
  - Survey (to be conducted on the 20th of May)
- My research outcome
  - A professional paper that will describe the level of innovation and also will suggest recommendations that can improve the culture to make it more innovative.
0. The purpose of the interviews and the focus groups is to collect data that will help me to design the survey.

- Ask if there are documents that will provide me with data regarding the variables.
- Ask if there are other areas the management are interested to know regarding the work environment.

**Appendix- C: Template of the Focus Group**

On the 17th of May, I have done two focus groups, every focus group included 7 staff who were randomly selected from the four sections.

<table>
<thead>
<tr>
<th>Focus Group Template</th>
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</thead>
<tbody>
<tr>
<td>Date:</td>
</tr>
<tr>
<td>Number of Interviewees:</td>
</tr>
</tbody>
</table>

Give a brief introduction about myself and my research paper.

Explain the purpose of this meeting.

Distribute papers on the participants and ask them to write individually in 15 minutes the positive things they have in their section about the culture of innovation, and then write the areas of improvements.

Discussion to be done in 40 minutes.

Inform the participants about the survey, which will be conducted on the 20th of May and encourage the rest of the employees to fill the survey.
Appendix- D: Template of the Survey

Creating a Culture of Innovation

Innovation Assessment: How Innovative is Your Department?

I am a student doing master in Change Management and Innovation. The result of this survey is going to be used for my research paper, which is about "Creating a Culture of Innovation". I am measuring the strength areas related to innovation and identifying the areas that need improvements. I am seeking your input in the following areas:

- Innovation Knowledge Base
- Innovation Awareness
- Orientation Toward Opportunity
- Budget Assigned for Innovation
- Implementation Process for Major Innovation
- Process for Sourcing Innovation
- Aligned Strategy and Planning Process
- Innovation Leadership
- Openness and Trust

Kindly, note that this survey consists of ten questions and it takes 10 minutes.

Thank you for participating in this survey.

CONFIDENTIALITY
There are no right and wrong answers. Your answers will remain anonymous.

Creating a Culture of Innovation

Innovation Knowledge Base

1. On a consistent basis, more than 25% of our revenues come from major new products (services) that have been developed within the last five years (do not include incremental product improvements or product extensions):
   - Strongly Disagree
   - Somewhat Disagree
   - Not Sure
   - Somewhat Agree
   - Strongly Agree

Comments

Creating a Culture of Innovation

Innovation Awareness
2. We view innovation as more than technology or new products (e.g., process innovation, business models, innovative strategies, etc.).
   - Strongly Disagree
   - Somewhat Disagree
   - Not Sure
   - Somewhat Agree
   - Strongly Agree

   Comments

Creating a Culture of Innovation

Orientation Toward Opportunity and Risks

3. We have the processes and the skills to manage major innovation initiatives, including the ability to manage the higher levels of risk and organizational resistance associated with it.
   - Strongly Disagree
   - Somewhat Disagree
   - Not Sure
   - Somewhat Agree
   - Strongly Agree

   Comments

Creating a Culture of Innovation

Budget Assigned for innovation
7. We have an effective system for completely understanding that needs of our customers, which drives innovation within our organization.

☐ Strongly Disagree
☐ Somewhat Disagree
☐ Not Sure
☐ Somewhat Agree
☐ Strongly Agree

Comments:

Creating a Culture of Innovation

Aligned Strategy and Planning Processes

8. We have the ability to intentionally develop major innovation in strategically targeted areas within our organization.

☐ Strongly Disagree
☐ Somewhat Disagree
☐ Not Sure
☐ Somewhat Agree
☐ Strongly Agree

Comments:

Creating a Culture of Innovation

Innovation Leadership

9. Our management team is continuously focused on ways to increase innovation and is skilled at using intelligent risk for exploring new opportunities.

☐ Strongly Disagree
☐ Somewhat Disagree
☐ Not Sure
☐ Somewhat Agree
☐ Strongly Agree

Comments:
### References


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<table>
<thead>
<tr>
<th>Openness and Trust</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>10.</strong> Members of our organization are encouraged and empowered to develop and advance innovation without fear of punishment for failure.</td>
<td></td>
</tr>
<tr>
<td>□ Strongly Disagree</td>
<td></td>
</tr>
<tr>
<td>□ Somewhat Disagree</td>
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<td>Comments</td>
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Effect of Business Intelligence and Analytics on OPEX
Du Case Study

Hussain AlRaeesi
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Yaqoub Alzarooni
Emirates Integrated Telecommunications Company, UAE

Alaa Yahya
Hamdan Bin Mohammed Smart University, UAE

Abstract
The purpose of this paper is highlight the OPEX cost contraints in Emirates Intergrated Telecommunications Company “du” and how it was enhanced by decision support system. First of all, the process started by identifying the Operating Expenditure cost “OPEX” problem in du thru dashboards & reports and structuring it. Many choices were proposed to reduce the OPEX and increase the margin of revenue which was narrowed down to two options. Then, implementing the selected solutions and obtain the results for further monitoring, modifications and recommendations. The outcome of using IT system as a tool to collect the required data, preparing a structure data and generating the transparent dashboards in order to have a bird view of the situation by executive management in du to redesign the processes and optimize the operations.

Key Words: OPEX ,BI systems,human capital,KPI`s and SLA`s

Introduction
The Emirates Integrated Telecommunications Company (EITC) is a telecom operator in the United Arab Emirates and it is commercially branded as du. The company launched mobile telecommunication services in February 2007 across the UAE and it reported its 2008 full year results in February, revealing it had added 1.88 million mobile customers over the last 12 months.

The company had 4.5 million subscribers as of the end of March 2011 and by the end of the first quarter this year, the total number of active mobile subscribers was 7.36 million. “Du” offers mobile and fixed telephony, broadband connectivity and IPTV services to individuals, homes and businesses. They also provide carrier services for businesses and satellite up/downlink services for TV broadcasters. As a rapidly-growing enterprise, du have a team of experts working to enhance and expand our bouquet of service offerings. “Du” has made a very strong entry into the UAE cellular market as a new entrant considering that UAE cellular penetration was already 114% before du commenced operations.
“Du” has been investing heavily in building the infrastructure of the company, particularly in world class networks and IT systems in order to achieve the exceptional quality of services that it plans to deliver for the benefit of all consumers in the UAE. Accordingly, the operating cost has been exponentially increasing where it reached AED 4,130,224 end of last year and this is to maintain running the business and handle the aggressive competition in the market.

As any organizations the main focus is efficiency and cost effectiveness in order to achieve its strategic goals and objectives. When revenue growth flattens or even declines, profit maintenance and increase must come from cost efficiencies, as the company reach business maturity level and fulfilled all system of its enterprise architecture, total human capital cost and workforce cost it's became the major OPEX cost in du. Hence they have conducted many studies to optimize this cost and streamline cost effective method for OPEX reduction.

Although with all these efforts spent on the strategy of cost reduction but OPEX was not reaching the expected levels.

With the support of the IT systems mainly the Oracle ERP solution (HR & Financial modules), all necessary records were presented in local dashboards in the solution itself identifying the OPEX high cost among others. The highest cost was appearing to be the human resources including their salaries, benefits, developments … etc. The total human capital costs in du, also known as total cost of workforce, average nearly 70% of operating expenses. There are a number of reasons why effectively controlling or managing the total cost of workforce is difficult. When growing, a typical organization’s primary workforce cost management tools usually consist of the rather archaic annual budget and new hire signature approval requisition processes. Additionally, neither the budget nor the new hire requisition processes adequately manage or control contingent labor costs such as temporary or contractor costs. In fact, executives in du used the budget process to justify the cost of temporary hires to cover for open or delayed hiring of positions and also use all the elements of the “justification process” for acquiring contract resources.

An independent resource were also utilized to support the argument of drivers for outsourcing as per the below graph:

![Key Outsourcing Drivers](image_url)

**Fig. 1. Huawei Workforce Management System**
Our objective in this case study is to define the problem of human capital cost and review the suggested mechanism to solve the high OPEX from human capital. With the help of various IT systems such as Oracle business suites, we have approached documenting the organization’s existing operational, financial and contractual footprint to setup a baseline. An accurate baseline helps organizations understand the true cost of delivery of the operations and compare them to any new sourcing models and strategic objectives. The baseline was detailed enough to enable the management to understand the current organization’s footprint and inherent risks around people, process and technology. The information and analysis for the baseline development can be grouped into five main areas: people, technology, locations and facilities, process, and current performance.

Below are the areas for consideration for adapting managed services or optimizing human capital cost through outsourcing.

a) **SLAs** – What Service Level Agreements are available? Consider the options related to services and projects being outsourced. Critical systems require high levels of availability.

b) **Vertical Sector** – In some areas, service agreements are important that sectorial expertise is available. This includes ERP solutions etc.

c) **Provided expertise** – What is the background and history of the provider in delivering the requirement and ensuring that it will contribute to the organization’s success and growth instead of stagnating or worst, degrading the performance. The provider’s credentials must be checked.

d) **Technical expertise** – What is the technical expertise of the partner, its resources and staff and what level of expertise?

e) **Flexibility** – The partner must be able to adapt to changing requirements of the organization, Du, within expected or normal change management.

Du recognizes that human capital is very important in the organization and is the driving force for the continuous growth of the business. The company has identified the key areas of focus for operations optimization and revenue improvement.

- Emiratization
- Training and Development
- Safety and wellbeing
- Supply chain
- Employee engagement
- Diversity
- Business Integrity
- Recruitment and Retention

Important questions are listed below:

- **What the OPEX cost at du?**

OPEX is the operational expenditure refers to expenses incurred in the course of any business, such as facility expenses, administration utility, supplies, data center operate and maintenance, networks and infrastructure and human capital cost.

In Du the projects human capital part take the major amount of expeditor of overall OPEX.
As we noticed the human capital cost to run and operate Du project it’s one of the major OPEX cost du they had. As per the stockholder and senior management they want approach to reduce these figures dramatically.

- **What the modules and approach to define the Human capital OPEX.**

As per Gory and scott-Moreten our problem is semi structured in operational level and its need production scheduling and inventory control. Since the main concern is to reduce the high OPEX cost the optimization module it will be suitable to be the base of proposing solutions.

**Solutions available to reduce the OPEX cost.**

After analyzing the OPEX sources of du the major OPEX cost is from human capital used to operate, maintain and execute the projects.

Du came up with two solutions to reduce the OPEX.

a. Complete outsource of human capital in all layers including the management of those manpower, projects this will reduce the cost by 95% as per the market analysis and trend

b. Partial outsourcing of human capital by using BI system and outsource the man worker level only, this solution will be less saving with more control of du in their projects and operation.

**Solution choice and overview of selected solution.**

Since the stress and the concern to reduce the OPEX dramatically, Partial outsourcing of human capital by using BI system and outsource the man worker level only, this solution will be less saving with more control of du in their projects and operation. the resoun of this selection du study the previous approach and they found out Complete outsource of human capital in all layers including the management of those manpower caused many problems and increased the OPEX from different aspect the main issue found is:

- A lack of understanding of post-contract process can get delay and some times stop the hall operation cause the clients and services provider not ready and prepared to work together.
- Poor mutual understanding of the contract.
- Services provider cant meet the required services demand
- End user resistance to accept the change and new method.

Due the above mentioned faced issues, the complete outsourcing solution didn’t achieve the expectations and the set strategy. Hence, further enhancement actions were taken such as minimize the scope of the outsourcing, modifying the hierarchy of the outsourced unit and deploy an advanced business intelligence IT solution to manage the workforce scheduling, inventory and project management. The methodology was enhanced in order to ensure a tighten rollout of the transition period and other phases. There are two broad options to approaching implementing the network operations outsourcing:

1. Consult, Fix and Outsource OR
2. Consultant, Outsource and Fix

Apart from the sequence in which we approach these options, choosing an option depends on several factors which we will examine below. But first let’s define the key phases
involved: Consult: the consult phase is a constant across both options and an important precursor to the outsourcing journey. During this phase we create a detail inventory of your “as-is” network operations ecosystem – including people, process, systems and special projects. This helps develop the blueprint of “To-Be” ecosystem consisting of integrated retained and outsourced processes, people, and governance for outsourcing service delivery and a business case which could be reviewed for the returns being generated through the network operations outsourcing program implementation.

Fix: this essentially akin to a mini-transformation phase where process optimization is accomplished, productivity adjustments are made, tools for enhancing effectiveness and efficiency are brought in as may be identified and blue-printed in the consult phase. Shift/Outsource: during this phase, the outsourcer assumes responsibility for perform outsourcing activities and is governed by service SLAs to work towards identified KPIs.

One of the major issues is that “du” lost the control over the deployed outsourced resource and the organization internal processes were not fully aligned with the set activities handled by the outsourced firm. Hence, the layer of supervision was assigned to “du” with retained the talent resources. The major enhancement was implementing an advanced IT system for resources management business analytics. The Workforce Management (WFM) solution is provided by M/s Huawei with further customization to suite the operational environment of “du”. Workforce Management (WFM) helps manage different processes in an organization and aims to improve its productivity and efficiency. With WFM, different tools and systems are used to achieve this goal. There are different areas in WFM: Human Resources, Information Technology (IT), Operations and Finance and in this report we will look at how WFM is implemented in actual organization, focusing on its Operations.

One of the largest asset in a business organization is its workforce, the workers. This asset is highly controllable. WFM is the sourcing of the labor force, the establishment of clear hierarchy and responsibilities, process development and improving workforce competency and people management. Some of its tools can be used in certain areas of the organization but the idea is for it to work for the different areas of the organization (Human Resources, Information Technology (IT), Operations and Finance) as one.

There are a number of tools for WFM available in the market. Also, there are a lot of companies offering this service or solution to established organizations.

Looking at WFM from a strategic perspective, it ensures different groups of the organization are aligned with one another to achieve a common goal. For operations, it assists in daily tasks, activities and problem solving while helping in the proper delegation of work. WFM also allows the management to focus on managing their team instead of working on their schedules, timesheet and other laborious tasks which can be automated and permits real-time data and analysis.

Workforce Management can solve a number of issues in a business organization other than improving the worker’s productivity and efficiency, it limits excessive and unnecessary labor costs, aligns and ensure synergy within the organization and with its real time data, and
Data analysis including reporting is easier which leads to a better risk management and planning.

**Listed below are different areas**

**ERP (Enterprise Resource Planning)** – this covers the entire life cycle of a product of service and ensures everyone in the organization has real time access to the date along with external teams such as business partners or vendors.

**HRIS (human resources information system) or HRMS (human resources management system)** – manages employee or labor information needed by both HR and Finance teams.

**Timekeeping** – handles the employee data on time records and links it with payroll.

**Workforce scheduling system** – a tool used for ensuring proper delegation of work. Looking at WFM from a strategic perspective, it ensures different groups of the organization are aligned with one another to achieve a common goal (see fig. 1). For operations, it assists in daily tasks, activities and problem solving while helping in the proper delegation of work. WFM also allows the management to focus on managing their team instead of working on their schedules, timesheet and other laborious tasks which can be automated and permits real-time data and analysis.

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**Timekeeping** – handles the employee data on time records and links it with payroll.

**Workforce scheduling system** – a tool used for ensuring proper delegation of work. For DU requiring field work activities, this tool is used for the deployment of the worker.

**Huawei E-iNOC Solution** – Managed Services reference to the outsourcing of certain management responsibilities and tasks to improve an organization’s operations and minimizing costs. It has been used in different industries especially in telecommunications. Huawei, a Managed Services provider, developed E-iNOC solution, it aims to improve operational efficiency and provides measurable data for QoE, Quality of Experience. Under E-iNOC there are different modules: fault management, performance management, resource management, SLA management, report management, shift management, workforce management and service quality management.
In Du, the following were used

Huawei’s Work Force Management System (WFMS) - manages operational processes and assists in improving the organization productivity and efficiency through the management and analysis of troubleshooting, service analysis KPI and (see fig. 2).

Fig. 2. Huawei Workforce Management System

Huawei has developed a number of tools and applications for this, an example of which is the Workforce Management Application which allows Work Order (WO) creation, scheduling and update throughout the WO process flow (see Fig. 3).
Netcracker – is commonly used by telecommunications services providers. It allows tracking and data analysis of the project life cycle from site planning, to site acquisition and handover of projects to operations and also service planning and provisioning (see Fig. 4).

Figure 4. Netcracker Infrastructure Management Platform

- Maximo - Maximo Asset Management is used for asset management, work management, service management and inventory.
- Siebel Customer Relationship Management – this is Oracle’s CRM solution that focuses on improving customer experience.

Deploying WFM can be very big investment, ensuring proper planning and Return-of-investment ROI analysis must be done for WFM to be successful. The following must be considered:

- Staff
- Business goals
- Research available tools, services and solutions
- Cost, Returns and Savings analysis for different tools and solutions
- Determine the costs associated with the vendor solution.
• Determine the financial returns or savings associated with the vendor solution.
The major concern in WFM is whether the business will achieve its financial repayment that is equal or more than the investment.
One of the biggest issue with WFM is that if the chosen WFM solution is inappropriate or wrong for the organization, it can lead to higher costs. Management is always wary about this and is often more concerned on the return on investment (ROI) will be for that project. This is a critical part because this normally determines whether a WFM project gets approved or not. Unfortunately, most WFM solutions were from the outsourcer as well. If not, they are handled by the IT department which is in another streamline than Network Development and Operations.
These WFM solutions failed to identify the issues before hand.
Factors that can hinder business growth and improvement even after WFM:
• Resistance to change
• Policies are rules are not properly carried out and followed
• Data transparency
• Organization maturity
• Politics
WFM is often deployed to ensure organization growth and progress in its maturity. Which as we found out there was no set of strict rule and processes through the organization.

Limitation of the plan
Facing continued competition and mounting infrastructure costs as technology cycles shorten, telecom operators are under relentless pressure to manage the capital expenditures associated with network deployment and to reduce network operating costs. Telecom operators are increasingly addressing these challenges through adoption of outsourcing solutions. There can be significant cost savings when a business function is outsourced. Employee compensation costs, office space expenses and other costs associated with providing a work space or operational activities are eliminated and free up resources for other purposes. Lowering operational costs and payroll allows businesses to remain competitive in a volatile consumer market. This translates into lower prices for telecommunication products for consumers. Additionally, companies that choose to outsource operations are able to keep better customer service and technical support.

The network service pattern includes the following types of operations
• Field technical maintenance.
• Corrective and preventive maintenance.
• Supporting network operation and services.
• Supplies management, equipment returns and repairs.
• Network operations.
• Network monitoring and supervision.
• Failure and disaster management.
• Network support service.

However, in outsourcing, a company is relying on someone else to run certain business functions. If not properly managed, companies may negatively affect their operations and customers. The product or service can be outsourced, but the risk cannot.
Some of the potential negative outcomes can include:

- On-time delivery performance and end customer satisfaction
- Product or service quality may also suffer in outsourcing, affecting customer satisfaction.
- The outsourcing transition phase may also fail if schedules and budgets are not achieved because of insufficient planning and/or resources.
- Suppliers may not be financially viable, thereby exposing the company to supply interruption risk.

Outsourcing activity brings a significant set of risks. Most companies recognize this and respond by adopting a thorough risk analysis process. While risk analysis is a valuable tool, it must be accompanied by ongoing risk management to effectively mitigate outsourcing risks.

**Outsource Risk Analysis**
Risk analysis is typically a point-in-time assessment. It is normally performed before supplier selection but is also a useful tool to periodically reassess a supplier’s risk profile.

**Outsource Risk Management**
Risk management is an ongoing process that consists of three main elements:

1. Supplier and contract management: Supplier and contract management keeps track of the statistics or historical performance of the outsourcing relationship over time. These statistics are continually leveraged to improve the performance of the relationship for both the outsourcer and the outsource provider.
2. Service level agreement (SLA): it establishes what statistics will be kept and states the requirements of the parties. The SLA should be reviewed and updated periodically as determined by the contract terms.
3. Billing accuracy: The outsourcing party must continually review billing to ensure compliance with the contract terms.

**Contract Risk Management**
Companies generally benefit if they identify the outsourcing contracts that have the highest risk and importance to them. Once this is done, contracts can be segmented into categories such as high, medium, or low risk and can be managed accordingly.

Hence, eliminating risks and setting the right expectations starts from the procurement and contracting processes. Gartner’s surveys stated that almost 60 percent of the outsourcing agreement failed because the companies did not create and use an outsource contracting and negotiation plan. Creating such a plan is a best practice that organizations should follow to develop and negotiate sound, competitive, and enforceable deals.

Also, one of the most critical phases in outsourcing, the transition process is the point when the dialog and direct responsibility are moving from the deal-makers to the operators. Thus, it is a time when issues may surface for the first time. Building transition requirements and provisions into the outsourcing plans and agreement can greatly ease this transition process and put the appropriate focus and expectation into this portion of the arrangement.
Moreover, effective outsourcing communication as well as outsourcing change management plans should address specifically targeted audiences through the proper communication channels, with tailored messages, and timing.

Last but not least, range of effective and efficient performance and compliance monitors and controls must be in place. The outsourcing team should also have well-defined procedures, reporting matrices, and meeting schedules/calendars, and document in detail and consistently execute the roles and responsibilities for all parties.

Outcome and Result
Du has been outsourcing and restructuring the organization to increase its profit and optimize its operations. The result has been positive over the medium and long-term. Du has continued to improve its earnings by optimizing human capital cost, the most effective way of doing so is through outsourcing.

Commercial Benefits, Employee Engagement and Target Improvement
It is important to review the actions and optimization efforts to ensure that an organization is reaping benefits through outsourcing or not. It is expected that outsourcing create values for shareholders and the company.

We consider outsourcing to: 1. Lower expenditure and capital costs and 2. Improve the quality of the network and its operations by employing and engaging the expertise of an external supplier or partner that has superior capabilities and experience.
Du launched its commercial services in 2007. It challenged the state of monopoly and provided mobile, internet, fixed and pay TV.
Below are the details of the revenue and profit of the company:

2008 and 2009
Du became profitable in the third quarter of the year, its first profitable year. The company recorded a profit of 8 million AED, before royalty. Revenue was in the 1 billion AED mark in the third quarter and reached 3.95 billion AED by the end of the year. In the same year, the company invested 2 billion AED for 2009 to increase the capacity, coverage and quality of the telecommunication infrastructure.

2010
The net profit, before royalty, increased by 132% to 1.2 billion AED from 0.5 billion AED in 2009. The recorded revenue of the company in 2010 amounted to 7.1 billion AED. The company took over 40% of the mobile market in the UAE.

Cost optimization and efficiency improvement has started across the organization. The company recognized the importance of the human capital and developed initiative to improve and continue motivating the employees.

The Emaritization program provided strong results and increased the number of Emiratis in the company to 23% of total workforce where one in three are executive managers. The same year, the company launches Masar (meaning “Career Path” in Arabic) which is a graduate trainee programme. Employee engagement has improved significantly over the past two years.
2011
The net profit, before royalty, increased to 1.8 billion AED, a 48% increase. The recorded revenue was 8.9 billion AED, a 25% increase from the previous year. Du had 5.2 million mobile customers.
Emiratis represented 28% of the workforce. The company also opened a new customer care centre in Fujairah which is managed and staffed entirely of Emiratis.
Data revenue has increased, representing 10% of mobile revenues in the year.
The company worked on streamlining processes and operational financial controls.

2012
Competition both locally and globally intensified. The company’s net profit was 2.82 billion AED, before royalty.
The increase in revenue was 14.71% in 2011, 10.16 billion AED. Optimization of operational efficiencies was the key strategy in 2012;
minimizing the cost of service delivery, simplifying back office systems, reorganization of the operations.
Network and IT outsourcing was implemented along with establishment of Managed Services agreements to optimize human capital and further streamline operations.
In 2012 we increased our Emirati employees to 31% of the total workforce.

2013
As a result of continued operational efficiency the revenue for 2013 reached 10.80 billion AED. UAE Nationals were 34% of our workforce. Employees also actively participated in volunteering for community activities putting in a total of 1861 hours.

2014 – 2015 second quarter
Revenue growth was 13.3% higher than 2013 and recorded at 12.2 billion AED.
Increase in the level of Emiratisation in our workforce – currently at 35.4%.
In 2014, Du was the only telecommunications company recognized at the Gallup Great Workplace Awards. The award recognized the initiatives of the company such as employee wellness, training & career planning framework, innovative ideas and more
The company was able to maintain and break the monopoly in the country for the telecommunication industry. However, while the revenue remained increasing, the OPEX increased due to outsourcing which is an undesirable effect.

Lessons Learned
Outsourcing can be considered if it has more advantages than disadvantages. Outsourcing is the process of assigning a company's business processes to an external agency in lieu of enhancing service quality, driving innovation or deriving benefits of lower labor costs. The effects of outsourcing are subjective to the industry and the purpose for which the same was undertaken. While there could either be an increase or decrease in the turnaround time while outsourcing, it could also result in improved or decreed customer service. Outsourcing, primarily undertaken to provide companies the competitive edge, can also result in easier management and better productivity based on how effectively the process in managed.
Outsourcing is often undertaken to provide enterprises a competitive advantage by delegating business process to external agencies and realizing the benefits of low labor, better quality and improved innovation. To best analyze the opportunities presented it is essential to reflect upon the advantages vis-to-vis the disadvantages of outsourcing.

The pros of outsourcing often positively reflected by enterprises across industries include:

- Better revenue realization and enhanced returns on investment
- Lower labor cost and increased realization of economics of scale
- Tapping in to a knowledge base for better innovation
- Frees management time, enabling companies to focus on core competencies while not being concerned about outsourced routine activities
- Increases speed and the quality of delivery of outsourced activities
- Reduces cash outflow and optimizes resource utilization

Often weighed with the advantages before any decision on outsourcing is undertaken, the following represents some of the possible disadvantages often dwelled upon:

- Possible loss of control over a company's business processes
- Problems related to quality and turnaround time
- Sluggish response times coupled with slow issue resolutions
- Shortcomings in performance vis-to-vis expectations
- Lower than expected realization of benefits and results
- Issues pertaining to lingual accent variation
- An irate customer base coupled with enraged employee unions

So, to ensure long term financial success, companies must properly serve their customers, regardless whether or not this entails outsourcing work. They must balance on saving money and providing the customer with the quality products and services. The reasons for outsourcing HR functions included, primarily, improvement in quality, saving time and special competence in addition to the efforts to save money. In contrast, the most frequent reasons of not outsourcing HR functions are self-sufficient HR department of the organizations, conflict with internal practices, and unsatisfactory quality of service and cost of service.

The result shows managers are very satisfied by the change in service quality that is brought in by outsourcing some HR functions. They are also satisfied in terms of the impact of outsourcing on creating standardized practices and cost reduction. However, they are not satisfied with ability to manage good outsourcing vendor relationship and organizations effectiveness in terms of human resource management.

**Conclusion**

In conclusion, the availability of credible and committed partners is the key element in sustaining operations and performance. The success of each of the above operational models also greatly depends on tight SLAs, robust operational systems and processes supported with integrated monitoring and control of performance objectives.

**References**


Designing Large Scale 2-Bin Kanban In Hospitals For Quality Improvement

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Abstract
The research was based on a successfully concluded multi-million-dollar inventory management system using 2-Bin Kanban for medical consumables in a public sector global hospital chain. Using conventional methods, hospital system frequently ran out of critical care items while carrying excessive stock of non-essential items. Estimating usage patterns, replenishment frequencies and deployment of simple lean tools like signaling cards and visual controls produced dramatic improvements in a short time period. A comparison of before and after 2-Bin Kanban system showed that buying smaller quantities at marginally higher prices is better than buying more than consumption rate at lower process and then throwing away expired stocks. 2-Bin Kanban system also resulted in another dramatic improvement; hospital logisticians are no more required to conduct exhaustive inventory count before placing orders. Instead, only empty primary bins are collected and items are ordered equal to PAR levels of one bin while stock is being consumed from backup bin.

Key Words: Kanban inventory management system; PAR stock levels; Replenishment frequencies; Fixed Quantity Ordering (FQO) and Fixed Interval Ordering (FIO) systems

Introduction
2-Bin Kanban inventory management system has been a simple inventory management system originating from Japanese manufacturing industry and getting popular globally post WWII era. The basic appeal of 2-Bin Kanban system lied in its simplicity and flexibility [1]. 2-Bin Kanban system of inventory management are simple because stock management is controlled by visual control instead of exhaustive AS-IS inventory count which can be time consuming and inaccurate. Also, traditional inventory count at best is only a snapshot of items at hand which needs to be monitored closely. 2-Bin Kanban system also provides flexibility of ordering as a combination of Fixed Quantity Ordering (FQO) and Fixed Interval Ordering (FIO) [2]. The research was based on a successfully concluded project for the implementation of 2-Bin Kanban inventory management system in a major US public sector hospital system. Implementation of 2-Bin Kanban inventory management system eliminated the need for hospital supply personnel to make intuitive.
Hospitals in the system frequently faced stock out situations for Critical-to-Care medical supplies while carrying disproportionately high stock levels of non-essential items. In the initial Diagnostic Phase, it was discovered that the hospitals purchased 30% of all items on premium prices and another 25% of items expired before being used for treating patients. Purchases were made based on contractual obligations with prime and preferred vendors, long term agreements and bulk discounts for suppliers’ surplus stocks. There had been negligible aggregate planning in procurement of medical consumables at medical facility level; departments and clinics purchased their supplies based on their individual demands resulting in less than economic order quantities with excessive procurement and stocking costs [3]. It was also observed that there was no correlation between demand and consumption to procurement and stock levels in hospital warehouses. Purchases were made considering transactional advantages including bulk quantity discounts, minimum number of purchases, bundled product families etc. These purchase practices led to over stocked warehouses with unwanted products while facing chronic shortages of critical-to-care items. The project started by collecting pertinent data about hospital operations for past five years. It included the number departments and clinics operated by the hospitals; number of patients treated by each department; major presenting conditions using ICD10 coding. The data was used to establish real demand patterns for medical consumables also taking into account seasonal and demographic variations. Real demand and consumption rates were established followed by determining appropriate PAR levels; frequencies of replenishment and ordering. Order quantities were set to match optimal pricing and logistic costs. A corresponding model was created for expensive, low use specialty items like orthopedic and cardiac implants. Finally, aggregate 2-Bin Kanban inventory management model was validated through several simulations [4].

Performance Targets and Model Design
2-Bin Kanban inventory management system was designed by assuming that all the benefits of a fully functional Kanban system would be realized. Target benefits included in the project were:

Effective Utilization of Storage Space
2-Bin Kanban inventory management system improved storage capacity allowing more stock volume per square foot; improved storage density of supplies by using specialized bins and racks; helped in better organization resulting in reduction of lost or misplaced items and system implementation guaranteed excess and obsolete inventory to be eliminated and not obstructive to day-to-day patient treatment [5].

Reduction in Non Value Added Work
2-Bin Kanban inventory management system would reduce the number of replenishment trips. Since 2-Bin Kanban inventory management system need not be replenished on daily basis instead stock would only be replenished when one of the two bins, the primary bin got empty, the number of replenishment trips were reduced significantly. The need for physical counting was eliminated because replenishment quantities were fixed. Not having to count saved several thousands of hours per year in most hospitals.
Increased Supply Replenishment Efficiency

In a fully functional 2-Bin Kanban inventory management system, supply chain management personnel had improved accessibility to stored products which saved time for recording inventory and restocking medical consumables. Instead of counting, personnel could focus on exception management, such as tweaking or fine tuning the system to better fit needs of the patients. After implementation, item proliferation was reduced; 2-Bin Kanban inventory management system reduced inventory complexities, added storage capacity, and lessened the time to manage all of the products. By tracking the time between replenishments, the stocking quantities, it became easier to refine optimal PAR levels were easily refined over time based on actual consumption levels. Post implementation data analysis showed that with the same target coverage of supplies, 2-Bin Kanban inventory management system functioned with up to 50% less inventory [6].

Increased Supply Replenishment Efficiency

2-Bin Kanban inventory management system eliminated the possibility of shortages or out of stock items. Personnel only had to identify the empty bins to restock, reducing the opportunities for shortages. The system enhanced reporting and monitoring capability in order to optimize the process even further, allowing the recognition of patterns in consumption and deficiencies in inventory. Finally, there was a reduced need to rely on experienced personnel who were familiar with all the unique supply circumstances to maintain efficient and effective storage locations. This is especially important for a rotating and temporary staff.

PAR Levels Computation Model

The PAR levels for Kanban items were computed as shown in Equation – 1:

\[ P = \{D \times (T_O + T_D)\} \times (1+SF) \text{ rounded up to the next integer} \quad [1] \]

Where

- \( P \) = PAR Level;
- \( D \) = Estimated average daily consumption rate;
- \( T_O \) = Maximum lead time to order in days; every “X” number of days a room was to be visited to count empty bins
- \( T_D \) = Maximum time to deliver in days for product to be delivered to storage after it was ordered; and,
- \( SF \) = Safety Factor; a 25% coefficient introduced to guard against out-of-stock situation

Parameter assumptions and PAR level values were reviewed and approved by supply chain management department. Three PAR-level values were used to inform final setting of PAR values as follows:

- Database generated PAR levels,
- PAR computed from database purchasing data, proxy for demand, and.
• PAR computed from medical personnel expert opinion of demand, particularly important when items were not purchased on regular basis

**Average Inventory Level Computational Formula**

Average, or expected, Kanban inventory (AI) levels depended upon:

- PAR levels (P) – Measured in units;
- Daily consumption (D) – Measured in units per day; and
- Average replenishment lags (TD) – Measured in days.

The relationship between average Kanban inventory levels and the above factors were as given in Equation – 2:

\[
AI = \frac{1}{2} [3P] - TD \times D
\]  

[2]

The Figure – 1 below presents the relationship between average inventory levels and the various components graphically.

Figure – 1: Conceptual Model (TD=0) of average inventory levels

In the presented above, a “perfect world” scenario is presented which was practically non-existent where the formula was reduced to:

\[
AI = \frac{1}{2} [P + 2P] = (3/2) \times P
\]  

[3]
The midpoint between P (one full bin) and 2P (two full bins). Interestingly, neither daily consumption rates nor length of time needed to be factored into the formula but the perfect world does not exist, and if it did, there would be no need for Kanban.

Kanban Project Approach
2-Bin Kanban inventory management system was conceptualized, designed and executed in four phases as shown in Figure – 2 below:

Phase – 1: Project Inputs
In this phase input information including logistic database reports; purchase history of past two years; hospital information including departments and clinics; storage locations and number of items to be stocked in Kanban shelves were collected and processed.

Phase – 2: Installation Support Analytics
In installation support analytics items’ data including supply ID, item description, classification, Unit of Measure (UoM) and quantity in UoM were collected. After items data collection, decisions were made about the items if they could be more efficiently in Kanban system or not; the items which could be stored in Kanban were categorized according to a logical usage pattern; AS-IS inventory was taken at all significant storage locations and computed PAR levels for the Kanban shelves were validated with clinician as Subject Matter Experts (SME). After validation of Kanban data, master workbooks were created for installation of shelving hardware.

Phase – 3: Kanban Shelving System Installation
All Kanban shelving were assembled and installed in Phase – 3. Kanban shelving installation locations were selected considering several factors including compliance to regulatory requirements; flexibility to accommodate future changes in demographics; ease of access; environmental control and ease of maintenance [7].
Figure – 2: Four phases of 2-Bin Kanban inventory management system implementation

**Phase – 4: Post Installation Analytics**

As in any lean transformation project, post installation analytics were critical to project success. During post installation phase, On-The-Job (OJT) was provided to help clinicians successfully transition from traditional inventory system to 2-Bin Kanban inventory management system; reference catalogues were created; financial impact, Return-On-Investment (ROI) of project was computed; different sources of waste and potential sources of savings were identified. Literature review about similar projects indicated that in more than 80% of the cases, the benefits of Kanban were gradually lost due to weak sustainment plans \(^8\). It is important to note that Kanban system is not a one-time activity and requires a reliable mechanism to keep it functional and effective. It requires constant monitoring and seeking ways of improving it. Finally, Phase – 4 was concluded with recommendations about future directions for further improvement and how to build on the capabilities of newly installed Kanban system. It was also observed that the effective sustainment was related to the level of comfort clinicians had with using 2-Bin Kanban inventory management system.

**Conclusion and Discussion**

The financial impact and scope of savings by implementation of 2-Bin Kanban inventory management system was computed using the items classification as shown in Figure – 3 below.

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**Financial Impact**

Results showed that the system never resulted in stock out situations in spite of a 55% reduction in inventory levels in dollar amount value; it freed up about 42% of warehouse space eliminating many offsite rented locations; reduced time spent in placing orders by 70% due to
the fact that comprehensive inventory taking was no more required. Items with 1st empty bins were ordered. Freed up clinicians’ time was used for treating patients which in turn led to higher medical productivity. Another direct benefit of implementing 2-Bin Kanban system was complete elimination of expired stock. Since items are not purchased in bulk quantities anymore, every item is used before expiry. A comparison of before and after 2-Bin Kanban system showed that buying smaller quantities at marginally higher prices is better than buying more than consumption rate at lower process and then throwing away expired stocks. 2-Bin Kanban system also resulted in another dramatic improvement; hospital logisticians are no more required to conduct exhaustive inventory count before placing orders. Instead, only empty primary bins are collected and items are ordered equal to PAR levels of one bin while stock is being consumed from backup bin. Savings by department in dollar amount as well as a percentage of initial budget are presented in Figure – 4. It shows average amount of cash tied up in medical consumable stock levels at any given time.

Figure – 4: Savings realized by hospital department as a result of 2-Bin Kanban inventory management system implementation

**Lessons Learned**

This case study based research demonstrated real potential of 2-Bin Kanban inventory management system, specifically in the following areas:

- Right Quantities: Never running out of stock but never having too much at hand
- Just-In-Time Ordering: Ordering only when something is needed and consuming before products expire
- Visual Controls: Creating clear visual signals at reorder point, without dependence on human judgement and subjective decision making
• Error Proofing: Classifying items in appropriate item families like needles, syringes and IVs; orthopedic implants; anesthesiology supplies etc. for easy storage and retrieval. It also prevents accidental use of wrong items.

The research also provided a roadmap for the lean practitioners to build on concepts and ideas from this study which include:

• Kanban Strategy Maps: Live strategy maps which can be populated for scenario building for step-by-step 2-Bin Kanban inventory management system. These maps identify probable risks, failure modes, limitations, bottlenecks and how to overcome them.

• PAR Levels Calculations Workbook: PAR levels calculations workbooks are very useful tool for exactly identifying optimal ordering and carrying quantities for Kanban items.

• Replenishment Frequency Tables: These table are useful in understanding how replenishment frequencies can affect the stock levels and their impact on other inventory carrying factors.

• Return on Investment (ROI) Workbook: The most important element of a lean transformation project. ROI workbooks are the tool which are used for calculating financial impact of implementing a 2-Bin Kanban inventory management system. They compare all elements of cost in monetary units spent in conventional inventory control versus in Kanban system.

References


Informational Efficiency and Integration: Evidence from GCC Shariah Equity Market

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Abstract
The paper focuses on the prevalence of informational efficiency and integration of GCC Shariah Equity market for the period of 01st January 2010 to 31st June 2015 with daily equity returns of Kuwait, Oman, Qatar, Bahrain, Saudi Arabia and United Arab Emirates. The study employs traditional as well as the modern approach of tracing out the efficiency and integration in the return series. From the results of efficiency it was observed that the market lacked efficiency in terms of its past information. The results of integration test clearly indicates that there was a long memory in the returns of GCC Shariah during the study period. Hence it can be concluded and proved that the returns of all GCC Equity Shariah were not informationally efficient but fractionally integrated during the study period.

Keywords: Efficiency, Integration, Fama, GCC Shariah, Serial correlation, Hurst exponent.

Introduction
The origin of Islamic Finance can be traced to 1,400 years back, though the operation was confined to those selected countries who believed in Shariah. Later, Islamic Economics and Banking grew in its scope, making it to Islamic Finance where in stock market activities also came in to its purview. It was not that very popular and much talked about until its uniqueness was documented in the context of its risk bearing capacity during Financial Crisis of 2008. Islamic Finance and its stock market drew invariably everybody’s attention throughout the globe as it could wither the onslaught of the vagaries of global financial meltdown, proving it to be relatively less risky. The reason is the fundamental axiom of Islamic Finance and the system of prohibition of debt-based financing and promotion of equity financing. It is now estimated that worldwide around US$1 trillion assets are managed under the rules of Islamic Finance. Over 75 countries have either started Islamic Finance subsidiaries or converted their entire operations aligning to Islamic principle i.e. to Shariah-compliant mode. The Islamic Financial movement was greatly influenced by the establishment of the Islamic Development Bank (IDB) in 1973 which marked the revival of the Islamic Financial system. The recent debacle in world economy causing global financial tornado that encircled the financial markets mostly were one those were open and liberal in respect to mindless financial innovations, transferring the risk through derivatives and other riskier financial products. As Islamic Finance doesn’t open itself to the use of the same, it had the potential to ward off the onslaught of the hazardous effect of unnecessary speculation and meltdowns. The catastrophe of investment loss during Global Economic Crisis in the West has forced the investors to search for safe and secure places of investment where Islamic stock market has proved itself to be one. The Shariah markets also open the investment avenue for those investors who believe in investment
complying with ethics, in other words the rule of Islamic Finance, especially those from the Middle East who can pump in huge investment in to the country. Now UAE stands as the top Arab nation and second to Malaysia in the global Islamic economy. According to IMF, the UAE’s Islamic Finance and banking sector accounts for 17% of Assets and 19% of consumer deposits in the country. By 2020 US$1.8 trillion Islamic Finance industry is set to reach a market size of US$3.25. With the emergence and addition of Sukuk Dubai market is world’s leading hub for the multi-billion dollar trade. In this positive economic scenario UAE is the bright spot in the galaxy of Islamic nations.

A man’s greed never ends. Consequently, he is continuously in look out for practices which will bring him more profit and reward for the money he has invested. In this context, a smart investor or participant tries to find the opportunity where in an abnormal profit can be earned and an ordinary investor wishes to get a reasonable return and prefers a market where it is the investment that reaps return not the knowledge, information, tactics or strategy adopted. Hence the first thing an Investor perhaps does is the evaluation of the market and look out for safe profitable opportunities. The investor always prefers a market which prices its product efficiently and possession of any information by any market player do not put them in an advantageous position so that abnormal profits can be earned. If information about the market is not available appropriately and equally, would bring in an opportunity for some investors to take the advantage of the market. Such situation makes the market vulnerable to inefficiency and helps the greedy investors to earn abnormal profit at the cost of another. So a continuous look out for practices which will bring in abnormal profits will be the first thing an investor perhaps would do. Thus finding out the state of market, the opportunities it offers etc., has become the most interesting area of research world across. A detailed search for this particular phenomenon makes a stepping stone for the most debated topic of 'Random Behavior of Stock Prices and Efficient Capital Market'. There have been huge line of researches conducted across the globe to identify the changing pattern of market prices starting from Bachelier’s (1900) pioneering work on randomness of stock prices followed by Fama’s (1970) discovery on Efficient Market Hypothesis leading to the theory of Fractal Market Hypothesis of Mandelbrot’s (1971) projecting new dimension of market study diverting from the application of EMH and finally Lo’s (2004) Adaptive Market Hypothesis where predictability and investment profitability were said to differ from time to time thus advocating the changing degree of efficiency in a vertical time scale. However, if an investor expects the ethical nature of investment, then the market should possess efficiency in terms of information available to him and such information should sufficiently and promptly be reflected on the stock prices. It may be noted that studies pertaining to efficiency were in plenty whereas, integrating researches of Fama’s EMH, Mandelbrot’s FMH and Lo’s AMH to study price behavior in the stock market were negligible. Of late, when there is an emerging alternative system which satisfies the safety and ethical preference of investors there is a need for evaluate the market behavior of such market.

Shariah market has proved to be a viable ethical investment, protecting the investors and their investment from high unexpected market fluctuations that are obvious in a conventional market which are heavily influenced by interest rates prevailing in the economy. Moreover, with the concept of equal sharing of profit and loss Shariah market boost the morale
of the investors and can have a hassle free investment. Though the seeds of Islamic Investment
and Finance were present in the economy since decades it got worldwide recognition only after
the occurrence of the bankruptcy of the ‘Lehman Brothers 2008 and series of fall outs in US
and consequent financial bankruptcy world over of 2008. Many a researches provided evidence
of better terms of return and volatility of Shariah markets even in the faces of pervasive
financial catastrophe. However, whether the market is strong and efficient enough to offer a
better avenue of investment providing opportunity of risk management and portfolio
optimization is a matter to be studied in-depth. Thus there is a need for in-depth study in the
performance, behavior, characteristic strength and weakness of the emerging alternative market
i.e. Shariah market.

Background of the Study
There are ample numbers of theoretical and empirical studies on Islamic Financial System
across the globe. But empirical studies in Islamic Finance more specifically Shariah index are
limited and there are several untouched areas too. Theoretically and empirically Islamic
Finance and Shariah index were proved as out performers during meltdowns. Pervez (1990),
Chapra (1982), (1991), (1992), Shefrin & Statman (1992) have theoretically explained how
Islamic Finance can serve the economy in a better way. Sam & Rashidian (2002) Obiyathulla
shares are out performers in terms of return to risk. Sania & Deo (2013) proved that GCC
Shariah market was predictable and were in efficient during the study period and necessary
policy measures need to be taken to correct those since Shariah principle prohibits speculation
and abnormal profit. El-Akthar (2014) discussed about methods to regulate the speculation in
Islamic Stock Markets and Nasar et al (2014) observed the volatility nature of Dow Jones
Islamic Index. Though innumerable and extensive studies have conducted on Shariah market
across the globe which includes study on volatility transmission by Khalifa et al (2014) and
resiliency of GCC market by Dewandaru (2013), fewer studies examined the informational
efficiency, prediction and movements of stock prices. Researches on market behavior of the
stock prices and efficiency of the market and the evidence that they put forth help the investors
to understand the market and to invest in the market according to their needs. In terms of the
direction of the studies conducted earlier, majority of them focused on the volatility nature of
Shariah index but there were dearth of studies which focused on sophisticated analysis of the
behavior of stock market in contrast to the conventional one. Among them Market Efficiency
or Informational Efficiency of Capital Market which is a much debated one in conventional
market was scantily tested for Shariah market and exploring such a less touched area adds to
the literature. In Modern financial literature, Fama’s (1970) theory on Market Efficiency is
treated as foundation of all Capital Market Studies and majority of them revolve around its
implication on making the market efficient.

Though the concept of Market Efficiency was widely accepted some researches
highlighted on the dependence of current returns of stock prices on its past, thus exposing the
possibility of predictability of the market which were contrary to market efficiency. As a
starting line efficiency study can be incorporated for Shariah market, so to check whether the
market is efficient in terms of market efficiency theories or not. In order to understand the
concepts of market efficiency, its tools and techniques applied from time to time a critical
review on earlier studies reveal that the first market behavior study was the pioneering work of
Bachelier (1900) where he explored on the discounted returns of past, present & future of US stock market in his doctoral research work. In the year 1953 Maurice Kendall a British Statistician presented a paper to the Royal Statistical Society on the behavior of the stock and commodity prices. He concluded that Price changes were ‘Random’. Roberts (1959) questioned the systematic patterns in US stock prices. These theories were not given serious look till Fama introduced his concept of Market Efficiency and he introduced the theory of EMH by segregating the behavior of the market on the basis of Weak Form, Semi-Strong Form and Strong Form Efficiency where he explained that Weak Form of EMH is nothing but the reflection of all information with regard to current prices over historical prices of a stock or a portfolio. In other words, the Weak Form efficiency postulates current market price incorporates all the available information related to the historical or past price. Since Weak Form Efficiency requires independence of successive price changes as pre-condition, test of randomness and serial correlation of stock returns were considered as the best indicator of efficiency. Then researchers tried to focus highly on the random behavior of the market. In Semi-Strong Form, all the publicly available information are supposed to be in-corporate in the stock prices and in Strong Form the information of Insider trading expected to be incorporated instantly leaving no room for earning abnormal return and no scope for prediction in the market, thus preventing investors any opportunity to make abnormal profit by adopting any particular trading strategy. Though EMH contradicted technical analysis and fundamental analysis it was always treated as one of the strongest founding theories in Finance.

With the acceptance of EMH, finance literature got flooded with theories supporting EMH, alongside the researches evidenced the anomalies of the same. Some of the theories which favoured the findings of Fama were Cootner (1964), Sharma & Kennedy (1977), Poshakwale (1996) & Pandey (2003) who supported the theory of Weak Form Efficiency of EMH with different stock markets across the globe.

It can be figured out from the studies that though many theories contradicted and researchers found anomalies for Fama’s theory no one could out rightly corner EMH and its validity except presenting evidences of anomalies only. The question of “what if the market was not found efficient then what describes the market situation?” existed for a long time. With that question, in the year 1982 Mandelbrot came up with a new theory called Fractal Market Hypothesis (FMH) where he postulated that fractals were found everywhere in nature and art and so also in the stock market which can never be detached from the natural system and no market can be called as efficient as postulated by Fama with respect to information prevailed in the market. He claimed that there is a possibility of long memory in the market and possibly in present returns there by will have reflections of past returns Mandelbrot (1971) & Rogers (1997) claimed that trading strategies based on historical prices may prove systematically profitable. Peters (1994) explained that market is stable and has sufficient liquidity when it comprises of investors with different time horizon. Investors stay in their preferred habitat no matter what the market information indicates. Even when markets were stable it exhibit the same auto covariance structure which represents Self-Affinity.

The available information may not be reflected in the market price, rather the market trend indicate the changes in expected earnings. As Shariah market doesn’t allow speculation and abnormal return in principle, it is expected not to give room for such behavior to the
informed by being efficient as postulated by Fama. However, if the Shariah market is found to have long memory then it violates the principle at the same time give room for speculation which necessitates appropriate steps on the part of regulators to bring the market to state where there will not be any scope for such unethical behavior that is against the principle of Shariah. Studies never focused on the type of market behavior of Shariah index in GCC context. The intrusion of EMH and FMH in to studies in the area of Islamic Finance and Shariah index would help the investors to understand the market behavior and the efficiency in terms of information which helps them to take right decision on time.

**Significance of the study**

In the wake of global financial meltdown and fall of major financial institution all over the world the Islamic Investments, Finance and Banking caught the attention of many. The reason being, these institution or economies relying on the principle of Islamic Finance could avert or minimize the adverse effect of the downturn to a larger extent. Most of the Islamic stock exchange could avert the crash falls and Shariah complaint stocks were found outperforming the market during the crisis period. The performance of Shariah complaint stock give the indication that Shariah index can serve as a substitute to Conventional index which may possibly handle the financial crashes with more ease thus providing avenue for diversifications.

The evidence of application of conventional theories and studies on Shariah index will benefit the trade and developing the market globally which can attract investors around the globe. Since EMH has got the tag line of base theory in capital market studies it will be helpful, as the application of the same in case of Shariah index will guide investors to invest as well as diversify their portfolio at the same time direct regulators to take measure, if there exist any violation of Shariah principle that creeps in to the market in the case the markets are found ineffective in terms of EMH. Thus there is a necessity to identify whether returns are dependent or not, if yes, then the results supports the theory formulated by Mandelbrot (1971). Such in-depth studies on Shariah market will help the investors to have safe hands for their investment. Hence an attempt can be made to identify if there is place for memory in Shariah prices and if it exists, how far the memory remain whether for a long run or short run. The market if efficient is expected not to be fractionally integrated, as stringent rule of the efficient market as well as Islamic Finance prohibits abnormal profit possibility and speculation. The knowledge of the form of efficiency of GCC Shariah market will encourage the regulators and policy makers to implement appropriate measures so as to make the rules stringent in order to make the market free from speculations. From this perspective, the proposed study has immense socio-economic significance.

**Model Specification and Methodology**

The present study is exclusively based on secondary data collected manually from Bloomberg for the period from 01st January 2010 to 31st June 2015 covering daily equity returns of Kuwait, Oman, Qatar, Bahrain, Saudi Arabia and United Arab Emirates expressed in US Dollars to avoid any eventual bias inherent in GCC countries foreign exchange rates. The series were

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5 *Indices of GCC countries are SPSHBH (Bahrain), SPSHKW (Kuwait), SPSHOM (Oman), SPSHSQA (Qatar), SPSHSA (Kingdom of Saudi Arabia), SPSHAE (United Arab Emirates).*
converted in to log and the returns were retrieved as: \[ R_t = \left( \log_{10} \frac{P_t}{P_{t-1}} \right) \]. Theoretically logarithmic returns are analytically more traceable when linking returns over longer time intervals especially when it is a time series data, and empirically logarithmic returns shows normal distribution than raw series which is more suitable to analysis any time series data. Several statistical tools were introduced in order to detect the fractional integration of the stock markets. These statistical and econometrics tools serves as the best measures to detect such integration, so that any manipulation or malpractices can be stopped from being held in a stock market. For the purpose of tracing out the Weak Form Efficiency of GCC Shariah returns the study used Breusch Godfrey LM test to detect the auto correlation in the return series and KPSS test to identify the stationarity in the return series. The study employs traditional tool as well as advanced approach to Fractal Market Hypothesis. Lo’s (1991) modified rescaled range analysis & Hurst (1951)’s Hurst Exponent were considered as traditional method of identifying the long range dependence. The Parametric test of ARFIMA by Granger & Joyeux (1980) and Semi-Parametric test of GPH by Geweke Porter Hudak Method were considered as advanced econometric tools to trace out long memory or Fractal Integration of GCC Shariah market.

**Traditional Test for Weak Form Efficiency**

(a) **Breusch Godfrey LM Test**

Coming to Breusch Godfrey LM test, when compared to other auto correlation test like Correlogram, Breusch Godfrey LM test covers up the pit falls faced by other test which allows (1) nonstochastic regressors, such as the lagged values of the regressand; (2) higher order autoregressive schemes; (3) higher order moving average of white noise error terms. The model specification is:

\[ u_t = \rho_1 u_{t-1} + \rho_2 u_{t-2} + \ldots + \rho_p u_{t-p} + \varepsilon_t \]

where \( \varepsilon_t \) is a white noise error term. The study also employs KPSS test to identify the stationarity in Shariah returns. The Efficiency under Weak Form of EMH can also be checked through detecting the Stationarity property of the returns. If the return series show stationarity then the market is inefficient and if the series has a unit root then the market can be called as efficient under Fama’s EMH theory. Thus to identify the stationarity of the series the paper employed Kwiatkowski – Phillips – Schmit – Shin test.

(b) **Kwiatkowski – Phillips – Schmit – Shin test.**

KPSS is the one of the most popularly used modern test to identify the Weak Form of Efficiency of EMH in which the null hypothesis of presence of unit root is tested against the stationary alternative. The alternative unit root test introduced by Kwiatkowski – Phillips – Schmit – Shin (1992) has the null hypothesis of stationarity of a series around either mean or a linear trend. The model takes the following form:

\[ y_t = \beta' D_t + \mu_t + \varepsilon_t \]
where $D_t$ contains a deterministic components (constant plus time trend) $\varepsilon_t$ is I(0) process which may be Heterosckedastic and $\mu$, is a pure random walk with innovation variance $\sigma^2_\varepsilon$ and the null hypothesis that $y$, I(0) is formulated as $H_0 = \sigma^2_y = 0$.

**Traditional test for Fractal Market Hypothesis**

As per FMH, if a market has long memory it means that there is high auto-correlation function which decays hyperbolically and dies out eventually, and if there is a long memory in the market, it invalidates EMH proposition. In order to detect the long memory process, Hurst (1951) prescribed the procedure. The study employs traditional tool of Lo’s (1991) Modified Rescaled Range Analysis & Hurst (1951)’s Hurst Exponent and Geweke porter Hudak method to trace out the results of FMH. HE is considered as the popularly used traditional method of identifying the long range dependence.

**(a) Lo (1991)’s Modified Rescaled Range Analysis**

Originally the procedure was based on the behaviour of the average range ($R$) rescaled by the average standard deviation ($S$), as a function of sample size. For a time series with total observations $t$, there is an integer $n$, if $n \leq t$ then there exist the R/S statistics and each range $R$ is standardized by the corresponding standard deviation $S$ and forms a rescaled range as:

\[
\left( \frac{R}{S} \right)_n = \frac{1}{\sigma_n} \left[ \max_{1 \leq k \leq n} \sum_{i=1}^{k} (r(t) - r_n) - \min_{1 \leq k \leq n} \sum_{i=1}^{k} (r(t) - r_n) \right]
\]

where $\sigma_n = \frac{1}{n} \left[ \sum_{t=1}^{n} (r(t) - r_n)^2 \right]$ is the maximum likelihood estimated of simple standard deviation. Though the model R/S statistics captures the long memory dependence, later on it was proved to have bias when (a) the series contains short memory (b) the series is characterized by heterogeneity (c) the series is non-stationary. Hence Lo (1991) modified the version of R/S statistics and named as Lo’s Modified Rescaled Range Analysis. The specification is as follows:

\[
Q_n = \frac{1}{\sigma_n(q)} \left[ \max_{1 \leq k \leq n} \sum_{i=1}^{k} (r(t) - r_n) - \min_{1 \leq k \leq n} \sum_{i=1}^{k} (r(t) - r_n) \right]
\]

where $\sigma_n^2(q) = \sigma_x^2 + 2 \sum_{j=1}^{q} \omega_j(q) \gamma_j$,

$\omega_j(q) = 1 - \frac{j}{q + 1}$

and $q < n$. The value of $q = \left[k_n\right]$ where $\left[k_n\right]=\left(\frac{3n}{2}\right)^{\frac{1}{3}}\left(\frac{2\rho}{1-\rho^2}\right)^{\frac{2}{3}}$

where $\left[k_n\right]$ indicates the greatest integer less than or equal to $k_n$ & $\rho$ is the sample first order autocorrelation co-efficient of the data.

**Hurst Exponent**

Hurst Exponent (Harold Edwin Hurst 1880-1978) can be interpreted as a measure of long memory of time series. It is a non-parametric approach which relates to the autocorrelation of the returns in time series and at the rate which these decrease as the lag between pairs of
values increases. Peters (1994) suggested that financial markets have a fractal structure: when markets are stable, returns calculated over different time scales (daily, weekly) exhibit the same auto covariance structure. For instance, if daily returns exhibit positive temporal dependence so do weekly, monthly returns and this is termed as self-affinity. The HE can be expressed as:

\[ H = \frac{\log \frac{R}{S}}{\log N} \]

It is referred to as Index of Independence whose value lies between \(0.5 < H < 1\) indicating that high value in the time series will be followed by another high value in the future series. (a) A value of \(H = 0.5\) indicates a complete uncorrelated series (b) \(0.5 < H < 1\) implies a persistent time series which can be called as Long memory process in the return series (c) \(0 < H < 0.50\) indicates that the time series would be anti-persistent which implies that there will be a frequent mean reverting process.

**Advanced Modelling Technique for FMH**

**(b) Geweke Porter Hudak (GPH) Method**

Another tool to detect long memory property is the application of Semi-Parametric tool of GPH propounded by Geweke Porter Hudak (1983). According to GPH method, given the periodogram \(I_{\lambda_s}\) of variable \(y_t\), \(\xi\) can be estimated by the following regression:

\[ \ln(I(\lambda_s)) = c - \xi \ln(4\sin^2(\lambda_s)) + \epsilon_s \]

where \(I_{\lambda_s}\) is the periodogram of \(y_t\) at the harmonic frequencies \(\lambda_s\). The number of observations in the estimation of the regression is \(n = g(T)\) where \(g(T)\) should satisfy the following conditions: \(\lim_{T \to \infty} g(T) = \infty\) & \(\lim_{T \to \infty} g(T)/T = 0\). The function \(g(T) = T^d, 0 < \lambda < 1\) satisfies both the conditions. The number of periodogram ordinates is chosen from the interval \([T^{0.45}, T^{0.60}]\).

**Descriptive Statistics and Empirical Results**

In this section, the paper discuss on the empirical results of the indices retrieved by employing the methodology considered for the study. Table 1 displays the results of descriptive statistics.

**Table 1**

Descriptive statistics of GCC Shariah Equity Indices

<table>
<thead>
<tr>
<th>Indices</th>
<th>Mean</th>
<th>Med</th>
<th>Max</th>
<th>Min</th>
<th>St. Dev.</th>
<th>Skew</th>
<th>Kurtosis</th>
<th>J-B</th>
<th>(P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPSHBH</td>
<td>3.541</td>
<td>3.478</td>
<td>4.080</td>
<td>3.156</td>
<td>0.228</td>
<td>0.413</td>
<td>2.133</td>
<td>11.35</td>
<td>0.000</td>
</tr>
<tr>
<td>SPSHSA</td>
<td>6.894</td>
<td>6.867</td>
<td>7.288</td>
<td>0.000</td>
<td>0.223</td>
<td>-15.22</td>
<td>47.66</td>
<td>17.75</td>
<td>0.000</td>
</tr>
<tr>
<td>SPSHKW</td>
<td>4.271</td>
<td>4.248</td>
<td>4.612</td>
<td>3.937</td>
<td>0.146</td>
<td>0.269</td>
<td>2.178</td>
<td>29.20</td>
<td>0.000</td>
</tr>
<tr>
<td>SPSHOM</td>
<td>4.374</td>
<td>4.356</td>
<td>4.568</td>
<td>0.000</td>
<td>0.1466</td>
<td>-14.00</td>
<td>41.80</td>
<td>13.37</td>
<td></td>
</tr>
</tbody>
</table>
By looking at the statistical properties from Table 1, it can be perceived that GCC Shariah equity returns showed a positive skewness for Bahrain and Kuwait and the returns of Qatar, Oman, KSA and UAE were negatively skewed and the series had leptokurtic distribution. The results of Jacqu Bera statistics showed that the returns were not normally distributed.

Table 2
Results of Breusch Godfrey LM Test

<table>
<thead>
<tr>
<th>Indices</th>
<th>F- statistics</th>
<th>Obs. $R^2$</th>
<th>KPPS Test statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahrain</td>
<td>19.268</td>
<td>18.871**</td>
<td>1.177</td>
</tr>
<tr>
<td>KSA</td>
<td>86.587</td>
<td>90.758**</td>
<td>4.482</td>
</tr>
<tr>
<td>Kuwait</td>
<td>26.094</td>
<td>18.210**</td>
<td>3.617</td>
</tr>
<tr>
<td>Oman</td>
<td>96.881</td>
<td>95.598**</td>
<td>3.257</td>
</tr>
<tr>
<td>Qatar</td>
<td>32.015</td>
<td>14.467**</td>
<td>4.655</td>
</tr>
<tr>
<td>UAE</td>
<td>93.915</td>
<td>17.201**</td>
<td>3.641</td>
</tr>
</tbody>
</table>

**denotes significance at 5% level

From the results, it can be noted that F-statistics is significant at 5percent level for all the indices considered for the study. Along with it, the observed $R^2$ for Bahrain, KSA, Kuwait Oman, Qatar and UAE were also significant at 5percent level which clearly reveals that the return series of GCC Shariah index were serially correlated at 5percent level of significance. This clearly rejects the hypothesis of Weak Form Efficiency of EMH in GCC Shariah equity market. It can be noticed from the above table 1 that the results retrieved through KPSS test without trend and intercept were significant at 1percent confidence level for all the indices. Hence, there is a presence of stationarity in the series was accepted and it can be understood that all the GCC Shariah Index under consideration doesn’t follow Random Walk Hypothesis of EMH.

Table 3
Results of Hurst Exponent of GCC Shariah Equity Indices

<table>
<thead>
<tr>
<th>Hurst Exponent</th>
<th>Bahrain</th>
<th>Kuwait</th>
<th>Oman</th>
<th>Qatar</th>
<th>KSA</th>
<th>UAE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00043</td>
<td>0.9974</td>
<td>0.9438</td>
<td>0.98126</td>
<td>0.9251</td>
<td>0.9993</td>
<td></td>
</tr>
</tbody>
</table>
The table 2 reports the results of Hurst Exponent of GCC Shariah index with returns of daily time scale. The detailed results of Rescaled Range Analysis are shown in Annexure part 1. It is clearly evident from the Hurst Exponent that there is dependence in the daily returns of GCC Shariah Equity index and hence there is prevalence of self-affinity in the market. It can be observed that returns of Bahrain showed a higher dependence on its past returns whereas KSA and Oman showed a lesser dependence comparatively with Kuwait, Qatar and UAE.

**Table 4**

Results of Geweke Porter Hudak Test of GCC Shariah Equity Indices

<table>
<thead>
<tr>
<th>Indices</th>
<th>Degree of Integration ((m=10))</th>
<th>T-statistics</th>
<th>(p)-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahrain</td>
<td>1.09634</td>
<td>3.865</td>
<td>(0.004)</td>
</tr>
<tr>
<td>Kuwait</td>
<td>0.78813</td>
<td>8.142</td>
<td>(0.000)</td>
</tr>
<tr>
<td>Oman</td>
<td>0.94762</td>
<td>2.615</td>
<td>(0.030)</td>
</tr>
<tr>
<td>Qatar</td>
<td>1.03032</td>
<td>7.166</td>
<td>(0.000)</td>
</tr>
<tr>
<td>KSA</td>
<td>0.97413</td>
<td>4.621</td>
<td>(0.001)</td>
</tr>
</tbody>
</table>

The study used semi-parametric test of GPH to detect the long memory property of GCC Shariah Equity returns where the number of periodogram i.e. \(T^1\) were \(T^{0.5}, T^{0.6}\). Table 3 depicts the results of Geweke Porter Hudak Test of GCC Shariah Index. It can be observed from the above table that the values for \(d\) in all the cases were not equal to zero and all were significant at 5% level. The chosen bandwidth range to conduct the test was \(T^{0.5}, T^{0.6}\). Hence it can be concluded from GPH test that the returns off GCC Shariah market showed fractal integration during the study period.

**Table 5**

Results of ARFIMA of GCC Shariah Equity Indices

This section attempted to analyse the fractional integration of the returns of GCC Shariah index by means of a parametric test, ARFIMA. Categorically, the test examines the discrete time representation of long range dependence. An ARFIMA process \((0, d, 0)\) where \(d=H-0.5\), is asymptotically self-affine (Fisher, Calvet and Mandelbrot, 1997).

<table>
<thead>
<tr>
<th>Indices</th>
<th>ARMA Process</th>
<th>(d)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahrain</td>
<td>1,1</td>
<td>\textbf{1.222}</td>
<td>\textbf{0.000}</td>
</tr>
<tr>
<td>Kuwait</td>
<td>2,2</td>
<td>\textbf{0.997}</td>
<td>\textbf{0.000}</td>
</tr>
<tr>
<td>Oman</td>
<td>1,1</td>
<td>\textbf{0.964}</td>
<td>\textbf{0.000}</td>
</tr>
<tr>
<td>Qatar</td>
<td>1,1</td>
<td>\textbf{0.904}</td>
<td>\textbf{0.000}</td>
</tr>
<tr>
<td>KSA</td>
<td>1,1</td>
<td>\textbf{0.981}</td>
<td>\textbf{0.000}</td>
</tr>
</tbody>
</table>
Table 4 reveals the results of ARFIMA for GCC Shariah returns which support the results of Hurst and GPH test conducted earlier in this study. The process of ARFIMA for Bahrain was (1, 1.2,1), Kuwait (2,0.9,2), Oman (1,0.9,1), Qatar (1,0.9,1), KSA (1,0.9,1) and UAE(1,0.9,2) respectively. Hence the present test result also is in line with the other results and it showed long memory dependence in the returns.

Concluding Remarks
This study provides first time evidence on informational efficiency and fractal integration or long memory dependence theory from GCC Shariah Equity market perspective. The indices include the returns of Bahrain, Kuwait, Oman, Qatar, KSA and UAE Shariah markets. The study employed parametric tools as well as non-parametric tools for the both efficiency test and integration test. From the results of Breusch Godfrey LM test and KPSS test it can be observed that the market doesn’t follow a random walk hypothesis and the returns were serially correlated indicating that the market is not informationally efficient. The results of Hurst exponent show that the value of H exceeds 0.5 for returns of Bahrain, Kuwait, Oman, Qatar, KSA and UAE which clearly indicate that there was a long memory in the returns of Shariah during the study period. The results of GPH Test and ARFIMA also support the results retrieved from Hurst Exponent. Hence it can be concluded that there was a long memory in the returns of GCC Shariah market during the study period. From the analysis it was concluded that for the both efficiency test and integration test for the both efficiency test and integration test for the both efficiency test and integration test for the both efficiency test and integration test for the both efficiency test and integration test market had long memory and the trend of the market was predictable during the study period.

The memory structure of the market indicated that there existed scope for abnormal returns in the market. Thus leading to an inference that investors would have earned abnormal profits in the past by reviewing the movements of the market. As the results indicated that market lacks informational efficiency, there arises the need of efforts to correct the same with appropriate policy measure at the earliest because the reality found was contrary to principles laid down by Islamic guidelines.

In order to enhance efficiency, financial authorities as well as Shariah boards need to take appropriate measures to improve efficiency by making the market more transparent and information flow more instantaneous. Symmetric information will enable market participants to take decisions quickly and appropriately, so those stock prices will rapidly develop an adjustment mechanism which restricts the possibility of earning abnormal return among the investors. Hence, information transparency is very important for GCC Shariah market, as it can create a fair and a reasonable price in accordance with the real condition of the company’s stock issuance. The existing informational inefficiency gives the signal to the policy makers to take cognizance of the reality i.e. the existence of scope for earning abnormal return and take necessary steps to see that GCC Shariah index doesn’t violate the principles of Islamic finance. This conclusion adds value to the existing literatures on Shariah market and its efficiency.
Suggestions for Improvement of Informational Efficiency of GCC Shariah Market

As Islamic Finance believes on one hand in sharing risk and linking return with productivity, at the same time prohibiting speculation, it has an inbuilt mechanism to resist the severe downturns. As was seen during the global meltdown the Islamic stock market not only could withstand the massive downfall but also were able to give reasonable return to the investors. The catastrophe of investment loss during Global Economic Crisis in the West has forced the investors to search for secure places of investment where the Shariah market qualifies well to be one. At the same time providing an investment avenue for those investors who believe in investment complying the rule of Islamic Finance, especially those from the Middle East who can pump in huge investment in to the country was made possible only through the introduction of investment avenue adhering to the rules of Islamic Finance more specifically Shariah Index. The performance of Shariah index caught attention of not only rich countries, who were impressed by the performance, cash-stripped states have also showed interest in this fledgling system. Hence any empirical study on Shariah index is expected to contribute to the system and economy. The findings of the study revealed that to make the market vibrant there is a need for the regulators to take cognizance of the market behaviour and take appropriate action so that Shariah market will get its due in terms of a preferred destination of not only ethical investment but investors at large due to its safety net and reasonably good performance. Thus not necessarily it may be looked at as an ethical investment avenue, it may also be treated as an alternative avenue for safe investment.

Some of the implications form the study could be are listed below:

i. Long Memory Dependence Effect: It was found that there was long memory dependence in the GCC Shariah Market thus calls for efforts to correct the same with appropriate policy measure at the earliest because the reality found goes against to principles laid down by Islamic guidelines.

ii. Analysis on Publicly available information: A proper analysis especially on Fundamental Analysis should be carried out which will help the investors in taking proper decisions.

iii. Awareness on the safe hands of Shariah market as an alternative (esp. during Meltdowns): A proper awareness on the benefits of Islamic Finance should be spread among the investors and the role of Portfolio Consultants on Shariah market should be made active, powerful and convincing.

References


Annexure I
Rescaled Range Analysis of returns of Kuwait Shariah Equity Index

<table>
<thead>
<tr>
<th>Size n=8</th>
<th>RS(avg)</th>
<th>log(Size)</th>
<th>log(RS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1899</td>
<td>731.89</td>
<td>10.891</td>
<td>9.515</td>
</tr>
<tr>
<td>949</td>
<td>379.63</td>
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<td>8.565</td>
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<tr>
<td>474</td>
<td>173.99</td>
<td>8.888</td>
<td>7.442</td>
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<td>237</td>
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<td>47.510</td>
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<td>5.882</td>
<td>4.522</td>
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<td>29</td>
<td>11.396</td>
<td>4.856</td>
<td>3.510</td>
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<td>14</td>
<td>5.417</td>
<td>3.807</td>
<td>2.437</td>
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Rescaled Range Analysis of returns of Bahrain Shariah Equity Index

<table>
<thead>
<tr>
<th>Size n=8</th>
<th>RS(avg)</th>
<th>log(Size)</th>
<th>log(RS)</th>
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<tbody>
<tr>
<td>1898</td>
<td>715.10</td>
<td>1.890</td>
<td>9.482</td>
</tr>
<tr>
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<td>400.16</td>
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Rescaled Range Analysis of returns of Oman Shariah Equity Index

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<th>log(Size)</th>
<th>log(RS)</th>
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</tr>
<tr>
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<td>86.04</td>
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Rescaled Range Analysis of returns of KSA Shariah Equity Index

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<td>22.661</td>
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<td>RS(avg)</td>
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<td>log(RS)</td>
</tr>
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**Rescaled Range Analysis of returns of Qatar Shariah Equity Index**

<table>
<thead>
<tr>
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<th>RS(avg)</th>
<th>log(Size)</th>
<th>log(RS)</th>
</tr>
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</tbody>
</table>

**Rescaled Range Analysis of returns of UAE Shariah Equity Index**
Innovation in mobility: Austrian Expert’s Perspective on the future of urban mobility with self-driving cars.

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Vienna University of Economics and Business, Austria.

Abstract  
The future of mobility is changing at an exponential rate, as every day passes it moves closer to the goal of complete autonomy, therefore, it is safe to say that the adaptation of self-driving cars in near future is no more a matter of science fiction. Keeping in view the rapid evolution of mobility, this study tries to enlighten and compile the importance of autonomous vehicles in our daily life by highlighting monetary and societal advantages of adaptation. Moreover, it analysis the Austrian experts opinion on the topic of adaptation of the self-driving cars and business prospects with autonomous vehicles for current businesses. The data on these two questions was collected in a workshop using Delphi method, where experts from varied professional backgrounds participated. But mainly the participants of the controlled group were representatives of public procurement, energy and automobile industry/sector. After a detailed presentation and discussion over the topic, the participants were asked for their views on forth mentioned two questions. Their opinions were recorded and visualized on a custom made graph and further analyzed using the descriptive statistical tool. At the end of the question and answer session a vast majority of experts, which is approximately 80%, thought that there is a good possibility of adaptation of autonomous vehicles in near future. But on the other hand relatively less percentage of experts were confident about the bright future for current businesses in automobile industry; They argued that the current business decorum would change dramatically in a couple of decades and this would be the question of survival of the fittest and smartest.

Keywords: Self-driving cars; futuristic scenarios; urban mobility; Austrian perspective on AV; Self-driving cars adaptability.

Introduction  
Innovation in automotive industry is not new. Over a century innovation within the automotive sector has brought major technological advancements, leading to safer, convenient, and more affordable vehicles. With all the assistance conferred on humanity, no other invention in the history of civilian technology has caused as much harm as the automobile. Someone in almost every 30 seconds dies in a traffic accident, summing up to well over 1 million deaths a year. In the United States
alone, this invention is amongst one of the prominent cause of death for people between the ages of 3 to 34. Moreover, 90% of automobile accidents are caused by human error (Hudda, et al., 2013).

*Figure 1* – 2010 – World traffic deaths by region (in 000s) (Morgan Stanley, 2013)

![Figure 1](image1)

according to the Statistics provided by (European Commission, 1995) traditional cars sit unused more than 95% of their lifespan, an average car sits at home in the garage or is parked in a lot for 22 hours per day (Schwarz, et al., 2013). Whereas, the following figure depicts the peak time maximum usage of the vehicles with respect to vehicle age and time of the day when it is being used mostly. This figure also let us understands the peak congestion hours in a day (Fagnant & Kockelman, 2013)

*Figure 2* – Maximum usage of the vehicles with respect to vehicle age and time of the day (Fagnant & Kockelman, 2013)

![Figure 2](image2)

It is also calculated that a freeway operating at maximum efficiency has vehicles on only 5% of its surface. According to an estimate 40% of the gasoline is used finding a parking spot in congested urban areas. All this adds to transport externalities in which a transport user either does not pay for the full costs (e.g. including the environmental,
congestion or accident costs) of his/her transport activity or does not receive the full benefits from it (European Commission, 1995). There is a large research body estimating the social costs (transport related external cost) incurred by human driven vehicles (Anderson, et al., 2014). The internal and external costs are separated by a criterion on who pays for the journey, if a transport user has to pay for the use of a resource (e.g. the use of energy, infrastructure, etc.), the associated costs can be considered as internal costs. If, on the other hand, the transport user affects the wellbeing of others (e.g. by polluting the air) without paying for the facilities and services used for a transportation activity than the subsequent costs are external to that person. To understand, the pollution related cost should be paid by the polluter as described in the "polluter-pays-principle" instead not by those who are being effected by the pollution (European Commission, 1995).

As described ahead, two kind of costs are imposed by Conventional driving, one is borne by the driver (e.g., fuel, depreciation, insurance), and the other, known as external costs, or “negative externalities”, are forced on other people. For example, with one extra driver on road would add up the congestion and would also increase the chances for a road accident, the calculated cost for such negative externality is 13 cents, which ‘means if on average a driver who drives around 10,000 miles would inflicts $1,300 worth of costs on others and this cost does not comprise the cost borne by him/herself (Anderson, et al., 2014).

Table 1 – Estimated external Costs of road (Anderson, et al., 2014) (European Commission, 1995)

<table>
<thead>
<tr>
<th>Mobility Costs</th>
<th>External Costs from Automobile Use ($/Vehicle-Mile)</th>
<th>External Cost OF Transport (Expressed as a % of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congestion</td>
<td>0.056</td>
<td>2.0%</td>
</tr>
<tr>
<td>Accident</td>
<td>0.024</td>
<td>1.5%</td>
</tr>
<tr>
<td>Noise</td>
<td>0.001</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

The solution to alleviate or completely solve these serious problems is “Autonomous Vehicle”, also popularly known as Driverless Cars, Robotic Cars and Self-Driving Cars have a potential to significantly affect safety, congestion, energy & land use. Since the revolutionary innovation of Ford’s moving production line there has been an exponential change in the automotive industry. From last couple of decades, a big revolutionary innovation has been observed in automotive industry and this is being considered as a leapfrog jump by introducing the Autonomous cars, which can drive itself on human command. Research into autonomous cars has progressed remarkably since the first demonstrations in the 1940s – until recent past, when four self-propelled cars traveled from china to Italy in 2010 (Hudda, et al., 2013).
Literature Review
Over the past few years the exclusive human function ‘driving’ has been compromised by the technology industries by introducing significant leaps in bringing computerization into it (Fagnant & Kockelman, 2013). The World Health Organization (WHO) predicts that road traffic injuries will turn out to be one of the top five death causes globally by 2030. Car manufacturers have long been involved in increasing the safety of passengers. They introduced passive safety systems such as; seat belt, crush zones and airbags. However, these passive safety systems have reached a performance limit. In order to achieve further enhancements in safety, most major car manufacturers with Mercedes in the lead, followed by BMW and Volkswagen pursue the idea of self-driving, driverless, autonomous or robotic vehicles (Visser, Ehrenhard, & Nordhoff, 2014). Recent models of vehicles increasingly include functions such as ACC (adaptive cruise control) and (PAS) parking assist systems that let automobiles to pilot themselves into parking spaces (Fagnant & Kockelman, 2013).

Fundamentals of Autonomous Vehicles (Benchmarking Google self-driving car)
A vehicle capable of driving itself from one point to other on any given geographical layout without continuous involvement or input from a human driver is called Autonomous Vehicle or a Self-Driving Car. Apart from the combination of cameras, radar systems and sensors the vehicle uses a global positioning system (GPS) which helps detecting and determining the self-driving car's surroundings and uses artificial intelligence to determine the quickest and safest path to its destination. The mechatronic units and allow the intelligence system of the car to steer, brake and accelerate, When necessary (Morgan Stanley, 2013). The car uses a combination of sensors and software to locate itself in the real world combined with highly accurate digital maps, but at the heart lays three main components (listed below) which make a car self-steering car, which are Navigation tool, Hardware and Artificial Intelligence Software (The Guardian, 2014) and (Rayej, 2014)

Autonomous Vehicles from Hype to Adaptation
During the 1940’s Driverless Cars were suggested for the first time. A centralized grid structured was proposed in original idea, which was supposed to navigate the car while driver could enjoy the ride. Modern driverless cars require no infrastructural changes and modifications and will sense their environment as well as other drivers like a person and are expected to operate with complete autonomy (Barker, Mendez, Brown, Billick, & Glick, 2013). Such automation and advancements in technology towards full autonomy would be a gradual process. The next decade that is 2020 onwards is supposed to be the time period when 1st batch of such completely automated vehicles would be available commercially, although, the high automation in vehicles as already been commercialized since 2013 and there have been models which could drive autonomously with some limited capabilities for example Mercedes S-Class 2015. Different researchers and research institutions have already layout their prediction on when these cars would be available in the markets and when the technology would be widely available (Morgan Stanley, 2013) and (Bartl, 2015).
According to a report published by (KPMG, 2013) the discussion on the topic of self-driving cars has been accelerating and it clearly depicts the consumer trend and interest in the topic of self-propelled cars which has been over hyped in all sort of media. An increasing trend in discussion volume has been observed from July 2012 through August 2013 as seen in figure below, mainly influenced by news, regulatory announcements and marketing. Despite of the fact that opinion volume increased steadily during July 12 to August 13 but spikes are observed in July 2013, driven by the U.K declaration that autonomous vehicles were approved for testing, and again in August 2013 when a car manufacturer giant from Japan “Nissan” announced intentions to launch a self-propelled vehicle by 2020. Due to the theoretical nature of discussion, the discussion on this topic in general public still remains largely mixed. Although positive commentary has also gradually increased during this period which shows a positive trend between people who are discussing about this topic.

There exists a gap between the research on the user perspective and acceptance indicators for the near future (Bartl, 2015). Coalescing the Diffusion Model of Innovation with Hype Cycle of Roger’s and Gartner’s respectively for Autonomous vehicles would give us an outlook as seen in the figure below and can assist us in better understanding of the direction of this new technology.
To evaluate the current stage and relative maturity of the technology in the early phases of their life cycle, The Hype Cycle offers a suitable tool. It could provide the basis to understand the consumer’s attitudes towards technology and analyzing opportunities and investment risks regarding a certain technology could also be indicated by the Model. The shape of the Hype Cycle curve in above figure illustrates the media fanaticism through the period of disillusion to a subsequent understanding of the technology’s significance and role in the marketplace. On the other hand, according to Roger’s Diffusion of Innovation model, the comparative advantage over existing solutions, the compatibility with existing values, the relative complexity and the observability (KPMG, 2013) will determine the pace of user acceptance and the course of the traditional adoption curve starting with the innovators and early adopters (Bartl, 2015). A point where Hype cycle meets the Diffusion model (Adaptation) would be the decisive point. For the auto manufacturers, when it comes to the introduction of a new car model it is a familiar exercise. But, the case AV cannot be treated simply as a new series, because this innovation is too disruptive in all dimensions to do so (Bartl, 2015). (Morgan Stanley, 2013) on the other hand, has presented an adaptation curve which represents 4 phases of adaptation, but if we look more closely to the subject they should rather be presented as phases for technology availability than adaptability. The curve presented by Morgan Stanley shows an increasing trend over the period of 2 decades but fail to represent any numbers or % of technology adaptation instead displays four phases as: phase1 (0-3 years) passive autonomous driving, Phase 2 (3-5 years) Limited driver substitution, Phase 3 (5-10 years) autonomous capabilities, Phase 4 (two decades) 100% penetration utopian society.
Adaptation Advantages
Self-driving cars would bring dramatic changes in our daily lives with limitless possibilities of new business models and unbelievable advantages that would revolutionize the complete traveling experience. The main advantages are subdivided into two main groups that is “Monetary” and “Societal” as described by (Bartl, 2015), (Morgan Stanley, 2013) and (Anderson, et al., 2014).

MONETARY Advantages (U.S Analysis)
There have been numerous predicted monetary advantages linked to the adaptation of Autonomous Vehicles for daily commuting and travelling. First estimations state that autonomous cars can contribute $1.3 trillion in annual savings to the US economy alone, with global savings estimated at over $5.6 trillion (Bartl, 2015). Break up of this sum could be visualized in the matrix below presented by (Morgan Stanley, 2013).

Figure 7 – Time line for adaptation (Morgan Stanley, 2013)

Figure 8 – 1.3 Trillion/year $ Savings (Benjamin, 2014) & (Morgan Stanley, 2013)
SOCIETAL Advantages

Accidents reduction: The self-driving cars are expected to be safer as compared to the conventional human driven vehicle. It has been observed that with the use of advanced technology like Adaptive Cruise Control (ACC), Antilock Brake System (ABS) and many such advanced sensors and technologies has helped significantly curbing the rate of accidents both in numbers and on a per-vehicle mile travelled (VMT) basis. Automobile crashes have been diminishing in the United States at an annual average rate of 2.3% annually for light-duty vehicles in the period of 1990-2011. Roadway injuries have also fallen at an average annual rate of approximately 3.1%, over the same period of time (Anderson, et al., 2014).

Figure 9 – Roadways injuries and Accidents per million vehicle miles travelled (U.S) (Anderson, et al., 2014)

Mobility for Disable: According to (Anderson, et al., 2014) Self-propelled vehicles could considerably upsurge access and movement across a variety of populations presently incapable or not permitted to use conventional automobile. These include the incapacitated, older people, and children of age 16 or less. The most promising advantages would be personal independence, increased sociability, and access to vital services. Level 4 automation is expected to provide mobility and access at reduced cost when compared to the current system which provides mobility services for disabled for 14 to 18 percent of their budgets in the U.S.

Congestion: The traffic congestion could be directly affected by introduction of AV, influencing VMT by enabling a new modality for urban travel like a driverless-taxi system that over time substitutes old-style taxi service, car-sharing programs, and possibly even transit lines. On-demand, door-to-door convenience of traditional taxis could be offered by driverless at cheaper prices, as the payment for driver time would be excluded straight away. AVs are expected to support higher vehicle throughput rates on existing roads by increasing overall vehicle travel. The surround sensing technology which constantly monitor nearby traffic and respond with excellently synchronized braking and acceleration adjustments would enable self-driving cars to travel safely at higher speeds and with reduced space between vehicles, this would ultimately result in less congested roads. Furthermore, the crash related traffic congestion (non-recurrent
delay) could also be well managed by adapting self-propelled cars in our daily shuttling. It is estimated that on an average 25% of all congestion delays (including both recurrent and non-recurrent congestion) are caused by Traffic incidents, and vehicle crashes beholds a major share of this total. Successful indulgence of AVs in our society prevent the vast majority of these crashes, and would result in eradicating a respectable share of all types of traffic delays (Anderson, et al., 2014).

*Figure 10 – AV technology on traffic congestion (Summary) (Anderson, et al., 2014)*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Increase Traffic Congestion</th>
<th>Uncertain Effect</th>
<th>Decrease Traffic Congestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced travel costs</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergence of driverless taxi service</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase in road throughput capacity from more efficient vehicle operation</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Reduced vehicle crashes</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

*Better Land use and Reduced Car Ownership:* The wide acceptance and adaptation of self-driving cars would have a deep impact on the current land use pattern. Underlying nature of trading off land values would not be altered by the introduction of AV in comparison to the transportation costs, but the computation of the latter could have a major effect. The value / worth of the time is also among one of the costs for a typical auto commuter apart from other transportation costs which include factors like maintenance, insurance, depreciation, and fuel related costs and the opportunity cost of other actions the driver might involve in if not driving. With traditional vehicles, drivers must focus most of their attentiveness on the act of driving, prohibiting other utilitarian uses of their time. On the other hand, a self-driving car owner would be able to work for a couple of hours in the car on the way to work, spend four hours in the office, then work another couple hours in the car on the way home. Self-driving car gives you an ability to engage in other activities while riding (you ride an AV not drive it) an AV, ultimately decreasing the cost of transportation. Such a tradeoff between land value and transportation cost, would increase the willingness of households, and possibly some companies, to establish farther away from the metropolitan center. Moreover, the need of parking complexes and plazas in the core urban areas would also be dramatically reduced by the emergence of AVs. A couple of examples could help in better understanding of the subject; first, after dropping off its passenger(s) in a downtown location, a self-propelled car could direct itself to a distant lot in a outlying area, declining the amount parking space needed in the densest metropolis areas, where land values are usually highest. Second, if an Av is a driverless taxi it would often need not to park itself; rather, after finishing one trip, they would navigate to pick up the next passenger. Ultimately, the convenience and low cost of such an AV induced system is likely to attract many urban inhabitants to let go car ownership, or at least to reduce the number of cars owned.
Methodology
The data collected for this research is a mix of primary and secondary data and Delphi technique of data collection is used for the collection of primary data. The Delphi technique is a most common tool to collect the views of experts on a specific subject (Yousuf, 2007). This technique is primarily defines as: “A method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem. To accomplish this “structured communication” there is provided: some feedback of individual contributions of information and knowledge; some assessment of the group judgment or view; some opportunity for individuals to revise views; and some degree of anonymity for the individual responses” (Okoli & Pawlowski, 2004). The most common application of this technique, when ideas, plans and policies, plans have to rely on informed judgments (Yousuf, 2007).

Method of data collection and Sample size
The data was collected in a workshop, which was moderated by the representatives of Institute of Transport and Logistics, Vienna University of Economics and Business (Wirtschaftsuniversität Wien). Thirty participants, which participated in the workshop, were briefed about different scenarios of self-driving cars, its economic perspectives and related advancements in automotive industry. Later on the participants, which were expert in their fields (mostly public procurers, automotive technology experts) were asked for their opinion and remarks on the below mentioned questions (see heading 3.2).

Survey questions and experiment procedure
The participants were asked two main questions after the presentation on Scenario 4: "Future Scenario: Self Driving Cars - The future has already begun"

Q1. What is the future of self-driving cars?

- Where future was defined as adaptability of self-driving cars and their indulgence in our daily life for commuting and leisure travelling.

Q2. What is the business prospect with self-driving cars?

- Business prospect correspond to the future of current businesses like Original Equipment Manufacturers, Procurers and technology providers for automobile industry. What changes (positive or negative) do the experts foresee?

The participants were asked these two questions in two rounds and everyone was allowed to give their opinion about it. The flash cards were used to record their opinion and they were then placed in a diagram below to record their opinion and analyze what they think about these 2 questions.
Figure 11 – Custom build graph to analyze the opinion of participants: (all rights reserved Muhammad Azmat, WU)

Visualization of above graph in practical scenario

The participants were asked to do two things for each question, 1st they were expected to tell if they think there is a negative chance of growth or positive chance of growth for self-driving cars and business prospects and then they were expected to rate their argument on the scale of ±1 to ±10 (The higher the number the stronger the argument. The blue dotted line in the middle was to indicate the opinions for those who were not sure about any one of the questions or both of the questions (See Appendix f).

Analysis Technique
The experiment was followed by the statistical analysis which was done using Microsoft Excel tool, as there were limited number of observations, therefore the mainline statistical software’s were avoided to maintain simplicity and reader understandable outputs were derived which are further discussed in the “Results and Outcomes” chapter of this paper. The opinions were displayed in the graphical and visual formats for better understanding of the outcome.

Results
Thirty experts participated in scenario 4 and gave their opinion on the questions. For the sake of anonymity, the respondents were assigned number and they were not asked to tell their affiliation and names in the data. The data collected is shown in the tables below:
Table 3 – Experts feedback to the questions

<table>
<thead>
<tr>
<th>Respondent #</th>
<th>Opinion Attitude</th>
<th>Opinion rating</th>
<th>Respondent #</th>
<th>Opinion Attitude</th>
<th>Opinion rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. What is the future of self-driving cars?</td>
<td></td>
<td></td>
<td>Q2. What is the business prospect with self-driving cars?</td>
<td></td>
<td></td>
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<tr>
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<td>8</td>
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<td>-7</td>
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<td>10</td>
</tr>
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<tr>
<td>23</td>
<td>positive</td>
<td>10</td>
<td>23</td>
<td>positive</td>
<td>7</td>
</tr>
</tbody>
</table>
The (−) sign with the opinion rating are used to show the direction of opinion only. Whereas all the positive opinion ratings hold with them a (+) sign, which again is a symbol, used for directions only.

**Descriptive Statistical Analysis Q1**

The collected data conveniently show that a vast majority thinks that there is a good potential for autonomous driving vehicles in future, but a small population thinks otherwise, according to them the concept would never become a reality or it would never make to a utopian world concept at least not in the time suggested by the industry analyst. The graphs below show the opinion rating and respondent’s opinion attitude in %.

*Figure 12 – Respondent's Opinion Rating for Q1*
For the question about the future of self-driving cars (where future was defined as adaptability of self-driving cars and their indulgence in our daily life) 80% of the respondents said that there is a bright future for adaptation of autonomous vehicles making the utopian world concept true but the rating which supported there argument varied between 6 to 10 and it means the level of confidence varies but still not that much and at least everyone who is sure that this would become a reality have a strong opinion about it. Those who rated their opinion close to 5 where sure that it would become reality one day but not sure when would it happen, whereas, the other group who rated 7 or more where from school of thought who think that it would become reality soon. Moreover, 20% of the expert respondents thought Self driving cars would not be able to win the heart of people and would not be widely accepted and adapted, at least nowhere in near future (which they referred as 3-5 decades from now). But the opinion rating varied between -3 to -8 which highlights two very important points, 1). No respondent backed their statement with highest rating 2). There was relatively weak opinion rating over all, which means respondents were not strongly sure about their opinion if the autonomous vehicles would be adapted and accepted widely. The table below shows the descriptive statistics of Q1.

**Table 4 – Descriptive Statistical Analysis of Q1**

<table>
<thead>
<tr>
<th>Positive Opinion</th>
<th>Negative Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
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<tr>
<td>Standard Error</td>
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<td>Median</td>
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</tr>
<tr>
<td>Mode</td>
<td>8</td>
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<tr>
<td>Standard Deviation</td>
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<tr>
<td>Sample Variance</td>
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</tr>
<tr>
<td>Minimum</td>
<td>6</td>
</tr>
<tr>
<td>Maximum</td>
<td>10</td>
</tr>
<tr>
<td>Count</td>
<td>24</td>
</tr>
<tr>
<td>Mean</td>
<td>6.166666667</td>
</tr>
<tr>
<td>Standard Error</td>
<td>0.792324288</td>
</tr>
<tr>
<td>Median</td>
<td>6.5</td>
</tr>
<tr>
<td>Mode</td>
<td>8</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.940790217</td>
</tr>
<tr>
<td>Sample Variance</td>
<td>3.766666667</td>
</tr>
<tr>
<td>Range</td>
<td>5</td>
</tr>
<tr>
<td>Minimum</td>
<td>8</td>
</tr>
<tr>
<td>Maximum</td>
<td>3</td>
</tr>
<tr>
<td>Count</td>
<td>6</td>
</tr>
</tbody>
</table>
Count, Range, Minimum and Maximum

The total number of people participated and gave their opinion about the future (Adaptability) of autonomous vehicles were 30. Out of there 30 participants 24 showed positive attitude towards the question with an opinion rating from 6 to 10, therefore, the difference (range) between these opinion ratings was 4 which is not a very high difference as everyone who has a positive attitude about future of AV has rated their opinion with more than 5 points on the scale. On the other side out of 6 participants who had a negative opinion about adaptability of AV rated their opinion between -3 to -8, which shows their weak support of opinion. The difference of 5 points has been observed between their opinion ratings. No one was cent percent sure about their opinion as no one rated their opinion with 10 points.

Mean, Median and Mode

The mean (average) and the median of the positive opinion ratings are 8.375 and 8 respectively, which shows that an averaged rating in positive opinion can be considered strong. And the mode (most recurring number) for the positive attitude is 8 which is again at higher side. Whereas, negative opinions rating the mean and median is 6.16 and 6.5 respectively, which clearly shows that the opinion rating is more towards mediocre side and not hold a strong support. The mode for the negative opinion is also 8 as this number represent the most recurring value in the data set and in the negative opinion rating this value occurred twice in 6 opinions, but the overall impact may decrease dramatically if the number of respondents are increased.

Standard Error, Standard Deviation and Sample Variance

The standard error in both the cases is 0.26 and 0.79 which means the value of mean could deviate ±0.26 in positive opinions and ±0.79 in negative opinion. Whereas, the degree of variation from the mean (Standard deviation) in the collected data set is 1.27 in positive opinion which is close to mean when compared with 1.94 of negative opinions. Moreover, the selected number of items from the population which tells us the sample variance is 1.63 for positive opinion which is close to standard deviation of the data set, but the sample variance for the negative opinion is quite high which is 3.76.

Descriptive Statistical Analysis Q2

The 2nd question asked from the participants of the seminar was about the business prospect with autonomous vehicles. The idea was to take the expert’s opinion about the possibilities in the business sector with autonomous vehicles (it could be involvement of OEM, public procurers, technology providers or business modelers etc.), the question had a little varied response as compare to question 1. The figures below show the respondents opinions ratings and the opinion attitude percentages:
The data graph in the figure one depicts visual outcome of the collected data from the respondents whereas the graphical representation in the second picture depicts the % of the opinion attitudes. From the doughnut graph we can clearly visualize that 67% of the people have positive opinion about the business prospects with Autonomous Vehicles, whereas, 33% of expert respondents think the opposite. The descriptive table in the figure below tells the descriptive analysis of the collected data.

Table 5 – Descriptive Statistical Analysis of Q2.

<table>
<thead>
<tr>
<th>Positive Opinion</th>
<th>Negative Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>7.55</td>
</tr>
<tr>
<td>Standard Error</td>
<td>0.438148016</td>
</tr>
<tr>
<td>Median</td>
<td>7.5</td>
</tr>
<tr>
<td>Mean</td>
<td>5.4</td>
</tr>
<tr>
<td>Standard Error</td>
<td>0.7333333333</td>
</tr>
<tr>
<td>Median</td>
<td>5.5</td>
</tr>
</tbody>
</table>
Count, Range, Minimum and Maximum

Out of 30 respondents who gave their opinion on business prospects with autonomous vehicles, 20 had a positive opinion about the business prospects with self-driving care, whereas, 10 respondents had a negative opinion about the same question. The statistics clearly show that the highest opinion rating for positive opinion is 10 and the minimum is 4 this means the difference in opinion ratings is 6. On the other hand, out of 10 who had a negative opinion about it varied in their opinion rating from as low as -2 to as high as -8 the difference in their opinion rating is 6 too.

Mean, Median and Mode

The positive opinion’s average (mean) rating is 7.55 and median is 7.50, it means those who had a positive opinion on average backed their statement quite strongly, and the most recurring value of the opinion rating which is known as mode is 10 which appeared 5 times in the selected data set for positive opinion. On the other hand, the mean and median for the negative opinion ratings are 5.4 and 5.5 which almost lies at the middle and it tells, those who had a negative opinion about the business prospects where not quite sure with this opinion as they thought there might be some bright future prospects but vision is not quite clear, the most recurring value in these ratings is 8 which is though at a higher end but recurred only three times.

Standard Error, Standard Deviation and Sample Variance

The value of mean could deviate ±0.44 and ±0.73 in positive and negative case respectively which is at the higher end in negative opinion rating whereas relatively lower at the positive opinion rating. The overall degree of deviation from the mean in the collected data set is 1.96 and 2.32 for positive and negative opinion rating respectively. The degree of variation in the selected population sample (sample variance) is 3.83 and 5.37 in positive and negative opinion ratings respectively.

Conclusion

This paper on autonomous vehicles adaptation and business prospect is first of its kind in Austria. The findings from the opinions of first few experts from Austria who directly participated in the discussion on the self-driving cars is comparable to the rest of the world. A rising interest was observed not only in discussion but the experts were also keen in realization of the projects related to autonomous vehicles. The results convincingly show that a big majority of the experts thinks, “Future has already
begun”, and the driverless cars are no more just a science fiction element. Whereas, a minority of experts think that it is a little far away from the reality and would need much more time then suggested by many researchers and institutions for adaptability of autonomous vehicles.

**Future research prospects**

During the discussion many interesting topics came under discussion; like, concerns over the question “Who should be held responsible in the case of an accident”. Many had an argument that the company should be held responsible and other suggested that the user should be held responsible, it is a debate on the global level too but at the same time it is an open challenge for policy makers and involving the general public in this discussion could lead to a solution to this debate. Apart from that there are limitless possibilities to develop the business models with the self-driving cars, mostly the research on this topic is uni-directional that is everyone is researching the technical aspect of this technology but not much work has yet been done on the implementation side of the technology. Many researchers have suggested some car sharing models and self-driving taxis but no implications and acceptance of such models by general public has been discussed on broader scale. There are several topics related to self-driving vehicles, which are still unexplored and requires extensive attention from researchers.

**Reference**


KPMG. (2013). *Self-Driving Cars: Are We Ready?* KPMG. KPMG.


Future Collaboration between Government & Universities for Successful Research and Development (R&D) in Saudi Arabia: Case of Construction Industry

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**Abstract**

Public construction projects in Saudi Arabia have been experiencing performance issues (cost, time, and quality) for the past thirty years. There have been many research efforts and publications identifying the problem and potential causes, however, there have been minimal efforts identifying how to mitigate the problem and testing to validate proposed solutions. A literature search has shown that the academic research has had minimal impact in assisting the construction industry to improve its performance. This paper examines the research and development (R&D) approach in Saudi Arabia. A literature research was performed, using 5 academic databases, identifying the impact that R&D has had on the Saudi construction industry (SCI). A questionnaire was also created surveying both researchers and industry professionals. The results show evidence that the current R&D process in Saudi Arabia is not helping the SCI to increase their performance, and needs to be improved. This study provides a potential solution, and an action plan that mirrors one of the most successful research and development program in construction industry in the world [22 years, $16M, +1750 tests, six different countries, 31 states in the U.S. and 98% customer satisfaction]. The solution proposed in this paper is unique to the strengths and weaknesses of the research and development programs at universities and research centers in the Saudi Arabian kingdom. This paper will review the first year results of the solution and action plan.

**Keywords:** Research and Development, Universities, Construction Industry, Saudi Arabia

**Introduction**

Industry professionals, government analysts, decision makers and researchers all over the world are awarding a lot of attention to innovation performance within the construction industry (Hampson et al, 2014). The significance of developing collaboration between universities and the industry has been explained in several studies (Azhar, 2007; Barrett and Barrett, 2003; Gilkinson and Barrett, 2004; Liévana, 2010; Pertuze, et al, 2010; Hampson et al, 2014). A significant role can be played by universities in any company’s innovation strategy.
in the form of resources. The business perspective asserts that the result of a research is merely of incidental worth. The outcome does not matter as much as the impact. According to Pertuze et al. (2010), it is imperative to know how the new knowledge attained from collaboration with an academic institute can affect the performance of the company. Hence, it is imperative to stress on the significance of creating a bridge between scientific exploration, projects, and technological development programs in universities, and research centres with the requirements of economic, social and environmental growth.

From the Saudi Arabian perspective, the King Abdulaziz City for Science and Technology (KACST) is involved in the national system of research and development (R&D), in addition to 200 scientific research units associated with universities and various governmental and private institutes. It was found in 2008 that R&D expenses were around 0.4% of the GDP. However, it appears that Saudi Arabia is exhibiting dynamic responses to the global changes in the R&D environment, as can be seen from its increased R&D expenditure (Ministry of Economy and Planning, 2010). It is expected that Saudi government will assign a greater budget to R&D and innovation, increasing it from 0.25% of GDP in 2000, to 1% between the years 2010 and 2015, and to 2% between the years 2015 and 2017 (Al-Sultan, 2012). Major cities are the centre of scientific exploration and technological development centres, which signifies the population concentration: the city of Riyadh, which is the capital city, is where 50% of the centres are situated, followed by Jeddah which has 19.3% of the centres, Dammam which has 12.5% of the centres, Jubail and Yanbu with about 3.5%; with the rest of the 14.7% spread out amongst other regions (Ministry of Economy and Planning, 2010). There are merely 23 scientific researchers in the population of 100,000. This rate is quite modest compared to a few developed regions where there are 500 scientific researchers for every 100,000 individuals (Alshayea, 2013).

**Problem**

It has been observed in the past that there is insufficient cooperation amongst academic researchers and the construction industry practitioners in majority of the construction projects. The construction professionals are of the view that the academic research concentrates more on themes that are not essential for the construction industry. It is also asserted by the practitioners that the academic research findings are not applicable sometimes and cannot be utilized in actual construction projects (Azhar, 2007; Kashiwagi, 2008).

In Saudi Arabia, the building and construction sector in the Kingdom ranks second after petroleum industry in contributing to the gross domestic production (GDP) (Al-Tami, 2015). The construction industry has experienced a boom since the government spending on projects between 2008 and 2013 was estimated at $574.7 Billion (Ventures Middle East, 2011). However, The Saudi Arabian construction industry has had poor performance in the last 30 years (Zain Al- Abedien, 1983; Al-Sultan, 1987; Al- Al-Khalil and Ghafly, 1999; Assaf & Al-Hejji 2006; Al- Turkey, 2011). There have been many publications identifying the problem and potential causes and proposed solutions. However, there have been no publications identifying whether or not these publication have helped the construction industry to improve.

**Proposal**

This study has the following objectives:
To analyze the construction management academic research efforts that were conducted in SCI and see whether or not these efforts have had impact.

- To provide a potential solution, and an action plan that mirrors a successful research and development program in construction industry [22 years, $16M, +1750 tests, six different countries, 31 states in the U.S. and 98% customer satisfaction].

Research Methodology

The authors will first investigate the impact of existing academic research work in SCI practice. In order to do that the following steps are proposed:

1. Search the existing research effort in construction management in SCI to examine the impact of these research.
2. Survey the academic researchers and the professionals in construction industry to find out their perceptions on the existing research and development R&D approach.

Secondly, the authors will propose a solution for overcoming the lack of impact of research efforts on industry practice. The differences between the traditional research and development model and the new solution will be discussed.

The Importance of Universities and industry Collaboration

In the last few years of the nineteenth century, the universities and the industry showed most regular links whenever universities assumed the responsibility of suppliers of scientists and technicians; however, cooperation agreements for R&D did not exist (Herbert, 1994). It was depicted in World War I that the technology possessed by the U.S. was lagging behind Europe in several aspects, leading to the rapid growth of chemical and textile industries (Graner, 1972). The pace of this process was so rapid that universities showed discontent at the significant decline in professors in vital areas of exploration. The American research system was organized such that the involvement of several universities in R&D arose much more rigidly in the middle of and following World War II (Liévana, 2010).

R&D plays a significant role in the growth of the construction industry as it improves the effectiveness of construction companies and increases international competitiveness with the help of technological and managerial developments (Hampson and Brandon, 2004). Organizations need to stay competitive in the market and for that, they should ensure that customer expectations are fulfilled completely, and future requirements of the customers are met. In this respect R&D functions as a significant “input” for organizational development. It is important to have R&D activities so that novel methods of developing goods and services can be discovered by using fewer time, cost and resources, but having greater quality (Kulatunga et al, 2007). Construction firms should be involved more in R&D activities because of the requirement for many areas such as housing facilities, renovation of infrastructure, and protection of cultural heritage (Plooij-van Gorsel, 2000). It is imperative to acknowledge the role played by R&D in dealing with viable objectives of the construction industry (Kulatunga et al, 2007). The aim of researchers performing R&D activities should not be publishing their work; rather, they should focus on commercializing their products and add worth to the industry, while also enhancing efficiency and cost-effectiveness. R&D should be considered
as a way of enhancing the company’s competitiveness, keeping in view the rapid modifications presently taking place all over the world (Gue, S. 2007).

Notwithstanding the benefits of University based R&D given above, the industry frequently accuses it of not dealing with the practical issues faced by organizations, and for not be relevant and pertinent to the requirements of the industry (Gilkinson and Barrett, 2004; Barrett and Barrett, 2003). There is a lack of coherence between the research findings of universities and the industrial requirements which has a negative impact on the correct use and application of the research finding (Kulatunga, 2007).

In most of the published articles in the construction industry signifying academic research work usually include surveys of the practitioners in the industry. These are more reactive instead of being responsive to industry norms, and are more likely to preserve the status quo instead of initiating disruptive technology in industry practices. Hence, the success of research in an academic domain is simply determined by the amount of awarded funding assigned to research, the field of research, number of professors working on the research, number of research papers referred to, number of PhD students and collaboration with other research institutes (Kashiwagi, 2008).

Research Method
The research methods used in this study are literature review and survey. For the literature review phase, the aim was to analyze the construction management research efforts that were published in Saudi Arabian construction industry. The targeted literature sources are limited to refereed academic journals, conferences and thesis/dissertations, published in English. Relevant research papers are identified and gathered using the following three methods:

1. First, the authors wanted to keep the searches as broad as possible to minimize the chances of missing any construction management related publications in Saudi Arabia. Search code was carried out on five databases, which are Emerald Journals, EI Compendex, ABI/Inform, ASCE Library, and Google Scholar. For this purpose, the search code is as follows: ("construction industry" OR "construction projects" OR "infrastructure projects") AND "Saudi".
2. The academic researchers and industry professionals were asked in the survey to help the authors to find researchers or studies that have helped the SCI performance to improve.
3. The third method was through reference lists of the papers identified.

A survey was designed for measuring the SCI academics and professionals’ perceptions towards the current R&D practices in the construction environment, and their receptivity towards the proposed solution, to contribute to the solution development. The survey was composed of sixteen questions and was distributed through emails to over 110 SCI professionals. Those professionals have experience as construction managers and are registered in the project management chapter in Saudi Council of Engineers. The other targeted sample is the academic researchers. 25 Saudi universities were identified in Saudi and 56 emails were sent to the academic researchers who are specialized in construction engineering and management.
The survey received 76 respondents (41 professionals and 35 academics). They were asked to identify their background and then to answer R&D related questions. The background questions were about the participants’ level of experience and type of organization they work in. Five areas of work were targeted which are: university, private or public organization, governmental or private research center. Also, the respondents were asked to specify how many research publications have they involved in. For the R&D related questions, participants were asked to rate their answers on a scale of (strongly agree, agree, not sure, does not agree, and strongly does not agree). There are two questions that have different style. The respondents were asked to identify if they published or know any research articles or researchers that implemented their proposed solutions in real construction projects in Saudi Arabia and published the results.

Data Analysis and Discussion

Part 1: Literature review method
The relevant publications (journal papers, conference papers, and dissertations) from the search results were identified through reading titles, abstracts, keywords and brief scanning of the publication’s manuscript to filter out unrelated papers. Once the online databases and search engines had been exhausted with deleting the repeated titles, an in depth search was performed for any related articles that were identified as references in the previously identified publications. The same five engines were employed to find the referenced articles. There were five other main engines were also utilized for this task which are: Saudi digital library, ProQuest, Illiad interlibrary service, ScienceDirect, and Informaworld. The researchers found an additional 28 related articles after conducting this step.

In addition to the literature search, two questions were added to the conducted survey. The questions ask academic and professional experts to identify if they published or know any research articles or researchers that applied experimental research in construction management in Saudi Arabia. The survey respondents did not provide any new information as all their responses were already included in the research database. Results of the databases search returned more than 21000 hits in the first step of the literature search. Of those publications, 483 were selected for further analysis as they fit the criteria of the targeted publications. The identified publications were reviewed in details and essential information was captured in a literature database using Excel. The database information included publication’s title, abstract, journal or conference name, authors’ names, year of publication. The search results are shown in Table 1.
Table: 1: The research efforts in Saudi Arabian construction industry

<table>
<thead>
<tr>
<th>Academic Search Engines</th>
<th>Total Results</th>
<th>Relevant Hits</th>
<th>Years Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI Compendex</td>
<td>303</td>
<td>222</td>
<td>1981-2015</td>
</tr>
<tr>
<td>ASCE Library</td>
<td>221</td>
<td>47</td>
<td>1983-2015</td>
</tr>
<tr>
<td>ABI/Inform</td>
<td>3914</td>
<td>58</td>
<td>1986-2015</td>
</tr>
<tr>
<td>Emerald Journals</td>
<td>201</td>
<td>21</td>
<td>1996-2015</td>
</tr>
<tr>
<td>Google Scholar</td>
<td>16,600</td>
<td>135</td>
<td>1977-2015</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>483</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Once the information database was completed, quantitative methods were applied to analyze the results. The target papers is the construction management studies, (the studies that discuss planning and scheduling, managerial topics, delay, cost, quality, safety, O&M, etc.). Technical research efforts that discussed for example construction material such as concrete, cement, and soil were not considered in the analysis. The total number of research papers found in the database is 483 studies. The technical research based studies found in the database is 120 whereas the construction management research based is 363.

As it is shown in Table 2, the collected data were grouped into three main categories, which are:

- Theoretical research based: in this category all studies that have not been implemented in the real construction projects were identified.
- Prototype test research based: all studies that have been tested only one time in real construction projects were identified.
- Implementation research based: all studies that have been implemented with repeating the actual testing to validate the proposed solution and document the performance result.
Table 2: The analysis of construction management research based

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total construction management research based</td>
<td>363</td>
</tr>
<tr>
<td>Theoretical research based</td>
<td>343 (94.5 %)</td>
</tr>
<tr>
<td>Prototype test research based</td>
<td>20 (5.5 %)</td>
</tr>
<tr>
<td>Implementation research based</td>
<td>0</td>
</tr>
</tbody>
</table>

The results revealed that, most of the existing construction management publications (94.5 %) are theoretical based whereas only 5.5% are tested in real construction projects once. However, there were no publications found that repeat the actual testing to validate the proposed solution and document performance metrics on the action research results. Interestingly, the total papers that proposed solutions found in the database are 237(65%).

**Part 2: Survey Method**

The educational background of respondents spans all the levels of education with 26.3 % having PhD degree, 47.37 % having MS degree and 26.32% having bachelor degree. On the other hand, the level of experience and the number of publications respondents involved in are presented in Table 3 and Table 4 respectively.

Table 3: Participants’ years of experience

<table>
<thead>
<tr>
<th>Years of experience</th>
<th>Percentages (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5</td>
<td>34.21</td>
</tr>
<tr>
<td>5-10</td>
<td>31.58</td>
</tr>
<tr>
<td>10-20</td>
<td>21.05</td>
</tr>
<tr>
<td>More than 20</td>
<td>13.16</td>
</tr>
</tbody>
</table>

Table 4: Participants research efforts

<table>
<thead>
<tr>
<th>Number of publications</th>
<th>Percentages (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non</td>
<td>39.47</td>
</tr>
<tr>
<td>1-5</td>
<td>39.47</td>
</tr>
<tr>
<td>5-10</td>
<td>7.89</td>
</tr>
<tr>
<td>More than 10</td>
<td>13.16</td>
</tr>
</tbody>
</table>
As it is shown in Table 5, the responses have agreements on the following

- The SCI performance is suffering from performance issues.
- The research publications have no impact in the SCI.
- There is a lack of collaboration between the universities and the SCI (public and private sectors).

The finding is an evidence to show that the construction management research efforts are not helping the SCI performance to improve. Thus, the existing academic research efforts have had minimal impact in assisting the construction industry to overcome its performance issues.

Table 5: The analysis of construction management research based

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Not Sure</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Most of the construction projects in Saudi Arabia have performance issues (Delay or Cost overruns, Quality or Safety issues)</td>
<td>66.67%</td>
<td>30.56%</td>
<td>2.78%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>2</td>
<td>Most of the research publications in SCI have not helped to improve the SCI performance</td>
<td>38.89%</td>
<td>30.56%</td>
<td>19.44%</td>
<td>11.11%</td>
<td>0.00%</td>
</tr>
<tr>
<td>3</td>
<td>The research centers (Public/ Private) that have interest in Construction industry have helped the SCI to improve</td>
<td>0.00%</td>
<td>11.11%</td>
<td>19.44%</td>
<td>44.44%</td>
<td>25.00%</td>
</tr>
<tr>
<td>4</td>
<td>The role of Saudi universities to improve the SCI performance is effective</td>
<td>5.56%</td>
<td>5.56%</td>
<td>11.11%</td>
<td>52.78%</td>
<td>25.00%</td>
</tr>
<tr>
<td>6</td>
<td>Most of the proposed solutions\recommendations in publications are theoretical based and not tested in the real construction projects</td>
<td>33.33%</td>
<td>52.78%</td>
<td>11.11%</td>
<td>2.78%</td>
<td>0.00%</td>
</tr>
</tbody>
</table>
The Proposed Research and Development Model
The prevailing issue can be resolved by initiating a novel and different approach by the university in its research and development methodology. It is demonstrated in a previous study that the performance of construction industry has been affected by a limited number of research and development centres through recurring assessments (Kashiwagi 2009; Graham et al, 2011; NAS, 2009; Khalid Huda et al, 2009; Alsehaimi et al, 2013). An international literature search study was carried out in 2008 by TG61, a group endorsed by the International Council for Building (CIB). The study determined construction innovative methods that made use of performance measures to enhance efficiency of projects. Over 4,500 papers were evaluated in the study, and these had been shortlisted from a total of 15 million papers. It was deduced in the study that only 16 published papers showed actual improvement in performance because of hypothesis testing the use of performance information procedures. It was determined in the study that 75% of the entire 16 papers that exhibited performance practices had been carried out by Performance Based Studies Research Group (PBSRG) (Egbu et al, 2008). Sufficient documents and publications were available with this group that acknowledged the improvement in performance, value and customer satisfaction in the construction industry because of the applications of developed concepts.

It was suggested by the PBSRG at Arizona State University that one of the key reasons that brought about issues in the construction industry was the prevailing traditional research methodology. In the existing academic research, there isn’t any structure suitable for introducing change. Hence, it is highly dependent on literature studies and surveys of the views
of industry participants to recognize the performance factors and issues prevalent in the construction industry. There is hardly any action research that examines the validity of their perceptions in actual life industry tests. New concepts can be validated by carrying out action research with the help of recurring industry tests. Hence, the PBSRG has continuously collaborated with the construction industry to evaluate their proposals. The research comprises of (Rivera, 2014):

- 1,750 projects that cost $6.3 billion, where the BV environment was utilized (PBSRG, 2015).
- One of the biggest contractor developers in Malaysia (functioning in a more underdeveloped culture) utilizes the best value PIPS and IMT concepts to have more efficient operations.
- 50 diverse clients (public & private) have taken part in the testing.
- 483 Presentations, 8,600 Attendees from the U.S., Asia/Australia, Europe, and Africa.
- 175 refereed conference and journal papers pertaining to the growth of IMT, PIPS/PIRMS, and research tests.
- Carried out research testing in 31 states in the US and 6 other countries.

The conventional literature search method was not utilized by the originator of the Performance Based Studies Research Group to recognize the issues in the construction industry. It is presumed that the issue was prevalent since the industry participants did not comprehend what was going on [did not possess the performance information and did not comprehend that the client or non-professional should not direct the expert vendors] and that the action research outcomes demonstrated with the help of dominant performance information, the practicality of the situation and the degree of performance. The researcher then tried to determine the worth of the professional vendor’s services by using a transparent system that assessed various solutions’ performance information. The multi-criteria decision making model, that is the Displaced Ideal Model [DIM], was employed by the researcher, to find out the worth and degree of experience possessed by all competitors. It was then recognized through the action research testing regarding the ideal worth of the vendor [best value for the least cost]. Through this test, the precedence for the PBSRG research method was established [decrease bias/personal perspective, using performance information, decreased decision-making and observation of the solution]. It was presumed by the PBSRG that their success would be an outcome of a preponderance of test outcomes, continuous action research testing and the optimization of construction industry procedures and publication within the industry. This method is recognized in this research as a method that was different from the conventional validation through peer review.

A new corporate model was required by PBSRG’s research methodology. The new funding model is the need of time owing to constant improvement of successful concepts, frequent action research tests besides the development of leading and simple logic. Regarding government grants, no competition was made by PBSRG management (Rivera, 2014). The clients from construction industry had funded the research grants who had demonstrated great concerns in the practical implementation of the upcoming model. The research work carried
out by PBSRG was only confined to their scope of expertise. Construction industry partners gravitated to the research due to the following dominant results (Rivera, 2014):

1. The reduction of project cost from 5 to 50%.
2. The reduction in procurement duration and transactions by all parties by 50%.
3. The increase in expert vendor profit.
4. Expert vendor project time and deviation cost of less than 1%.
5. The minimization of client management and direction by 90%.

Besides industrial standards, the impact and speed of action research testing has been uplifted because of the PBSRG’s competence to incorporate the prototype testing, the theoretical development and implementation of the best value technology.

Fig 1: PBSRG Research Model

As it is shown in Fig 1, this approach ensures rapid impact and continual conceptual development in the delivery of services in the construction industry. Theoretical development immediately impacts the implementation of the technology. The validation of the developed concepts would not be by academic research peer review in journal publications, but by action research test results and sustainability of the research effort. If the research efforts do not lead to industry implementation, the action research objective of improving the industry performance is not validated.

The PBSRG action research result requirement was simplicity, clearly identifying where industry participants were not following the developed processes. The IMT (Information
Measurement Theory) was believed to be the theoretical result of the PBSRG research. The following concepts are included in the IMT:

- All natural laws that explain the change from one state to another, exist at all times.
- All event start from unique initial conditions and unique end with unique final conditions.
- There is always an association between these unique initial and final conditions, i.e., they are always interrelated.
- All events have only one outcome.
- Randomness does not exist.
- The initial conditions are realized by the expert along with the anticipation of final conditions, and the performance in overall cycle is monitored by experts as well.
- Scope gets minimized by experts and transparency is also utilized to mitigate the uncontrollable risks.
- Risk management and quality control mechanisms are performed by the expert. On the other side, quality assurance is done by buyer/owner [it is made sure that the contractors are following their risk management and quality control standards.]

The below mentioned points became evident with the application of IMT concepts in action research:

- The project cost can be decreased and project quality can be increased by utilizing expertise.
- When the expert vendor is managed by the buyers, his expertise in this scenario will not be utilized and there would be an increase in the cost besides the decrease in the value of the expertise.
- The project risk gets increased in the case, when a buyer’s expectation is created and expert’s capabilities are not utilized.
- The variance between expectation and reality, which is specified by the initial conditions, is basically the project risk.
- A transparent environment assists expert and not expert vendors to perform.
- Transparency minimizes decision making and confusion.

From the above, the future collaboration between the governments and universities must go through the following steps:

1. Theoretical development research.
2. Prototype testing
3. Continual implementation testing.
4. Keep performance metrics on the action research results.

Each step is important in order to ensure a successful research and development approach. In order to do this, a strategic plan is needed in order to implement an innovative
solution that is based on concepts of the Best Value environment. The authors set up a plan for implementing the successful PBSRG research model and the Best Value in Saudi Arabia to have impact on SCI. The implementation plan includes the following:

1. Design a Saudi Arabian academic research program called Saudi research group (PBSRG-SRG) under PBSRG mentoring.
2. Learn the theoretical development concept of PBSRG model and its implication.
3. Learn the PBSRG research approach that have improved the construction industry practice and improved its performance.
4. Conduct research with the aim of implementing the BV research and development in Saudi Arabia.
5. Run tests in Saudi Arabia with visionary government owners and vendors.

Currently, the Saudi research group (SRG) consists of 6 members who are conducting research in different areas in construction industry. They have successfully identified potential projects to test and continually implement the innovative concepts with different clients in the Saudi Arabian construction industry. They will imitate the R&D model of the PBSRG and develop the model to fit the environment and special characteristics of the SCI.

Conclusion
In this paper a literature search was conducted to find successful research efforts that have integrated the academic research efforts and industry practices and improved the industry performance. It is found that the Saudi construction industry practice and the academic research work are in separate silos. Therefore, academic research work does not significantly impact the Saudi construction industry practice. This study has shown that the majority of construction management publications document what industry practitioners perceive and observe, proposals based on consensus of opinions, documentation of current industry practice. This issue is not only related to Saudi construction industry since many publications have reported the same issue in different countries.

Both governments and universities have to realize that the existing research and development approach must be changed in order to improve the construction industry performance. The proposed solution in this paper ensures rapid impact and continual conceptual development in the delivery of services in the construction industry. The validation of the developed concepts would not be by academic research peer review in journal publications, but by action research test results and sustainability of the research effort. If the research efforts do not lead to industry implementation, the action research objective of improving the industry performance is not validated. It is desired that the paper will be useful for construction researchers and practitioners who are seeking to improve collaborative efforts in industry-based research projects.

References


A qualitative analysis of people views of microfinance in Lebanon

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Introduction
Foreign aid and macro development are not enough to produce economic development or decrease poverty (Erixon 2005). The search for effective strategies was obscure until modern microfinance was defined and was shown to decrease poverty level by awarding Prof. Yunus and the Grameen bank.

The microfinance concept is not new; it has existed for more than a century. The earliest form of using the term microfinance can be traced back to 1846 when Lysander Spooner, activist and entrepreneur, theorized the extension of small credits to farmers as a way of combating poverty in rural America. Microlending on the other hand has existed for centuries and probably is as old as the inception of buying and selling and even possibly before currency was even first used. Microlending was mainly practiced in small villages, where family members and friends would get together in money-sharing groups. These savings clubs can be traced to all parts of the world.

The modern theory of microfinance, however; aims to delivers a program that declares to have faith in the world’s poorest people to pull themselves out of poverty by providing them with financial services they were previously deprived of (Leikem, 2012). Other academics have (Schreiner and Colombet, 2001) defined microfinance as “the attempt to improve access to small deposits and small loans for poor households neglected by banks.” The basic idea behind modern microfinance is therefore that low income people, given access to credit, can build or develop their own business which is expected to provide them with a suitable income that can elevate them from poverty. On the long run, the economic status of people would improve with the help of a modern microfinance program (MMP). This however, will increase the demand for more microfinance institutions’ (MFIs) services. Thus new firms will be created to meet this increase in demand, and a multiplier-type cycle of development will begin. Although the economic and social contexts differ across countries, the basic purpose of MMP stays the same: to provide small loans and other financial services to low income people in order to help them increase their incomes through their own small businesses. In general, all MMPs target one thing; human development that is geared towards both the economic and social uplifting of the people targeted (Ghalib, 2007).
Almost 30 years after the first microfinance institutions were founded, the microfinance market is still in evolution. When microfinance started to expand during the 1980s, it was about lending to the rural poor for income-generating purposes mainly through solidarity group loans of small and smallest amounts. Since then, microfinance has evolved into a more comprehensive development tool, with the aim to supply access to financial services for all unbanked people in emerging and developing markets (Lützenkirchen, Deutsche Bank research 2012).

Today, most borrowers still live in rural South Asia and the East Asia and Pacific region (Lützenkirchen, Deutsche Bank research 2012). Over time, microfinance has expanded also in Latin America and the Caribbean, in Eastern Europe and Central Asia, and in Sub-Saharan Africa (Lützenkirchen, Deutsche Bank research 2012). However in the Middle East and North Africa (MENA) microfinance struggles to find momentum despite of some forecasts expecting growth of microfinance markets in that region to be 15-20% in 2015 (Microfinance Market Outlook 2015 responsAbility research). There are many reasons for such distorted outlook of growth of MMP in the MENA. The credit for enterprise investment is almost the sole focus of MMP in the MENA region. Credit is just one of the many financial services the poor may need. In addition governmental loan subsidiaries to various sectors of the society at very low interest rates distort the image and data even further.

In several reports by the World bank about the state of microfinance in the regions, the World Bank describes that the MENA region’s microfinance industry differs from those in other parts of the world in many aspects such as: the rise of Islamic microfinance methodologies and notions, high expectations from the sector to solve the problem of unemployment and the confusion among users about the identity of the microfinance providers and other “big players” that offer lending. We therefore believe that the perception by clients of the identity and nature of MFI can lead to better services and targeted market growth of the MMP.

While microfinance seems to promote a promising new strategy, academic and empirical research has not yet acknowledged the perception towards microfinance in the MENA region, in particular Lebanon. Lebanon will be the focus of this study because Lebanon has one of the lowest predicted economic growth rates of less than 2.5% for the year 2015 in the MENA region. Lebanon is also a country that has an economy mostly service oriented with banking and tourism as its main growth sectors. A research conducted by the UNDP in 2005 found that almost 1.2 million Lebanese citizens were considered to be poor. This represented around 28% of the Lebanese population. In order to develop the microfinance industry in Lebanon, it will be important for MFIs to understand the perceptions of the population regarding the impact of micro financial services provided by these firms on individual life. Analyzing what Lebanese people know about microfinance and their perception towards it may help managers of MFIs to determine how they can improve their services. No study examining the perception towards microfinance on the Lebanese society has been so far published.

The main question that this study will attempt to answer is: How does the average citizen in Lebanon understand the concept of microfinance and what one can expect from the MFIs and MMPs. Moreover, secondary objectives and questions will be studied.
• Does microfinance awareness differ between urban and rural residents in Lebanon?
• Have all Lebanese heard of MFIs operating in Lebanon?
• What motivates and de-motivates Lebanese people to get a loan from a MFI?

In order to answer these questions, a questionnaire will be designed to investigate these objectives.

According to the Lebanese Central Bank, the consolidated balance sheet of commercial banks has been increasing through the years, having almost 47% increase in total assets going from $115.3 billion in 2009 to reach $169.2 billion in 2014 (Lebanese Central Bank Bulletin 2009). Nevertheless, the banking regional distribution remains mainly concentrated in the region of the capital Beirut and its suburbs. A report published by Bankmed, one of the main Lebanese commercial banks, showed that 78% of loans are given in the region of Beirut and its suburbs while it is only 10% in Mount Lebanon, 4% in South Lebanon (El jnoub and Nabatiye), 4% in North Lebanon, and 4% in the Bekaa area (Bankmed, 2014). Thus it is clear that commercial banks do not have a focus on rural areas where most of the low income population resides. A research conducted by the UNDP published in 2008 found that the vast majority of low income residents were those living in the North of Lebanon, Akkar.

During the last 10 years, Lebanese commercial banks started to offer microfinance products either through strategic partnership with MFIs or by issuing loans to small companies guaranteed by specialized international or domestic funds. Microfinance was mainly introduced in Lebanon in the mid-1990s. The sector has seen a remarkable growth in recent years and is expected to continue expanding. Despite all the political instability in Lebanon, the microfinance sector proved to be a success. After the 2006 war which heavily affected the sector, the microfinance industry rapidly recovered and the total number of clients increased at a compound annual growth rate of 26.2% during the years 2007 to 2014 (Blombank, 2014). In fact, during the period ranging from 2007 until 2014, Lebanese microfinance clients increased from 29,420 clients (IFC, 2007) to 150,000 clients (Blombank, 2014) showing an incredible increase of around 400%. Moreover, with an average loan size of $1,118, the outstanding loan portfolio stood at $23.9M in 2007. In 2014, the outstanding loan portfolio increased to $150M approximately with an average loan amount of almost $2,000 (Blombank, 2014). This shift was mainly due to the increasing awareness towards the social benefits of microfinance by the Lebanese society.

According to Mr. Ali Hijazi, a microfinance researcher and microcredit program manager of the association for the development of rural capacities (ADR), there is microcredit rather than MMPs in Lebanon. Moreover, according to Jawaid (2010), different MFIs claimed that the market is very limited that it is unprofitable to provide other services than microcredit. Interviewing CFC, Jawaid (2010) stated that group loans were not widely offered as many Lebanese MFIs felt that Lebanese citizens do not like to share their personal profits or financial information with anyone. Furthermore, non-financial services like business development trainings are not provided by MFIs in Lebanon despite, housing loans, personal or consumer loans being very popular. Moreover, the author stated that different types of seasonal loans like agricultural loans, tourism loans, and Eid (Islamic) holidays loans were also provided. Unfortunately, no laws were put by the government in order to explicitly regulate micro lending in Lebanon (Mamari and Ghaleb, 2002).
Although As of 2014 there are around 23 MFIs that are mainly subsidized by the USAID, operating in the country, the Lebanese microfinance market is mostly dominated by three microfinance institutions: Al Majmoua, Vitas, and Al Quard Al Hassan Association. “As of September 2007, approximately 29,420 microfinance clients were being served by NGOs, MMPs, and MFIs; together, they had an outstanding portfolio of roughly $23.9 million, with an average loan size of $1,118” (IFC report, 2008). Table 1 below shows the History of Leading Lebanese MFIs.

Table 1: Background of the most common Lebanese MFIs.

<table>
<thead>
<tr>
<th>Name of institution</th>
<th>Type of institution</th>
<th>Year microcredit activities started</th>
<th>Reason for founding</th>
<th>Founder</th>
<th>Initial source of funding</th>
<th>Funding status today</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al Qard el Hassan</td>
<td>Informal NGO; registered as an NGO in 1987</td>
<td>1983</td>
<td>Provided much needed services during the Lebanese civil war</td>
<td>Hezbollah</td>
<td>Not specified, many claimed that it was subsidized by different sources</td>
<td>Reported as largely self sustaining with savings</td>
</tr>
<tr>
<td>AEP</td>
<td>NGO</td>
<td>1984</td>
<td>To support entrepreneurs to establish businesses and create jobs during the Lebanese civil war</td>
<td>Businessmen, bankers, and social workers</td>
<td>Businessmen, European Union, Italian and Spanish NGOs, and banks</td>
<td>Function as a revolving loan fund</td>
</tr>
<tr>
<td>Al Majmoua</td>
<td>Registered as an NGO in 1998</td>
<td>1994</td>
<td>Social development</td>
<td>Administered by save the children foundation</td>
<td>USAID</td>
<td>NGOs</td>
</tr>
<tr>
<td>Vitas group</td>
<td>Registered as a non-profit organization in 1999, 2000</td>
<td>1998</td>
<td>Program administered by CHF International</td>
<td>CHF</td>
<td>USAID</td>
<td>Funding of loans with Jammal trust bank, Lebanese Canadian</td>
</tr>
</tbody>
</table>
A quantitative approach using a standardized questionnaire was used to analyse the perception of the average Lebanese towards microfinance. The same question was asked for an entire population sample and then the frequency of every response was measured to reach conclusions.

**Questionnaire design**

The questionnaire was made up of both open and closed ended questions. The questionnaire consisted of 16 different questions to examine the people’s understanding and perception towards microfinance services (Appendix A).

**Population**

According to Miners, the Lebanese population is estimated to be around 4 million people distributed on five different areas (Mount Lebanon, North Lebanon, Bekaa, South of Lebanon with Nabatieh included, and Beirut). A recent study conducted by credit Swiss showed that 0.3% of the population owned 48% of the Lebanese wealth estimated to be $91 billion. That being said, most of Lebanese workforce is estimated to be average to low income people that make them potential microfinance clients.
Sampling method
Cluster sampling method was used in this questionnaire. In order to assess the external validity of our study, statistical tests of inference tests like t-test, chi-squared test and correlation tests were used.

Sample size
Considering a 95% confidence level, 5% confidence interval, and 50 % estimation of results, the predicted sample size to study people’s perception towards microfinance was 385 individual.

\[ N = \frac{(50\% \times (100\%-50\%))}{(2.55\%)}^2 = 385 \]

Data collection
In This study, primary data was collected through questionnaires.

The questionnaire was based on an earlier research papers conducted (Siddiqui and Gilal 2012) to analyze perception towards microfinance in Pakistan. It was validated using the Cronbach’s alpha, a standard test of internal consistency, using SPSS. Questionnaires were distributed proportionally across Lebanon in order to tackle different Lebanese regions. In fact, the total Lebanese population was estimated to be almost 4 million people (check table b in appendix). Mount Lebanon constituted 38.1% (1,508,658) of the total population, North Lebanon 20.6% (816739), Bekaa 13.5% (533305), South Lebanon 11.3% (446969), Beirut 9.6% (378464) and Nabatieh 7% (277686). That being said, the sample size will be divided proportionally according to the demographic distribution of the Lebanese population. For instance, 147 questionnaires should be distributed in the area of Mount –Lebanon. (147=38.1% * 385).

Results
641 questionnaires were distributed in five different Lebanese regions as shown in graph 1 below, and 397 questionnaires were collected, indicating a response rate of almost 62%.

![Fig 1: Questionnaires distributed through Lebanese areas](image)

Table 2 below summarizes the distribution percentage as well as the response rate in each of the five Lebanese areas separately. For instance, 159 = (38.1%×385) out of 294 distributed
questionnaires were collected in the region of Mount Lebanon, indicating a response rate of around 54.1%.

Table 2: Questionnaires distribution and response rate

<table>
<thead>
<tr>
<th>Area</th>
<th>Population</th>
<th>% of population</th>
<th>Questionnaires required</th>
<th>Questionnaires distributed</th>
<th>Questionnaires collected</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mount Lebanon</td>
<td>1,508,658</td>
<td>38.1%</td>
<td>147</td>
<td>294</td>
<td>159</td>
<td>54.1%</td>
</tr>
<tr>
<td>North Lebanon</td>
<td>816,739.00</td>
<td>20.6%</td>
<td>79</td>
<td>158</td>
<td>68</td>
<td>43%</td>
</tr>
<tr>
<td>Bekaa</td>
<td>533,305</td>
<td>13.46%</td>
<td>52</td>
<td>52</td>
<td>52</td>
<td>100%</td>
</tr>
<tr>
<td>South Lebanon</td>
<td>724,655</td>
<td>18.29%</td>
<td>70</td>
<td>100</td>
<td>81</td>
<td>81%</td>
</tr>
<tr>
<td>Beirut</td>
<td>378,464</td>
<td>9.55%</td>
<td>37</td>
<td>37</td>
<td>37</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>3,961,821</td>
<td>100.00%</td>
<td>385</td>
<td>641</td>
<td>397</td>
<td>61.93%</td>
</tr>
</tbody>
</table>

**Respondents’ background**

According to our sample size, we can conclude the following:

- 45.8% of the respondents were males while 54.2% of the respondents were females (fig 2). This was almost consistent with the 0.96 males/females gender distribution in Lebanon (source: [www.indexmundi.com](http://www.indexmundi.com)).

- **Fig 2: Gender distribution in Lebanon.**

- Almost half of the respondents earned a monthly income that ranged between $100 and $600, almost 32% earned between $600 and $1100, 12.3% earned between $1100 and $2000, and almost 5% earned above $2000 (fig 3). These findings were considered to be consistent with the findings of a report published by the World Bank claiming that around 70% of the population generated an annual income of around $10,000. Moreover, at 30 %, income inequality in Lebanon was the highest observed in the
Female participation in the labor market was 22.8 percent compared to 70.5 for men (www.dailystar.com).

**Fig 3: Distribution of income among participants in the study.**

Almost 52% of the respondents were university graduates, around 25% finished secondary and high school, 12% held a masters or MBA degree, almost 5% had a vocational school degree, and 5% were uneducated (fig 4). This shows that most of Lebanese population was literate and educated. Hence, the respondent’s level of education was consistent with the fact that almost 90% of the Lebanese can read and write (indexmundi.com). A research conducted by the united nation in 2014 showed that the average years of schooling in Lebanon was almost eight and that there was only a 0.1 percent difference between the number of men and women who have achieved a secondary level of education.

**Fig 4: The percentage of participants that hold an educational qualification.**

The sample population in this study was also representative of the real population age, where most of the Lebanese population aged below 55 (www.indexmundi.com). That being said, the sample population had similar age range, gender, income range, and education level of the Lebanese population. The data collected from the field was coded and analyzed using SPSS to provide pivot tables and cross tabulation analysis showing the relation between different attributes such as gender and topic understanding which were studied; however, Microsoft Excel was used to draw bars, charts and pies.

**Current understanding of microfinance**

As fig 5 shows, topic understanding towards microfinance differed across Lebanese areas. The highest percentage of respondents who claim that microfinance offered financial services to low income people were the residents of Beirut (35.1%), Bekaa (30.8%), and South of Lebanon.
(24.7%). On the other hand, the highest percentage of respondents claiming that they knew nothing about microfinance were those living in the governorate of North Lebanon (50%) and Bekaa (36%). The lowest percentages of respondents were those living in the governorate of Beirut (10%) and South Lebanon (13.6%). These results confirmed the findings of a report published by Blom bank, one of the leading commercial banks in Lebanon, in which it claimed that although MFIs were spread across the Lebanese areas, the largest portion of microcredit services was seen in the areas of South of Lebanon (with Nabatieh included), and Beirut (Blombank, 2014).

Fig 5: Respondents percentages when asked “What do you know about Microfinance and microfinance institutions like Al Qard el Hassan, Al Majmouaa, Vitas, and Ibdaa?”

According to Al Majmouaa annual report, most of the company’s clients are those living in the areas of Beirut (39%) and South Lebanon (33%), while the lowest portion of its clients were those living in the North Lebanon (Al Majmouaa annual report, 2013). This inequality of clients’ distribution was mainly due to the fact that these regions had higher success and repayment rates than the other regions (Blom bank, 2014). That being said, the reason why the high level of unawareness towards microfinance existed in the North of Lebanon among other areas was probably because MFIs did not provide services in that region. This is probably due to the fact that this area is perceived as more risky and less profitable than the other areas. It is up to Lebanese MFIs to justify this action, as most low income people live in this area (UNDP, 2008). Surprisingly, the vast majority (around 92%) of those unaware of the benefits or even existence of microfinance were educated, almost half of them holding a bachelor university degree (check table 1.2a appendix B). This result clearly showed that microfinance awareness needs to be promoted more among university students.

After conducting a cross tabulation analysis between topic understanding and gender (check table 1.1a in appendix B), 12.3% of males and 10% of female’s respondents claimed that microfinance was the procedure of offering financial services to low income people across the Lebanese territory. Among them, almost 45% of respondents were females and 55% were
males. On the other hand, respondents that claimed that they have never heard of microfinance across Lebanon were more female respondents (around 14%) than male respondents (almost 11%).

A Pearson chi-square test was conducted to examine whether the relationship between topic understanding and gender was due to chance (H0) or to a relation that existed between topic understanding and gender (H1). According to the chi-square calculation, the probability of this distribution of values happening by chance was less than 0.05. The results showed that there was a significant relationship between the two variables (p<0.05, check table 1.1b in appendix B).

Cross tabulation analysis between topic understanding and each of education level and monthly income showed that 95% of respondents who answered this question were educated (university graduates, finished school, masters or MBA degree holders, or vocational school), and almost 20% among them claimed that microfinance was the procedure of providing loans without specifying who their target market was. However, according to the chi-square test, the answer was not statistically significant as it had few “expected count” variables. Furthermore, most respondents who answered this question were earning between $100 and $600. In fact, the majority of them (33.5%) also responded that microfinance was the procedure of providing loans without specifying who their target market was. (Detailed results are presented in tables 1.2a, 1.2b, 1.3a and 1.3b in appendix B.)

In conclusion, 22.5% of respondents (45% females, 55% males) claimed that microfinance was the procedure of offering financial services to low income people while 34.3% (48% males and 52% females) said that microfinance was a procedure of providing loans to people without specifying who their target market was. Almost 25% (44% males and 56% females) stated that they have never heard of this procedure, and thus know nothing about this topic; 8.6% (26.5% males and 73.5% females) of the respondents reported that microfinance and MFIs were private institutions that offer financial and non-financial services in exchange of collaterals, and around 5% (68.4% males and 31.6% females) claimed that microfinance was a type of Islamic banking.

A Pearson correlation analysis was conducted to examine if there was a relationship between topic understanding and each of education level, monthly income, and age range. As table 1.4 in appendix B shows, a negative weak significant correlation existed between topic understanding and age range. In other words, higher levels of topic understanding were associated with lower levels of age range. This is probably due to the fact that most of the respondents who had no idea about microfinance were older than those who claimed that microfinance offered loans, and those who claimed that microfinance provided financial and non-financial services to the poor.

Our findings concerning microfinance awareness were similar to a previous study conducted about evaluating the self-sustainability of MFIs in Yemen (Al-Haidi 2009); the author concluded that the level of awareness towards microfinance in Yemen was considered to be low. On the other hand, other findings begged to differ. Analyzing people's awareness towards microfinance in Nagpur city in India, 90% of the respondents were aware of microfinance (Sharma and Deshmukh 2013).
In a study conducted in Pakistan investigating the perception towards microfinance among Pakistanis, 69% of the respondents claimed that microfinance offered small loans, while in Lebanon, almost 34% claimed that microfinance offered loans without specifying the type of loans, and around 22.5% replied that microfinance provided financial services to low income people. MFIs should therefore improve the level of awareness and perception towards microfinance and communicate its mission to the targeted segments in order to improve people’s perception about the industry, using effective campaigns (Al-Haidi, 2009).

Interestingly, it was found in this study that most Lebanese mainly perceived MFIs as a social charity. When people were asked about their perception towards microfinance, almost 61% said it was regarded as a social charity, while 34% said it was a profitable activity, and 5% said it was both a social charity and profitable activity. This is a common misperception and represented an example of the bottom up approach to development by linking informal credit schemes, like intra family loans, to formal sources of capital and financial institutions that do not ask for extensive collaterals as banks do (Jawaid, 2010). Moreover, after evaluating the two Lebanese MFIs (Al Majmouaa and Vitas), planet rating and kivas, found out that both companies showed a “clear commitment to social goals” (Planet rating annual report, 2010).

Microfinance institutions operating in Lebanon
Concerning the micro financial institutions operating in Lebanon, as fig 6 below showed, Al Quard el Hassan foundation was regarded as the most known micro financial institution operating in Lebanon with almost half of the respondents saying that they have only heard of this financial institution among others like Al Majmouaa and Vitas. Around 5% have only heard of Al Majmouaa, 3% have only heard of Vitas, 17.5% have heard of both Al Quard el Hassan and Al Majmouaa, 21% have not heard of any of these institutions although they are widely known, and 4.5% heard of all these institutions.

One of the main reasons Al Qard el Hassan was widely known was because it was established after the Lebanese civil war, in which Hezbollah, one of the Lebanese parties socially active in Lebanon. Lebanon provided microcredit among other social service to help Shiite people among others in need. Moreover, after interviewing several MFIs, Jawaid (Jawaid, 2010) claimed that many MFIs representatives admitted that the institution of Al Qard el Hassan was mainly subsidized by Iran and the wealthy Shiite Lebanese businessmen in a way that other MFIs would not be able to compete with it. Al Qard el Hassan has the largest market share among all Lebanese MFIs (Abbasi, Khaled, & Lauer, 2009).
According to Al Majmouaa, its operations were mainly targeting females, and the vast majority of its clients were females; therefore the percentage of females who have heard of Al Majmouaa should be greater than the percentage of males. Table 1.5a in appendix B shows that almost 58% of females have heard of Al Majmouaa, while around 42% of males have heard of it. According to the chi-square calculation, the probability of this distribution occurring by chance was 0.007 (P<0.05). Therefore, there is a relationship between the sex of the respondent and the answer given (tables 1.5a and 1.5b in appendix B).

Fig 6 also shows that Al Quard el Hassan was mostly known in the areas of Beirut (62.2%), Mount Lebanon (63.5%), and South of Lebanon (54.3%), and was hardly known in the North of Lebanon (27.9%) and Bekaa (19.2%). On the other hand, 48.5% and 42.3% of the residents in the North of Lebanon and Bekaa respectively have not heard of any of these micro financial institutions compared to 0% in the South of Lebanon and 10.8% in Beirut. According to the report published by Blom bank, Al Qard el Hassan occupied the largest share of microloans in Lebanon. The institution has given almost $208.4 million in microloans in 2012 alone (including repayments), having an estimated loan portfolio ranging between $60 to $70 million, that represented around 47% of the total microfinance portfolio in Lebanon. Besides Al Qard el Hassan, Al Majmouaa held almost 30% of the total clients, Followed by Vitas (11% of the total clients), and Emkan (9% of total clients).

After conducting a Pearson correlation analysis, a weak positive relationship was found between institution knowledge and each of age range, education level, (P<0.05). This means that as both the education level and the age range increased, it was more likely that the respondent knew at least one of the financial institutions. On the other hand, no relationship was found between institution knowledge and monthly income as P was > 0.05 (table 1.6 in appendix B).
People’s overall view towards microfinance

In general, Lebanese people believed that microfinance can play an important role in reducing unemployment rates and poverty levels in Lebanon (fig 7). In fact, when asked if microfinance can reduce unemployment rates in Lebanon, 34.5% of the female respondents and 27.2% of the male respondents gave a positive answer. On the other hand, almost 19.6% of females and 18.7% of males believed that microfinance cannot have a positive effect on the rates of unemployment. According to the chi-square table this result was not statistically significant (Check tables 1.7a and 1.7b in appendix B).

A cross tabulation analysis was conducted to examine whether there was a relationship between the answers given and the respondent’s education level. According to table 1.8a in appendix B, 61.7% gave a “yes” answer, amongst them 96% were educated, whereas, 38.3% gave a “no” answer, amongst them 93% were educated. According to the chi-square test (table 1.8b in appendix B), the results were statically significant (P<0.05).

Most of the respondents claimed that microfinance could have a positive impact on the Lebanese society and the educational and economical level in the country. On the other hand, respondents tended to have a perception that there was no link between political stability and MMPs.

As fig 8 below shows that almost 81.5%, 67%, and 63% of the respondents claimed that microfinance could have a positive impact on the Lebanese society, Lebanese economy, and the educational level in Lebanon respectively. On the other hand, almost 60.5% of the respondents said that microfinance could have a positive impact on the political stability and thus security in Lebanon.
People generally seek microcredit to build or expand their business, and start self-employment. In order to help building the capacity of Lebanese MFIs, the IESC started in 2009 a $15.1 million program that ended in April 2015. It had a main objective to provide grants to create jobs and promote economic growth in Lebanon (www.dailystar.com).

In general, when more microcredit is given to poor people, poverty will be reduced (World Savings Bank Institute, 2010). According to Wright (Wright, 2000), Khandker (Khandker, 2001), Afrane (Afrane, 2002), and Hossain & Knight (Hossain & Knight, 2008) microfinance has played an important role in income growth, reducing unemployment levels, increasing education level, and strengthening social relations and networks.

The LIM association has awarded to date $8,299,501 in grants to Lebanese MFIs, which in turn have granted $27,489,313 through 12,101 micro loans across the Lebanese territory. The program helped in the creation of 18,989 jobs, and 2,887 positions. (www.thedailystar.com)

However, credit is not the only factor affecting income generation. Recipient’s entrepreneurial skills, education, and experience are other important factors that can affect the profitability of a business (Banerjee et al 2009). Most people do not have the vision, persistence, skills, and creativity to be entrepreneurial (Karnani, 2007). In fact, Banerjee (Banerjee et al, 2009), concluded that microcredit had no impact on borrower’s health or education levels in the city of Hyderabad, India.

Many agree that access to credit by itself is not the solution to global poverty. Both Sam Daley-Harris, Director of the Microcredit Summit Campaign, and Professor Yunus (Yunus, 2003), claimed that microfinance should be combined with other innovative programs that can affect economic growth in order to create one powerful tool capable to decrease poverty levels, MMPs.

Similar findings were found in Oman, when a study (Murthy&Varalakshmi, 2011), showed that the majority of the respondents claimed that microfinance would have a positive impact on the society, unemployment, and poverty levels.
Who charges higher interest rates?

When asked who charges higher interest rates, almost 90% of the respondents said that banks charge higher interest rates, while only 10% of them responded that MFIs charged higher interest rates (fig 9). The reason why many respondents claimed that MFIs charged lower interest rates was probably because people had a negative view towards banks and believed that MFIs were a better way to get a small loan. Another reason was that most of the respondents have heard mainly of Al Qard el Hassan that follows the principal of Islamic finance. According to the Islamic Sharia, no interest rates could be charged. However, Al Qard el Hassan, charged administrative fees that take into account the cost of the loan (salaries, overhead, and supplies) and the cost of storing the gold which is fixed by the insurance company (for 1000 grams of gold, there’s a $50 fees for a period of 10 months). These types of loans were mainly granted on “gold collateral terms”, in which after loan repayment, the borrower takes back his gold.

In fact, MFIs charge higher interest rates than traditional banks. This is mainly due to two factors: first of all, since microfinance loans amounts are smaller, the upfront commission fees are relatively greater while operating costs are constant. In consequence, these costs weigh heavier on the scale of a microcredit than on that of a traditional loan. Therefore, lending smaller amounts means a higher rate of interest. Second, loans issued by traditional banks come from the deposit and saving accounts of their clients, while in contrast, most micro financial institutions have to get their financing from local banks or from developed countries in the form of preferential rate loans from the World Bank or loans from investment funds.

After conducting a cross tabulation analysis between gender and chargers of higher interest rates, among those who gave the correct answer (MFIs charge higher interest rates), almost 69% were males and 31% were females. The findings were statistically significant (P<0.05) (Tables 1.9a and 1.9b in Appendix B). Therefore, we can say that male respondents were more informative regarding the interest rates issues than their female’s counterpart.
Moreover, conducting a cross tabulation analysis between education level and who charges higher interest rates of loans, the researcher found out that among those who gave the wrong answer, 63.7% were holding a bachelor or a postgraduate university degree. This unexpected result showed that neither the Lebanese universities nor the MFIs have built sufficient microfinance awareness among university student. A chi-square analysis could not be conducted because “3 cells (30%) have expected count less than 5” (tables 2a and 2b in appendix B).

How microfinance can help people?
As shown in fig 10, when people were asked in what ways can microfinance help them, the vast majority (43.10%) of the respondents across the Lebanese territory reported that microfinance can help them improve their education or the education level of their children. Among those respondents, 58.5% were females, 41.5% were males, and most of them (96.5%) were educated. More than half (55.3%) of the respondents that claimed that microfinance can improve their health condition were females, and the rest were males (44.7%). The vast majority among them (67%) were earning a monthly income ranging between $100 and $600. In addition to the above, most of the respondents (almost 55%) who claimed that microfinance would help improving the food supply even for them or for their families were married. However, due to the fact that we had less than required “expected count” cells; the chi-square analysis results were not validated (tables 2.1a to 2.4b in appendix B).

As clearly seen in fig 10, most of the respondents in each of the five Lebanese areas believed that microfinance would help them improve either their education or the education of their children. In fact, almost 46%, 44.2%, 34%, 36%, and 63%, of the respondents living in Beirut, Bekaa, North of Lebanon, Mount of Lebanon and the South of Lebanon respectively shared the same opinion that microfinance can improve their level of education. Those living in Beirut were the least to believe that microfinance would help them in improving their health condition (10.8%), while those living in the North of Lebanon were the most to believe that microfinance can help improve health conditions (38.2%). This difference between these two
areas was mainly due to the fact that those who resided in the North of Lebanon had less developed hospitals and health insurance than those living in the capital Beirut.

As shown in table 3, compared to other studies conducted in the Middle East and North Africa, Lebanese respondents perceived that microfinance had lower levels of impact on their health and food consumption. On the other hand, more Lebanese respondents than Egyptians and Moroccans respondents perceived that microfinance could have an impact on their education level excluding Jordan (Planet finance 2008). The lower perception towards the impact on their health condition is maybe due to the differences in life expectancy in each of the four countries. For instance, according to the UNDP, Lebanese have a life expectancy of 80 years compared to 71.2 years in Egypt, 73.9 years in Jordan, and 70.9 years in Morocco. Moreover, in general Lebanon is well known for its medical sector as one of the most developed in the region. Therefore people search to improve other factors than health in their lives as their health condition is already in a good situation. 14% of Lebanese respondents claimed that microfinance can improve their food supply, compared to 50%, 70%, and 62% of respondents in Egypt, Jordan, and Morocco respectively.

Interestingly, people tend to spend more time in education in Lebanon than in Egypt and Morocco. In fact, the average years of schooling in Lebanon is estimated to be 7.9 years, compared to 6.4 years in Egypt, 4.4 years in Morocco, and 9.9 years in Jordan (UNDP, 2014).

Table 3: Perception of Positive Impact

<table>
<thead>
<tr>
<th>Country</th>
<th>Food Consumption</th>
<th>Education (their own or their children’s)</th>
<th>Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lebanon</td>
<td>14%</td>
<td>43%</td>
<td>26%</td>
</tr>
<tr>
<td>Egypt</td>
<td>50 %</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Jordan</td>
<td>70%</td>
<td>58%</td>
<td>48%</td>
</tr>
<tr>
<td>Morocco</td>
<td>62%</td>
<td>36%</td>
<td>37%</td>
</tr>
</tbody>
</table>

Who benefit from microfinance?
When asked what kind of individuals should be offered micro finance services, most of the respondents claimed that low income people were those who should benefit the most from MFIs (fig 11). Respondents also stated that microfinance clients were mostly rural people (46.1%). These findings support the findings of the CGAP study. In fact, studying the client base of seven MFI in Africa and Asia, CGAP found that most of the clients were moderately low income people.
What motivates you to get a loan from a micro financial institution?

When people were asked what motivates you to get a loan from MFIs, most of the respondent (57.4%) across all the Lebanese region claimed that it was the need for money to satisfy a need such as paying back a loan, to fix something at home, or for self consideration like buying a car. On the other hand, around 20.7% of the respondents claimed that if they got a microloan, it will be to improve their own business or build a small business. A cross tabulation analysis using SPSS showed that among those who said that improving or building their businesses is what encourages them to approach MFIs, almost 54% were females, 46% were males, 94% were educated, and most of them earned an average monthly income ranging between $100 and $600 which is less or equal to the minimum wage in Lebanon.

Besides having a low monthly income, most of the respondents who gave such answer (55%) were working in the private sector and 22% of them were unemployed. Therefore, being educated, earning a low income and/or unemployed, these people would seek the services of MFIs to create or develop their own businesses, and their monthly income.

On the other hand, among those who claimed that they would be motivated to get a microcredit in order to use for personal needs (57.4%), 51.3% were females and 48.7% were males; and also surprisingly the vast majority were educated.

Analyzing the monthly income of those respondents, more than half of them were earning between $100 and $600 per month. Analyzing the professional sector, almost 55% worked in a private company or have their own business, while around 24% were unemployed. That being said, offering a microcredit service to those people would possibly only leave them in more debt as the purpose of the loan would not be to build a business but instead to satisfy a need.

A chi-square analysis was conducted to examine the statistical significance of these answers. However, the researcher could not reach conclusion due to the fact that most of the cross tabulations tests had less than the required number of expected count (Tables 2.5a to 2.7b in appendix B).

As fig 12 shows, those who said they were motivated to get a microcredit loan in order to improve or build their own business were mostly the residents of the South Lebanon area.
(28.4%) and Bekaa (23.1%) while those residents in the capital Beirut had the lowest percentage. This is mainly because most residents in South Lebanon and Bekaa might be working in agriculture or farm owners that would benefit mostly from MFI services.

Finally, when analyzing the answers provided about what motivates one to get a loan and who charges higher interest rates, none of the respondents that said that MFIs services charged higher interest rates, said that they would be motivated to get a microcredit. This was because the respondents were under the impression that MFIs offered lower interest rates. Surprisingly, 95% of those who said that microloans provided lower interest rates were educated.

Our findings were not similar to other studies (Mel et al, 2007; Bruhn and Love, 2009; Banerjee, 2010; Siddiqui and Gilal, 2012; and Hagan, 2012) that showed that people tend to take microfinance loans in order to expand their businesses.

**What discourage you to get a loan from a micro financial institution?**

As the fig 13 below shows, when people were asked what discourages them to get a loan from an MFI, almost 53% of the respondents claimed it was because of the high demands like interest rates, guarantor, or collaterals, almost 10% claimed it was due to trust while 17% claimed that nothing discouraged them to get a loan from such MFIs.

After conducting a cross tabulation analysis, 67% of those who said it were because they did not trust these MFIs were females. That being said MFIs should work harder in order to gain people’s trust and specially the females, and assure them that there were no hidden charges in their work (table 2.8a and 2.8b in appendix B).
Most of the respondents said that high demands requested by MFIs discouraged them of getting loans; it is up to MFIs to work on this issue in order to increase the number of their clients.

![Fg 13: Which factors discourage you to get a loan from a Microfinance institution?](image)

**Offering other micro financial services**

When asked if they would like to take other financial services like micro-savings, almost 52% of the respondents said “no”, while 48% answered positively. In fact, microfinance services in the Middle East region are largely characterized by offering more microcredit than any other financial services such as savings, leasing, or insurance. Lebanese MFIs have also mainly limited their services to microcredit. A recent research was conducted (Jawaid (2010), in which a number of interviews with different Lebanese MFIs were recorded. This research claimed that the Lebanese industry was not sufficiently developed in order to provide other microfinance services such as savings and insurance. Fig 14 clearly shows that the residents of Bekaa, and Mount Lebanon were more likely to take other micro financial services like micro insurance or micro-savings than the residents of Beirut, North of Lebanon, and South of Lebanon.
After analyzing the respondents’ average monthly income, most of the respondents earned a monthly income ranging between $100 and $600. According to a study conducted by numbeo.com, the world’s largest database of user contributed data about cities and countries worldwide, Lebanon was regarded as the second most expensive country in the Arab world with an average Lebanese person earning around $1200 per month in order to have a “good life”. This study showed that more than 80% of the respondents earned less than $1100. There is a need for MFIs to therefore step in and provide targeted services to those that can benefit from it the most.

As fig 15 below shows around 63%, 57% and 46% of the Lebanese living in North Lebanon, Mount Lebanon, and the Bekaa region earned an average monthly income ranging from $100 to $600. MFIs should be focusing more on these areas as most the respondents living there were low income people who are in need of such microcredit services.
Many MFIs suffer from high overhead costs and weak management structures. MFIs that operate from a social rather than a business perspective end up suffering from high rates of defaults on its loans. In an interview with an EFSD representative, EFSD claimed that “most microcredit loans were not in rural areas in Lebanon because they were not targeting the poorest of regions. Lenders want a business to generate income and that requires a critical mass “. Therefore some MFIs’ goals have shifted from social focused to profitable focused activities. While microfinance assumes that access to credit leads to income generation, there has not been an extensive research focusing on how MFIs can decrease unemployment rates, sustained health conditions, and developed education levels in Lebanon. Identified as a post conflict country, Lebanese MFIs’ operations are always placed under a pressure because of the high risk of political and security instability. Therefore, most of these companies prefer to build their branches in safer areas like Beirut rather than riskier ones like near the borders areas in both south and North of Lebanon.

According to Pollin (Pollin, 2007), microfinance companies “need a vibrant, well-functioning domestic market itself that encompasses enough people with enough money to buy what these enterprises have to sell.” However, most of the Lebanese people live in Beirut, Mount Lebanon and the South of Lebanon while the North of Lebanon and Bekaa have the least number of residents that earn an average monthly income less than $600. Thus, a micro entrepreneur might be able to work in Beirut but might find it harder to work in the villages where people are fewer and have less amount of money than those living in other areas.

When cross tabulation analysis was conducted between the topic understanding and if people heard of any of these MFIs, 9% of the respondents that said that microfinance offer financial services to low income people never heard of any of the most known micro financial institutions operating in Lebanon (Al Qard el haasan, Al Majmouaa, and Vitas). The remaining respondents heard at least of one of them. The majority of those who said that they know nothing about microfinance also heard of at least one of the three micro financial institutions operating in Lebanon.

This shows that people did know about the existence of these institutions however did not know what their main objectives of these MFIs were. After conducting cross tabulation analysis between topic understanding and who takes advantages of microfinance, almost 94% of those who said “microfinance offered financial services to low income people” also claimed that low income people were those to benefit from microfinance services.

**Reliability**
When analyzing the reliability of questions related to perception an alpha of 0.629 showed statistically acceptable reliability.

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
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<tbody>
<tr>
<td>Cronbach’s alpha</td>
</tr>
<tr>
<td>.629</td>
</tr>
</tbody>
</table>
Conclusion
The majority of the respondents (34.3%) perceived MFIs as financial institutions that just offered loans without specifying the nature or purpose of the loan. It is clearly seen by people reactions that they had no idea that MFIs offered other services than micro credits. This may be due to the fact that MFIs operating in Lebanon restrict their financial services to micro credits only. In fact, visiting the websites of each of Al Majmouaa, Vitas, and Ibdaa, one realises that these MFIs limit their services to micro loans for individual purposes or home improvement purposes. Furthermore, most respondents perceived microfinance as a social charity (61.2%) rather than a social activity (34%), with Al Qard el Hassan institution as the most acknowledged by the Lebanese respondents (49.6%).

Regarding the perception towards the impact of microfinance on the economy most respondents believed that microfinance can play a certain role in reducing both unemployment levels (61.7%) and poverty levels (57.7%). Also, most respondents believe that microfinance can have a positive impact on the Lebanese society (81.6%), Lebanese economy (67.5%), and education levels in Lebanon (62.5%). However, most of the respondents (60.5%) believed that microfinance cannot have a positive impact on the security and political stability levels in Lebanon.

Surprisingly, almost 90% of the respondents believed that banks charged higher interest rates than MFIs. Furthermore, most people perceived that microfinance can play an important role in improving their or their children’s education level (43.1%), while almost 26% perceived that microfinance services can improve their health condition and around 14% perceived that MFIs can improve their food supply consumption.

Microfinance studies focusing on Lebanon are very limited. No previous studies examined people’s perception and understanding of microfinance in Lebanon.

After reviewing the relevant literature related to how microfinance impacts perceptions around the world, it seems that people tend to have a positive perception towards microfinance across the globe {Barsoum & shaaban, 1999; Sengupta & Aubuchon, 2002; khandker’s, 2003; Kaboski & Townsend, 2005; Planetfinance, 2007; Planetfinance, 2008 ; Murthy & Varalakshmi, 2011}. However the level of microfinance awareness differs from country to country. For instance the researcher found that the level of microfinance awareness was low in Yemen (Al haidi, 2009), whereas it was high in Pakistan and India {Siddiqui and Gilal, 2012; Sharma and Deshmukh, 2013}.

In general the Lebanese tend to have a positive perception towards microfinance as most of the respondents claimed that microfinance can reduce both unemployment and poverty levels , as well as it can have a positive impact on the Lebanese economy , education level , and society. Despite 24% of the respondents having not heard of microfinance, the majority of the respondents (including those unaware of microfinance) had at least heard of one of the top three MFIs operating in Lebanon. Most Lebanese perceived microfinance as the process of just providing loans without specifying for whom it is intended. Most respondents would consider a microcredit loan for personal needs, such as paying for another due loan, buying a car, and making home improvements rather than building or improving an existing business in order to generate more income and elevate themselves out of poverty.
Study limitations
The main limitation of this study was failure to conduct a pilot study due to time restrictions. However the questionnaire was based on previous studies questionnaires conducted on the same topic in Pakistan and sultanate Oman after the approval of their authors.
Due to security issues and military actions taking places near the Syrian borders at the time of this study, it was impossible to visit the areas in the north like Akkar, and Bekaa like Orsal and its surroundings.

Future research
Future research should be conducted to determine how the perception of microfinance in addition to other factors can be used to improve the delivery of MFIs services. Further studies may also examine the impact of microfinance services on the Lebanese society, economy, poverty level, education level, and unemployment levels.

Disclosures
Compliance with Ethical Standards:
Funding: This study received no internal or external funding
Conflict of Interest: The authors declare that they have no conflict of interest.

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UNDP (United Nations Development Programme). (2012). Capacity assessment of a number of Lebanese government institutions for the achievement of the MDGs.


Mobile Money Services in Egypt: Unmaterialized Opportunity

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Cairo University

Abstract
The recent growth of mobile money in Africa, has allowed millions of people who are otherwise disqualified from the formal financial system to perform financial transactions relatively cheaply, securely, and reliably. In Egypt, however, despite the fact that mobile penetration rate amounts to almost 100%, mobile money services penetration rate is still quite low around 1% (Global Findex Database), and more importantly with minimal impact on the Egyptian economy at large. Thus, this research paper is investigating the socioeconomic adoption factors of mobile money (MM) services in Egypt using a syndicated Nielsen survey of mobile money users. This survey was conducted in April 2015 on a sample of 953 mobile money users. The findings of the empirical study reveal that the profile of a mobile money user in Egypt is similar to his Kenyan counterpart; namely an affluent, university educated, and male user. However, the theory of early adopters is not evident in Egypt's case. Urbanization plays no role in the socioeconomic adoption factors controlled for in the estimated model. The empirical model also shows that according to the survey Islamic financial rules do not contradict with the adoption of MM services in Egypt. Finally policy recommendations are provided for the regulator and the telecom operators, drawing from other successful case studies in this domain.

Keywords: Mobile Money services, Egypt, socio-economic factors, logistic regression. JEL Codes: E40, O16, O33

Introduction
Mobile Money (MM) services are those financial services that require mobile money to be completed. Generally, they are defined as services in which mobile phone is used to access financial services (GSMA 2012). While, "A mobile payment or m-payment is any payment where a mobile device is used to initiate, authorize and confirm an exchange of financial value in return for goods and services" (Au et al 2008)

MM services uptake in Africa is not uniformly distributed. Some of African countries have immensely benefited from this service such as Kenya, while many other African countries still are in the experimental phase or are still exploring MM services advantages. The greatest success has been in Sub-Saharan Africa, where 16 percent of adults—and 31 percent of those with a formal account—report having used a mobile phone in the past 12 months to pay bills or send or receive money. Another way to assess the prevalence and potential of mobile money is to look at what share of mobile phone subscribers use mobile payments. In Kenya, for example, 79 percent of adults report having a mobile phone in their household and 68 percent report having used a mobile phone in the past 12 months to pay bills or send or receive money. This means that 86 percent of all mobile phone users in the country are mobile money users. By comparison, the share in all of Sub Saharan Africa is 23 percent. (Demirguc-
Kunt et al., 2012). The benefits of mobile money or m-payments are numerous; these include the reduced cost of money transactions, the increased safety and security of mobile payments, as well as the easiness and simplicity of this method to complete monetary transactions. Nevertheless, most of the African countries can be easily considered cash societies, which is associated with high cost as well as waste of resources. In addition, MM services can be regarded as the way to achieve financial inclusion in Africa, where the latter could be regarded as instrumental for these countries to achieve a sustainable development path. With many adults across Africa, Asia and Latin America still lacking access to formal financial institutions, mobile money has proved to be transformational and a tool to combat financial exclusion among the unbanked. As a result, mobile money penetration already outstrips bank accounts in several emerging countries, including many in Africa. In developing economies, the prevailing business model for mobile money services is the mobile operator-led model with a focus on partnerships. The regulatory environment is one of the typical banking requirements such as KYC and AML and use of agents. (E&Y, 2013)

In Egypt, with a bank penetration rate at 10% and mobile penetration at about 100%, it is clear that Egypt is ready for the new ecosystem of mobile money. The three mobile operators market players already launched their mobile money services in 2013. The three mobile operators partnered with various banks (Etisalat with the National Bank, Mobinil with Emirates NBD, and Vodafone with the Housing and Development Bank), (table 1). There is a cap on the many transferred, for example, the maximum wallet size is EGP 5000, and Daily and Monthly transfer limits are EGP 3000 and EGP 5000 respectively. (AmCham Egypt 2013)

<table>
<thead>
<tr>
<th>The name of the operator</th>
<th>Mobile Money services in Egypt</th>
<th>The Affiliated Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vodafone</td>
<td><strong>Vodafone Cash:</strong></td>
<td>Housing and Development Bank</td>
</tr>
<tr>
<td></td>
<td><strong>1. Donations:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Donations for Magdy Yacoub foundation, Food bank, 57357 Hospital and Misr ElKheir</td>
<td></td>
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<td></td>
<td>&quot;<a href="http://goo.gl/yy2Luz">http://goo.gl/yy2Luz</a>&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>**2. <strong>Money Transfer:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transferring money to any Vodafone number with no deposit fees</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Withdrawing the money with a 3 L.E fees for amounts between 5 and 300 L.E and a 1% of the withdrew amount for any amount above 300 L.E.</td>
<td></td>
</tr>
</tbody>
</table>
### 3. Recharge and Bill Payment:

- The maximum amount per recharge transaction: 200 LE
- The maximum amount per bill payment transaction: 1000 LE

There are no fees on recharge or bill payment transactions. [Link](http://goo.gl/8Dhpzl)

<table>
<thead>
<tr>
<th>Etisalat</th>
<th>Etisalat Flous</th>
<th>National Bank of Egypt</th>
</tr>
</thead>
</table>
| Source "[http://www.etisalat.eg/etisalat/portal/flous](http://www.etisalat.eg/etisalat/portal/flous)" | 1) Money Transfer:  
2) Donations  
Donations for National Cancer Institute, Food bank, 57357 Hospital and Misr ElKheir.  
3) Issuing a Temporary Internet Visa debit card:  
Issuing a temporary Internet Visa for one time use in 24 hours, with a fees of 10 L.E for every card issued. |  |

<table>
<thead>
<tr>
<th>Mobinil</th>
<th>Mobi Cash:</th>
<th>Emirates NDB</th>
</tr>
</thead>
</table>
| 1) Money Transfer:  
Transferring any amount to another mobinil number with a 1 L.E fees.  
Withdrawing the money with a 3 L.E fees for amounts between 5 and 150 L.E and a 2% of the withdrawed amount for any amount above 150 L.E. | 2) Bill payment  
3) Recharging. |  |
Socio-economic factors that impact mobile money adoption decision are of paramount importance. They are considered an interesting and necessary research topic in the area of m-applications and conversion as well. The most important adoption factors for mobile payment services seem to be ease of use, trust and security, usefulness, cost, compatibility, and other socioeconomic factors such as income, gender, and region (urban / rural). The present study adopts the approach of consumer-centric approach, where “A consumer-centric view” means that studies had focused on characteristics that matter to consumers, which may help adoption studies. Consumer characteristics such and factors reflecting, registration requirements, and cost of transactions are of great significance in adopting this service (Dahlberg et al 2008).

Another important factor impacting the decision to use the MM services, is the cost of banking services in Egypt (World Bank 2012). The high cost of the latter compared to the low cost of mobile money transfer services, is a key driver in the mobile money uptake in Egypt. Other reasons reported for not having bank account are that banks accounts are too expensive, and that banks are too far away. Furthermore required documentation is also a reason for not having one. Women tend to report using someone else’s account significantly more than do men, highlighting the challenges that women may encounter in account ownership. Adults who report having saved, but not using a formal account to do so, are significantly more likely to cite distance, cost, and paperwork as barriers to having a formal account.

Whether in response to these barriers or for other reasons, many people use informal methods to save money or make payments as an alternative or complement to formal banking. Informal savings clubs and mobile money are two popular examples of financial management tools that can operate outside the formal financial sector. A growing number are using new alternatives to traditional banking made possible by the rapid spread of mobile phones.

Table 2 below reflects the costs associated with opening a bank account in public and private banks in Egypt. As we notice that the public banks fees for opening an account including the minimum deposit requirement, which is required to transfer money using the bank services, are higher in private banks compared to public banks, with the exception of Alex Bank. The high level of required minimum balance to use banking services i.e. not affordable, is one of the many reasons cited for not having a bank account.

<table>
<thead>
<tr>
<th>Public Banks</th>
<th>Private Banks</th>
</tr>
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<tbody>
<tr>
<td>Ahli National Bank:</td>
<td>Alex Bank:</td>
</tr>
<tr>
<td>Current Account:</td>
<td>El Masry Current Account:</td>
</tr>
<tr>
<td>Opening fees 83 L.E</td>
<td>Opening fees 0 L.E</td>
</tr>
<tr>
<td>with a 120 L.E annual</td>
<td>and 0 L.E for issuing</td>
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<tr>
<td>fees for the account</td>
<td>the Visa with a 50 L.E</td>
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<tr>
<td>and 25 L.E annual</td>
<td>annual fees for the</td>
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<tr>
<td>fees for the Visa</td>
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<td>deposit a minimum</td>
<td>Visa Card, You should</td>
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<td>of 500 L.E to open</td>
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<td>the account. (</td>
<td>1000 L.E to open the</td>
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<tr>
<td>Bank</td>
<td>Misl:</td>
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<tr>
<td>--------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Cairo Bank</td>
<td>Current Account: Opening fees 25 L.E and 25 L.E for issuing the Visa with a 120 L.E annual fees for the account and 15 L.E annual fees for the Visa Card, You should deposit a minimum of 1000 L.E to open the account.</td>
</tr>
<tr>
<td>QNB El-Ahli Bank</td>
<td>Current Account: Opening fees 30 L.E and 40 L.E for issuing the Visa with a 100 L.E annual fees for the account and 40 L.E annual fees for the Visa Card, You should deposit a minimum of 2,500 L.E to open the account.</td>
</tr>
</tbody>
</table>

The recent growth of mobile money—sometimes taking the form of branchless banking—has allowed millions of people who are otherwise excluded from the formal financial system to perform financial transactions relatively cheaply, securely, and reliably. Those using mobile money maintain a type of account allowing them to make deposits and withdrawals through cash transactions at a network of retail agents. They can then transfer money or pay bills using text messaging. Many mobile money accounts—such as those provided by M-PESA in Kenya or GCash in the Philippines—are not connected to an account at a financial institution, though the providers are often required to store the aggregate sums of the accounts in a bank. Customers are generally charged a fee for sending money to others or making a withdrawal from their account. (A Demirgüç-Kunt - 2012, S di Castri - 2013, T Triki, 2013)

The degree to which mobile money is capturing the non-banked market clearly differs across economies. This may reflect the varied and quickly evolving public policies surrounding mobile money. When M-PESA began in Kenya, it had no association with the formal banking sector and mobile banking customers there were exempted from the documentation requirements imposed by banks. But governments increasingly are favoring bank-led models in which mobile money providers have partnerships with or are formed directly through banks. In India the government introduced regulations in 2008 requiring that mobile money schemes be operated by banks, making it difficult for an M-PESA–type market entrant to lead the nascent mobile money movement. This has probably contributed to the slow growth of mobile money in India, where only 4 percent of adults in the Global Findex sample report having used a mobile phone in the past 12 months to pay bills or send or receive money. (Medhi et al 2014, E&Y 2013, IMF 2012, Demirgüç-Kunt et al 2012)
Gender plays a role in adopting MM services. In Africa, men are more likely than women to have an account at a financial institution though the gender gap is relatively small compared to other regions. Adults in the highest within-economy income quintile are almost four times as likely to have a formal account as those in the lowest income quintile, on average. Similarly, adults with a tertiary education and those ages 25-64 are particularly likely to report having an account at a formal financial institution rephrasing (Demirgüç-Kunt et al 2012).

Mobile money services in Egypt is regulated by the Central Bank of Egypt. The latter issued in 2010 the “Egyptian Regulations Governing Provision of Payment Orders through Mobile Phones”. According to this law, “a payment through mobile means debit orders (on the mobile account of the user) sent by a system user via their mobile phone to their bank, that is registered in Egypt and licensed by the CBE to operate a mobile payment system.”, where the role of the licensed mobile network operator shall be to provide the communications infrastructure and solutions needed to enable sending payment instructions and confirmations of transactions via mobile phones. This role may be undertaken by the bank. Thus according to the Egyptian Mobile Money Law, the mobile money model is Mobile Network Operators (MNO) driven model. In this respect it is worth noting that there exists three core business models for mobile money services: first: The MNO-Led Model; Mobile network operator acts as de facto “bank”. This model places most of the regulatory responsibility on the MNO. Second: The Bank-Led Model, where financial services offered from a bank to their account holders through a network of agents. Third: The Independent Model, where independent companies that often times establish a joint venture with MNO or Bank to meet a specific demand not currently being met.

The MNO driven model entails MNOs are accountable for regulatory compliance including with CBE regulations as well as with other formal financial institutions. It is worth noting that the MNO is obligated to hold mobile float in a bank. There is no successful model per se. Each country or region will experience the evolution of a model that would function of the pertaining socio-economic factors.

**Theoretical Model**
The Mobile Money Model can be analyzed in the realm of an emerging disruptive technology in the form of electronic payment technology solutions., with typical kinds of stakeholders and both private profit incentive-driven and public social welfare-driven considerations related to the economic issues that may arise. A disruptive technology is a new technological innovation. It creates the basis for new products and services, and infrastructures as well as applications that eventually displace the technologies, products or services that currently dominate the way firms do business. It may come to dominate an existing market by either filling a niche that the older technology is not able to fill, or by successively moving up-market through business process and firm-level performance improvements until firms that have adopted the disruptive technology begin to replace the market incumbents as market leaders. M-payments can be considered a disruptive technology in terms of providing a practical solution for micropayments challenges and money transfer related issues, that previously did not exist (Ondrus, et al 2006). In Egypt's case study it was incorporated with other debit and credit card with the aim to provide the consumer with a safe way to perform financial transactions online and using their mobile. This would require a solid and expanded infrastructure and network that has the
capacity to meet the increase demand on network usage. In this respect, is worth emphasizing that standards tend to slow down consumer adoption, most likely due to the uncertainty of service continuity or the number of competing plans and providers. (Au et al (2008)). In the long run it is expected that investments in research and development will improve this technology and make it more attractive and more adapted for the mainstream market. (Ondrus, et al 2006)

Despite the fact that mobile revolution is a global phenomena and with a great momentum in developing countries the uptake of m-payments has been not similarly distributed. The discrepancy between potential value and realized value as seen by consumer stakeholders can be attributed to several factors, including the lack of a specific business model, cost issues, consumer apathy, security, accessibility (i.e., a combination of convenience, speed, and ease of use), and the lack of unified standards, Furthermore factors such as: ease of use, usefulness, trust, and other drivers of consumer acceptance of m-payments (Au, et al 2008).

Thus, the present study focuses on the socioeconomic adoption factors of mobile money (MM) services in Egypt using a syndicated Nielsen survey of mobile money users. The theory of emerging disruptive technology seems to fit as a theoretical model for understanding the mechanism of the uptake of this new mobile application.

Literature Review
At the outset, there is a consensus among policy makers and practitioners to consider the Kenyan M-Pesa case study a successful model for mobile money transfer services not only in Africa but globally. Thus it is imperative to investigate and analyze this success story of MM services in Kenya, in order to understand its mechanism, users profile, and its economic impact. M-PESA was defined as an agent-assisted, mobile phone-based, person-to-person payment and money transfer system, that was launched in Kenya on March 6, 2007, by Safaricom (Mbiti 2011). In 2014, there were around 73.9 million mobile money transactions in volume. This number of mobile money transaction in value in 2014 has increased exponentially to reach $192.6 billion. Number of active mobile money costumers amounted to 12.5 million in 2014, where adults constitute about 60% of the service users. (GSMA 2015).

Other studies (Morawczynski, O. (2011), Plyler, et al (2010), that investigate the economic impact of M-Pesa show that it affects the economic outcomes of community members, both users and non-users of M-Pesa, through direct and externality effects, and identify 11 economic effects within the broad categories of local economic expansion, security, capital accumulation and business environment after 2.5 years of M-Pesa’s use in these communities. Notice, however, that effects were influenced by gender and geographic location of the communities. Four economic effects at the community level were reported. These include local economic expansion, security, capital accumulation and business environment. The economic impact included increased money circulation, due to a greater volume of money flowing into and out of the communities and a faster flow of money within the community to boost local consumption. However, its importance varied by gender, where men felt these economic gains more than females. Business expansion was noticed primarily in terms of growth of existing businesses rather than new business startups. Existing businesses were able to expand to meet growing local demand for goods and services, which was in part driven by
increased money circulation through M-PESA and lower transactions costs for vendors using M-PESA to obtain their stock. Increased employment opportunities were mostly referenced in direct relationship to the M-PESA’s shops. Although the increase was relatively small, given the high level of unemployment in the areas, it was very noticeable to the community members. Women viewed improved money security—in terms of ability to accumulate cash and keep it secure from theft—as the most important type of security effect associated with M-PESA. People in rural areas identified food security as a more important effect than those who live in urban areas. This was mentioned in terms of increased agricultural productivity, improved access to nutritious food and a variety of foods and better access to agricultural inputs on time. Interestingly, rural women placed more importance on food security than rural men, while urban men placed more importance on it compared to urban women.

Men and women consider human capital accumulation—in terms of education and health—an important positive community-level effect associated with M-PESA.

In another study devoted to measuring financial inclusion (Demirgüç-Kunt, et al (2012)) , it was reported that Mobile Money services offer a way to move money from place to place and present an alternative to the payments system offered by banks, pawn shops, remittance firms…etc. Kenya has witnessed a huge ICT paradigm shift. At the turn of the 1990s, less than 3% of Kenyan households owned a telephone and less than 1 in 1000 Kenyan adults had mobile phone service. However, by the end of 2011, the percentage increased dramatically to reach 93 percent of Kenyan households owned a mobile phone. This soar is largely attributed to the M-PESA mobile-banking network. Furthermore, the increase in mobile phone penetration has stimulated financial development in Africa in terms of storing value, Convert cash into and out of the store value account, and Transfer stored value between accounts.

More importantly, Ngugi et al (2010), discussed and identified the key factors that resulted in the emergence and success of M-Pesa. The authors used both secondary and survey data targeting mobile phone users who were most likely young affluent and live in urban areas. The authors applied the Technology Acceptance Model(TAM) as the theoretical framework for their study. They concluded that early adopters of the new technology of mobile money transfer are those young urban residents.

According to the above mentioned study technology in the form of mobile phones has revolutionized the way business is done and provided the basis for a new business model that suits the idiosyncratic context of African countries. Mobile money services are prevalent in developing countries compared to developed countries. In addition the idea of “crossing the chasm”, where early adopters in urban areas adopt this new technology and literally export it to their hometown family members in rural areas. Finally the point out that overcoming challenges such as illiteracy by using homogenous mobile phones such as the basic Nokia phone helped effectively in the increased uptake of MM services in Kenya.

Reviewing some studies that shed light on M-Pesa users, we find that the Central Bank of Kenya(CBK) conducted a survey in 2008( Alliance for Financial Inclusion 2009), which revealed that, beyond any doubt, more than 8- percent of users were happy with the service,
many reported that their quality of life has improved, due to this service. One of the survey findings was that sending domestic remittances was the major reason for using this service, followed by buying airtime and storing money or for saving money. During 2008, schools in Kenya started to accept fees payments using M-Pesa, as well as using the latter to make bulk salary payments. Mbiti (2011), used data from the 2009 FinAccess survey to examine basic patterns and characteristics of M-Pesa users and their usage patterns. Their findings reveal that approximately 40 percent of Kenyans have used M-Pesa, with close to 30 percent formally registered with Safaricom. It is worth noting that there are three basic transactions that customers conduct with M-Pesa. (Mbiti, 2011). First, a user requests e- float : This means that the customer deposits money at an M-Pesa outlet in exchange of a "cashin" transaction. Second, a user requests a cash out transaction: A customer may exchange e- float for cash at an M-Pesa outlet (called a "cash out” transaction.) This whole transaction takes about one minute. Third, a user transfers person-to-person transfer e- float from his/her phone to another phone. Our study refers to such a transfer as a “person-to-person transfer,” even though one or both of the parties may be an institution or firm. The user enters the phone number of the recipient and the amount to be transferred on his/her cell-phone. The sender and recipient each receive a text message stating that money has been transferred. (Mbiti, 2011) In the aforementioned study, a conclusion was reached regarding the likely profile of M-Pesa users. It includes a younger, wealthier, better educated, banked, employed in non-farm sectors, male, who is an owner of a cell phone and lives in urban areas. There is a high correlation between having a bank account and using the M-Pesa services in Kenya. The higher the socio-economic status of the user the more likely that he would use the M-Pesa services. So this cohort is more likely to reap the benefits of such savings from using the M-Pesa. (Mbiti - 2011)

Thus we can conclude that indeed socio-economic factors that impact the take up of mobile money services are imperative to investigate in order to determine the profile of the MM service user. Many studies have tackled this research question in other African countries, noticeably in Kenya. However, there exists a knowledge gap in this domain in Egypt. The present study attempts to close this gap, and finally to provide some policy recommendations to increase the penetration of this service in Egypt.

The Empirical Study
The data necessary to conduct an empirical analysis in this domain was not available in the form of secondary data, so primary data were obtained by conducting a survey administered by Nielsen as part of their syndicated study about the market size for retail banking in Egypt.

The survey
The aim of the survey was to generate a sample randomly selected for “Mass Segment” and then weighted by the population. Mass segment indicates that the income level of the target interviewers is between LE 1000 – LE 9999, aged 21 years or older. The face to face interviews were conducted using stratified random sampling where region (urban / rural) would serve as the strata.

Key informational areas covered in this survey include, among other dimensions, customers profile : demographics: age /region/ gender, education and occupation, life stage, involvement in decision making of financial products; product ownership: ever owned.
currently owned, Length of association / ownership, type of product (wherever applicable e.g. silver/ gold/ platinum card), channels used to access (branch, ATM, online banking..etc). Other information obtained from the syndicated survey are product disposition, brands, saving and investment habits, network presence. The sample is representative of the population at the governorate & secondary level, yet skewed towards Urban population. Secondary data reveal that males are the key decision makers for financial products. Hence, the sample would be skewed towards males, with a national representation of Egypt covering urban and rural regions.

**Data Analysis**

The differences in account ownership by individual characteristics are particularly large in developing economies. Important factors include cost vs. quality, monthly income, education, religion, gender, and region (urban/rural).

Preliminary data analysis show the following stylized facts about mobile money users. Among those who have mobile phones, only 12% use their mobiles to for mobile money services. Majority of the mobile money users are males (71%) compared to 29% only females. Mobile money users are characterized by having high incomes around 5.5% of users of mobile money are in the income bracket 10,000-39,999 Egyptian pounds. If we look at MM users we find out that 97.4% of them have at least one banking product and just 2.6% don’t have any form of bank accounts. On the other hand for non MMT users 16.4% of them don’t have bank accounts and 83.6% have bank accounts and don’t use MMT. With respect to the most popular mobile operator in providing mobile money services, in our sample, 55% of MM users use Vodafone cash, this is followed by 23% using mobi Cash of mobinil and 5% using Etislalat Flous service. Trying to find out the motivation of MM users to use this service, we find out that users of MM used this service to serve the purpose of transferring money to relatives (61%) or withdrawing money from relatives (21%), or finally transferring money for business purposes. The main benefits reported by users of MM is faster service as well as ease of use. This is followed by the monetary benefits of being a cheaper service compared to the conventional banking service. Interestingly, though, users of MM usually have customer loyalty to this service where the majority of respondents (63%) don’t use other services to transfer money, while 37% do use other money transfer services. Furthermore, most of the respondents emphasized that MM services are not contradicting with Islamic Financial Rules.

**Logistic Regression Model**

A logistic regression analysis was conducted to predict the socio-economic factors that impact the take-up of MM services, where we controlled for age, education level, Region (urban/rural), gender, Islamic beliefs, and income.

Logistic regression forms a best fitting equation or function using the maximum likelihood method, which maximizes the probability of classifying the observed data into the appropriate category given the regression coefficients (Agresti 2007). Since logistic regression calculates the probability of success over the probability of failure, the results of the analysis are in the form of an odds ratio report as Exp(B). For a dichotomous variable the odds of membership of the target group are equal to the probability of membership in the target group divided by the probability of membership in the other group. Odds value can range from 0 to
infinity and tell you how much more likely it is that an observation is a member of the target
group rather than a member of the other group. The Maximum Likelihood (or ML) is used
instead to find the function that will maximize our ability to predict the probability of Y based
on what we know about X. In addition, it is worth noting that logistic regression does not
assume linearity of relationship between the independent variables and the dependent, does not
require normally distributed variables, and in general has no stringent requirements. Larger
samples are needed than for linear regression because maximum likelihood coefficients are
large sample estimates. Chi square is used to assess significance of this ratio.(Agresti, 2007)
The logistic regression model can then be written as follows:

\[ \ln \left( \frac{p}{1-p} \right) = a + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_i X_i \]  

where \( p \) is the probability of using mobile money and \( X_1, X_2, \ldots, X_i \) are the explanatory variables.

The dependent variable is a dummy variable whether the mobile user uses mobile
money services or not, the reference category mobile money user. The independent variables
controlled for in the model include income category, where it is divided into five categories
LE1000 - LE2999; LE 3000 – LE 9,999; LE10000 - LE 39,999; LE 40,000 and more, and finally
refused to tell category. The second independent variable is the region dummy variable and the
reference category is the rural. Another independent variable is the gender where the reference
category is female. Education is added to the model as a dummy variable as well, where there
are 2 categories these include less than university education (the reference category), and
university education. Finally, we controlled for a new variable in the model which is the Islamic
financial rules. The independent variable is a dummy independent variable that measures
whether the opinion of the user that mobile money services contradict with the Islamic financial
rules or not, with the reference category that mobile money services contradict with Islamic
beliefs.

\[ \ln \left( \frac{p}{1-p} \right) = \beta_0 + \beta_1 \text{Gender} + \beta_2 \text{Islamic Fin. Rules} + \beta_3 \text{Income} + \beta_4 \text{Education} + \beta_5 \text{Region} + \epsilon \]  

We estimate the logistic regression model using the maximum likelihood estimating
methodology.

**Results of Logistic Regression**

Table 9 reflects the omnibus test of model coefficients. This shows whether or not the full
model with our independent variables fits the data better (i.e. gives us a better prediction of
individual scores) than the baseline model or null model. Significance is reported in the final
column on this table, and we can conclude that the model is significant (significance is less
than .05), which means that our model with the five predictors fits better than a model with no
predictors. The Wald tests also show that all three explanatory variables contribute
significantly to the model.

Table 10, provides us with the Pseudo R square statistics. There are two measures, Cox
& Snell and Nagelkerke. Both use a somewhat different formula, but both are equally valid. In
this case Cox & Snell is 0.05 and Nagelkerke is 0.1. These numbers indicate poor to modest
improvement in fit over the baseline model. The value of Nagelkerke R^2 suggests that the
model is not very useful in predicting using mobile money. Although the contribution of the
five explanatory variables in the prediction of using mobile money is statistically significant, the effect size is small (Agresti 2007). Then we analyze table 11 “the classification table”, which gives us the comparison between predicted scores and the actual scores. We can see, for example, that 476 s who were predicted to not use mobile money services (with the five predictors) did indeed not use it, while 138 were predicted to not use it and in fact used mobile money services. In total, 58.9% of our predictions were accurate, which though far from perfect is a clear improvement over the baseline model, where 12.2% of predictions were accurate. In Table 12, the variables gender and income explanatory variable and education level, are significant, while region and Islamic financial rules, aren't.

A test of the full model against a constant only model was statistically significant, indicating that the predictors as a set reliably distinguished between users and non users of mobile money services (chi square = 51.602, p < .000 with df = 8). Nagelkerke’s R2 of 0.101 indicated a poor to moderately strong relationship between prediction and grouping.

The success of the logistic regression can be assessed by looking at the classification table, showing correct and incorrect classifications of the dependent. Also, goodness-of-fit tests such as model chi-square are available as indicators of model appropriateness, as is the Wald statistic to test the significance of individual independent variables. The EXP(B) value indicates the increase in odds from a one unit increase in the selected variable.

Interpretation of the estimated coefficients can be summarized as follows: With respect to the gender coefficient, the odds of using MM services among males is about 1.5 times compared to the odds of using MM services among females holding other variables constant. In general the income estimated coefficient was statically significant, where the odds of using MM services among those whose monthly income ranges from (10,000 to 39,999) is about 2.2 times compared to the odds of using MM services among those whose monthly income ranges from (1,000 to 2,999) holding other variables constant. Furthermore, the odds of using MM services among those whose monthly income is 40,000 and more is about 3.5 times compared to the odds of using MM services among those whose monthly income ranges from (1,000 to 2,999) holding other variables constant. Education was highly statistically and economically significant, where the odds of using MM services among those with university education is about 4.7 times compared to the odds of using MM services among those without university education holding other variables constant. However, the urbanization factor as well as the contradiction between Islamic financial rules and MM services turned out to be statistically insignificant.

The cut off points for this model was changed to 0.12, since the percentages of MM services (Mobile Money Services) users and non-users are not close to each other. The percentage of users is 12% which affects the model classification. Stepwise regression was used. Iteratively entering and removing variables in both enter and forward methods, the final model was got with stepwise regression method. The final model containing the following independent variables (Gender, Contradicting Islamic Beliefs, Monthly Income Category, Education Level, Region). The significance of the model as a whole is significant at 5% significance level. Bearing in mind that the first category of the previous categorical variables was used as the reference category. The above classification table indicates that using 0.12 as
a cut value the model classified about 57% of those who don’t use MM services as non-users and also it succeeded to classify 73% of MM services users as users which means that the model was better in classifying users than non-users. The overall percentage of correct specification is 59% of sampled interviewees which is more than 50% of sample size, hence our model fits the data well and prediction power is good. From the significance of each of the explanatory variables used and using a 90% significance level we found that the only significant variables are: Gender, Monthly Income Category, Education Level in the estimated model.

Conclusion and Policy Recommendations
The present study reaches the findings that the profile of a mobile money user is similar to that of Kenya, namely an affluent, university educated, and male user. However, the theory of early adopters is not evident in Egypt's case. Urbanization plays no role in the socioeconomic adoption factors controlled for in the estimated model. The empirical model also shows that according to the survey Islamic financial beliefs do not contradict with the adoption of MM services in Egypt.

Thus it is worth investigating barriers of mobile money adoption in Egypt that hinder the uptake of MM services. These include the lack of knowledge about this new service, its mechanism and its benefits for users. Reaching out to the bottom of the pyramid with new innovative business models remains the challenge for both the regulator and the operator. Reaping both the economic and social benefits of mobile money services in Egypt is crucial for achieving the goal of financial inclusion. This study proved that the perception of Islamic financial beliefs contradict with such m-application is found less or has no premise. Egypt did not reap the benefits of this service in Egypt compared to the Kenyan success story due to the lack of support and understanding of how it could be a solution for the financial inclusion challenge in Egypt. Regular users cite speed and ease of use and value for money as the leading factors that have made them regular users — underscoring the importance of service convenience.

Thus, removing physical, bureaucratic, and financial barriers could expand the use of MM services in Egypt. Clearly, it is necessary to adopt a flexible business model to promote innovation in this domain. Contrary to the Kenyan M-Pesa model, in Egypt, mobile money transfers are used for additional purposes such as donations, recharge and bill payments or issuing a temporary Internet debit card. However, MM services in Egypt do not include storing or saving money.

Other important factors to address are greater confidence in privacy and security can drive mobile payments take-up (E&Y, 2013). In addition, it is important to foster an enabling regulatory environment for the MNO and to encourage them to increase their investments in infrastructure and technology of mobile money services in Egypt. This stresses the role of the regulator in promoting mobile money services in Egypt.

Drawing from the Kenyan experience, initially the Central Bank of Kenya (CBK) did not interfere in launching of the M-Pesa service. However, prior to any expansion or introduction of new services, M-Pesa team would seek the approval of CBK. This was manifested in a letter of no objection issued by the CBK. In August 15th, 2014, The Kenyan's
regulator issued the National Payment Systems Regulations (NPS), with the main aim to protect privacy and confidentiality the consumer of M-Pesa. (Alliance for financial inclusion 2009).

Then, according to the new regulations enacted in 2014, the distinct features of the new regulations can be described as promoting CBK to have a functional role rather than institutional one, where for example a Payment service Provider Management Body was introduced to clearing of mobile money transactions and it is also meant to serve as a channel of communication between the CBK and the MNO. (GSMA 2014). Mobile money services on Kenya include peer-to-peer (P2P) transfers, bill payments, and merchant payments, social disbursements, and international remittances. Furthermore, M-PESA users are permitted to withdraw cash from Pesa Point ATMs regardless of whether they were banked, effectively making the ATMs virtual mobile money agents. (GSMA 2015). In the Egyptian case, however, using mobile money to send remittances from overseas, is prohibited and not allowed by the governing law.

Altogether, these findings indicate that operators seeking to succeed in the mobile money marketplace must meet changing customer needs in a convenient, relevant and cost-effective way through a planned expansion of mobile payments and related services in the respectful country's context. New business models that suit the idiosyncratic context of each African country are required and remain a challenge to the operators. However, MNO have to solve other challenges such as changing market conditions, such as technological change, new competitors, or new policies. Suggested innovative schemes include joint ventures with other industry actors, which will help operators not only to devise and deliver new services but also to incubate and develop new competencies (E&Y, 2013).

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Appendix

Table 3:

Case Processing Summary

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<tr>
<td>Missing Cases</td>
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<td>.0</td>
</tr>
<tr>
<td>Total</td>
<td>953</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Unselected Cases | 0 | .0 |
| Total           | 953 | 100.0 |

a. If weight is in effect, see classification table for the total number of cases.

Table 4:

Dependent Variable Encoding

<table>
<thead>
<tr>
<th>Original Value</th>
<th>Internal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>0</td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 5:

Categorical Variables Coding

<table>
<thead>
<tr>
<th>Income Category</th>
<th>Frequency</th>
<th>Parameter coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000 - 2,999</td>
<td>336</td>
<td>.000 .000 .000 .000</td>
</tr>
<tr>
<td>Income Bracket</td>
<td>Observed</td>
<td>Predicted</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td>3,000 - 9,999</td>
<td>132</td>
<td>1.000</td>
</tr>
<tr>
<td>10,000 - 39,999</td>
<td>336</td>
<td>.000</td>
</tr>
<tr>
<td>40,000 and more</td>
<td>146</td>
<td>.000</td>
</tr>
<tr>
<td>Refused to tell</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Recode Region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>10</td>
<td>.000</td>
</tr>
<tr>
<td>Urban</td>
<td>943</td>
<td>1.000</td>
</tr>
<tr>
<td>MMT &amp; Islamic Beliefs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contradict</td>
<td>278</td>
<td>.000</td>
</tr>
<tr>
<td>Doesn't Contradict</td>
<td>675</td>
<td>1.000</td>
</tr>
<tr>
<td>Gender Recoded</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>278</td>
<td>.000</td>
</tr>
<tr>
<td>Male</td>
<td>675</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**Block 0: Beginning Block**

Table 6: **Classification Table**

<table>
<thead>
<tr>
<th>Step 0</th>
<th>Used Mobile Money Transfer</th>
<th>Observed</th>
<th>Predicted</th>
<th>Used Mobile Money Transfer Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>0</td>
<td>837</td>
<td>.0</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>0</td>
<td>116</td>
<td>100.0</td>
</tr>
<tr>
<td>Overall Percentage</td>
<td></td>
<td></td>
<td></td>
<td>12.2</td>
</tr>
</tbody>
</table>

a. Constant is included in the model.

b. The cut value is .120
Table 7: Variables in the Equation

<table>
<thead>
<tr>
<th>Step 0</th>
<th>Constant</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>-1.976</td>
<td>.099</td>
<td>397.894</td>
<td>1</td>
<td>.000</td>
<td>.139</td>
</tr>
</tbody>
</table>

Table 8: Variables not in the Equation

<table>
<thead>
<tr>
<th>Step 0 Variables</th>
<th>Score</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recoded_Gender(1)</td>
<td>4.598</td>
<td>1</td>
<td>.032</td>
</tr>
<tr>
<td>Islamic_Beleifs(1)</td>
<td>1.112</td>
<td>1</td>
<td>.292</td>
</tr>
<tr>
<td>Monthly_Income</td>
<td>37.979</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Monthly_Income(1)</td>
<td>2.112</td>
<td>1</td>
<td>.146</td>
</tr>
<tr>
<td>Monthly_Income(2)</td>
<td>5.300</td>
<td>1</td>
<td>.021</td>
</tr>
<tr>
<td>Monthly_Income(3)</td>
<td>19.927</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>Monthly_Income(4)</td>
<td>1.261</td>
<td>1</td>
<td>.262</td>
</tr>
<tr>
<td>Educ_Dummy</td>
<td>19.633</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>Region_Recoded(1)</td>
<td>.045</td>
<td>1</td>
<td>.833</td>
</tr>
<tr>
<td>Overall Statistics</td>
<td>46.202</td>
<td>8</td>
<td>.000</td>
</tr>
</tbody>
</table>

Block 1: Method = Enter

Table 9: Omnibus Tests of Model Coefficients

<table>
<thead>
<tr>
<th></th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
</table>

219
Table 10: Model Summary

<table>
<thead>
<tr>
<th>Step</th>
<th>-2 Log likelihood</th>
<th>Cox &amp; Snell R Square</th>
<th>Nagelkerke R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>654.266&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.053</td>
<td>.101</td>
</tr>
</tbody>
</table>

* a. Estimation terminated at iteration number 7 because parameter estimates changed by less than .001.

Table 11: Classification Table<sup>a</sup>

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Used Mobile Money Transfer</td>
<td>No</td>
</tr>
<tr>
<td>Step 1</td>
<td>Used Mobile Money No Transfer</td>
<td>476</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>31</td>
</tr>
<tr>
<td>Overall</td>
<td>Percentage</td>
<td></td>
</tr>
</tbody>
</table>

* a. The cut value is .120

Table 12: Coefficients and Wald tests for logistic regression on mobile money users

<table>
<thead>
<tr>
<th>Variables in the Equation</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Recoded_Gender(1)</td>
<td>.414</td>
<td>.248</td>
<td>2.792</td>
<td>1</td>
<td>.095</td>
</tr>
</tbody>
</table>
Table 13: Description of the Dependent and Independent variables used in the Logistic Regression Model:

<table>
<thead>
<tr>
<th>Variable used</th>
<th>Question</th>
<th>Values</th>
<th>Reference Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you used MMT?</td>
<td>Have you ever used any of the mobile money transfer services?</td>
<td>Yes (1) or No (0)</td>
<td>Dependant Variable</td>
</tr>
<tr>
<td>Income Category</td>
<td>please tell me what is monthly personal income. Please</td>
<td>1,000-2,999(1)</td>
<td>1,000-2,999</td>
</tr>
<tr>
<td></td>
<td>include your income from all sources like salary, business, rent,</td>
<td>3,000-9,999(2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>agriculture, interest, shares...etc. Exclude the income of other</td>
<td>10,000-39,999(3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>household members</td>
<td>40,000 and more (4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Refused to tell (5)</td>
<td></td>
</tr>
<tr>
<td>Region</td>
<td>Can you please tell me where do you live?</td>
<td>Rural (0)</td>
<td>Rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban (1)</td>
<td></td>
</tr>
</tbody>
</table>

| Islamic_Beleifs(1)               | .202 .235 .740 1 .390 1.224                                               |                                             |                      |
| Monthly_Income                   | 19.016 4 .001                                                              |                                             |                      |
| Monthly_Income(1)                | .091 .408 .049 1 .824 1.095                                                |                                             |                      |
| Monthly_Income(2)                | .776 .303 6.560 1 .010 2.172                                               |                                             |                      |
| Monthly_Income(3)                | 1.243 .329 14.249 1 .000 3.468                                             |                                             |                      |
| Monthly_Income(4)                | 1.716 1.259 1.857 1 .173 5.560                                              |                                             |                      |
| Educ_Dummy                       | 1.543 .626 6.080 1 .014 4.680                                              |                                             |                      |
| Region_Recoded(1)                | .774 1.083 .511 1 .475 2.168                                              |                                             |                      |
| Constant                         | -5.210 1.253 17.295 1 .000 0.005                                           |                                             |                      |

a. Variable(s) entered on step 1: Recoded_Gender, Islamic_Beleifs, Monthly_Income, Educ_Dummy, Region_Recoded.
<table>
<thead>
<tr>
<th>MMT &amp; Islamic Beliefs</th>
<th>Does mobile Money transferring services contradict with the Islamic beliefs?</th>
<th>Contradict (0)</th>
<th>Doesn't contradict (1)</th>
<th>Contradict</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Gender</td>
<td>Female (0) * Male (1)</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Education Level</td>
<td>What is your level of education</td>
<td>Less than university education (0)</td>
<td>Less than university education(1)</td>
<td></td>
</tr>
</tbody>
</table>

Table 14: Questions used in the empirical analysis

**V19b : Have you used mobile money transfer?**

<table>
<thead>
<tr>
<th>Do you use?</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>116</td>
<td>12%</td>
</tr>
<tr>
<td>No</td>
<td>837</td>
<td>88%</td>
</tr>
<tr>
<td>Total</td>
<td>953</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Q12: please tell me what is monthly personal income.**

<table>
<thead>
<tr>
<th>Income Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000-2,999</td>
<td>336</td>
<td>35.3%</td>
</tr>
<tr>
<td>3,000-9,999</td>
<td>132</td>
<td>13.9%</td>
</tr>
<tr>
<td>10,000-39,999</td>
<td>336</td>
<td>35.3%</td>
</tr>
<tr>
<td>40,000 and more</td>
<td>146</td>
<td>15.3%</td>
</tr>
<tr>
<td>Refused to tell</td>
<td>3</td>
<td>0.3%</td>
</tr>
<tr>
<td>Total</td>
<td>953</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Q6 : Can you please tell me where do you live?**

<table>
<thead>
<tr>
<th>Live in</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>10</td>
<td>1%</td>
</tr>
<tr>
<td>Urban</td>
<td>943</td>
<td>99%</td>
</tr>
<tr>
<td>------------</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Total</td>
<td>953</td>
<td>100%</td>
</tr>
</tbody>
</table>

**V41: Does MMT services contradict with the Islamic beliefs?**

<table>
<thead>
<tr>
<th>Opinion</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contradict</td>
<td>278</td>
<td>29%</td>
</tr>
<tr>
<td>Don't contradict</td>
<td>675</td>
<td>71%</td>
</tr>
<tr>
<td>Total</td>
<td>953</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Q5: Gender**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>278</td>
<td>29%</td>
</tr>
<tr>
<td>Male</td>
<td>675</td>
<td>71%</td>
</tr>
<tr>
<td>Total</td>
<td>953</td>
<td>100%</td>
</tr>
</tbody>
</table>

**Q8a: What is your level of education?**

<table>
<thead>
<tr>
<th>Education</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than university education</td>
<td>163</td>
<td>17%</td>
</tr>
<tr>
<td>University education</td>
<td>790</td>
<td>83%</td>
</tr>
<tr>
<td>Total</td>
<td>953</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 15: Correlation Matrix

<table>
<thead>
<tr>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income Category</td>
</tr>
<tr>
<td>Gender Recoded</td>
</tr>
<tr>
<td>Recode Region</td>
</tr>
<tr>
<td>MMT &amp; Islamic Beliefs</td>
</tr>
<tr>
<td>Dummy Education</td>
</tr>
<tr>
<td>Income Category</td>
</tr>
</tbody>
</table>

223
<table>
<thead>
<tr>
<th>Gender Recoded</th>
<th>0.053</th>
<th>1</th>
<th>-.043</th>
<th>-.006</th>
<th>.138</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recode Region</td>
<td>.103</td>
<td>-.043</td>
<td>1</td>
<td>-.043</td>
<td>0.035</td>
</tr>
<tr>
<td>MMT &amp; Islamic Beliefs</td>
<td>0.031</td>
<td>-.006</td>
<td>-.043</td>
<td>1</td>
<td>-.016</td>
</tr>
<tr>
<td>Dummy Education</td>
<td>.478</td>
<td>.138</td>
<td>0.035</td>
<td>-.016</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 16: Questions and possible answers for the qualitative questions covered in the analysis

<table>
<thead>
<tr>
<th>Question</th>
<th>Possible Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>What operator you have used for your mobile money transfer service</td>
<td>Vodafone, Etisalat Flous, Mobi Cash, Phone Cash, Don't Know/ Can't Say</td>
</tr>
<tr>
<td>Please tell me again, which do you consider your main operator for mobile money transfer?</td>
<td>Vodafone, Etisalat Flous, Mobi Cash, Phone Cash, Don't Know/ Can't Say</td>
</tr>
<tr>
<td>What are the different purposes for which you use Mobile money transfare services?</td>
<td>Transferring money to relatives, Withdrawing money from relatives, Transferring money for business purposes, Other</td>
</tr>
<tr>
<td>Why did you use mobile money transfare rather than conventional methods?</td>
<td>Easier, Faster, Cheaper</td>
</tr>
<tr>
<td>Question</td>
<td>Options</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Do you use any other means for money transfer?</td>
<td>Yes, No</td>
</tr>
<tr>
<td>What are these means you use for money transfer?</td>
<td>Through my main bank, Western Union, Post office</td>
</tr>
<tr>
<td>How much are you willing to use mobile money transfer?</td>
<td>I am very willing to use it, I am willing to use it, I am not willing to use it, I am very not willing to use it</td>
</tr>
</tbody>
</table>

source: Nielsen syndicated study 2015

Figure 1: Percentage of mobile money usage

source: Nielsen syndicated study 2015
Figure 2: Mobile money user according to Gender

![Gender chart](image)

source: Nielsen syndicated study 2015

Table 17: Description of the Income variable

<table>
<thead>
<tr>
<th>Income Category</th>
<th>Have you used mobile money transfer?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>1,000-2,999</td>
<td>33.4%</td>
<td>1.9%</td>
</tr>
<tr>
<td>3,000-9,999</td>
<td>12.7%</td>
<td>1.2%</td>
</tr>
<tr>
<td>10,000-39,999</td>
<td>29.8%</td>
<td>5.5%</td>
</tr>
<tr>
<td>40,000 and more</td>
<td>11.8%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Refused to tell</td>
<td>0.2%</td>
<td>0.1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>87.8%</strong></td>
<td><strong>12.2%</strong></td>
</tr>
</tbody>
</table>
Secure Smart City - an approach for secure handling and allocation of urban data

Mohammad Abuosba  
University of Applied Sciences, Germany

Frank Neumann  
University of Applied Sciences, Germany

Abstract

Smart City describes the ideal of a settlement area, where products, services, technologies, processes and infrastructures are employed in a sustainable, green and digital way, typically supported by highly integrated and networked information and communications technologies. When implementing this vision, urban administrations experience a steadily rising demand for IT solutions that aim at supplying data on the urban infrastructure, e.g. GIS and survey data, timetable data, and real-time traffic data, as well as statistical data for a better analysis and forecast. Here, the aggregation of various existing data sets may help cities to achieve a sounder basis for decision-making and planning. A precondition for this aggregation, however, is the compliance with data security and privacy standards that require protecting sensitive or personal data.

The present contribution describes a generic solution platform for the secure integration of heterogeneous urban databases targeting various application scenarios. The basic principle of the platform consists in the strict separation of sensitive resp. person-identifying data from those data items, which may be used anonymously for analytical purposes. The person-identifying data such as name, address or e-mail are hashed and encrypted by the data owner. The data relevant for analytics, such as survey, energy consumption, movement data, and interests are kept separate in anonymized database via an external trusted third party.

The approach aims at bringing together different sources of data, supporting the city authorities for better decision-making, and providing more information to citizens. Finally, from the solution platform an ecosystem may emerge, where data providers and data consumers interact to realize novel business cases.

Keywords: IT-Security, Smart City, secure data, secure transaction, anonymous data

Introduction

Over the last decades, urban environments have faced increasing challenges in areas such as ecology (e.g. reduction of pollution and CO₂ emissions), economy (e.g. structural change of industries and employment creation), politics (e.g. rural depopulation and increasing urbanization) and technology (e.g. adoption of IT for urban services) (Etezadzadeh, 2015). As a way to cope with these issues, the vision of the Smart City emerged over the last 20 years from essentially two sources: On the one hand, it was deeply influenced by the idea of the Digital City that focuses on an increased usage of ICT and digitalization in the urban context (Cocchia, 2014). On the other hand, early Smart City initiatives paying special attention to
improving the environmental conditions of cities were clearly driven by international institutions as e.g. the European Commission, or the OECD (Cocchia, 2014).

Nowadays, both aspects are subsumed under the umbrella term *Smart City*. It constitutes an approach targeting the aforementioned ecological, socio-economic, political and technological challenges towards the ideal of a sustainable, green and digital city (*Figure 2*).

*Figure 2: Smart city applications*

Berlin -as an example of a main European City- targets the following objectives for a smart city strategy (Senatsverwaltung, 2015):

- improve the quality of life and opportunities of social participation of citizens,
- reduce the exploitation of finite resources and establish the use of renewable resources,
- safeguard the services for the public at long term,
- strengthen the survival, adaptation and resilience of the settlement area,
- create a transparent decision-making culture and knowledge society, and
- maintain/increase the competitiveness of the business location permanently.

Etezadzadeh (2015) proposes several enabling levels for the Smart City vision, among them the exploited natural resources, the involved urban actors and their contributions, the steering city administration, the various types of infrastructures, and the underlying layer of ICT\(^6\). The ICT layer constitutes an enabler of central importance for most of the other levels, as it permits the integration of urban infrastructures and processes (Etezadzadeh, 2015). At the core of this ICT layer, a central platform enables storing and securely accessing all kind of urban data needed to implement the targeted goals above.

**Research Problem and current State of Research**

\[^6\] ICT: Information & Communication Technology
Within this urban data platform, the various kinds of data of the urban infrastructure, e.g. GIS\(^7\) and survey data, timetable data, and real-time traffic data, as well as statistical data in the context of open data initiatives will be stored and made accessible. The currently deployed IT systems, however, are often proprietary and historically grown solutions that are operated and further developed at high cost. Here, an enlargement by cloud-based systems for data storage may significantly reduce the operational costs and ease the implementation of new requirements, but such systems introduce new challenges on the security side.

The datasets of the city administration’s various departments are held independently or redundantly. From the data privacy point of view, an integration or aggregation of those datasets is not permitted, because they may contain personal or other sensitive attributes. This lack of data security and privacy-compliant procedures prevents the cities from exploiting this “information treasure” for analysis, planning or reliable prognoses. Through the separation of personal/sensitive data, these datasets can be merged, aggregated and used for various purposes. This affects many urban areas, e.g.:

- Services for the public
- Energy, material supply and disposal (water, waste)
- Environment
- Mobility and public traffic
- Facility and infrastructure management
- Information and communication
- Production, logistics, trades and services
- Social infrastructure (education, health, culture)
- Urban development
- Politics and administration (governance), participation and interaction

From a technical point of view, the Smart City vision can be perceived as an Internet of Things (IoT) and Services, where various kinds of sensors (e.g. smart meter, traffic cameras, and GPS tracker for automatic vehicle location) contribute data to the above mentioned urban data platform (Figure 3).

A survey among 500 IT professionals in the field of IoT revealed that data security and privacy are the most concerning aspects of IoT: 79% of the respondents consider data security and 69% data privacy as their top concerns (Konsek, Trice, Butcher, Smith, & Dharmawan, 2015).

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\(^7\) GIS: Geographic Information System
Therefore, the above-mentioned urban data platform has to include mechanisms for fulfilling the following requirements at the core of the present research:

a) Access to data is granted only to authorized users and applications.
b) The principles of data privacy are respected.
c) Data should be made available for subsequent analyses and aggregations in an anonymized form.

In order to take into account the three aforementioned points, certain parts of the data or the data as a whole need to be stored in an encrypted form within the urban data platform. Already today, systems are available that provide an online service for data encryption and subsequent decryption (Hirth, 2010). Here, two approaches can be distinguished (SPIKE, 2008):

- Transfer of the original data using an encrypted connection and subsequent encryption at the service provider with a pre-shared key.
- Firstly, online generation of a key and subsequent local encryption. Secondly, transfer of the encrypted data to the cloud.

The targeted urban data platform, however, adopts the second approach and further increases the achievable level of data security and privacy by

1. **splitting** the data into different pieces and
2. separately **encrypting** them.

Consequently, this novel approach will allow for separating the data already at the location of the owner of the data and further processing it using the keys kept at different third-party providers.

Figure 3: Smart City concept of the Spanish city Santander (Wolfangel, 2015)
The outlined approach has the potential to significantly improve the achievable level of data security and privacy for the communication between the inhabitants and the city’s IT systems by better protecting sensitive attributes such as personal data. This may contribute to a trustful participation of an increasing number of actors in the Smart City context, where people today articulate the fear of becoming totally “transparent citizen”. At the same time, the approach allows for involving broader groups of users for further analyzing the collected, anonymized data. An ecosystem may emerge here, where data providers and data consumers interact to realize novel business cases.

Solution Concept

Open Service for Data Separation and Encryption (ONSIDE)

The basic idea of this approach consists in the secure transmission, storage and processing of data. This is achieved by a novel and generic way of data storage and data separation. Here, person-identifying data such as name, address, email or ID are hashed and encrypted. In addition, the personal data is kept separately from other vulnerable data such as age, performed transactions, interests or movement data, which is relevant for the various usage scenarios, by means of a trusted third party (TTP). In case of internal or external theft of vulnerable data, consequently, an abuse of this data can be ruled out. A match between person-identifying and vulnerable data is therefore not possible.

The ONSIDE platform allows for the secure and legally compliant connection, exchange, aggregation and analysis of data. The resulting information can be accessed through common services and platforms.

Figure 4: Processes of data encryption and data separation within ONSIDE

For the first time, the ONSIDE-approach allows the owner of the data the separation and encryption of data by dedicated platform services, before they will be used for further anonymized data processing. Since 2010 this patented process were been used for more than 8 Billion Records in operational use for market data analysis (AZ Direct GmbH, 2011), which allows for a fully anonymized data transfer in batch mode. As of today, this process prevents
the abuse of the utilized data and consequently allows customers to conduct classical data analysis under complete secrecy for the involved personal data or associations.

**System Architecture**

According to an IDC study on the evolution of the data volume (IDC, 2013), the amount of data will increase many times. Nevertheless, it should be efficiently used, available in many places at the same time, securely stored and protected from internal and external abuse. Around 2010, the AZ Direct GmbH has developed the Data Secure\textsuperscript{TTP} process for the protection of its own sensitive data separating sensitive data from personal/identifying attributes (cf. Figure 5) that renders the abuse of such sensitive data impossible (AZ Direct GmbH, 2011). The Core of this solution is as follows:

- Strict separation of "identifying data" and "characteristics"
- Person-identifying data such as name, address or e-mail are already hashed and encrypted by the data owner
- Data relevant for analytics, such as survey, energy consumption, purchasing behavior, interests, etc. are kept separate in anonymized database via an external trusted third party.

![Figure 5: Initial idea of the Data Secure\textsuperscript{TTP}-Process](image)

The ONSIDE platform picks up the basic idea of this process and aims at providing modular services for urban institutions and the public administration in a highly scalable platform. The service modules link up and exchange data originating from different systems/interfaces in a privacy compliant and legally compliant manner. Through APIs, commercially available software packages and services may aggregate and analyse this data.
As depicted by Figure 6, the logical architecture of the ONSIDE service platform consists of three layers:

- The externally accessible “Public Layer” provides interfaces to software services covering the complete range of functions spanning from data preparation, over separation, and encryption to analysis. The data interfaces as well as the interfaces to the ONSIDE service platform are publically available and may be employed by users of the platform to add their specific services available for general use.
- In the “Security Layer”, the data is processed and prepared for the recoding process. This layer is highly flexible configurable by using a business process engine.
- The “High Security Layer” is completely isolated from the outside world. Here, in the actual core of the ONSIDE service platform, all components for the encryption, recoding, and decryption of data are located.

**Figure 6: Architecture of the ONSIDE Service-Platform**

The legal compliance and security of the ONSIDE service platform will be ensured by the following measures:

- Encryption of the transport channel
- Encryption of the data during transfer
- Separation of the data by a trusted third party in a form that even with a breaking of the encryption, the data is useless, since not interpretable or not combinable.

The outlined solution focuses on the neutral instance that acts as operator of the ONSIDE service platform and carefully monitors the execution of the planned measures. The ONSIDE service platform provides interfaces for both synchronous and asynchronous data transfers. The process management of the ONSIDE service platform is able to accept and identify the incoming data, and to map it according to the proposed business models. Per task, the order processing of the ONSIDE service platform will be supplied with all data and information required for the processing.
The “High Security Layer” of the ONSIDE service platform keeps the keys for the involved parties at the trusted third party and are known only to them. The employed cryptographic algorithms conform to the recommendations of the German Federal Office for Security in Information Technology (BSI) and are designed to process data in a high-performant manner.

**Application of Solution Concept**

Many core aspects of the Smart City, e.g. energy supply, mobility, Open Data, or public safety, require up-to-date information, real-time communication, and the linking of various systems. In the future, smartphone users, cars, streets, buildings, and household appliances will become part of the Smart City infrastructure, as shown at the left side of Figure 7. Of central importance is the linking of numerous users, devices, and systems within an IoT.

![Figure 7: Use case Smart City within ONSIDE](image)

Open data initiatives focus on the publication and accessibility of public and urban data (Both & Schieferdecker, 2012). They advocate that non-sensitive, urban data is directly accessible from the aforementioned urban data platform to a greater extent than today. Based on the collected urban data, companies may develop new smartphone apps that provide access to further analysed and aggregated data to users. The fields of application are numerous and apply to almost all areas of life (Fraunhofer FOKUS, 2015), (Berlin.de, 2015).

As smarter the city gets, however, the easier it may be hacked (heute.de, 2015). Besides the emergency and crisis situations, security is also essential in everyday situations such as when shopping online or using services of the municipality online. With the expansion of e-Government in Smart Cities, electronic data safety and data protection is gaining importance. In addition to data security mechanisms, an elaborated data management eases the participation of inhabitants, without any need to fear of compromising security. Confidence in data security is a key factor to make Smart City applications successful. The outlined solution aims at creating technical means to separate sensitive personal data such as name, address etc. from data relevant for the above-mentioned application scenarios. The same applies to movement,
system data, etc. in the same way. Without risking loss of information, the targeted applications cases may be realized based on anonymized data. Here, it is important to install a data processing system that enables both effective and rapid user interactions as the anonymization of the data. As shown in the central part of Figure 7, a “Trusted Data Center” provides these functions in the context of the ONSIDE service platform.

Through its novel generic approach of data anonymization, the ONSIDE service platform prevents the direct connection between the user identity and user characteristics e.g. interactions, interests, movement profiles, etc., and provides the access to combined records of data relevant for applications and personal information by fully respecting data privacy laws. The identity of the users is protected, while the necessary attributes can be easily used for the aforementioned application scenarios.

Conclusions and Outlook
Smart City applications are an upcoming sector within the IoT and the ongoing digitization. Data security and privacy are the most important factors for the acceptance and wide usage of these applications. Only when many users employ these applications, a sufficient amount of data is available that is subsequently available for analysis in urban applications and community services. With its new generic approach of anonymization, the described ONSIDE platform offers promising solutions for the widespread use of anonymized data within Smart City applications.

Within this solution platform an ecosystem may emerge, where data providers and data consumers interact to realize novel business cases in an open community. An outsourcing of parts of the value chain to specialized companies and vice versa, or an integration of appropriate foreign services in the own processes will be enabled. Entirely new business process and – models can be developed through secure ad-hoc business chains in the community.

References


Entrepreneurship and Quality of Life – International Comparison Based on GEM Data

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Abstract
Entrepreneurs start up their businesses for a variety of reasons. Among those are self-fulfillment and expected increase in quality of life. The main research question of the paper is: Is well-being of entrepreneurs higher than of non-entrepreneurs? The paper therefore aims at measuring the difference of well-being of entrepreneurs and non-entrepreneurs in cross-country analysis. Also investigated are differences in well-being of entrepreneurs at various stages of activity, opportunity entrepreneurs and necessity ones and female and male entrepreneurs.

The empirical evidence on the quality of life of entrepreneurs is rather scarce. Some studies indicate that the quality of life experienced by entrepreneurs is higher than that of employees. Entrepreneurs enjoy better psychological well-being and better (both physical and mental) health (Stephan & Roesler, 2010). Moreover, autonomy, schedule flexibility and control over work situation can reduce the level of work-family conflict experienced (Greenhaus, Parasuraman, Granrose, Rabinowitz and Beutell, 1989), enabling self-employed persons to manage the conflicts between work and home more effectively and increase psychological well-being (Greenhaus, Parasuraman, Granrose, Rabinowitz and Beutell, 1989; Loscocco, 1997; Loscocco and Leicht, 1993).

The data from Global Entrepreneurship Monitor is used to test the hypotheses. In 2013 there was a special topic in GEM concerning well-being and quality of life. The sample of 70 countries taking part in GEM is used. To test the hypotheses the dependent samples t-test is used.

Research results show that well-being of entrepreneurs is higher than of non-entrepreneurs, well-being of owners of established businesses is higher than of early-stage entrepreneurs, well-being of opportunity entrepreneurs is higher than of necessity entrepreneurs and that there is no statistically significant difference between well-being of female and male entrepreneurs.

The study has implications for quality of life research by indicating some of the factors that influence the well-being of people involved in business activity. The limitation of the study is using country as the level of analysis instead of using data at individual level that was not available at the time of conducting the research. The study also has practical implications for entrepreneurs concerning managing expectations and increasing the quality of life.

Some of the relationships presented in the paper have not been researched yet. The main value of the paper is taking the next step in uncovering the patterns of well-being of entrepreneurs.

Keywords: well-being; quality of life; opportunity vs. necessity; gender; Global Entrepreneurship Monitor
Introduction
The analysis of the effects of entrepreneurship usually takes into account the effects on micro- and macroeconomic scale. The microeconomic scale focuses primarily on the financial performance of individual entrepreneurs, the growth rate of their companies, the number of their employees, profits and customers. The macroeconomic level focuses on the impact of entrepreneurship on the economy, i.e. on the created jobs, the share of the gross national product generated by small and medium-sized enterprises, as well as start-up survival rates. However, little or almost no attention is paid to the less tangible effects of entrepreneurship which concern the quality of life of entrepreneurs.

I argue that well-being of entrepreneurs should be used as one of the primary indicators of entrepreneurial success. The paper presents the results of the analysis of differences of well-being between non-entrepreneurs, early-stage entrepreneurs, established business owners, female and male entrepreneurs; those starting a business to utilize discovered opportunities and those who start up out of necessity. Analyses are conducted at cross-country level and data from Global Entrepreneurship Monitor (GEM) is used. In 2013 the GEM adult population survey (APS) analysed a special theme on broadly understood indicators of the quality of life of entrepreneurs. The main factors examined were: the subjective well-being, the balance between work and private life, some aspects of empowerment and stress. The GEM methodology allows for the results of the research on this special theme to be presented in the form of international comparison.

Entrepreneurial motivation
To understand the impact of their business on the quality of life of entrepreneurs, first of all it is necessary to analyse what motivates them to start up their own business. The intention to achieve high profits and to accumulate capital is commonly perceived to be the main reason behind starting a business. However, such a perception of the motivation of entrepreneurs is a simplification, and, in addition, as shown by the surveys, entrepreneurs’ earnings are not high – when taking into account the median instead of the average, it turns out that their profits fall short of expectations (Carter, 2011).

A lot of factors suggest that one of the main reasons for starting up a business is to satisfy the need for autonomy. This has been pointed out by many researchers, also in Poland (e.g. Lemańska-Majdzik, 2013). Some studies indicate that the desire to become independent and make autonomous decisions is even stronger than the desire to improve one’s financial situation. Similarly, as for financial motivation, there are some aspects that suggest that entrepreneurs want to gain financial independence rather than maximise their income.

The non-financial reasons for starting a business indicated by entrepreneurs also include the desire to see if they perform well in the new circumstances, the aspiration to be entrepreneurs, the possibility of self-realisation, the desire to achieve a professional success, the desire to raise their self-esteem, the achievement of mental well-being, and even the improvement of interpersonal relationships. The important aspects of the entrepreneurial motivation mentioned also include the need for achievements, domination, power, and social reasons: the desire to help others and to have a positive influence on the lives of other people.
This set of entrepreneurial motives provides another perspective on the results achieved by the entrepreneurs. If they start businesses not only, or even not primarily, in order to maximise their incomes and profits and achieve a rapid growth, then why use only those measures of their success? Instead, if the main motivation is the desire for self-realisation, we should probably take it into account and examine whether in fact entrepreneurs achieve this aim and are satisfied with their actions. Therefore, the impact of entrepreneurship on the factors that can broadly be defined as quality of life indicators is increasingly more often taken into account. They include, for example: satisfaction, psychological well-being, and a balance between work and personal life.

Entrepreneurship and quality of life
Some studies indicate that the quality of life experienced by entrepreneurs is higher than that of employees. Entrepreneurs enjoy better psychological well-being and even better (both physical and mental) health and lower blood pressure (Stephan and Roesler, 2010). The reason behind this correlation may be that entrepreneurs perform the so-called “active” work, which requires dedication, but also is not tiresome and involves emotional engagement. Parasuraman and Simmers (2001) claim that self-employed people enjoy greater autonomy and schedule flexibility at work, and report higher levels of job involvement and job satisfaction than those employed in organizations. Ownership of the enterprise and being one's own boss provide individuals the freedom and flexibility to structure the workday according to their preferences, and thereby added control over the work situation (Loscocco, 1997). Such latitude can reduce the level of work-family conflict experienced (Greenhaus, Parasuraman, Granrose, Rabinowitz and Beutell, 1989), enabling self-employed persons to manage the conflicts between work and home more effectively and increase psychological well-being (Greenhaus, Parasuraman, Granrose, Rabinowitz and Beutell, 1989; Loscocco, 1997; Loscocco and Leicht, 1993). Taking the above into consideration I hypothesize that:

Hypothesis 1. Entrepreneurs experience higher level of well-being than non-entrepreneurs.

Loscocco (1997) also suggests that well-being is positively related to control over the work situation. That control has a tendency to increase in time, along with gaining the experience in running the business. Moreover, Parasuraman and Simmers (2001) point out that psychological well-being of entrepreneurs is related to work-family conflict that in turn may arise when entrepreneur spends much time running the business. As the amount of entrepreneurs’ working hours decrease at later stages of company’s existence and entrepreneurs get more organized the work-family conflict should decrease and well-being should increase. I therefore hypothesize that:

Hypothesis 2. Well-being of entrepreneurs increases with the age of the company.

There is very little empirical evidence on the impact of the type of entrepreneurial motivation on the well-being of the entrepreneur. Only Block and Koellinger empirically prove that “necessity entrepreneurs and individuals starting a business out of long-term unemployment are significantly less satisfied with their start-up” (2009: 205). I therefore hypothesize that:
Hypothesis 3. Well-being of entrepreneurs who start their business with the objective of utilizing an opportunity is higher than of those who start a business out of necessity.

Parasuraman and Simmers (2001) also suggest that men's greater time commitment to the work role leaves them with less time and energy available to give to the family role. On the other hand, research on small business has shown that women business owners experience unique difficulties and problems which limit their economic performance and jeopardize their personal feelings of achievement and satisfaction (Bowen and Hisrich, 1986). Moreover, there is evidence, that in high-stress occupations there is no statistically significant difference between well-being of men and women (Ojedokun and Idemudia, 2014). Due to contradictory evidence, I hypothesize that:

Hypothesis 4. There is no difference between well-being of female and male entrepreneurs.

Research design, methods, variables and measures
The research carried out to test the above hypotheses is based on Global Entrepreneurship Monitor study. It is the biggest scientific project of researching entrepreneurship worldwide. It was started in 1999 when 10 countries took part in the study, in 2013 it encompassed 70 economies, 75% of world population, 90% of world GDP. In GEM project the same research is repeated in yearly cycles. Moreover, the same methodology is applied in all countries taking part in the research. This results in full comparability of the results both longitudinally and across countries. GEM has two main research parts. Adult population survey (APS) is completed by a representative sample of at least two thousand adults in each economy. The total sample in 2013 accounted for 197,000 respondents across the globe. The purpose of APS is to capture the attitudes, activities and aspirations of society in the field of entrepreneurship. APS has two main advantages over official statistics: it captures not only people registering their activity but also entrepreneurs-to-be – people who intend to start a business or even start to prepare to do so, and it provides in-depth view into motivations, attitudes and aspirations of entrepreneurs. The other part of the research is called National Experts Survey (NES) where national experts are consulted on entrepreneurial framework conditions – factors that explain the nature and level of entrepreneurship in the economies: financing, governmental policies, governmental programs, education and training, research and development transfer, commercial infrastructure, internal market openness, physical infrastructure and cultural land social norms.

While entrepreneurship is a multifaceted phenomenon with many different meanings, GEM operationalizes entrepreneurship as: any serious attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business. While entrepreneurship is defined narrowly as new business activity, it takes a broad view of what it recognizes business activity to be. This has its implications in measuring the level of entrepreneurship in GEM that is not limited to registration of new business activity, but it is treated rather in behavioral than in institutional terms, and it includes both entrepreneurial activities aimed at registration of new business entities, and entrepreneurial activities in the existing organizations.
In GEM it is important to differentiate a phase of the business activity (Amorós and Bosma 2014), while phases before its formal implementation are also subject to the analysis, and most attention is paid to the phase of early-stage activity. It is one of the significant elements distinguishing GEM from other research projects on entrepreneurship where registration of new entities is studied on the basis of data of national statistical offices which does not enable good insight in the nature of the new enterprises. In modeling the process of entrepreneurship, GEM applies three stages of economic project development. Depending on the phase an entrepreneur is in, they may be defined as a nascent entrepreneur, a new entrepreneur or an established enterprise. In the GEM methodology, nascent entrepreneurs are individuals who have not established business activity yet but they plan to, and those who have already established business activity and are at its early stage – up to 3 months from establishment of business activity. Business activity is considered to be new in the case of paying wages for the period of three months. Such persons start to take first steps to establish a business: they obtain financial support, do the business planning, apply for legal protection of their intellectual property. New entrepreneurs are people who established their business activities from 3 to 42 months before the beginning of the research. Those two groups form the base for the central indicator in GEM – Total Early-stage Entrepreneurial Activity (TEA).

To test the hypotheses I use the GEM data from 2013. For measuring well-being the SWLS measure was used (Pavot and Diener, 2008). The results were standardised with respect to the average value and hypothetically range from -1.7 the lowest possible well-being) to 1.7 (the highest possible well-being). I use a country as a level of analysis and therefore the sample consists of 70 countries. I use the dependent samples t-test as a tool of analysis of difference of means.

**Research results**

Tables 1-3 present the results of dependent samples t-test. Table 1 presents the means for well-being in total sample of 70 countries.

Table 1. Comparison of means.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. dev.</th>
<th>SE of mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-entrepreneurs vs. early entrepreneurs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NONENT WB</td>
<td>70</td>
<td>-.0540</td>
<td>.39365</td>
<td>.04705</td>
</tr>
<tr>
<td>TEAWB</td>
<td>70</td>
<td>.0542</td>
<td>.38132</td>
<td>.04558</td>
</tr>
<tr>
<td>Non-entrepreneurs vs. established entrepreneurs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NONENT WB</td>
<td>70</td>
<td>-.0540</td>
<td>.39365</td>
<td>.04705</td>
</tr>
<tr>
<td>EBWB</td>
<td>70</td>
<td>.1339</td>
<td>.38970</td>
<td>.04658</td>
</tr>
<tr>
<td>Early entrepreneurs vs. established entrepreneurs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEAWB</td>
<td>70</td>
<td>.0542</td>
<td>.38132</td>
<td>.04558</td>
</tr>
<tr>
<td>EBWB</td>
<td>70</td>
<td>.1339</td>
<td>.38970</td>
<td>.04658</td>
</tr>
<tr>
<td>Opportunity entrepreneurs vs. necessity entrepreneurs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEAOPP WB</td>
<td>70</td>
<td>.1234</td>
<td>.38393</td>
<td>.04589</td>
</tr>
<tr>
<td>TEANEC WB</td>
<td>70</td>
<td>-.1633</td>
<td>.39582</td>
<td>.04731</td>
</tr>
</tbody>
</table>
Table 2 presents the results of correlation analysis that should not be taken into consideration as separate analysis but only as an introduction to t-test analyses. There is a strong correlation in all cases which could mean that the means are not statistically different, however the results of t-tests should be treated as definitive.

Table 2. Results of correlation analyses.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-entrepreneurs vs. early entrepreneurs</td>
<td>70</td>
<td>.923</td>
<td>.000</td>
</tr>
<tr>
<td>Non-entrepreneurs vs. established entrepreneurs</td>
<td>70</td>
<td>.901</td>
<td>.000</td>
</tr>
<tr>
<td>Early entrepreneurs vs. established entrepreneurs</td>
<td>70</td>
<td>.920</td>
<td>.000</td>
</tr>
<tr>
<td>Opportunity entrepreneurs vs. necessity entrepreneurs</td>
<td>70</td>
<td>.783</td>
<td>.000</td>
</tr>
<tr>
<td>Male entrepreneurs vs. female entrepreneurs</td>
<td>70</td>
<td>.868</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 3 presents the results of five separate t-test analyses. They concern the differences in well-being in following groups: (1) non-entrepreneurs vs. early entrepreneurs, (2) non-entrepreneurs vs. established entrepreneurs, (3) early entrepreneurs vs. established entrepreneurs, (4) opportunity entrepreneurs vs. necessity entrepreneurs, and (5) female entrepreneurs vs. male entrepreneurs.

Table 3. Results of t-test analyses of dependent samples.

<table>
<thead>
<tr>
<th>Differences in dependent samples</th>
<th>Mean</th>
<th>SD</th>
<th>SE of mean</th>
<th>95% range</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-entrepreneurs vs. early entrepreneurs</td>
<td>-</td>
<td>.1081</td>
<td>.15298</td>
<td>-.0182 8</td>
<td>-</td>
<td>.1446</td>
<td>.071</td>
</tr>
<tr>
<td>Non-entrepreneurs vs. established entrepreneurs</td>
<td>-</td>
<td>.1879</td>
<td>.17448</td>
<td>-.0208 5</td>
<td>-</td>
<td>.2295</td>
<td>.146</td>
</tr>
<tr>
<td>Early entrepreneurs vs. established entrepreneurs</td>
<td>-</td>
<td>.0797</td>
<td>.15453</td>
<td>-.0184 7</td>
<td>-</td>
<td>.1165</td>
<td>.042</td>
</tr>
</tbody>
</table>
In analyses 1-4 a statistically significant difference between means can be observed. Analyses 1 and 2 show that the level of well-being of non-entrepreneurs is significantly lower than both of early-stage entrepreneurs and owners of established businesses. That confirms hypothesis H1. Analysis 3 presents a statistically significant difference between well-being of owners of established businesses and of early-stage entrepreneurs which confirms hypothesis H2. The biggest difference was discovered between well-being of opportunity entrepreneurs and necessity ones. First group is far more satisfied which confirms hypothesis H3. On the other hand, the difference between well-being of female and male entrepreneurs is the smallest. It is also statistically significant only at the level of .072 which cannot be accepted. Those results confirm hypothesis H4.

Discussion and conclusions
An important observation, which is evident after even a brief analysis of the results (Table 4), is the geographic distribution of well-being. It is similar in different groups of entrepreneurs and non-entrepreneurs. The inhabitants of the countries of North America and Latin America enjoy the highest well-being, while the lowest well-being is experienced by the inhabitants of Sub-Saharan Africa. The average for the other geographic regions is similar to the general average values. This is consistent with the recently very popular rankings of happiness, where the countries of Latin America take top places (e.g. HPI – Happy Planet Index), although, according to other reports, European countries are at the forefront (e.g. World Happiness Report 2013 – Helliwell, Layard & Sachs, 2013). The GEM survey shows that the countries with the highest overall well-being are as follows: Panama (0.72), Switzerland (0.63), Norway (0.62), Chile (0.58) and Ecuador (0.55); while the countries with the lowest overall well-being are: Zambia (-1.25), Botswana (-1.05) and Russia (-0.79). Poland is a country with an average level of general well-being, which is slightly lower than the average for all countries analysed (-0.15).

Table 4. Well-being of entrepreneurs and non-entrepreneurs – international comparison.

<table>
<thead>
<tr>
<th>Country</th>
<th>Adult population well-being</th>
<th>TEA entrepreneurs well-being</th>
<th>Well-being of owners of established enterprises</th>
<th>Well-being of non-entrepreneurs</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>.01</td>
<td>.11</td>
<td>.14</td>
<td>-.01</td>
</tr>
<tr>
<td>Belgium</td>
<td>.17</td>
<td>.17</td>
<td>.28</td>
<td>.16</td>
</tr>
<tr>
<td>Croatia</td>
<td>-.3</td>
<td>-.04</td>
<td>-.13</td>
<td>-.33</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>-.02</td>
<td>.01</td>
<td>.11</td>
<td>-.03</td>
</tr>
</tbody>
</table>
What has been proven above is that in most countries the well-being of TEA entrepreneurs exceeds the well-being of the general adult population. This may indicate that the activity in the field of starting up and running a business may improve well-being, however this may also work the other way round, meaning that entrepreneurial activity is taken up by people with higher well-being who in general have a more positive and optimistic view of the world. More information is provided by the analysis of changes in well-being between TEA entrepreneurs and the owners of established companies. It turns out that in most countries the latter group demonstrates higher well-being, although there are exceptions to this rule. For example, in the case of Greece, Latvia and Luxembourg the well-being decreases with the transition from a start-up to an established company. Interestingly, such regularity occurs mainly in the EU countries and in several Latin American countries. In turn, the most significant improvement in well-being over the time of running a business was reported in Italy, Germany, Finland and the United Kingdom.

In Poland the well-being of TEA entrepreneurs is significantly higher than that of the general adult population and people who do not engage in entrepreneurial activity (0.01,-0.15,-
0.18 respectively). However, this result is not high compared to other EU countries. Lower well-being among new entrepreneurs is observed only in Croatia, Greece, Italy, Slovakia and Hungary. In addition, the well-being of entrepreneurs in Poland decreases with the transition to a group of the owners of established companies and is higher only than the result for Croatia, Greece, Latvia and Hungary.

There is a significant difference between entrepreneurs who start a business to utilize opportunity and those who do so out of necessity. The well-being of the first group is much higher, which can be observed in almost all countries, including Poland. However, there are countries where the gap is particularly large. In the EU, they include: Germany, Hungary, Italy, Luxembourg, France and Sweden. In Poland, the difference is significant, though lower than the average for EU countries.

Table 5. Well-being of (TEA) entrepreneurs who started a business due to opportunity or out of necessity, and of female and male entrepreneurs.

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<td>Italy</td>
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<td>Europe outside the EU</td>
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The difference in the well-being of entrepreneurs depending on their reasons to start a business can be explained in two ways. Firstly, entrepreneurs who start a business to seize a perceived opportunity feel better in their role and, therefore, are more satisfied, which translates into an overall improvement of their well-being. However, an alternative explanation is also possible, namely that entrepreneurs who start a business out of necessity demonstrate worse well-being from the very start, which may be the result of unemployment or the lack of appropriate qualifications. It should be noted that only TEA entrepreneurs were taken into account, and thus the level of well-being is not necessarily a direct result of the activities carried out.

Women who are early entrepreneurs demonstrate higher well-being than men. This tendency can be observed in most countries, although there are exceptions – for example, in Greece and the United Kingdom male entrepreneurs have significantly better well-being than women. This is not the case in Poland, where women enjoy a better well-being. There may be several reasons for this situation, and again it should be assumed that well-being may be a result of, a concomitant of or a cause for starting up a business. Due to their culturally established social role, men may feel more pressure at the moment of starting a business; on the other hand, women are more likely to experience higher levels of well-being when starting a business, although it should be borne in mind that the surveys for 2013 indicate that in Poland women are more likely to start a business out of necessity than men.

References


On the Marketing of Technology - Enabled Services in Emerging Markets

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Abstract
This study deals with the marketing of technology-enabled services to underserved consumers in emerging markets. In recent years, this segment has shown tremendous resilience despite harsh macroeconomic conditions. This has prompted many technology companies to venture products and services for this market segment. However, the marketing of technology-enabled products and services must adopt a balanced approach to entice the high value-demanding consumers of this segment. This paper presents the outcome of qualitative and quantitative research conducted in urban slum communities in Kolkata and Ahmedabad, India. The study was concerned with a particular service – providing employment to the informal job market. Findings suggest that awareness is dependent on three components – perceived value, social acceptance and usability. Perceived value arises from cost benefits and relative efficiency compared to existing systems. Social acceptance relates to cultural integration and localization of the service. Usability has a localization component to it and training in use of the system. A technology-enabled service that produces value for its users while at the same time providing a culturally integrated and localized experience would gain greater traction among users in emerging markets.

Scope and Benefits
This study deals with marketing of a technology-enabled service for use by low-income consumers. The term ‘bottom-of-the-pyramid’ (BoP) was used by Prahalad and Hart (1999) to describe consumers who live on less than $2 per day. Contrary to conventional thinking regarding the economic potential of this segment, recent events have pointed to its resilience and importance as evidenced by its continued growth during the 2008 financial crisis (Mezias, Dhabi and Fakhreddin, 2012). For technology-enabled product and service
organizations, this segment poses a unique opportunity as well as a challenge – the saturation of tech consumers in the developed world, making this segment increasingly important. At the same time, the unique consumer behavior associated with this segment makes it hard for any company to succeed. To capitalize on the possibilities offered by this segment, multi-national technology corporations such as Google (Project Loon) and Facebook (Aquila, Internet.org) have spearheaded initiatives to extend internet connectivity.

The bottom of the pyramid segment faces many social, political, economic and material hardships. Consequently, consumers here display a greater demand for value than conventional customers (Wood, Pitta and Franzak, 2008). Previous research pointed to the roles of social capital, market institutions and aspirational marketing (Blocker et al., 2013) contributing towards the success of a product in this environment. While venturing into this segment, companies also need to be careful not to be perceived as exploitative as the resulting backlash maybe be counter-productive (Karamchandani, Kubzansky and Lalwani, 2011). All this necessitates a balanced marketing approach when operating within such a segment.

The increasing penetration of cell phones and mobile internet connections has opened the door for adoption of technology-enabled products and services by BoP consumers. In recent years, mobile banking and health services have gained popularity in emerging nations of Asia and Africa. Studies suggested sociological acceptance as a possible explanation for the growth of these services (De Silva, Ratnadiwakara and Zainudeen, 2009). Other factors influencing consumer behavior in this segment are low cost, perceived usefulness and perceived risk (Ismail and Masinge, 2011). However, this optimistic picture of technology adoption by BoP consumers, must also be tempered with the ground realities of inherent low education and usability issues that act as barriers to technology penetration (Kang and Maity, 2012).

Technology-enabled services have been shown to have great benefits for BoP consumers, being often more cost-effective and efficient. In Uganda, an agricultural information dissemination system was shown to have a significant positive impact on the livelihood of farmers (Kassie, Shiferaw and Muricho, 2011), while mHealth initiatives have led to ameliorated healthcare in many developing nations (Buntin et al. 2011). In particular, during the ebola outbreak in Western Africa in 2014, mHealth programs helped healthcare workers better manage their efforts (Tracey et al. 2015).
Approach and Objectives
Social perception of a technology has an important role to play in its acceptance. Studies have shown that technology aversion is negatively co-related to the perceived usefulness of a particular technology (Davis, 1989). This can be attributed to an intrinsic motivation experienced by the users for utilizing the benefits of the technology (Venkatesh, 2000). This general explanation has also been shown to be applicable to BoP consumers. Technology-based services for sanitation and healthcare in underprivileged communities have done well in Kenya, Tanzania and India (Katukiza, 2010) (Zalzala et al, 2015).

Marketing efforts for a technology-enabled service would hence focus on raising awareness of the benefits and usefulness of the service among the target consumer base. Awareness about the service should aim to address the usability concerns that consumers might have and the educational limitations of the segment. The level of usage that a technology-enabled service would experience among the members of the segment is related to its social acceptance. In this context, variables relating to the intrinsic motivation of the candidate as well as the design of the system need to be measured.

The objectives of the study are therefore as follows:

- To understand the attitudes towards technology among BoP consumers.
- To identify the key factors – in terms of, role of social influencers, cost-efficacy etc. – that contribute towards the success of a technology-enabled services.
- To measure the degree of acceptance people from the community have with the preliminary version of a technology-enabled service.
- To generate a generalized framework for marketing a technology-enabled service to BoP consumers.

Research Methodology
The research is exploratory in nature, aiming to identify relevant parameters that are important to all stakeholders and assist a technology-enabled systems gain users in the BoP segment. Marketing efforts would focus on creating awareness in a way that addresses the users’ concerns with system usability and make potential benefits of system’s use apparent to them. We conducted unstructured interviews with various stakeholders – members of urban slum communities, business owners whose operations depended on interacting with the BoP segment as either customers or employees, and third parties like NGOs. Based on this a preliminary version of a technology enabled service – a mobile-based employment system (named JobSeek) - was created. Usability tests were then conducted on the system and user acceptance of the system was captured through a survey. The interviews used to create the system were then reconciled with the
results of the acceptance survey through a final set of surveys in order to create a strategic marketing framework.

The Instruments
Since usability is an important factor in the adoption of a technology-enabled service by BoP consumers, the first two surveys – of community members and business owners – were designed to capture variables that aid in the design of a user-friendly technology-enabled employment portal. The variables measured by the Community Survey are as follows:

- System Design Information – Information required by employment candidates that govern their decision of whether to apply for a job or not.
- Sources of information and their effectiveness – The different sources that people in the environment currently use while searching for employment, and their effectiveness in terms of the kind of jobs candidates are placed in and the time required to secure a job.
- Important factors in employment – Factors such as wages, time limitations, commute distance, working hours and their significance to employment seekers.
- Usage of technology – Ownership as well as what cell phones are used for SMS, phone calls, and Internet.

The variables measured by the Business Owner Survey are as follows:

- System Design Information – Different jobs for which they hire from underserved communities and the length of time for which a hire from the community works for them.
- Sources of labor and effectiveness of the sources – The different ways they identify potential hires and the time taken by that source to provide a hire.
- Factors important in an information source – Listings of prospective candidates, reduced time in finding hires, background verification of candidates, ratings by previous employers.

The Usability Test was designed to gauge the acceptance of the service among BoP consumers, and the measured variables are as follows:

- Learnability – How easy is it for a new user to learn to use the technology system.
• Efficiency – It measures whether a user can reuse the technology system after the first initial use.

• Errors – The number of errors while using the technology system, their severity and recovery times.

• Satisfaction – The perception about the system.

• Design – Any inputs about improving the preliminary system that the subject may have including how much they would be willing to pay for the system.

The results of the usability test and the initial surveys were used to create two surveys – one for business owners and one for community members – attempting to determine an ideal marketing approach for the system. The second business owner survey captured the following variables:

• Product Information – The type of candidates preferred by the business owner in terms of experience and education and background verification.

• Current recruitment system and its effectiveness – The current system/channels in place for recruitment and its time effectiveness in terms of cost and time to fill positions.

• Reaction to sales pitch – Two sales pitches were created using data captured from the usability test and the initial surveys – one with regard to speed and one with regard to more qualified candidates (in essence, an example of the classic marketing dilemma of speed versus quality). The reactions of the business owners whether positive or negative were then recorded.

The second community survey captured the following variables:

• Product Information – Important factors such as location, work hours etc. that influence a candidate’s decision whether to apply for a job or not.

• Current employment search system and its effectiveness – The current system/channels in place for job search and its effectiveness in terms of time to find jobs.

• Willingness to pay – Willingness to pay for use of the system.

Data Sources
The first two surveys to facilitate system design were conducted in four slum communities in Ahmedabad. The initial interviews of business owners and third party managers were conducted using the resources provided by a partner local...
NGO. The surveys for the business owners used simple random sampling based on a pool of parties identified by the NGO as well as other entrepreneurs not affiliated with the NGO.

The survey of community members used stratified sampling based on demographic characteristics such as age, education and gender. This was done to ensure a sample that is representative of the population.

The usability test used simple random sampling with candidates identified with the assistance of the NGO. However, care was taken so that individuals whose technological familiarity was representative of the community’s overall technological awareness were chosen for the tests.

The last two surveys were conducted in three slum communities in Kolkata. Since, the objective of the study was to develop a generalized framework for marketing, the location was changed from Ahmedabad to Kolkata in order to eliminate any cultural factors that may have an influence on consumer’s decisions. The surveys for the business owners used simple random sampling based on a pool of parties identified after discussions with consultants (NGO workers, business managers).

The second survey of community members, much like the first, used stratified random sampling to ensure fair representation of characteristics like age, gender and education.

Microsoft Excel was used during data collection and SPSS was used to carry out data analysis.

<table>
<thead>
<tr>
<th>Sample Unit</th>
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<th>Business Owner Survey 1</th>
<th>Usability Tests</th>
<th>Community Survey 2</th>
<th>Business Owner Survey 2</th>
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Implementation Of Technology Solution

The responses from the first surveys of community members and business owners were used to construct a mobile-based system for employment.

The system consisted of a registration part for new candidates and a notification part that could (i) broadcast alerts every time a new job was posted,
and (ii) an SMS notification alerts suitable candidates about potential job opportunities.

The notification system was constructed using Awaaz.de, a broadcast and interactive voice service operating from Ahmedabad. The system was built using a female voice to record all messages. The messages were recorded in Gujarati as that was the language with which all survey respondents were familiar.

The acceptance of this prototype system was then tested and the responses of the test candidates captured. Based on their responses and the data captured in the first surveys, a second set of surveys was created which was administered to community members from three slums in Kolkata to create a general marketing framework for technology-enabled services.

Framework

Previous research had shown that consumers in emerging markets demanded high value from products and services. For technology-enabled services, usage of the service was correlated to a greater social acceptance. Another factor that played a role in the use of the system by consumers was usability – errors and issues experienced by the user when using the service.

Our research suggests that awareness about the service among consumers in emerging markets is an outcome of these three factors – perceived value, social acceptance and usability. All respondents in the usability test would recommend the use of the service as they perceived value in its adoption. However, almost 50% of them committed errors while using the system and 30% of them asked for training and/or instructions to be provided for system use. Usability issues negatively impacts service adoption, and for success a service would need to mitigate usability issues as much as possible. Social acceptance of the system refers to the service’s ability to replace the current prevailing system among the user base – in this case JobSeek replacing a system of referrals.

Perceived Value of the service refers to the efficiency of the system relative to current prevailing system. Research by Ramani, SadreGhazi and Duysters (2012) had shown the importance of perceived value in the use of products and services by the economically weaker segments of the population. Marketing efforts in the awareness stage for the service would focus on making apparent to the consumers these potential benefits. In our research 33% of the respondents in the second community survey were willing to pay for the use of the system. This was because they were enticed by the possibility of having better jobs, faster – a more efficient system.
Lal Dey et. al(2013) had shown the impact of social acceptance in the prevalence of mobile telephony among the poor. Social Acceptance comes about due to greater cultural integration and localization. Cultural integration efforts would focus on making the service’s us more relatable to current practices of the consumers. In the final question of the second business owner survey, we tested two pitches for the system. The pitch which emphasized the similarity of the system to the current system for booking cooking gas put in place by the government, resulted in the expression of greater interest among the respondents (100% v/s 20%). Localization, on the other hand, would involve both development and subsequent marketing of the service – making the service more user-friendly for the local population, in terms of language, data recording and performance. JobSeek’s development took into account the overall technological awareness and familiarity of its consumers by gauging their usage of mobile phones viz. access and different uses. All of the localization efforts undertaken during development would then be supplemented by including these aspects in the marketing for the service.

The final factor that affects awareness of the system is usability. Usability has a localization component – similar to social acceptance this would involve developing a user-friendly service and marketing the service’s user-friendliness to the consumers. The other factor that affects usability is training. This refers to proper instructions that are provided to the users to facilitate their usage. Errors and system usage issues that may crop up need to be minimized. The prevalence of any such issues would have negatively impact service adoption. Kang and Maity (2012) found that usability issues associated with SMSs negatively impacted the adoption of that system among low-income mobile users in Asia. As stated previously, errors occurred in 50% of the usability tests that were conducted and 30% of the testers wanted more training to be provided.

Hence, awareness efforts for the service would focus on conveying to the consumers that the service has greater efficacy (in terms of speed or quality depending on the service) than current established methods. Cultural Integration and localization of the system would be emphasized in its marketing to bring about greater social acceptance. Marketing efforts would also address the consumers’ concerns regarding usability by providing sufficient training to the users. The latter would also be augmented by making suitable efforts during product development to enforce greater localization of the system to ensure user-friendliness of the system. To gain greater traction among users in the environment, positive word of mouth would be used to bring in more users. This is analogous to the system of referrals used to bring in more candidates. Social acceptance hence creates a self-reinforcing feedback loop of candidates.
Framework for Marketing of Technology-enabled services in Emerging Markets

Acknowledgements
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A Model for Developing Innovation Culture in Organizations and the Use of Creativity Enhancing tool: LEGO® SERIOUS PLAY®

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Abstract
The broad objective of this paper is to develop innovation capabilities in organizations by (1) introducing changes to the organizational climate to become supportive of creativity and (2) implementing culture change programs to enhance individual’s creativity and performance. The Innovation Culture Enhancing Model (The ICE Model) was developed based on an extensive literature survey and used to design change intervention program carried out in organizations. This paper suggests that a full consideration of the national and organizational cultures is essential for successful businesses aiming to innovate in a highly competitive environment. It also presents the using highly creative tools such as LEGO® SERIOUS PLAY® for initiating and maintaining innovation culture in organizations.

Keywords: Organization Development, Culture, Creativity, Innovation, Change, LEGO® SERIOUS PLAY®, Business Models.

Introduction
The pace of global, economic, and technological development makes change an inevitable feature of organizational life” (Andriopoulos, C. 2009). ‘Organizational change’ and ‘innovation’ have become management “buzz-words” in the past two decades (King, Nigel 2002) and (Adams, G., 2015). The concepts of change, creativity and innovation “have never been more topical, especially given the commercial context of fierce business competition, shorter product life cycles and more demanding customers. Increasingly, long-term commercial success is based on an ability to manage change, to nurture creativity and to promote innovation (Andriopoulos, C. 2009). Organization Development (OD) is defined as “a system-wide application and transfer of behavioural science knowledge to the planned development, improvement, and reinforcement of the strategies, structures, and processes that lead to organization effectiveness” (Cummings, T.G. and Worley, C.G. 2009). OD and change management are different. ‘change management’ “where a change legitimately can be imposed on people –and OD- where the intent of the change process is to build capacity for change and increase effectiveness” (Cummings 2009).
Several studies reported that the most frequently cited reason given for change initiatives failure such as Business Process Re-engineering or TQM, etc. was due to a neglect of the organization’s culture (Cameron, Quinn 2006). Organizational change programs are likely to be at risk if changes in individual behaviours do not receive congruent level of attention. Furthermore, as (Woodman, Dewett 2004) pointed out that “it is not really possible to change organizations in any truly meaningful sense unless organizational participants perform their jobs differently, change their thinking or attitudes in ways that support the needed changes”.

This paper is about introducing changes to individual cultures and establishing the right climate for creativity to enhance performance and competitiveness. It aims to (1) understand the importance of culture on the innovation process, (2) identify variables related to introducing cultural changes in organizations, (3) help organizations build organizational climate supportive to creativity and innovation. And (4) using creative tools such as (LEGO® SERIOUS PLAY®) in introducing and maintaining the change.

This paper presents literature review, The Innovation Culture Enhancing model development, and example of creative tools useful for innovation culture application in organizations. The paper concludes with recommendations to businesses in allowing more enabling climate supportive of creativity to sustain competition in ever changing markets.

**Literature Review**

Recent research in organizational science concentrated on change and innovation (Zhao, Y., Buck, T., and Morgan-Thomas, A. 2015). Many studies have been carried out on change processes on the individual and groups levels (Poole, Van de Ven, Andrew H. 2004). The change and innovation research have been carried out by psychologists (King, Anderson 2002), management scientists and organizational sociologists (Graetz et al. 2006), (Henry, Mayle 2002), (Paton, McCalm 2001), (Senior 2002), (Weick, Quinn 1999), organization behaviour specialists (Mowday, Sutton 1993) in addition to scholars from other disciplines (Vindigni, A. 2015) and (Clarke 1994). The thorough literature, though remarkable and inspiring, lacks cohesiveness and integration.

Innovation is not simply developing new ideas, but rather is “the generation, acceptance and implementation of new ideas, processes, products or services”(West, Altink 1996). ‘Creativity’ is commonly used as a synonym of ‘innovation’. Although the two terms are greatly connected to each other, they refer to two different but related concepts. “At its simplest, creativity is the thinking process that drives employees to generate new and useful ideas. Without the development of new ideas, the ability to respond to dynamic market pressures, or to imagine alternative ways of doing things, organizations may lose their competitive position and become staid and unresponsive to the shifting demands of their customers”(Andriopoulos, Dawson 2009).
Innovation is divided into two types: (1) \textit{Technical Innovation}, which is related to “the implementation of an idea for a new product or a new service, or the introduction of new elements in an organizations production or service operations”, and (2) \textit{Administrative Innovation}, which “occurs in social systems of an organization, like the implementation of a new way to recruit personnel, allocate resources and structure tasks, authority and rewards. It comprises innovations in organizational structure and in the management of people” (West, Altink 1996).

Innovation is driven in organizations by many visible levers; however, one invisible lever shapes the pathway, one that can be felt but not seen, that is the \textit{culture}. As a concept, \textit{culture} had a long history introduced by anthropologists referring the term to the traditions and rituals developed by societies over their history (Schein 2004). During the past decades, it received substantial academic dispute generating advances in definitions and approaches to culture (Brown 1998). This wealth of literature (for example, (Martin 2002); (Martins, Terblanche 2003); (Cameron, Green 2004); (Cameron, Quinn 2006); (Kavanagh, Ashkanasy 2006); (Schein 2004); (Lewin 1951); (Hofstede et al. 2006)) and debate are considered as good indications of “the importance of culture as a concept, but at the same time they create difficulties for both the scholar and the practitioner if definitions are fuzzy and usages are inconsistent”(Brown 1998). However, culture’s effect on the performance and long-term effectiveness of the organization is powerful and widely recognised by organizational scholars and observers (Masood, Dani, S.S., Burns, N.D., Backhouse, C.J. 2006).

Researchers who view culture as a variable “draw upon a more traditional, objectivist, and functionalist view of social reality, …. in contrast, researchers who see culture as a root metaphor approach organizations as if they were culture and draw upon anthropology in developing radically new theories or paradigms” (Alvesson 2002). As an example of authors who view culture as a variable,(Schein 2004) defined culture as a “pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to taught to new members as the correct way to perceive, think, and feel in relation to those problems”. Although Schein argues that “we must avoid the superficial models of culture and build on the deeper”, his definition raises two main concerns. \textit{Firstly}, it is problem oriented, culture is expected to be a developmental factor rather than a problem solver, and \textit{secondly}, it emphasizes subjectivity rather than objectivity; “worked well”, “considered valid”, and “the correct way”. On the other hand, according to viewers of culture as a \textit{metaphor}, Morgan for example, does not consider culture as an “objective tangible or measurable aspect of an organization”, but rather “an intellectual device which helps us to comprehend organizations in terms of a specific vocabulary (such as norms, beliefs, values, symbols, and so forth)(Morgan 1997).
In this paper, culture dimensions are subject to be defined and possibly measured using assessment instruments, hence, this paper views culture within the first line group of researchers, i.e viewing culture as an organizational variable. In this domain, the following well phrased and represented definition—though adopted from early literature on culture—will be adopted in this paper as a working definition of culture: “A set of core values, behavioural norms, artefacts and behavioural patterns which govern the way people in an organization interact with each other and invest their energy in their jobs and in the organization at large.” (Lewin 1951).

Despite this wealth of research on culture and the fact that individuals themselves are the cornerstone of any changes in organizations, very few studies—if any—focused on introducing changes to culture and climate to enhance individual creativity and performance. A study by (Woodman, Dewett 2004) provided how organizations introduce changes to their individuals, they provided a model of how organizations change their employees, however, the model fails to explain how changes in the individual lead to performance and creativity. This model also lacks linking the individual change (behaviour, cognition, affection and conation) to creativity as determinant for the success of today’s businesses. The study has no proof whether or not the model was tested in organizations and what modifications could have been introduced accordingly.

This paper and the research behind it have attempted to bridge this gap and provide academics and industrialists alike with a model to allow identifying the factors required to apply innovation culture in organizations.

Innovation Culture Enhancing Model

Innovation Culture Enhancing Model (The ICE Model) shown below was based on comprehensive literature survey on models of change management ((Lewin 1951); (Kotter 1996); (Woodman, Dewett 2004)), culture ((Schein 2004); (Gagliardi 1986); (Tesluk, Farr & Klein 1997); (Cameron, Quinn 2006)) and creativity ((Amabile et al. 1996, Amabile 1998); (Ekvall 1996)). It was initially designed based on extensive literature review then tested over one year period in a pharmaceutical company in Jordan in which it passed through several stages of development and additions. Details of its application are going to be presented in further research papers. ICE Model components are as follows:

- **Component one: Foundation**: serves to provide foundational grounds for the change in the company’s
  - Organizational structure
  - Strategy
  - Top Management Commitment

- **Component two: Innovation Culture Interventions**
  - Shared Work Values dimension
Leaders as change champions dimension
Motivation dimension

- Component three: Climate to Creativity Interventions
  - Organizational encouragement
  - Supervisory encouragement
  - Work group support
  - Sufficient resources
  - Challenging work
  - Freedom

- Component four: Outcomes
  - Improved performance
  - Enhanced creativity and innovation

Innovation Culture Enhancing Model takes into consideration cultural and environmental contexts of the organization. This is to facilitate successful culture change interventions for practitioners, consultants, and managers. It includes studying:

- National culture: using its six determinants; Social structure, Religious and Ethical systems, Language, and Education) and their impact upon designing and applying the intervention.
- The environment: Studying the environment (using its four components; Technological Developments, Economic Environment, Socio-Cultural Changes, Political and Legal Developments) within which the organization is functioning.

Innovation Culture Enhancing Model or (The ICE Model) is shown below.
Pre-Entry Context One: National Culture
Pre-Entry Context Two: The Organization and Its Environment

Structure
Strategy
Management Commitment

Foundation
Innovation Culture and Climate to Creativity Interventions
Outcome

1. Improved Performance
2. Enhanced Creativity and Innovation
3. Sustained Competitiveness
The Innovation Culture Enhancing Model (The ICE Model)

- Organizational Encouragement
- Physical environment
- Freedom
- Sufficient Resources
- Challenging work
- Work Group Support
- Supervisory Encouragement
Leaders as Change Agents

Organizational Climate
Supportive of Creativity

Shared Values Dimension

Extrinsic and Intrinsic Motivation
**ICE Model - Component One: Foundation**

This section presents organizational structure, strategy, and management commitment.

**Organizational Structure**

According to (Lam, 2005), several studies have shown how certain organizational structures facilitate the creation of new products and processes, especially in relation to fast changing environments. However, only some of the studies deal specifically with the question of how structure is related to innovation. Lam suggested that (Burns & Stalker, 1961) found that firms could be grouped into one of the two main organizational structures types: The Mechanistic Organization, and the Organic organization. The former is more rigid and hierarchical, suited to stable conditions; and the latter, a more fluid set of arrangements, adapting to conditions of rapid change and innovation.

(Mintzberg, 1978) identified five archetypes, each with different innovative potential: simple structure, machine bureaucracy, professional bureaucracy, divisionalized form, and adhocracy. He proposed that “bureaucratic structures work well in stable environments but they are not innovative and cannot cope with novelty or change. Adhocracies, by contrast, are highly organic and flexible forms of organizations capable of radical innovation in a volatile environment”.

Certain organizational types or attributes are more likely to yield superior innovative performance in a given environment because they are more suited to reduce transaction costs and cope with alleged capital market failures (Lam, 2005). On the other hand, (Daft, 2001) characterized the ‘symptoms of structural deficiency’ when organizational structure is out of alignment with organization needs as follows:

- Decision making is delayed or lacking in quality: decision makers may be over-loaded because the hierarchy funnels too many problems and decisions to them.

- The organization does not respond innovatively to a changing environment: one reason for lack of innovation is that departments are not coordinated horizontally. Identification of customer needs by the marketing department and identification of technological developments in the research department must be coordinated. Organization structure also has to specify departmental responsibilities that include environmental scanning and innovation.

- Too much conflict is evident: organization structure should allow conflicting departmental goals to combine into a single set of goals for the entire organization.

According to (Clarke, 1994), “the old Organization structures have been turned on their heads, sweeping away layers of management, cutting back sprawling HQs. Vertical, functional structures no longer work. They were great for stable environments but are hopeless for situations of dynamic change”.

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Daft also identified that coordination, flexibility, learning, and innovation are highly associated with horizontal or flat structures. He emphasized that “a flat flexible structure is likely to enhance creativity, the functional structure promotes in-depth skill development of employees; however, its weakness lies within its slow response to environmental changes that require coordination across departments”.

From the above discussion, we conclude that in order to enhance creativity and innovation in the organization, we need to build a flatter structure in the organization.

Strategy
Strategy in the ICE model means adopting creativity and innovation as strategic options for the organization. This adoption is not only written in words, mission statements and mottos, but rather is executed as real choice for the future. This implies that the management is prepared for risk taking and the costs associated with it, that the management is prepared for idea time support, and to reward both success and failure. (Morris, 2006) advised organizations that “you can’t talk about strategy without talking about innovation, and consequently innovation must have a central focus in your company’s strategy. And at the same time, you can’t talk about innovation without talking about strategy, because innovation must certainly be targeted toward strategic priorities. Thus, the two are inseparable and interdependent”.

Management Commitment
Gaining management commitment is essential in culture change programs. Top management support is vital as “without active senior management involvement, innovation simply cannot happen” (Morris, 2006). They are the top leaders and will influence other individuals’ acceptance of the change in the company. (Schein, 2004) suggested that culture change is a “major intervention in the organization’s life and therefore must only be undertaken with the full understanding and consent of the leaders of the organization”.

ICE Model- Component Two: Innovation Culture Interventions
As for culture change dimensions, this paper proposes that a real culture change is possible and achievable with three main dimensions: leaders as change agents, shared work values, and motivation. Each of these dimensions is discussed below.

Leaders as Change Agents
Leaders are major players in any successful culture change program. The meaning of this dimension has two folds; first, leaders are the core holders of the culture change, they realize the need for change, they are role models, they communicate values and norms explicitly and implicitly in organizational daily activities, structure and reward systems. Second, leadership is encouraged and communicated throughout the organization at all levels. This is because leaders who play the change agent role are needed in each section, division and working group. They hold the culture change in every meeting, report, activity and informal communication. Top leaders are the culture change champions; they work relentlessly to establish more pioneering change agents throughout their organization.
(Thies&Wagner, 1998) provided an insightful experience which they have learned over two decades explaining that if the goal is “to create the real changes that will result in fundamental culture change, there is no substitute for the active engagement of the CEO and the executive team. It is simply not enough for the top leaders to ‘sign off’ on a program and then go through the motions while subordinates are left to carry the load. To the contrary, it is up to the top leaders to collectively assume the role of ‘chief architect’ of the change process”.

On the other hand, (Kotter, 1996) believed that “Only through leadership can one truly develop and nurture culture that is adaptive to change”. Kotter suggested that leaders who build highly innovative and satisfying organizational cultures do the following:

1. Articulate those cultures to followers,
2. Exhibit a sense of vision and purpose,
3. Align others around the vision and empower others to take a greater responsibility of achieving the vision, and
4. Foster a culture of creative change and growth rather than one which maintains the status quo.

Kotter claimed that these steps are important for any change to happen in organizations, however, in a recent publication (Kotter, 2001), he emphasized the corporate culture in a wider context. He suggested that in order to be more adaptive to the 21st century competitive environment, companies need two elements; first “that the management group deeply, honestly, sincerely values the various players in the corporate drama and not just themselves, and they care about their customers and stakeholders. As a result they look outward not inward. This single characteristic is enormously important in producing flexible and adaptive cultures. The Second is a core characteristic of healthy cultures is that initiative and leadership are truly valued and encouraged at every level in the organization. Not just at the top, but at the middle and even lower levels too”.

Supporting this view, (Morris, 2006) suggested that “leaders define and create organizational culture in which innovation blossoms, ensuring that the right set of tools helps everyone organize their thoughts and their actions to support and enhance innovation. Thus, innovation begins at the top of every organization, and without the right leadership, companies just don’t innovate”. He further emphasized that “when management’s behaviour is anti-innovation, whether intentionally or not, then there’s little hope for struggling innovators-to-be who may be trapped in the ranks. But when managers are enthusiastically pro-innovation, innovativeness can be unleashed”.

Furthermore, roles of the executive team were defined by (Thies&Wagner, 1998) as follows:
1. Chief architect of the new approach: this requires the executive team to provide active leadership in three important ways: through defining the new operating environment; engaging the company’s top leadership in the process; and developing a strategy for making the desired changes a reality.

2. Systems integrator during implementation: the systems integrator role involves choosing the key levers for change, selecting the appropriate interventions, providing the necessary resources, and monitoring progress.

Leaders who are able to achieve the above roles and establish culture change possess special qualities. There is evidence that individual leadership style is an important determinant of innovation (Dess&Picken, 2000). In particular, transformational leadership has been shown to support and promote innovation which ensures the long-term survival of an organization (Ancona & Caldwell, 1987) as cited in (Sarros et al., 2008). The need for leaders to become transformational leaders—not transactional leaders- is apparent due to the changes in the market place and workforce over the past two decades (Bass, 1999). According to Bass, transactional leadership refers to the “exchange relationship between leader and follower to meet their own self-interests”, whilst transformational leadership refers to “the leader moving the follower beyond immediate self-interests through idealized influence (Charisma), inspiration, intellectual stimulation, or individualized consideration. It elevates the follower’s level of maturity and ideals as well as concerns for achievement, self actualization, and well-being of others”. Burns as in (Masood et al, 2006) described transformational leadership as “a process in which leaders and followers raise one another to higher levels of morality and motivation”. Furthermore, (Sarros et al., 2008) referred transformational leadership to “behaviours of leaders who motivate followers to perform and identify with organizational goals and interests and who have the capacity to motivate employees beyond expected levels of work performance”.

On the other hand, (Krishnan, 2001) described that “superior performance is possible only through stimulating and motivating followers to higher levels of performance through transformational leadership. Superior performance is possible only by transforming followers’ values, attitudes, and motives from a lower to a higher place of arousal and maturity”. He further emphasized that “transformational leaders throw themselves into a dynamic relationship with followers who will feel elevated by it and become more active themselves, thereby creating new cadres of leaders”.

Several studies reported that transformational leadership is associated with followers’ creativity and innovation; see for example (Jung&Avilio, 1999). (Gumusluoglu&Ilsev, 2009) found out that “employees’ intrinsic motivation and perceptions of the work environment, specifically perceptions of support for innovation and empowerment, are the mechanisms underlying the effects of transformational leadership on creativity”. Participative rather than other types of leadership has been associated with cultures of innovation and high-performing companies (Ogbonna&Harris, 2000).
From the above discussion, we can conclude that if the aim is to establish an innovation culture, transformational leaders who use participative style are needed because “culture change needs enormous energy and commitment to achieve outcomes” (Sarros et al., 2008). This leadership style is also needed to facilitate empowering employees for better performance and creative thinking. Hence, leadership training and development are introduced as part of empowering leadership capabilities throughout the organization.

Transformational leaders as discussed above focus their culture change around values; they share these values and introduce them across the organization.

Shared values are the second dimension of culture change intervention in the ICE model discussed in the following section.

Shared Work Values
Values form the bedrock of a culture. They provide the context within which norms are established and justified (Hill, 2009). Organizational culture is a collection of values, beliefs, and norms shared by its members and reflected in organizational practices and goals (Hofstede, 2001). Values serve as the backbone of cultures that foster process innovation, thereby enabling or hindering performance improvement (Khazanchi et al., 2007). (Stackman et al., 2000) provided a distinction between values, attitudes and behaviours: “Values are neither attitudes nor behaviours. Instead, they are the building blocks of the behaviour of and the choices made by individuals. Attitudes, on the other hand, are cognitive and affective orientations toward specific objects and situations. Behaviour is the manifestation of a person’s fundamental values and corresponding attitudes”. They defined two key issues to be important in understanding the values-attitudes-behaviours relationship: (1) Observability: Values underlie and affect attitudes, which in turn underlie and affect behaviour. In other words, attitudes result from the application of values to concrete objects or situations, and (2) Applicability: Values are conceived of as global, transcending all situations, whereas attitudes apply to specific objects, persons, institutions and situations.

Work values
Work values as a concept implies the existence of particular sets of values that govern employee work behaviour, in all of its forms (Stackman et al., 2000). Work values are defined as “an individual’s needs and priorities and consequent personal dispositions and orientations to work roles that have the perceived capacity to satisfy those needs and priorities” (Pine & Innis, 1987). Shared values are common deep values held by organizational members. These values are shared in the workplace and can stem from organizational code of conduct, founders heritage or spiritual beliefs.

Shared work values
When a number of particular values concerning behaviours and the way things are done in the organization are shared by key actors operating in powerful and important units and positions, a system of shared work values is said to exist (Chatman, 1991). Shared work values is often discussed in connection with values congruence throughout the entire organization, if this is
not the case, it becomes difficult to speak about an organization’s culture, hence, its values (Stackman et al., 2000). (Kalliath et al., 1999) referred to values congruence as “the extent to which there is an agreement or consensus about organizational values amongst organizational members”. Congruence enables a more cohesive culture, setting consistent and common expectations for behaviour. Shared work values are often associated with strong cultures. An organization is said to have a strong culture if there is a high degree of consistency among its members in terms of their shared beliefs, structures, values, and norms (Khazanchi et al., 2007). As individuals are the focus of culture change programs introduced in organizations, this ICE model dimension proposes that shared work values have three levels in the way they manifest into individual’s attitudes and behaviours (see Figure 18 below). First level: Individual’s values which he/she holds as personal values.

Second level: Individual’s values shared with colleagues, and Third level: Individual’s values towards the organization.

Culture change is directed towards the second and third levels; i.e. individual’s values with colleagues and individual’s values towards the organization. The first level is utilized as a motivational factor towards adopting the culture change as will be discussed in the following section. Individual’s values are built in the individual upon childhood; they might very well be originated from spiritual beliefs. Understanding and utilizing individual’s values will facilitate the organizational role (or leader’s role as change agents) to initiate and establish long-term change which is adopted by all individuals in the organization.

What we aim to accomplish here is high level of congruence between the three levels of shared values. If this is achieved, then the organizational culture which includes (values, attitudes and behaviours) becomes flexible and dynamic. This is the innovation culture we want to build. In this case, organizations become capable of adopting Morris’s attributes of ‘innovation culture’ rather than the ‘status quo culture’.

**Motivation**

Literature on motivation is wide and substantial. A motive is a person’s reason for doing something (Arnold et al., 2005). Motivating employees enhances sense of belonging to the company; it has a significant influence on the performance of employees. Most companies use extrinsic motivating factors like rewards and promotions. These extrinsic factors are effective, but are likely to have better effect if joined with intrinsic motivators. Employees are motivated when they find their work meaningful and challengeable, when their objectives are clear within those of the company and when they feel valued and secure. One of Amabile’s components of creativity is motivation. She emphasized that managers are able to introduce changes to all three components of creativity, but found that ‘Expertise’ and ‘Creative-thinking skills’ are “more difficult and time consuming to influence than motivation”. She distinguished motivation as it “determines what people will actually do” while ‘Expertise’ and ‘Creativity thinking skills’ are “individual’s raw materials-his or her natural resources”. Amabile’s work showed that “intrinsic motivation can be increased considerably by even subtle changes in an
organization’s environment, this component—imtrinsic motivation—is the one that can be most immediately influenced by the work environment”. However, the other two components should not be neglected but “when it comes to pulling levers, the managers should know that those that affect intrinsic motivation will yield more immediate results” (Amabile, 1998).

Individuals will most likely be creative if they become motivated by the interest, fulfilment, and challenge of the work itself—and not by outer forces. However, (Pitta, 2009) disagreed as he believed that “certificates, plaques, or engraved rewards of little monetary value may just collect dust and have little motivational power”. Motivation has been linked with creativity and innovation. (Milliman et al., 2003) suggested that a strong sense of community and organizational values is related to employee satisfaction and motivation. Hawley as cited in (Milliman et al., 2003) indicated that “employees who feel their organization offers them a strong sense of connection and genuine sense of purpose also tend to be more creative and innovative in their work”.

Motivation dimension in the ICE model is presented in line with the above discussion and supports the argument by (Kraimer, 1997) who explained that organizations “which create an environment that is responsive to their employees’ sense of purpose and values will have people who are more motivated in their work and are more likely to have a productive and satisfied workforce”. On the other hand, (Daniel, 2010) believed that “organizations rich in spirituality will have a special environment which will foster team members’ creativity”. Motivating employees to better performance and enhanced creativity is emphasized by bringing “spirituality into the workplace which could create a different organizational culture in which the employee would be more satisfied and would have an improved performance (Garcia-Zamor, 2003). He further emphasized that “in a more humanistic environment, employees are more creative and have higher morale”.

According to (Ali, 2005), “performance evaluation generally serves four objectives measuring organizational progress in meeting goals, enabling senior managers to know what has been done, providing feedback to and developing subordinates, and allocating rewards. Employees are expected to have an moral duty to monitor their performance. These intrinsic aspects, however, are more likely to transform into action in an environment of the reciprocal trust and understanding of religious principles”.

ICE Model- Component Three: Climate to Creativity Interventions
Climate dimensions are adopted from Amabile’s climate to creativity components which are defined as follows:

**Organizational Encouragement**
Fair, constructive judgment of ideas; reward and recognition for creative work; mechanisms for developing new ideas; an active flow of ideas; and a shared vision.
Supervisory Encouragement
A supervisor, who serves as a good work model, sets goals appropriately, supports the work group, values individual contributions, and shows confidence in the work group.

Work Group Support
A diversely skilled work group in which people communicate well, are open to new ideas, constructively challenge each other's work, trust and help each other, and feel committed to the work they are doing.

Sufficient Resources
Access to appropriate resources, including funds, materials, facilities, and information.

Challenging Work
A sense of having to work hard on challenging tasks and important projects.

Freedom
Deciding what work to do or how to do it; a sense of control over one's work.

In this component, interventions will be introduced to each one of these items in the organization.

The ICE Model- Component Four: Outcomes
Two major outcomes are proposed as a result of applying the ICE model; improved performance, and enhanced creativity and innovation.

Improved Performance
Researchers supported the impact of organizational culture on performance. (Bettinger, 1989) suggested that “of the key factors that contribute to sustained high performance, none is more important than a strong positive corporate culture”. Supporting this argument, (Altman, 2001) suggested that “culture is a causal variable in the growth and development of an organization and, more specifically, is a determinant of labour’s productivity essential to the predictive power of economic theory in competitive markets”. He also suggested that culture can also affect the level of per capita output.

(Gordon & DiTomaso, 1992) examined the link between strong corporate cultures and corporate performance for 11 US insurance companies through survey data. Their results indicated that “a strong culture regardless of content is associated with better performance”. On the other hand, (Pfeffer, 2003) emphasized the “statistical and substantive impact of culture on quality, productivity and profitability”.

Measuring performance can take various forms. It depends on the level of analysis, type of business, and whether it is financial or other forms of indicators.

Improved performance is measured compared to initial departmental/ organizational performance assessed before the intervention. Organizations use various methods to measure performance although one of the most popular ones is using Key Performance Indicators (KPIs)
developed using Balanced Scorecard. Balanced Scorecard (BSC) developed by Kaplan and Norton (Kaplan&Norton, 2001) is a tool that is widely used in industry. It is “a management system which focuses on the efforts throughout the organization toward achieving strategic objectives and gives feedback on current and targeted future performance”. BSC converts an organization's vision and strategy into a comprehensive set of performance and action measures that provides the basis for a strategic measurement and management system. BSC replaced the traditional means of measuring results that has been through financial reporting using an accounting model developed centuries ago. According to Kaplan and Norton, “the accounting model does not incorporate the valuation of a company's intangible and intellectual assets, such as high-quality products and services, motivated and skilled employees, responsive and robust internal processes, and satisfied and loyal customers. Yet these assets are more critical to the long-term future of the organization than traditional physical and tangible assets”. BSC is currently implemented in thousands of organizations around the world translating vision and strategy into a conclusive set of performance and action measures in four areas - financial performance, customers, internal business processes, and learning and growth.

**Enhanced Creativity and Innovation**

Enhanced creativity and innovation is not meant to be a specific measurable term. This is because assessing the outcome of an innovation culture change program using the number of new creative ideas or the number of new products and services- although indicative and important- is not in itself sufficient. Using Keys to creativity assessment instrument after applying the intervention program would indicate whether the climate to creativity has actually improved. This in itself is a strong measurable indication that the intervention was a positive one and should inevitably lead to new creative ideas that are transformed into innovative products and services. However, other organizational variables are likely to influence this outcome such as structure, financial resources and strategic choices. Therefore, this ICE model outcome is an indicative prospect and not a measurable one as such.

**The use of LEGO® SERIOUS PLAY® as a tool to initiate and sustain innovation culture in organizations**

Organizations struggle to initiate and sustain change over a long period of time. Tools to support change happening on root levels lack continual impact on individuals. LEGO® SERIOUS PLAY® (LSP) is introduced in this paper as a potential creative highly valuable tool to initiate and sustain innovation culture in organizations. LSP is defined as “play with an explicit purpose. That purpose is to address a real issue for the participants around the table by getting them to lean forward, unlock knowledge, and break habitual thinking” (Kristiansen and Rasmussen, 2014). According to Kristiansen and Rasmussen, LSP is defined by three key characteristics: (1) It is an intentional gathering to apply the imaginations, for example in cases of developing scenarios, (2) It is exploring and preparing participants to engage in play in order to learn, generate options and develop new understandings together, and (3) LSP has specific set of rules or language; this helps in breaking normal thinking and encourage participants to use their imaginations freely. LSP tool presents support to organizations in introducing changes to individual cultures and implement changes in their climate to become supportive of
creativity. Interesting example of using LSP to develop innovation culture is in the LEGO Company itself. (Robertson, D. 2014) stated the journey of how the company was able to restore its fundamental values and laying foundations of an innovation culture that “put the retailer first; that focused designers as well as managers on creating only those toys that stood an odds-on chance of generating substantial profits; that revived the enduring LEGO product lines that appealed to kids who loved to build; that championed inside-the-box creativity; that challenged people to do more with less; and that pushed people to act authentically by showing instead of telling”.

LSP techniques include a four-step Core Process and a set of seven clearly defined Application Techniques that are described below (Kristiansen and Rasmussen, 2014):

4.1 The Core Process
The Core Process is the basic operating system in LSP method. These steps are:
1. Step 1: Posing the Question
2. Step 2: Construction
3. Step 3: Sharing
4. Step 4: Reflection

Questions posed in step 1 will determine the contents of steps 2, 3 and 4. Step 2, constructing, is the building and thinking time during which participants build LEGO models and stories which answer questions that were asked. It is important to note that when building something concrete participants are also building new insights and connections in their minds. Step3, sharing, naturally follows step2. Everyone now gets to share their story and model; this version of distributed dialogue ensures that everyone’s perspectives and insights are shared. The Core Process is completed with step4, where after each story everyone reflects on what they have heard and maybe on what they can see in the model but do not understand.

The LEGO® SERIOUS PLAY® Application Techniques
1. Building individual models and stories
   The purpose of this technique is for each individual to unlock new knowledge and subsequently be able to communicate this knowledge to the other people in the group. The goal here is to share the knowledge that is currently only living in his or her mind and get it onto the table where everyone can see it.
2. Building shared models and stories
   The purpose here is for the team to make decisions about shared understanding of a given topic by consolidating a number of individual models of this topic into one shared model.
3. Creating a landscape
   The purpose here is analysing, categorising and seeing similarities, differences, patterns and so on, among a collection of individual models without losing any original details or meanings.
4. Making connections
   The aim here is to identify relationships between the meanings of two previously constructed LEGO models by building a physical link between two or more previously constructed LEGO models.
5. Building a system
In this technique, participants explore and identify systems and their impact. When multiple models are connected in such a way that a ripple effect or unforeseen impact might occur, this is now called a system. Building a system is a continuation of connections to build the entire web of connections.

6. Playing emergence and decisions
The aim here is to strategize, play out scenarios and decisions to explore and probe how the system is impacted by and the way it responds to multiple unpredictable dynamic events and different choices of strategy.

7. Extracting simple guiding principles
Finally, the goal of this guiding principle is to develop something referred to as Simple Guiding Principles which are developed through the learning and information gleaned from the previous steps. The function of Simple Guiding Principles is to support strategic decision making in real time.

LSP is highly useful to a number of purposes such as developing strategies and creative products or services, it may also lead to a new vision or a business model. It has been used in large and small companies to empower creative thinking and application of new ideas. It also facilitated change programs in Roche pharmaceutical and other companies.

**LSP and innovation culture**
As presented in previous sections, introducing high level of change such as innovation culture in organizations requires the use of highly effective tools. Although this paper does not present practical experience in this joint use, it claims that utilizing visual forms of cultural values and systems has high impact on adopting these cultural norms on the individual, teams and organizational levels. This paper represents a call to researchers and industrialists to consider the application of ICE Model utilizing LSP tool. More research is undergoing at Innovation Culture Consulting to use the ICE Model and LSP tool which will be published once credible results meet publication requirements.

**Conclusions**
The comprehensive literature review carried out as part of this paper has highlighted the need for adopting an innovation culture for continuous and permanent innovation. In a turbulent business environment, organizations have learnt that innovation capabilities do not lie within
established processes and systems to achieve competitiveness, but rather within an embedded
culture that is flexible enough to allow free expression of creative ideas and provide supportive
organizational climate for this culture to continue. Innovation culture is essential for continuous
permanent innovation capability.

This paper recommends that fulfilling individuals’ needs and aspirations is essential for
building an innovation culture in organizations. It concludes that it is individuals themselves
who serve as the great potential of any organization. They are the ones who think of new ideas,
exploit, and search for new opportunities and explore horizons. Organizations need to maintain
their individuals’ creativity skills, ability to adopt flexible cultures which value different ways
of thinking and expressions, effective communication and team working, which are all essential
for inward and outward survival. Impact of national cultures and organizational environment
can have high influence on determining the successful application of OD interventions.
Determinants of The ICE Model presented in this paper have identified crucial factors upon
implementing innovation culture in organizations. It also suggested the use of LEGO®
SERIOUS PLAY® as a tool for creative business development and application of ICE model
components. Both the model and tool are set to be new ways of utilising creative solutions for
creative futures.

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Attitude, Aptitude, and Amplitude (AAA): A framework for design driven innovation

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Abstract
If creativity is the heart and soul of innovation, design is the main catalyst of this process. To design in a very simple sense, is to move from a certain situation into a better one; this amelioration can manifest in new products, services, processes, or merely by exposing the real problems at hand. Settling on a high momentum as an immersive human-centered method, design thinking has been promoted by many scholars and academic institutions for its strategic potential in solving different contemporary challenges faced by many organizations in different domains. This paper present a practical framework for how this form of intelligence can be introduced, learned and disseminated across the organization for a sustainable innovation to be achieved.

Keywords: Innovation and design intervention, design thinking, and creative leadership.

Introduction
Contemporary organizations are faced daily with new breeds of challenges fuelled by turbulent markets, advanced technology, globalization, environmental, and social policies. Although not as entangled as they are today, these challenges have evolved within different domains and scopes since the dawn of philosophy. Their phenomenal manifestations in modern history were tagged using different identities like ill-[structured, defined, or posed] problems (Mason & Mitroff, 1973; Newell, 1969; Reitman, 1964), messes (Ackoff, 1979; Horn, 2001), and wicked problems (Rittel & Webber, 1973; Simon, 1973).

To maintain a competitive edge—even to remain in the market—leading through innovation strategy has been adopted by many organizations. In fact, many countries are embedding the topic within curriculums and educational systems from elementary to graduate schools (Beckman & Barry, 2007).

Being highly interconnected, volatile, and embedded within sociotechnical situations, contemporary challenges are invariably crossing the disciplinary boundaries to defy a structured, or algorithmic problem solving methods. To be able to innovate, an organization is engaged with a constant re-evaluation for the situation materials (context, players, and actions), a process that is crucially needed to define problem space before revealing the new permissible means of a resolution. This is a complete shift from the irresistible assumptions that the cause
of a problem is “out there” rather than “in here” (Meadows, 2008, p. 4), within the specific groups, their interactions, and the processes followed to manage their wickedness.

**Design Thinking**

Design has found it is way to the agenda of many organizations. From being the “thing” in business school (Garrett, 2014), innovation driver in public sectors (Bason et al., 2013), to an overall strategy for organizations (Mootee, 2013) and governments at large (Clinton Global Initiative, 2012).

Notwithstanding the nuances between an academic (Buchanan, 1992; Cross, 1982, 2001; Krippendorff, 2006; Lawson, 1980, 2005; Rittel & Webber, 1973; Schön, 1983; Simon, 1969), and a practical account of design thinking (Boland, Collopy, Lyytinen, & Yoo, 2008; Boland & Collopy, 2004; Brown, 2009; Dunne & Martin, 2006; Martin, 2008, 2009, 2011), design thinking can be simply defined as ‘how designers think’. Their logic, activities, processes, tools and actions that form their distinct profession.

Design thinking is proposed here as a form of intelligence that can go far beyond merely problem solving. When compared to the latter, design cognitive activities “recruits a more extensive network of brain areas” while working to evaluate and modulate appropriate responses for uncertain conditions (Cross, 2010, p. 103). Designer’s cognitive activities in framing, conceptualizing, visualization, reasoning and discovering are iteratively and creatively moving between solution and problem spaces in an orderly, purposefully, and intentionally manner that demonstrates different mental and physical activities. Hence, the term is used as a process, a communicator, an eco-system (Botero, Kommonen, & Marttila, 2010), even a paradigm (Dorst, 2011) to cultivate a fruitful inquiry within the organization, shifting design focus from objects to objectives.

**Why Design Thinking?**

As an immersive human-centred method, design thinking strategic potential has been established within business and management studies (Boland & Collopy, 2004; Brown, 2008; Dorst, 2011; Gibson & Brown, 2009; Leavy, 2011; Martin, 2009; Romme, 2003; Verganti, 2009), development and planning of Information Systems (Du, Jing, & Liu, 2011; Luebbe, Weske, Edelman, Steinert, & Leifer, 2010; Plattner, Meinel, & Leifer, 2010), leadership (Norton, 2012), biotechnology (Friedman, 2011), military (Bullock & Vitor, 2010), nursing (MacFadyen, 2014), even literacy (Purdy, 2014) among many other areas.

Design thinking adoption to drive innovation has indeed pushed to reform design educational systems (Norman & Klemmer, 2014) and its relation to other disciplines, some of which, may have already started as per the examples of Hasso-Plattner-Institute in Germany, and the Design School (d.School) at Stanford University, where students from all disciplines get together to study, work and solve problems based on this approach. Design thinking in such context takes wider perspectives from the empathetic transformation of needs into opportunities (Brown, 2009), to the focus of innovations in systems, organizations and networks at large (Ansell & Torfin, 2014; Davis, 2010; Du et al., 2011).
With an emphasis on the desired state of affairs (Simon, 1969, 1973), the examination of an issue through the design thinking lens seems to help businesses overcome some of the limitations of traditional disciplinary approaches within organizations, particularly where prescriptive routines, or narrow disciplinary boundaries prohibit exploration of new ways to view or manage these issues.

**Operationalization of Design Thinking**

While design thinking can be expressed as a ubiquitous human activity (Razzouk & Shute, 2012) that does not require immense training or a professional label to experience, it is important to submit that benefit realizations differ according to designers’ level of expertise established in the literature (Candy & Edmonds, 2006; Dreyfus & Dreyfus, 1980, 2005; Lawson & Dorst, 2009) creating unique sets of characteristics that distinguish these levels among individuals. Collectively they describe the overall designerly process, particularly the exhibited mindsets that could be embodied by others in attempting to address a particular issue in a new domain.

Despite the acknowledged differences in levels of expertise, educators and professionals within the business and management world are increasingly mobilizing design in their work. Kimbell (2011, 2012) offered a pair of concepts to consider as a basis for re-thinking design thinking ‘design as a practice’, and ‘design in practice’, both of which are important to break from the duality between design and designers, and in a way mitigate possible influence of levels of expertise as a barrier for the embodiment and utilization of the process, since building a creative, agile, and innovative organizational culture starts with engaging constituents within; equipping them with skillset that complements their own vertical expertise to lead the process instead of relying on external expertise to do so. A novel pragmatic framework is discussed next.

**AAA Design Transformational Framework**

It is important to highlight that design activities and the mindsets experienced during the design process necessarily demand a particular cultural and organizational setting including team compositions and expertise, design space, management style, and individual drive to name a few. Therefore, the proposed process within the AAA framework should be placed within a larger intervention framework that addresses these settings (depicted below in Figure 8), discussed further in a separate work (Lataifeh, 2015).
Nonetheless, the AAA framework (Figure 9) simplifies a pragmatic design transformational process that goes through three different stages: attitudes (design thinking), aptitudes (design doing), and amplitudes (design being). The following sections in this paper discuss these three stages in terms of how they can be approached, their boundaries, objectives, materials, integration, and their value to the overall process of institutionalizing a design driven innovation culture.
Attitudes (design thinking)
The first and probably the toughest challenge for design and design thinking to address is to claim a seat at the table [to be accepted as a legitimate business tool] (Holloway, 2007; Repisky, 2014), and to be seriously considered beyond the traditional boundaries of products and services. To be positioned as a form of intelligence (Cross, 2010), guiding transformational results for the organization and society at large (Pastor, 2013) it all starts with a basic, but a profound notion of attitude, a “little thing that makes a big difference” (Ballon & Skinner, 2008, p. 218).

Attitudes have been the single most researched topic in social psychology, but the term is often left vague in the literature (Augoustinos, Walker, & Donaghe, 2006, p. 113). Attitudes are typically defined as “predispositions to respond in a particular way toward a specified class of objects” (Rosenberg & Hovland, 1960, p. 1). In order to make explicit the components of attitudes, Triandis (1971, p. 2) defined attitudes as “an idea charged with emotions, which predisposes a class of action to a particular class of social situations”. An attitude is therefore composed of three different and consistent components or responses:

A. A cognitive component or an idea that is part of some category used by humans while thinking (food, cars, sickness, etc.)
B. An affective component, that is, the emotion which charges the idea (positive or negative)
C. A behavioural component, as in a predisposition to act (explicit or implicit)  
(Rosenberg & Hovland, 1960, p. 2; Triandis, 1971, p. 3)

The consistencies of responses (thinking, feeling, and acting) of an individual towards a certain situation (stimuli), represent an individual attitude which is developed in order to
understand and adjust to a complex world, to protect self-esteem, and to express fundamental values (Triandis, 1971, p. 101). Attitudes can coexist implicitly and explicitly (Wilson, Lindsey, & Schooler, 2000), as they are similar to personality traits being latent and hypothetical constructs. Inaccessible to direct observations, attitudes differ by being inferred from measurable responses of the attitude components seen in cognitive, affective, and conative (behavioural inclinations and intentions) responses (Ajzen, 2005, pp. 3–6).

One of the ambiguous issues for researchers in this domain is the relationship between attitudes and behaviour (Augoustinos et al., 2006, p. 25). Since attitudes are inferred from behaviours, a direct link may be readily conceived to predict the latter. In reality though, a simple straightforward link cannot be easily construed (Fishbein & Ajzen, 1974; Triandis, 1971). People behaviours may contradict their beliefs, or indifference to their attitudes, which empirically undermines the validity of a consistency of behaviours that reflects the presumed attitude or predisposition (Ajzen, 2005, p. 33). Which nonetheless, confirms that “behaviours can cause attitudes as much as the other way around” (Augoustinos et al., 2006, p. 25).

In addition to variable individual moderators like self-monitoring, self-consciousness, or self-awareness (Ajzen & Fishbein, 2005), behaviours are contextually determined by more than attitudes including norms, habits, expectations and reinforcement (Triandis, 1971, p. 25). Situational variables not only impact behaviours independently of its stable dispositions, but they “can also moderate the effects of attitudes or personality traits” (Ajzen, 2005, p. 41).

Intentions on the other hand, are found to forge an accurate predictor for a variety of actions, particularly when people have control over performance like skills, emotion, and the opportunity to act upon intentions (Ajzen, 2005, pp. 99–115). Hence, intentions become central to the attitude-behaviour relationship, and the base for the theory of planned behaviour (Figure 10); where attitudes, norms, and perceived control over behaviour could predict intentions that can account for a large proportion of variance in a behaviour (Ajzen, 1991, 2005).

![Figure 10- Theory of planned behaviour (Ajzen, 2005)](image)

Attitudes can be learned and relearned (changed), either by new information received (particularly family, peers, friends or other media) that changes the cognitive component of an
attitude, or by a direct experience with the object of the attitude through the affective component (Triandis, 1971, pp. 142–146). The latter is found more effective than secondary information (Fazio & Williams, 1986; Sherman & Fazio, 1983).

In terms of communicating new information on changing behaviours, McGuir (1968a, 1968b) proposed a process with specific stages that information needs to go through to have an observable effect: attention, comprehension, yielding, retention, and action. Each stage has its own variables that define the level of its achievement to proceed to the next stage. For instance, attention may be reduced by distractions; comprehension and yielding are influenced by the receiver level of intelligence; retention is influenced by message intensity or duration, as well as interference of other messages. As for actions, there could be a million reasons why it may not take place. It suffices to say that the extent to which attitudes can be changed depends upon multiple factors related to the situation, the group, the individual, the message, the source of the message, the medium, and the presentation as elaborated by Triandis (1971, pp. 142–200).

**Aptitudes (design doing)**

Having influenced a positive attitude, or at least gained participants’ attention, the aptitudes stage is concerned with the culmination of participants’ creative confidence (Kelley, 2012), to trust their own creative skills. Creative confidence is seen as the pinnacle of this learning approach as deployed by design thinking schools in Potsdam and Stanford (Jobst, Ko, Lindberg, Moritz, & Meinel, 2012; Rauth, Köppen, Jobst, & Meinel, 2010). Equipping participants with different design tools deliberately selected from a wider toolset (Dubberly, 2008; Hanington & Martin, 2012; Kumar, 2013) to fit different implementation/applications, participants gain experience going through the processes of design within a contextualized environment. In doing so, creating the opportunity for a direct experience with the cognitive element as a favourable approach to affect behaviours (Fazio & Williams, 1986; Sherman & Fazio, 1983), which aligns with the theory of planned action (Ajzen, 2005) in enhancing control over performance.

Starting with divergent thinking tools to explore the problem space, and closing with convergent tools to establish team consensus on solutions, participants are challenged to use different mindsets—epistemological stances or world views—utilizing different thinking modes as they embody the logic of design (Burnette, 2009). The process attempts to transform a static mindset into an evolving stage of mindshifts (Goldman et al., 2012, p. 15), as a continuous transition of a participant’s instincts and orientations to come into the new being of design thinkers.

To experience the impact of design thinking, participants have to complete a full design journey, from uncovering problems to devising solutions. Therefore, a design thinking process is needed to be followed here. Dubberly (2008) offered a compendium of different design processes or models used in the industry, grouped according to their flows, objectives and context. The majority of these models located different stages between problem and solution space (Owen, 2007) as they coevolve together (Dorst & Cross, 2001). Situated in particular
contexts, the nature of the problem solving process itself shapes the solution (Rowe, 1987), with the problem definition and solution becoming mutually intertwined (Zdrahal, 2007). The problem cannot be clarified completely without choosing a solution during the problem solving process, and the method for solving it, cannot be selected without understanding the problem. Any particular formulation of the problem, hints at a different solution. Therefore, the spaces between problem definition, synthesis and evaluation are inseparable as they all occur at the same time. Solutions are often masked by the common ill-defined nature of these (design) problems.

Researchers have produced several process models during the last decade, from Lawson (2005, p. 34,149), Cross (2000, p. 36), Design Council (2005), and Kumar (2009), to the most recent models from the HPI d.school® (2010), and Liedtka & Ogilvie (2011), both of which are depicted in Figure 11.

![Figure 11 - Most recent design thinking processes](image)

8 Design Schools jointly managed by IDEO and Hasso Plattner Institute at Potsdam and Stanford.
The five stages of the design process are now described including a summary of the mindsets and the tools proposed for each stage. It is important to note that participants may move iteratively between these stages to satisfy a particular need, rather than follow a linear one directional approach.

**Empathize**

The empathy concept has been used from early twentieth century as a translation for an older German concept of *Einfühlung*, which encompasses notions such as sympathy, understanding, and role/perspective taking, while framing or tapping into other people’s feelings and behaviours within psychological tradition (Nowak, 2011; Wispe, 1990, pp. 17–19). The objective of empathy is to tune into others’ *wavelength* to understand with them, not about them (Tudor, 2011, p. 41). Sensing context and knowing people entails high degrees of sensitivity in observing, dialectical understanding, and temporarily *living the life* of others (Rogers, 1995, p. 142), within a process that includes three different components: 1) *an affective response to share other’s emotional state*, 2) *a cognitive capacity to experience other’s perspectives*, and 3) *a monitoring mechanism to track the origins of experienced feelings (self Vs. others)* (Lamm, Batson, & Decety, 2007, p. 42).

Empathy is therefore a central piece for an affective engagement and team connectedness, as it enhances group coherence beyond self-boundaries (Pavlovich & Krahnke, 2011), allowing participants to develop a collaborative understanding for the real issues at hand. Furthermore, if empathy is the core of human-centred design, ethnographic tools are instrumental for the materialization of this process, particularly observation of users’ interactions with each other or with their material landscape, informal conversation with deep listening to elicit mutual trust and tolerance, and role playing/shadowing that enables living the world as experienced by others (McDonagh, 2010). As a result, the mindsets of openness, curiosity, inquisitive, failure permitting, patience, and non-judgmental interactions are essential for the participants to experience empathy.

Some of the design tools that can be used in this stage include but are not limited to camera study, empathy mapping, journey mapping, behavioural mapping, stakeholder mapping, social network mapping, personal inventory/cultural artefacts, users shadowing and immersion in day in the life of a user.

**Define**

Taking the scattered findings forward, participants reflectively unpack or synthesize meaningful insights into problem framing (Cross, 2003; Schön, 1983). The problem space is not given but rather constructed by participants (Schön, 1991), and continues to be reframed (Choulier, 2011) during this *reflection-in-action* process, charged with setting problem boundaries to “*select particular things and relations for attention, and impose on the situation a coherence that guides subsequent moves*” (Schön, 1988; as cited in Cross, 2006, p. 80), while drafting possible solutions to be evaluated (Dorst, 1995). Framing problems is fundamental for
a successful design process (Cross, 2011), and a key feature of a developed design expertise (Cross, 2004).

Problem framing is rarely completed in a single stretch at the beginning of a design process (Schön, 1988). As an evolving process, every frame constructed leads to a conjectured solution, hence having multiple accepted/satisfying solutions, rather than one correct solution is a known feature of the design process (Visser, 2009). The alternatives serve as means of problem-analysis (Cross, 2006, p. 17). While problem identification is a challenging task (Pacanowsky, 1995), these conjectures mitigate the risk of falling too soon on a fixation of a narrowly framed problem (Liedtka & Ogilvie, 2011, p. 24), through a reflective approach that entails the willingness to endure suspense and mental unrest in the search process. An approach that assists the team in overcoming the “inertia that inclines one to accept suggestions [ideas] at their face value”(Dewey, 1910, p. 13).

The main mindsets encouraged at this stage include visualization, finding patterns, exploring systems, analyzing/sorting insights, developing a point-of-view, drawing the big picture, sensing gaps, identifying opportunities and decision making. These mindsets can be experienced using a variety of design tools including but not limited to mind mapping, fishbone diagrams, extreme users, ERAF (entity, relations, attributes and flows) diagrams, Venn diagrams, analogous empathy, point-of-view analogy, hits and highlights, statement starters, reverse assumptions and Pareto analysis.

**Ideate**
The ideation stage is where participants diverge widely on the developed insights, generating as many ideas as possible. As they begin the exploration of the solution space (Lindberg, Meinel, & Wagner, 2010), it is critical to encourage a state of flow (Csikszentmihalyi & Csikszentmihalyi, 1992, p. 30) by focusing on the engagement process, to enable a fluent ideation that also demands an adjourned judgment. The ideation process is guided by the developed insights as objectives only, rather than an evaluation criterion that can hinder the creative process (Vangundy, 2005). The inevitable uncertainty must be embraced to step away from familiar or known solutions (Liedtka, 2011). Nonetheless, ideation should be structured according to the predefined insights in order to remain focused, and time-boxed as an activity with turn-away intervals, to allow for non-conscious processing or creative incubations to occur (Ellwood, Pallier, Snyder, & Gallate, 2009), since no one can be in constant flow all the time (Csikszentmihalyi, 2003, p. 71). The objective of this stage is to cultivate participants’ explicit consensus, and to uncover tacit connections between entities, objects, domains, and users within the organization based on representatives’ inputs.

The mindsets encouraged at this stage include visualization, humor, happiness, talkative, artistry, intuitive, playfulness, seeing the big picture and freely toying with ideas. These mindsets can be experienced using several tools including but not limited to powers of ten, brainstorming, brain writing, KJ technique, affinity diagrams, card sorting, free-listing, imposed constraints, laddering questions, idea boxes, SCAMPER (substitute, combine, adapt,
modify, put to another use, eliminate and reverse), concept generating matrices, and concept mapping/sorting.

**Prototype**

During the prototyping stage, ideas (internal mental images) are rapidly externalized into sketches, stories, scenarios, models and other artefacts. These low fidelity prototypes provide the vehicle for further experiments (Schön, 1983, p. 174), and the materialized representations become more accessible for direct interactions and conversations that move between criticism and discovery (Cross, 2011, pp. 12–13); helping to experience the shift from thinking to doing. Participants’ reflective and experimental actions then lead this discovery process, assisted by the materials’ talk-back (Schön, 1983, p. 280).

Prototypes provide a concrete realm as an escape from operating only within mental abstractions. The design process continues to fluidly move between the abstract and the concrete (Beckman & Barry, 2007, p. 50), an oscillation that is energized by low fidelity prototypes eliciting a rapid evaluation and feedback, to manage the uncertainty within complex systems landscapes (Gerber, 2009). Rapidly constructed prototypes must be good enough to learn, rather than exhaustively tested at this stage (Liedtka & Ogilvie, 2011, p. 33). In contrast, costly (time and efforts) high fidelity prototypes—of near finished systems or products—could hinder this fluency, as participants get distracted with the operational details and less with contemplating improvements (Atladottir, Hvannberg, & Gunnarsdottir, 2011).

Apart from their valued outcomes, low fidelity prototypes are also important as an enactment for the design practice, with a positive psychological effect on participants, as they reframe failure into learning opportunities while refining their solutions. A process that overall enhances confidence in participants’ creative abilities (Gerber & Carroll, 2012, p. 70). Therefore, prototypes not only serve as a manifestation of ideas, but also as a stimulus and filtering mechanism to guide ideations in new directions, and assist in concisely defining the problem space (Lim, Stolterman, & Tenenberg, 2008), within a highly and seamlessly integrated manner.

The mindsets sought for this stage include experimentation, action-oriented, openness, playfulness, collaboration, creative use of raw materials, process oriented, evaluative thinking, contemplation, environment sensitivity and contextual thinking. The list of design tools that can assist here includes generative research, design charrettes, storyboards, storytelling, bodystorming, creative tool kits, wizard-of-oz, space prototyping, and AEIOU (activities, environment, interactions, objects and users).

**Test**

Testing and prototyping are almost inseparable. The two stages are used in tandem, with a feedback loop for the devised solution. Testing is not only central to validating requirements fulfilments, but as a further understanding to the solution that leads to uncovering new requirements moulded by the preceding alternatives (Cross, 2011, pp. 16–17). This process can be linked to experiential learning theory (Kolb, 1984), where learning and knowledge creation
occur within loops between active/synthetic, and reflective/analytic experimentations until a working combination (solution) is found (Beckman & Barry, 2007), as an emergence (Cross, 2006, p. 55) for the design enactment experienced within different design thinking stages.

The mindsets desired for this stage focus on context sensitive, tactical, risk taking, persistent, courage, and seeking support. As for the design tools that can be used here it may start with a variation of 2 x 2 matrices for contextualization, then move to PPCO (pluses, potentials, concerns and overcoming), storytelling, testing with end users, feedback capture grids, ‘I like, I wish, what if’, ‘how-how diagrams’, and stakeholder analysis.

Amplitudes (design being)
Amplitudes as the third stage of the proposed design framework are constructed as a recursive process for the emerged knowledge. This process constitutes a ripple effect that transcends the implementing teams (initial design process participants), to the rest of the organization.

Implementing teams exposed to the design process experience, become the internal catalysts for design thinking with the attitudes, aptitudes, and local examples necessary to support the case for its value. Therefore, the message, source, channel, and presentation are all closely related, and shall be captured easily by constituent in demonstrating the reality of the situation.

Nonetheless, for the rest of the organization to act, this new knowledge must a) be materialized as a unique representation of a distributed understanding, and b) voiced by someone or some group (Taylor & Van Every, 2000, p. 243). After all, “if cognition lies in the path of the action, then texts and conversations also lie in its path” (Weick, 2009, p. 5). Text in this context includes all produced materials or artefacts as different tangible instances for the objects of knowledge, which remain projections-in-context, simultaneously conceived as unfolding structures of absences, rather than definitive things (Cetina, 2001, p. 191). Therefore, the mere existence of these materials is critical to support design conversations at an organization level, thus harnessing group knowledge, in order to sustain the transformational process.

Conclusion
The design intervention framework (Figure 8) was proposed to use design thinking as main catalyst for innovating solutions for the contemporary sociotechnical challenges in large organizations. The framework is proposed as a pragmatic methodological approach that address project space and project teams variables to influence a positive environment for the AAA framework to be more effective.

The AAA design framework has been devised with different stages to introduce, enhance, and establish design competencies across the organization to seed the culture of innovation within. Although aligned with the prevailing design processes highlighted in previous research, the AAA framework was further developed to address the breadth of issues (intentions, cognition, abilities, etc.) to be practically approached in fulfilling the demand for
cultivating innovative solutions from within an organization (inward sourcing) by its own constituent, instead of one size fits all solutions parachuted by external consultancies, not only without sufficient understanding to context, but with no empathy to constituents inside and outside these organizations.

To truly institutionalize innovation in large organizations, organizational management culture needs to be reinvented from the top down to empower local expertise, promote ownership over process, allow mistakes to happen, and reward ideas not just sales. All of these might be drastically different of how managers may have been trained to do their work, there will be impediments stemming from different organizational cults, and quite often, the risk of losing control might seem imminent, but a leap of faith is inevitable to attain a well worth success.

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Big Data: Is There a Chance for a New Business Model?

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Abstract
The BIG DATA has increasingly received a great deal of attention, especially in last few years. Big data is the technology that will allow organizations to handle the massive amount of data to gain relevant insights that will help top executives with the decision-making process.
This study aims to contribute to the literature of big data by investigating the impact of big data technology on the relevant business models. The current paper will explore the new innovative business models that could result from introducing big data technology in organizations.
In the data-driven era, there are business models that were improved or were created as new innovative models. Many sectors such as Banking, Healthcare, Manufacturing, Education, etc. are examples of sectors that developed new business models.
Specifically, this study will attempt to address the effect of big data on the business existing models. Moreover, it will explore the opportunities of developing new innovative business models by reviewing the relevant literature.

Key words: big data, innovative business models

Introduction
It is commonly agreed that we live in the Data era (Laney & Taylor, 2013). As the data sources are increasing and will continue to increase to reach ten billion devices in 2019 according to Cisco Mobile report in 2015, the generated amount of data has increased significantly. For this point, Das & Kumar (2013) mentioned that it took from the down of time to 2003 to create five Exabytes of information. However, the same volume of data is being created in just two days now. This will continue to reach eight Zettabytes by 2015 (i.e. equivalent of 18 million libraries of Congress.). In the same context, a report by CSC published in 2010 showed that worldwide data would increase 44 times in 2020 than it was in 2009.

Now, it is obvious how data has increased and will continue to increase. For this reason, organizations are seeking for analyzing this huge amount of data they have to gain business intelligence that will allow them to improve their standing in the market. In order to analyze this huge amount of data, new technologies are required. Hence, big data is the emerging technology that seems to help in solving this challenge. Blasiak (2014) has made the case that big data and analytics would have a significant impact on organizations and society in the near future and this is the reason why it is gaining a lot of interest nowadays.
Many authors in their papers as well as field professionals in their articles tried to define big data. For example, Manyika et al. (2011) defined big data as “Large pools of data that can be captured, communicated, aggregated, stored, and analyzed” (P.4). They referred big data to datasets whose size is beyond the ability of typical database software tools to capture, store, manage, and analyze.

Moreover, Laney & Taylor (2013) and Esteves & Curto (2013) have broaden the definition to include the three-dimensional characteristics of big data or the 3 Vs: Volume, Variety and Velocity. The following points will illustrate those three characteristics:

- **Volume**: the data is huge in size
- **Variety**: the data is coming from different sources and have different types. The data might be structured or unstructured.
- **Velocity**: the flow of the data in and out is enormous and continuous in pace that we can’t follow.

For such, Woo et al. (2011) discussed the three-dimensional characteristics of big data in their definition. They argued that big data is the new generation of technology and architecture that is designed to extract value from a very large volume of data that is coming from variety of resources by enabling high-velocity capture, discovery and/or analysis.

As it is well known that there is an interaction between business models and new technology innovations. As new technologies become available, new business models are facilitated. In this context, Baden-Fuller & Haefliger (2013) argued that there is a fundamental link between business models and technological innovations. The authors defined business model as “as a system that solves the problem of identifying who is (or are) the customer(s), engaging with their needs, delivering satisfaction, and monetizing the value.” (P. 1).

Big data is an emerging innovative technology which would contribute in a significant change on how organizations operate by providing the relevant business intelligence. From the above, introducing big data would result in revamping the current business models or introduce new ones as more relevant insights become available which will help the organization to better plan the future.

This paper investigates how scholars have addressed the impact of big data on the business process and studies the effect of big data analytics on the business models.

**Literature review**

When introducing any new technology in the organizations, there will be a change in the daily operations as a result. This section investigates the effect of introducing the technology of big data and its analytics on the business process and how this could contribute in creating new business models.
**Big data benefits**

Many scholars addressed in their papers the benefits of introducing big data analytics in the organizations provided it is implemented wisely and in the correct way. For example, tailoring products according to customers’ needs and solving the recurring problems by identifying the root causes (Manyika et al. 2011). Furthermore, gaining richer and deeper insights that will help in better decision making and as a result better competitive advantage in the market (Das & Kumar 2013). Moreover, Blasiak (2014) has made the case that big data would enable organizations to predict future scenarios with high accuracy.

**Big data and business processes**

In addition to the above, Laney & Taylor (2013) have made the case that big data analytics would improve and automate the business processes. They drived an interesting example of one of McDonald's bakeries where the manual checking of buns was replaced high-speed image analytics that can check thousands of buns per minutes for color, size and even sesame seed distribution. According to the results obtained, the oven is adjusted. This helped to create unified buns, reduce wastage, and minimize the manual work as well as the time needed to check the buns.

The example above has showed how big data analytics could be used to automate a manual business process. Once more, the authors have cited another example of how Walmart has increased the online shoppers by 10% to 15% by using big data analytics to increase their revenue. They enhanced the online search engine using clicks stream data from its 45 million monthly online shoppers. This gave around a billion dollars in incremental sales.

Now it is obvious how big data could affect the business processes and allow organization to automate the current process to reduce the manual work and increase their revenue.

**Big data and innovative business models**

From the previous parts of the literature, it is clear that implementing big data involves several opportunities and benefits that organizations could achieve. As mentioned earlier, implementing big data would help in creating new innovative business models (Manyika et al., 2011).

In today’s rapid changing business environment, top executives are challenged to make their organizations resilient and agile to the changes in the business environments. O'Driscoll (2014) argued that organizations in the data-driven era are in need to improve the current business models by applying more automation or adopting new innovative and creative ones in order to maximize the value. Furthermore, he has made the case that the usage of big data would allow the business leaders to take decisions that are more informed on how to create, deliver and capture more value in the short and long terms.

In the same context, Vimarlund & Wass (2014) and Callari (2014) has agreed that the introduction of innovative IT solutions into the market such as big data, Internet of Things
(IOT), smart devices, high-speed internet connections, smart homes and ambient assisted living, would require developing new business models especially if these technologies combined together.

Many scholars in their papers as well as big data experts in their articles tried to cover how big data would change the current business models. For example, Kuketz (2013) in the article entitled “13 New Business Models Created by big data” tried to cover some new business models that would be created by using big data analytics. The table below lists different business sectors, and how could they leverage big data analytics to create creative and innovative business models:

Table 1: New business models in different business sectors. Source: utopiainc.com.

<table>
<thead>
<tr>
<th>Business Sector</th>
<th>Big data effect on the business model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banking/Credit</td>
<td>loan approvals in seconds, flexible rates based on live market data</td>
</tr>
<tr>
<td>Finance And Control</td>
<td>profitability analysis, in any dimension, on big data, all in seconds</td>
</tr>
<tr>
<td>Healthcare</td>
<td>real time diagnostic monitoring analytics (improve service, predictive healthcare)</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>text analytics to help identify product defects (prevent big business problems)</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>streaming sensor data monitoring</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>analytics for on demand clinical trial management (speed time to market)</td>
</tr>
<tr>
<td>Public</td>
<td>transportation and traffic analysis from GPS data (helps keep the city running)</td>
</tr>
<tr>
<td>Recalls</td>
<td>real time monitoring of safety data instantly triggering a recall event</td>
</tr>
<tr>
<td>Retail</td>
<td>balancing point of sale (POS) data against production and logistics to minimize inventory</td>
</tr>
<tr>
<td>Retail</td>
<td>capitalize on trending sales data as it happens, using POS analytics to set pricing, create promotions in minutes, by region, by demographic, even create micro promotions</td>
</tr>
<tr>
<td>Retail</td>
<td>social media analytics and reporting, to set campaigns and promotions based on trending patterns and predictive analysis</td>
</tr>
<tr>
<td>Telecom</td>
<td>improve customer service and satisfaction via call detail records (CDR) analytics</td>
</tr>
<tr>
<td>Utilities</td>
<td>smart meter analytics (optimize rates, load balance the grid, offer discounts)</td>
</tr>
</tbody>
</table>

**Big data and recruitment**

In the same context, Chen et al. (2014) discussed how online recruitment would benefit by leveraging big data analytics. They argued that the traditional online recruitment has the benefits of wide coverage, low cost recruitment, and recruiting without time and space constraints. However, with big data analytics, employers can find the right person by collecting and analyzing the huge data created by the users from different communities. Hence, big data
analytics helps in finding the ideal employees and guarantees the high success of online recruitment.

**Big data and education**

Moreover, Rijmenam (2014) argues that big data would revolutionize education by changing the way students learn and teachers teach. He has pointed to the changes that big data analytics would introduce as follows:

- Improve student results: during the student life, every student generates a unique data trail in the learning management system. These data and more could be analyzed to deliver an optimal learning environment for the student as well as gaining a better understanding in the individual behavior of the students.
- Create mass-customized programs by giving the students the ability to customize their own personalized programs, attending the classes that they have an interest in, studying on their own and getting the guidance from the professors. This has started to happen now with the Massive Open Online Course (MOOCs).
- Improve the learning experience in real-time: professors can monitor students in the real time and allow them to start deeper conversation on the topics of their choice. This will allow the students to have deeper understanding of these topics.
- Reduce dropouts and increase results by monitoring students and analyzing their behavior then providing instant feedback or coaching if required. The analysis of the data would predict bad results on the current program and hence the system could suggest changing the program, or even it could run scenario analysis on the program before it is started.

In the same context, Hougan (2014) agreed with Rijmenam (2014) that there are big amounts of students’ data stored in the Learning Management Systems such as information of specific modules, questions or assignments, the duration to read certain articles and answer related questions and videos they watched and areas where they paused, replayed or stopped watching. This data and more could be used to tailor the eLearning experiences to meet students’ specific needs. Furthermore, the analytics would help in changing the overall course outline or module design to improve the learning experience.

**Big data and healthcare**

In Healthcare, Burg (2014) argued that big data would help in creating a transparent healthcare system that provides accessible and affordable care for patients. Moreover, Groves et al. (2013) discussed the innovations that have been introduced by big data in the healthcare. They mentioned the healthcare applications that have been developed to help patients such as:

- GPS-enabled trackers for asthmatics to help physicians develop personalized treatment plans and spot prevention opportunities.
- Ginger.io mobile applications to track the patients with diabetes. It collects the information from the patient smart phone such as phone logs, GPS locations, etc. Moreover, it will collect information from surveys that the application sends. The
collected data is sent for analysis, and the insights will be sent to the patients to warn them in case of any physical unwell is imminent.

- mHealthCoach application supports patients on chronic care medication by providing education and promoting treatment adherence through an interactive system.
- RiseHealth dashboard is an application to help healthcare providers with collecting, organizing and exchanging of information. The goal is to improve the healthcare in all dimensions by analyzing the data to create insights about the patients

**Big data and public transportation**

In transportation sector, big data can reduce traffic jams, energy waste that contributes to the global warming and save individuals time and money. Distributed sensors on handheld devices, on cars, and on roads can provide real-time traffic information that is analyzed and shared with many parties such as police, transportation authorities and drivers. This information can allow drivers to drive more safely (TechAmerica Foundation, 2012).

**Conclusion and Recommendations**

The above literature clearly showed that there is an agreement between authors that big data will have an impact on the current business processes and business models. Big data with the power of analytics will allow organizations to obtain business intelligence that will enable them to create new product, enhance the current ones or invent entirely new business models.

It is obvious from the above that organizations which sit in the middle of a huge data flow where data about products and services, buyers and suppliers, and consumer preferences and intent can be captured and analyzed to create business opportunities that intend to create a great value for the businesses as shown in Walmart example.

The current research contributes to the existing body of knowledge on the new business models created by introducing dig data and analytics into the market. The literature study above showed how big data would improve the current business processes by enabling more automation. Besides that, it offers opportunities for new business models almost in all sectors with no exception. These new business models would help organizations to improve efficiency and effectiveness. Moreover, it will allow them to do more with less and produce higher quality output or increase the value added of a product or a service.

Due to the time constrain, the researcher was not able to collect the primary data needed to support the idea. This would be considered as a good point for future research.

**References**


Employee Turnover after an acquisition: A case of Emirates Central Cooling Systems Corporation “Empower”

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Hamdan Bin Mohammed Smart Univeristy, UAE.

Abstract
Emirates Central Cooling Systems Corporation "EMPOWER Solution", a private profit-entity, established in 2004 as a joint venture between Dubai Electricity and Water Authority (DEWA) and TECOM a subsidiary of Dubai Holding. This case study is based on the 2013 acquisition of PALM District Cooling (PDC) from NAKHEEL. This study examines the causes of employee turnover with a view to design better processes in ensuring a smoother transition phase for the organization. Face-to-face interviews were conducted with persons in charge of the acquisition and employees whom were directly affected by the acquisition. Interview data were coded for analysis and cognitive mapping was used to identify and explore the causal effects and relationships between constructs. There were two levels of concerns emerging from the data, being (i) HR and (ii) management practices. At HR level, the organization did not have any kinds of policies to address personnel issues in terms of pay-scales, duplication of positions, and end-of-service gratuity. The acquisition created double managerial posts e.g.: two heads for the same department; and one of them had to be relegated to being a deputy in compliance with HR policies but were told that they each resumed the roles and responsibilities of a head. This lower designation affects the calculation for ‘end-of-service’ gratuity. In addition to the stress of working towards the acquisition, this relegation caused dismay and frustration. In terms of management practices, there was a lack of consideration for restructuring, whether there was a need to down size or right size the organization after the acquisition. Due to this lack of foresight, the management did not clearly communicate as to the intentions of the acquisition and how the acquisition would affect employees at various levels in the organization. There was generally a lack of communication at different levels of management and between management and employees. This caused confusion and fear of what might happen after the acquisition. Many plant workers were not willing to wait and risk being told they were out of a job after the acquisition. They left when they heard news of the acquisition through the grapevine. The organization had lost many talents during the period. This talent-drained was translated into costs of operational downtime as well as time and money invested in recruiting and training new staff. This case study provides insights into the causes of employee turnover during an acquisition with a view for planning future processes and practices for smoother and less costly transitions.

Introduction
The objectives of the research are to identify the reasons for employee turnover in PDC after Empower acquisition and to examine the consequences of employee turnover and to give
recommendation and solution to avoid turnover next times and successfully achieve acquisition. The targeted audiences of the report are Empower top management.

Palm cooling acquisition was a complex and delicate process; big changes required. In fact, it requires a well-organized planning. Palm cooling was struggling to keep running at the time of acquisition, and Empower had the necessary plans in hand to solve PDC problems. PDC has experienced changes in organizational structure; this management change influenced employees.

Empower is planning another acquisition soon. Therefore, the author will analyze the research outcome to give recommendations to avoid it next times.

This report is consisting of 3 parts: Part 1 is collecting the interviews transcript and use “coding” to discover the main concepts and theme and later use “cognitive mapping” to discover the relationship between theme and concepts immersed from the coding process. Part 2 is discussing were the author analyzing the findings from the cognitive mapping. Part 3 is the conclusion were the author compare the findings with the literature review to give the recommendation.

**Background of the research or Motivation for the Study and Its significance**

A large number of employees left PDC after Empower acquisition, from top management to plant workers. The author works for Empower and was involved in the acquisition. The author aims to investigate the causes of employee turnover with palm cooling employees after Empower acquisition, and to examine the consequences. The author finding will be used to evaluate the last acquisition. The practical implication of the study will be utilized by the management since Empower is in the final stage if a new acquisition, the finding will be used to improve this acquisition outcome. On the other hand, the author aims to introduce to management a body of knowledge to contribute in future studies.

The author made an attempt to figure out the possible reasons and potential causes that influence and impacted the employee turnover in PDC employees, and how to avoid it in the upcoming acquisition.

The human capital is recognized as the essential component of success in every organization. In the last acquisition, PDC has experienced a managerial change. Empower lost a significant part of its Human Capital at all levels. However, is it because of the improper handling or the poor planning or is the failure in administration change management may exaggerate employee turnover.

Empower is known for its "replacing employee strategy" and they do not hold on their Human Capital and usually go directly overseas to recruit new employees. Empower is at the doorstep of another acquisition, and if the company was able to change this policy and change it to “retaining talented employee” it can make a much efficient acquisition.
This research proposal looks at an important subject for Empower, moreover, since it was not considered before the result can be of utter importance to improve the performance of the company.

**Literature Review**

**Objective of the Review**

We are looking at a colossal change management aspect which is acquisition. Change is very sensitive, and many obstacles may arise along the change as employee turnover in Empower case.

The concept of leading the change instead of managing the change is preferable. There are eight major steps describes lacking for establishing an effective change in an organization. One of the major challenges observed by Kotter was the underestimating of the difficulty of change and the fact that people tend to stay in the comfort zone. Establishing a sense of urgency is vital for change success, ignoring it is the first step toward failure. It is important to identify the triggers of the change in many ways, like using organization situation in the market to create urgency in the organization (Kotter, 2012).

Change manager needs to establish strategies and objectives and to create a good vision. Without good vision, transformation efforts can be ambiguous and easily end up in the wrong direction. Effective communication will always encourage engagement of employees and helps to achieve the goal. Some of the significant challenges are limiting the communication of vision with few employees and the use of insufficient communication channels. Time passing can cause a fall in urgency levels, so it is important to utilize effective communication to keep urgency level high. Anchoring changes in the Corporation's Culture is vital for the change success. Change is always planned; as a series of time-bound activity, clear vision and communication plans. The leaders play a great role in the transformation efforts (Kotter, 2012).

All organizations experience employee turnover, only a few of them know about the turnover cost and inquire whether it is acceptable or undesirable. The turnover directly influences financial outcomes. Companies are looking for strategies to confront the problem. Turnover is a determining factor that impedes innovations. Managing the problem requires an understanding of how the company's turnover varies by population segments. The potential causes of turnover can be consisting of to five components such as affiliation, work content, career, benefits, and compensation. These factors can be used as a tool to identify the vulnerable populations, enable the organization to analyze employee perspectives, and analyze the employee value proposition (EVP) to explain the underlying reasons for employee turnover. Moreover, the exact reason for employee turnover may depend upon the organization and employee segment. (Kochanski et.al, 2008).

It is important to forecast and control the turnover. The major measures are changes in turnover intention, behavior of searching jobs and the probability of finding a job. Measurement tools of turnover intention are constant in implication. (Somchit Hongvichit, 2015)
There are several reasons identified for employee turnover. The major factors in determining the causes are the lack of organizational commitment, job dissatisfaction, and job-related stress. The economic reasons can lead one to quit the organization. The organizational instability, inefficiency may increase the turnover. Organizations with effective communication system have lower employee turnover. High labor turnover indicates poor policies affecting employee, lack of grievance procedure and low motivation. The major effect of turnover on the organization is the invisible or hidden cost. (Henry Ongori, 2007)

The investigation of the relationship between work satisfaction and employee turnover denotes that the payments and benefits have a critical role in determining work satisfaction. The monetary rewards and motivated workforce can reduce the turnover. Employee friendly working environment and the competitive compensation are some of the major elements of determining the working satisfaction. (Chen et.al, 2010)

**Key Issues**
The major similarities in analyzing the different perspective of employee turnover are the financial impact and the cost of employee turnover. Change in the salary and benefits are a common reason for employees to quit the organization. Motivation, organizational commitment, as well as stress, inspire employees to find out new and better opportunities.

There is an unyielding relation between employee turnover and failure in change management. People tend to resist change and look for stability; that is why any failure in change can cause various problems including employee turnover. When the change occurs satisfying everybody is practically impossible, even if the change is managed exceptionally. The best thing is to manage the change in the best possible way to decrease employee turnover.

**Conclusion**
Employee turnover is one of the adverse impacts on any organization. Many organizational factors affect employee turnover. The invisible cost associated with the turnover may influence organizational growth. Poor employee motivation and organizational environment may increase turnover and reduce the business. A business cannot be sustained with high employee turnover. Organization requires spending time and assets to recruit and provide induction to the new employee. The turnover may affect the remaining employees and create a work related stress. This may lead to conflict, disorganization in personal as well as the professional life of employees.

Successful change management effectively reduces employee turnover. Change must be planned as a series of activity with excellent vision, strong leadership, and supervision. The financial benefits, work related stress, poor motivation influence employee to quit the organization. The poor organizational commitment, inadequate organizational strategies can affect individuals as well as the society. Failure in implementing change may generate high employee turnover. There is a vast opportunity in studying turnover related factors and scrutinize the facts and undertaking the research.
**Research Method and Data Collection**

Employee turnover is a vast topic, and it vary from organization to other on many facets, by comparing secondary and primary data an answer can be found to create solutions to retain employees. The author will use Nominalism ontology approach and Strong Constructionism Methodology. The author aims to be innovative in his research, and will use Critique starting points. The research designed upon engagement and reflexivity and the data are collected through discourse and experiences. The author analysis and interpretation are by Sense-making and understanding. Finally, the outcome is a new insights and actions.

**Data collection strategy**

The method of research is a qualitative method, a face-to-face interview with supervisors involved in the change from both Empower and PDC, conducted to gather information. The author performed interviews with two candidates who had more than ten subordinate joined from PDC, and who was involved in the change process, one employee from Empower and one employee from PDC, to identify employee turnover within PDC employees after Empower acquisition, and how did Empower overcome the problem. The author will look for available literature reviews as secondary data. Data and people are accessible to the author since he is working in the same company.

**Findings**

The author collects the information from interviewing two candidates and used coding and cognitive mapping to come up finally with two main maps to achieve the research objective.
Analysis
The first cognitive map is answering the causes of employee turnover and shows the consequences of this phenomenon. The first map shows that the problem started earlier before the acquisition, PDC employee were asking for salary increase, which was ignored by the previous management and pushed them to leave. However, the issues increase after the acquisition and many other factors took place; some affected the management, and some affected the low-level employees.

Management was forced to be a deputy under Empower existing equivalents to avoid position duplication. Moreover, leaving of some manager’s affected low-level employee and created panic among them.

Besides that, some of the Low-level employees could not get used to the new environment, which led them to start looking for another job. Moreover low education, personality, and weak minded weak-minded people started rumors in addition to lies to ruin the company image, alongside management neglecting communication with low-level employees hugely contributed in making uncertainty environment, which again contributed in creating panic among employees.

Another issue is signing new contract, the new contract gave the employee feeling of losing effort, and also it changed the structure of end of service gratuity, which gave them a sense of losing rights. All the previous factors have made an environment of dissatisfaction which led to employee turnover and increase the percentage of employee turnover.

The company reacted to employee turnover phenomenon and used effective communication which made employees more patients with the change hardest stage, the early stage and tries to examine the change, which resulted in making most of them accept the change, and pull through the employee turnover in the acquisition.

The high turnover percentage has some consequences, like creating manpower shortage, actually Empower management emphasis on ignoring any request for salary raise or promotion in the early acquisition stage, the management also urged the HR to prepare new candidate to replace leaving employees, instead of sustaining them. In a short time the leaving employee was replaced by new employee, in addition to the overhead cost of bringing them, induction program and training cost, they needed the experience to operate and maintain plants efficiently as good as the previous employees. Furthermore, manpower shortage affected the scheduled preventive maintenance and cause equipment breakdown and also decrease plant and equipment operation efficiency. The company tried to reallocate manpower, hire third party contractor and give overtime, all of this cost more money.

The management emphasis on customer satisfaction, that why they improve quality to convince customer in the new management, and this was proven by the reduced number of customer complaint. All the preceding factors lead Empower to invest more money only to sustain the same previous quality.
The second cognitive map is addressing how the management dealt with employee turnover issue and the possible solution to achieve the successful acquisition. The management has taken wise and prompt action to ensure management commitment to the well-being of both level employees: managers and low-level employees.

One of the measures taken was engaging employee at the early stage of acquisition through providing induction earlier to explain the work process and buyin employee for change. Another method was to start the hiring process immediately while ensuring hiring high education and highly experience employee, from well know company. Empower have regained the same employee number in less than one year; this helped the company to sustain it quality.

To improve the plant efficiency the management assigned employees from Empower with PDC for experience exchange.

The management also used effective communication and made sure it goes all the way from high-level management to the ground level employees. They also clarify the career progress of the employees, in addition to demonstrating the experience that can be gained in such a huge organization. Furthermore, one of the most useful ways was to comfort employees about the salary and benefit, firstly by salary adjustment, and promotion for highly experienced people, and announcing bonus for PDC employee equivalent to Empower employees, although the previous management decided to cancel the bonus. All the previous methods, prevent panic and uncertainty among employees, satisfy customers and retain highly experienced employees.

In utilizing the previous method, Empower was able to achieve successful acquisition.

**Conclusion**
Resistance is absolute in change; employee turnover is an example of this resistance. Change management skills are required to handle the change. Among all type of changes, acquisition is very sensitive, and many issues can arise. Leadership is a key characteristic of successful change manager.

**Causes of employee turnover**
Looking at the causes of employee turnover, PDC employees were asking for salary increase, prior to the acquisition, and when the acquisition occurred this request turn into resistance as per Kochanski, five components causes turnover and one of them is benefits (Kochanski et.al, 2008).

Kochanski also stated affiliation and work content as some of the potential cause of employee turnover, managers of PDC was unwillingly forced to change their position and work content. Moreover, they have no affiliation with the new company (Kochanski et.al, 2008).

Somchit stated that the probability of finding a job could increase employee turnover. Low-level employees in Empower are wanted in the market of district cooling (Somchit Hongvichit, 2015).
The interviewee stated that there was insufficient communication within the acquisition. Organizations with effective communication system has lower employee turnover. (Henry Ongori, 2007)

As seen in the findings, signing a new contract will make the employee lose his compensation like the end of service gratuity, going back to Kochanski potential causes of turnover, we can see compensation as one of the factors (Kochanski et.al, 2008).

We also find that some of the Low-level employees could not get used to the new environment, which led to job dissatisfaction. One of the major factors in determining the causes are the lack of organizational commitment is job dissatisfaction (Henry Ongori, 2007). Kochanski stated affiliation as of the potential causes of turnover. (Kochanski et.al, 2008).

Moreover, we can find that Empower management methodology was to replace employees, because firstly the ignored request for salary rise or promotion in the early acquisition stage, and they urged the HR to prepare new candidate to replace leaving employee, instead of sustaining them. As per the author interpretation Empower management aim to reduce resistance by replacing the causers of resistance “the employees”.

Looking at the finding, we can see that the effective communication was the primary cause of employee turnover. The interviewee stated that when the company used effective communication, employee started to accept the change, and pull through the acquisition and change of environment. This is supported by Kotter as he stated that effective communication can engage the employees in the change (Kotter, 2012).

Henry also supports the same concept as he said that organizations with effective communication system have lower employee turnover. (Henry Ongori, 2007)

**Consequences of employee turnover**
As for the consequences of employee turnover the interviewee stated that the most visible one was manpower shortage as a visible cost and losing knowledge and experience as a hidden cost, and as Henry stated, the major effect of turnover on the organization is the invisible or hidden cost. (Henry Ongori, 2007).

Some of the visible costs were the hiring third party contractor and giving overtime. The invisible cost was the losing of experience to operate and maintain the plants efficiently, employee might not blend in culture, the overhead cost of bringing new employee, like visa, tickets, induction program and training cost, in addition to the effect on the scheduled preventive maintenance that lead to equipment breakdown and also decrease plant and equipment operation efficiency.

Empower management emphasized on customer satisfaction, and aimed to prove their competency over the previous management and to show commitment to their new customers, and they have achieved it as per the client complaint number.

Empower was ready to lose money at the acquisition period to sustain customer because they know if they lost money now, they would get it back later from their loyal customer, but
f they lose customer, it is very hard to get them back. Empower invested more money only to sustain the same previous quality. All the previous consequences have ultimately led to the main consequences which was “money loss”.

**Recommendation and solution to avoid turnover and successfully achieve acquisition**

There is no easy change, and issues will arise no matter how good you plan and prepare. Empower management used their leadership to successfully achieve acquisition and solved employee turnover issue. However the author aims to recommend methods to avoid the employee turnover issue in the next acquisition and avoid making the same mistake again, thus, he collected the interviewees experience gained as they were involved in this matter from the start and had realized what can be done better.

Most of the management action should have been taken earlier. To stop the employee turnover, the management shows employees commitment to the well-being of both level employees: managers and low-level employees, to recover the affiliation, one of five potential causes of turnover. (Kochanski et.al, 2008).

Empower aimed to engage their employee. However, it should have been done at early stage of acquisition. To engage the employee, it is important to use effective communication and to identify the triggers of the change in many ways, like using organization situation in the market to create urgency in the organization (Kotter, 2012).

Empower ensured hiring high education and highly experienced employee, from well know company to ensure good quality and reduce hidden cost like training and exploit his experience. Experience exchange helped in sustaining good quality.

Employee friendly working environment and the competitive compensation are some of the major elements of determining the working satisfaction. (Chen et.al, 2010). So Empower did clarify the career progress, demonstrating the experience to be gained from the organization, adjustment of salary, promotion for highly experienced people, and announcing bonus for PDC employee to satisfy and remove job-related stress (Henry Ongori, 2007).

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Quality Management in the Construction Industry – Revisiting the Experience of the United Arab Emirates.

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Abstract
The aim of this paper is to revisit some historical data, regarding the implementation of ISO 9000 in the construction industry in the United Arab Emirates, and try to determine whether any recent literature has reported any new findings on the same topic. The main finding of this paper is the identification of a gap in research. The effect of the implementation of quality management systems in the form of ISO 9001 and other quality improvement initiatives such as Six Sigma in the construction industry in the United Arab Emirates remains a grey area particularly when it comes to their cost-effectiveness. This paper also emphasizes the importance change management in dealing with the human side of the construction industry. Based on this identification of gap in knowledge some recommendations for further research are suggested. Such recommendations would be of a particular interest to practitioners in the construction industry who invest a substantial amount of money in quality improvement initiatives. The investigation is limited to the construction industry in the United Arab Emirates.

Keywords: ISO 9001, Quality Management, Construction Industry, Six Sigma.

Introduction
The utilization of quality management in the United Arab Emirates is not something new and this is particularly true in the construction industry. Most construction companies in the U.A.E. embraced ISO 9000 by 1993 (Al-Nakib et al., 1995; Mustapha et al., 1997).

Although quality management and quality standards may be considered to be modern concepts, the basic principles can be traced back thousands of years not far from the U.A.E., more specifically to the early civilizations along the river banks of the Tigris, the Euphrates, and the Nile. Brown (1993) stated that Quality Standards have a very long history, being in operation at the time of the building of the Pyramids whereby, at crucial points, each stone had to fulfill exacting parameters of size and weight. Furthermore, according to Larue (1969), the Babylonian King Hammurabi (1792-1750 B.C.) set one of the earliest written records of standards as he stated, in his famous Stele, the following anecdotes:

- “If a builder constructed a faulty structure which subsequently collapsed, causing the loss of an aristocrat’s life, the builder might be put to death”.
- “A shipbuilder was required to guarantee the caulking of a boat for one year, and should the vessel spring a leak during that time the builder might be required to completely dismantle and reconstruct the boat”.


Twenty years ago the author conducted a major research project on quality management in the construction industry and collected primary data from construction firms in the United Kingdom and the United Arab Emirates. The research project put particular emphasis on the effectiveness of ISO 9000 in the construction industry. ISO 9000 had been in use for two to three years on average in the U.A.E.’s construction firms where, in comparison, it had been utilized earlier in the United Kingdom’s construction industry.

The previous research studies revealed some similarities between the construction firms’ experiences in the United Arab Emirates in comparison with the experiences of British construction firms. Only one significant difference was evident. Previously, results were published separately and no direct comparison between the results in the two above-mentioned countries was ever published. This paper revisits results of the previous research studies and directly compares the two sets of results. The paper will then highlight current literature in the area of quality management in the construction industry in the United Arab Emirates, identify a gap in knowledge and ask important questions that would set the bases for further research.

Previous Results
Table 1 below shows a comparison of previous results. The comparison is between 41 large construction companies in the United Kingdom and 28 large construction companies in the United Arab Emirates. Data reported in the table below are based on Al-Nakib and Mustapha (1994), Al-Nakib et al. (1995) and Mustafa et al. (1997).

<table>
<thead>
<tr>
<th></th>
<th>U.A.E.</th>
<th>U.K.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Years of experience with ISO 9000</strong></td>
<td>Less than 2 years experience with ISO 9000</td>
<td>On average 5 years of experience</td>
</tr>
<tr>
<td><strong>Reasons for implementing ISO 9000</strong></td>
<td>To gain a competitive advantage</td>
<td>The top two answers were client pressure and to gain a competitive advantage</td>
</tr>
<tr>
<td><strong>Employee resistance</strong></td>
<td>73% of surveyed firms experienced no resistance and 27% experienced resistance from middle managers</td>
<td>70% of the companies suffered from employee resistance. Most of the resistance came from middle managers</td>
</tr>
<tr>
<td><strong>Ways to deal with resistance</strong></td>
<td>Involving employees in creating the change as well as explaining to employees the reasons for change</td>
<td>Involving employees in creating the change as well as explaining to employees the reasons for change</td>
</tr>
<tr>
<td><strong>Motivating employees</strong></td>
<td>All firms indicated that they improved communication between management and employees in order to improve motivation. 27% of</td>
<td>All firms indicated that they improved communication between management and employees in order to improve motivation. 12% of</td>
</tr>
<tr>
<td>Use of Quality Consultants</td>
<td>52% of firms used a Quality Consultant to help them implement ISO 9000</td>
<td>54% of firms used a Quality Consultant to help them implement ISO 9000.</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------------------------</td>
<td>-----------------------------------------------------------------</td>
</tr>
<tr>
<td>Cost effectiveness</td>
<td>54% stated that the implementation of ISO 9000 is cost-effective, 31% indicated that they are not sure yet, while 15% stated that the implementation of ISO 9000 is not cost-effective</td>
<td>The vast majority of respondents complained that the implementation of ISO 9000 is time consuming, too costly and created too much formality and rigidity. However the advantages outweighed the disadvantages</td>
</tr>
</tbody>
</table>

**Discussion of the Results and Significance of the Current Paper**

It is very obvious from the table above that there is a lot of similarities between the experiences of construction firms in both countries although at the time of survey the implementation of ISO 9000 in the U.A.E.’s construction companies was at its early years. The significant difference, however, was in the area of employee resistance to change. It seems that the reaction of employees to the implementation of ISO 9000 was more favorable and supportive in the case of construction firms based in the United Arab Emirates. It is worth mentioning at this point that According to Al-Nakib et al (1995) the majority of the quality consultants employed, at the time, by construction firms in the U.A.E. were of foreign nationalities, mostly British. One can, therefore, argue that those consultants transferred knowledge gained in their countries and successfully applied it to U.A.E.’s construction firms which secured better results.

The most significant result of the above-mentioned research studies is the doubt regarding the cost-effectiveness of the Quality Management system. This is why the author finds it very important to revisit the results of the previous studies as they trigger certain important questions as well as act as a baseline for future comparisons.

A lot of changes happened during the last twenty years. The world is changing faster than ever before and this is particularly evident in the boom of construction projects in the United Arab Emirates during the last twenty years. In fact even the ISO standard that sets out the requirements for a quality management system is now referred to as ISO 9001 and many editions were published since the one used for the above-mentioned research. The latest ISO 9001 was published a few months ago in 2015. The most obvious change to the new standard, according to the International Organization for Standardization (2015), is its modified structure. ISO 9001:2015 uses simplified language and a common structure and terms, which are especially helpful to organizations using multiple management systems, such as those for
the environment, health & safety, or business continuity. The current ISO 9001 standard is truly
generic and can be applied in any organization in any industry.

Although some researchers recently did some work related to the implementation of
ISO 9001, research related to the use of quality systems in the U.A.E’s construction industry
remains scarce. In fact, the lack of such research is evident in the entire Arab world.

Mezher (2000), who argued that on its own, ISO 9000 is not sufficient to achieve a high
standard of quality for customers in the long term, conducted a research amongst 30 firms, in
Lebanon, from different industries and it was not clear whether any of the surveyed
organizations is a construction firm. Mezher also found that most of the organizations, that he
studied, used customer and employee surveys but many of them were unaware of important
quality concepts like Quality Function Deployment (QFD) and benchmarking.

Zaramdini (2007), who noticed that among the Arab countries, the United Arab
Emirates (UAE) has the highest number of certified companies, conducted an interesting
research to analyze the different aspects of the motives and benefits of certified ISO 9001: 2000
companies in the United Arab Emirates. However, Zaramdini’s research was not specific only
to the construction industry, although construction firms were part of the surveyed
organizations.

Another interesting research was carried out by Magd (2010) who concluded that
organizations seem to be using ISO 9001: 2000 certification in order to meet or even exceed
the quality levels of rivals, amidst fierce competition from mighty international rivals. The
survey was conducted amongst 78 manufacturing organizations and, therefore, excluded the
construction firms.

Al-Refaie et al., (2012) collected data from 130 Jordanian organizations and reported a
positive understanding and use of ISO 9001 standard by Jordanian firms. Their results revealed
that “ISO 9001 certification is considered an important tool for improving the efficiency and
effectiveness of quality management systems as reflected by improving quality outcomes,
customer satisfaction, and business performance”. Al-Refaie et al also identified a drawback
to ISO 9000 in that it does not motivate innovation, which is due to conforming to standard
requirements and operational procedures.

Other researchers focused their research on other quality initiatives, in the construction
industry, such as Six Sigma. For example, Al-Aomar (2012) conducted a research that involved
28 construction firms in Abu Dhabi the Capital of the United Arab Emirates. Furthermore,  
Rehman et al., (2012) conducted an action research and implemented Six Sigma in the telecom
industry for construction of its sites. The results of their action research show that after the
implementation of the Six Sigma project, the company made savings worth US$ 0.45 million.
Moreover, Lee and Su (2013) also highlighted the advantages of using Six Sigma in
construction projects and the positive impact on customer satisfaction and cost saving. Moldof
(2013) also supported the implementation of Six Sigma in the construction industry and
highlighted some significant benefits. Many other authors highlighted the benefits of
implementing Six Sigma in the construction projects (Pheng & Hui 2004; Stewart & Spencer 2006; Seung Heon et al., 2008). Again, research studies on Six Sigma in the construction industry in the United Arab Emirates or even in the Arab world as whole remain very limited.

**Nature of the Construction Industry**

The construction industry is one of the biggest industries in the United Arab Emirates. In fact, according to Dubai Chamber (2016), construction sector as a percentage of GDP of the United Arab Emirates was 10.6% in 2008 and 10.3% in 2011 while for 2021 the sector’s contribution as a percentage of UAE GDP is expected to peak to record 11.5%.

“Dubai: The UAE construction industry is witnessing a fast track growth with a groove of on-going projects, investment into green open spaces, and the strong government support, a report from RNCOS analysts said the market, which was estimated at $39.4 billion (Dh144.6 billion) in 2012, is expected to grow at a compound annual growth rate of around 9.5 per cent during 2012-2016” (Gulf News Feb. 3rd 2016).

The success or failure in the construction industry, according to Barrie and Paulson (1992), depends on the qualities of its people more than it depends on technology for example. It is also a known fact that almost all construction projects are unique and single order, which makes the industry very custom-oriented.

One also should keep in mind that construction has no fixed site for each project has its own site with different people working on different cites. According to Atkinson (1987), one of the special features in construction is that manufactured materials, components, etc. may have been tested and quality assured in the factory under ideal conditions but once brought on the building site they are likely to be handled stored, assembled and installed under adverse weather and other conditions.

Furthermore, due to its unique nature, the construction industry is very ‘people-oriented’ and human interaction is more evident when compared with the manufacturing industry. Moreover, the life-cycle of construction projects are longer than those of most products in the manufacturing industry, which means the period of human interactions (whether between project members or between the client and the company) is much longer than that in most manufacturing organizations.

Therefore, one can see the construction industry is very much a ‘people’ industry. Therefore, those responsible for the implementation of any quality enhancement initiative should be aware of the importance of the human aspects and avoid treating people like robots or impose ‘changes’ on them. This is where the ‘art’ of change management becomes a necessity.

**Recommendations for Further Research**

Based on the historical results reported above and also based on current literature a further research is needed to address some important questions that remain unanswered. The questions that need to be addressed are as follows:
• Is the implementation of ISO 9001 cost-effective in construction firms in the United Arab Emirates? Now that construction firms in the United Arab Emirates have been implementing ISO 9001 for a considerable period of time, firms should have observed cost savings by now.
• Is ISO 9001 hampering innovations? If so, then how can we avoid this?
• What other quality improvement initiatives are being implemented by construction firms in the United Arab Emirates?
• How many construction firms in the United Arab Emirates are implementing Six Sigma and how effective has it been?
• What is the impact of Six Sigma on the human side of the construction industry and how should such ‘changed’ be managed?

Conclusion
Twenty years ago the author carried out a research in the area of the effectiveness of ISO 9000 in the construction industries of the United Kingdom and the United Arab Emirates. The implementation of ISO 9000 was at its very early stages in the United Arab Emirates at the time when the research was conducted. Now, some twenty years later, almost all construction firms in the United Arab Emirates have implemented ISO 9000 (now referred to as 9001) the issue of its cost-effectiveness remains a grey area. Research in this area in the United Arab Emirates or indeed in the entire Arab world is lacking. Boom in construction in the United Arab Emirates made the construction industry one of the most important industries of the country. In fact, The UAE construction industry market was estimated at $39.4 billion (Dh144.6 billion) in 2012 and is expected to grow at a compound annual growth rate of around 9.5 per cent during 2012-2016. Therefore, any small saving through cost cutting would be a lot in monetary terms. Furthermore, the construction industry is human oriented and the success of any quality improvement initiatives depends largely on employees’ readiness and willingness to implement such initiatives. This in turn requires a sound change management. It is very important to carryout further research to determine the cost effectiveness of ISO 9001 in the construction industry in the United Arab Emirates and also to determine what other quality improvement initiatives are being implemented and to assess their effectiveness. Particular attention should be given to investigate how the human sides of such quality improvement initiatives are being addressed.

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Assessment of the importance of national culture on success of implementing change management in reaction to BPM

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Abstract
Organizations no longer conduct business only in their home country, but they have expanded beyond their national boundaries. While this presents opportunities for these companies, they must continuously innovate and change to ensure that they adapt and remain competitive. Business process management holds a future for companies as it offers numerous advantages. It is a structured approach for understanding, analyzing, and continuously improving fundamental business processes. Similar to other management techniques, its successful implementation depends on several factors, including national culture. Despite numerous studies that have mentioned this factor as a critical success factor, few have considered its importance and ways its impacts BPM implementation. This study employs a mixed study approach, including a survey to determine the importance of national culture and the ways its influences BPM implementation. The results of this study reveal that national culture affects the implementation process.

Keywords: Business Process Management, change management, national culture

Introduction
Business Process Management refers to a set of methods, tools, and techniques employed to support the design, management, performance, and analysis of business operations. As a management discipline, BPM focuses on improving corporate performance largely by managing business processes of a firm. Many companies have initiated BPM projects to facilitate their change management process. The value of BPM has never been important that it is today due to the rapidly changing business environment. Organizations have to compete in the global economy with both large and small players in the market. The ability of organizations to compete successfully in the market requires success on operational efficiency, product and service innovation, as well as customer inquiry. To maintain a leading edge,
organizations must ensure that they are as efficient as possible. They have no choice but to constantly assess and improve their daily business operations. They need visibility, agility, and efficiency. For this reason, organizations are required to implement continuous change management to improve their competitiveness in the increasingly competitive global business environment. Some companies often change their business operations, including their goal and mission to maximize their productivity and to remain responsive to the market demands.

While BPM holds the future of organizations, its benefits can only be achieved when it is implemented successfully. More often than not, organizations adopt BPM, but they usually fail to ensure successful implementation. As a result, many do not reap the anticipated or perceived benefits of BPM. What comes out clear is that the success of change management and BPM, in particular, depends on certain critical factors. Among these factors, national culture has been identified a key aspect for the success of change management efforts. Largely, successful BPM implementation goes beyond the use right methods and systems. Rather, it requires a firm to establish the right organizational culture, one that supports the achievement, as well as maintenance of effective and efficient business processes (Grau & Moormann 2014). Depending on the specific context of BPM initiative, culture can lead to either success or failure of change management initiatives. For instance, cultural resistance to change may lead to failure of BPM initiatives. Culture is particularly critical because many firms are now operating in regions other than their home countries and must, therefore, adapt to the specific culture in their respective regions. While this is the case, little is known about the exact importance of national culture in change management in reaction to BPM. While many researchers have recognized the importance of culture in change management, perceptions of its influence in BPM differ because culture can refer to diver’s cultural groups such as work groups, organizational, and national. It is, therefore, important that a detailed study be conducted to inform organizations about the value of national culture and to ensure that they succeed in their BPM initiatives.

The purpose of this study is to assess the importance of national culture on the success of implementing change management in reaction to BPM initiatives. This study hinges on the following objectives:

1. To investigate the importance of national culture in the implementation of change management
2. To critically examine the value of national culture in BPM activities
3. To determine how organizations align change management initiatives with the national culture

Literature Review
This section presents a comprehensive review of past studies on the value of national culture on the success of implementing change management for BPM projects. It presents key findings of researchers and the gaps in knowledge prompting this current study.

Business Process Management
A business process describes a set of interrelated activities that have definable input and when effectively executed, they lead to outputs, which add value to the quality of products or services to customers (Zairi 1997). It is cross-functional and extends across all organizational functions ranging from order request to final delivery. Initially, BPM focused on technical aspects of
business processes, including their design via technology. BPM is synonymous with Business Process Reengineering with the main difference being that the former emphasizes continuous improvement while the latter is synonymous with radical one time change. Despite its early awareness in the 1980s and 1990s, BPM began to be widely used just in the recent years. It is now regarded as an integrated approach, which extends beyond the mere focus on IT (Kumar, Louis, Wei, & Lee 2006). A holistic organizational management practice requires top management understanding and involvement, well-defined accountability, process information systems, and a receptive culture to the business processes. It is based on process architecture that captures the interrelationship between key business processes and the enabling support processes as well as their alignment with goals, policies, and strategies of an organization (Grau & Moormann 2014).

BPM can lead to enormous cost reduction to a company. Ideally, it helps to optimize and automate business processes, which eventually allow an organization to eliminate redundancies (Oracle Insight 2009). It facilitates the removal of manual tasks and by so doing minimizes the risk of rework or error in the process. BPM is also important because it improves the visibility of an organization. It allows an organization to automate processes and monitor performance of processes as well.

Nowadays, there is a growing awareness that BPM requires an extensive organizational perspective especially after considering culture as a success key factor for the implementation of BPM project. Many process maturity models were developed to address and structure the elements of BPM that need to be followed while planning for processes development. These models identify the core capability areas that are relevant for successful BPM. Most maturity models include culture as an important factor besides other in their models (Rosemann and vom Brocke, 2014). For example, the maturity model created by Rosemann and de Bruin provides strong evidence for the relevance of culture in BPM.

This model of maturity has six core factors of BPM and culture is one factor in six. The other six core factors of BPM identified in this model are strategic alignment, governance, methods, IT, people, and culture. Focusing on culture, the specific capability areas include responsiveness to process change, process values and beliefs, process attitudes and behaviors, leadership attention to process management, and process management social networks (Rosemann and vom Brocke, 2014).

Based on this, we can ensure that there is a relationship between BPM and culture. This leads to the need for defining culture and explore the various types of it and how culture could effect change management and consequently influence on BPM. Of particular interest in this study is the influence of culture on the implementation of BPM. Culture represents, both as a source of success and failure of BPM initiatives.

**Culture Defined**

Cultural insight provides justification for how the work is done in any organization. Culture is a broad concept that can be defined differently depending on the context. In an organizational context, culture refers to the interaction between a firm and the cultural environment in which
it operates. Countries are unique and distinguished from their respective cultures, and so are organizations. Notably the behavior and actions of people are normally shaped and influenced by their national culture. A social construct is not genetically inherited but socially from family and friends and passed on to the new generation. (Hofstede, 2005) considers that culture is the collective programming of the mind that differs the members of one group from another. Culture can also be defined as the pattern of expectations and beliefs that are shared by members to produce norms that shape behavior. As broad as it appears, culture further included beliefs, values, behaviors, and attitudes in people’s mind. Values are the core of culture, which describe the broad tendencies to prefer certain aspects to others (Schmiedel et al. 2013). The tendencies often manifest in symbols, rituals, heroes that are collectively represented by behaviors or practices. Even though behaviors and practice are often visible to the outside world, their cultural meaning is not necessarily visible. Moreover, while behaviors are subject to change, values remain stable for some time.

National Culture
National culture describes a set of values, behaviors, norms, customs and beliefs that exist among a population of a nation. It differs from country to country depending on the dominant values. National culture relates to deeply held values and practices and differs from organizational culture because the latter is grounded in organizational practices, which are learned in the workplace. In other words, organizational culture depends on share perception of everyday practice while national culture features the core values. National culture is broad because it is perceived to influence organizational culture. Schiemdel et al. (2013) echo these views, arguing that although the definition of culture varies, values are the core elements. They are invisible guiding principles, which determine the visible behavior along with structures in social interaction. In essence, typical structures and actions within a group, are largely determined by a given set of values that are shared among all the members of the particular group.

People belong to different cultural groups and have different cultural identities, which influence their value system. Thus, cultural groups are not homogeneous because members often think differently and act in distinct manners. Despite the differences, shared values define national cultures. Perhaps, the definition of national culture can be illustrated by the respective cultures of the US and China. America follows an individualistic culture where the emphasis is on individual performance and success. On the other hand, China is a collective culture where the emphasis is on group performance and success. Broadly, (Hofstede, 2005) has established key dimensions of measuring national culture, which include power distance, individualism, performance orientation, uncertainty avoidance, and context. Power distance describes the extent to which members of organizations and institutions without a country accept and expect that power is distributed unequally. Uncertainty avoidance entails the extent to which a given society rewards quality, innovation, and performance improvement. Individualism describes the loose ties between individuals rather than strong connection with a social network (Hofstede, 2005). The context describes the degree to which explicit background information is needed for effective communication. Hofstede's culture manifestation offers a foundation for
explaining the critical determinants of difference in national culture, which influence the implementation of change management through BPM.

**Importance of National Culture in Implementing change management**

(Alibabaei, Aghdasi, Zarei & Stewart, 2012) indicate that business processes are the core aspects of organizations and managing them is a priority. However, many firms fail to successful adopt BPM. The failure to implement BPM attributes to the poor alignment with the culture. The author further asserts that differences in national culture account for the reason developing nations find difficulties during implementation and using western management processes, technologies and information systems techniques. It occurs due to cultural resistance as employees find it difficult to connect their values and beliefs with the change management initiatives in the organization. As noted, the ability of BPM to succeed largely depends on organizational culture and national culture. It, therefore, implies that the success of an organization or its initiatives depends on whether there is a shared understanding among employees of how and why the initiatives benefit the company (Shmiedel et al. J 2012). Employees must connect their values with the change management effort and understand how the activities will be beneficial in the end. Culture can be highly effective in the performance of an organization and in particular, it has a direct impact on the implementation of BPM. As earlier noted, it can either hinder or facilitate the progress.

(Broke and SinnI, 2011) developed BPM-Culture-Model that shows that the interconnection of culture and BPM. The authors described the manifestation of culture in three dimensions, including national, working groups, and organizational. They developed a framework of the importance of culture in BPM and assumed that the management approach of BPM needs a BPM culture. The model comprises of three key concepts with the core being BPM culture, which entail a culture supportive of achieving BPM objectives or rather ensuring effective and efficient business processes. In each of the cultural groups three elements, values, structures, and actions provide a foundation for explaining the cultural phenomena regarding BPM implementation. Although values are invisible, they represent a decisive element of culture because they account for the mental map regarding fundamental aspects of life, such as the importance of work and social hierarchies (Jayaganesh & Shanks, 2009). These values provide daily operating principles for people of a given cultural group and ideally manifest themselves in visible structures and actions. These visible elements help to maintain or develop respective values in the sense that the actions constantly recreate the meaning of culture and structures. Actions, which depict lived cultural values, include observable rituals, visible behavior, and manners. Structures include the physical environment, organization charts, technology, and products. Thus, culture comprises of invisible value orientations, which manifest in visible structures and actions. The implementation process depends on people as they have the knowledge and expertise to improve processes (Debaghkashani, 2012). People are the most important part of business process change because they conduct processes. Their cultural orientation, therefore, determines whether the implementation process will succeed or fail.

(Schmiedel et al, 2013) conducted a cultural analysis of BPM governance in two Indian organizations. The authors indicated that India has a high power distance and is often associated
with behaviors such as emotional relationships with superiors and subordinates along with the perception of managers as a parent or benevolent. In one of the cases under study, the authors found out that strong emotional relationship with superiors coupled with respect for expertise and authority contributed to the success of BPM. However, the high power distance contributed to failures in communication, which affected BPM implementation and adoption. They also found out that communication depends on the established relationship between employees and managers.

Another dimension of national culture is individualism vs. collectivism. Individualist countries tend to value individual performance and success (Hofstede, 2005). In organizations, employees identify more with their careers and less with the organization. When employees do not identify with the organization, the implementation change management with the aid of BPM is likely to suffer. However, when employees have a strong connection with the organization and identify its fate as being their own, they tend to commit themselves to ensuring that BPM initiatives succeed. Strong bonds provide a foundation for work related activity. For this reason, the author indicates that multinational companies operating in collective cultures are likely to find little resistance when implementing change management efforts because employees have a strong connection with the organization. It contrasts with organizations operating in an individualistic culture because employees tend to have a weak connection with the organization, and they do not consider the fate of the organization as their own. Thus, they are less likely to devote themselves to ensuring successful implementation and adoption of BPM. Low power distance and individualism support the implementation of BPM initiatives. On the other hand, high power distance and collectivism exert a negative influence on the implementation of BPM.

Uncertainty avoidance entails the extent members of a given culture perceive the unknown or ambiguous situation as threats rather than opportunities (Schmiedel et al., 2013). The main issue concerns with the uncertainty of the future is, whether it should just happen, or it should be controlled. Countries that have strong uncertainty avoidance tend to maintain strong beliefs and behaviors and they do not embrace new ideas easily. People in countries that have high uncertainty avoidance are emotional and often minimize the occurrence of unusual or unknown circumstances. They often precede changes stepwise by planning and implementing all rules, regulations and laws. In contrast, people from low uncertainty avoidance cultures tend to tolerate chaos and ambiguity and are good at embracing change. They are good at invention, but not in implementation. For instance, Germany tends to have a high uncertainty avoidance as compared to countries such as Singapore. Germans tend to be keen on avoiding uncertainty by planning everything and ensuring that changes are implemented systematically. Thus, the implementation of BPM is likely to succeed in countries with high uncertainty avoidance.

Performance orientation describes the degree to which a society rewards quality, innovation, and performance improvement. Countries that have a low-performance orientation tend to emphasize loyalty and relationships and put little emphasis on results and rewards, as well as training and development (Schmiedel et al., 2013). Context can be either high or low and describes ways in which cultures communicate. Communication in high context cultures
is implicit which implies that relationship and context are more important as compared to the actual words. In contrast, low context cultures tend to emphasize the words and not the context or relationships. The US is a low context culture where people focus on the meaning of the words that are employed in communication. It contrasts with Japan because it is a low context culture where relationship and context play a key role.

Gaps in Knowledge
This review has provided important insights into the value of national culture in a successful implementation of BPM. The studies provide ways that national cultures influence the success of change management. However, these studies are limited because they do not comprehensively examine the topic in question. It has been noted that most of the studies examine the impact of culture in a homogenous way, when in reality; culture is broken down into work groups, organizational culture, and national cultures. Similarly, most of the researchers tend to focus more on the impact of organizational culture and by so doing they fail to recognize the influence of national cultures. Above all, there is no consistency in the reviewed literature because some authors identify certain values as influencing BPM implementation while others contend that it does not. Thus, it is important to conduct a detailed study to fill up these gaps.

Framework
The framework is built on the factors of BPM that have been discussed in the literature review. The culture of BPM aims at supporting the functions of an organization efficiently and effectively. In addition, the context of culture is based on the cultural settings of an organization. Such settings include the organizational, job group, and national cultures (Brocke & Rosemann, 2010). The initiatives of BPM are affected by such cultural setups. Moreover, the success of BPM is based on the similarity between BPM culture and its context.

BPM culture considers the application of a set of values that support the objectives of BPM. It is essential to understand the BPM culture fully; therefore, the concept of culture remains eligible to future research. In addition, there needs to be the specification and incorporation of the BPM culture, in accordance to the organizational contextual factors. Moreover, the cultural context of an organization is determined by various cultural classifications, such as the organizational, national, and work cultures (Brocke & Rosemann, 2010). The different types of cultures are interrelated, and are the major determinants of the values of human behavior at the workplace. Moreover, the cultural fit considers the equivalence, critical for the implementation of BPM, between BPM culture and the context of the culture. This means that an organization needs to strive to align its cultural values with those of BPM. However, the achievement of success in the implementation of BPM can only be achieved through action and the consideration of the organizational structure.

In addition, the leadership of an organization determines the success of BPM, especially through adequate and effective communication. Leaders act as stewards of the BPM implementation, in terms of taking the responsibility of ensuring the performance of the necessary BPM models in an organization (Brocke & Rosemann, 2010). Such models of BPM need to achieve the expected and established objectives of the BPM under the supervision of
the leaders. Moreover, such leaders need to ensure that there is an effective communication plan. Such a plan aids in the coordination of the necessary elements that ensure BPM is achieved successfully. An effective communication plan helps in the convergence of focus to the success of implementing BPM.

Certain values are critical for the achievement of an effective BPM culture in an organization. To begin with, customer orientation is a major value, in terms of implementing business processes that are aligned to the needs of the customers. Such a culture ensures the satisfaction of the customers through direct organizational support. Moreover, the implementation of a need for excellence culture aids in the achievement of innovative initiatives by an organization (Broke & Rosemann, 2010). This ensures that there is a continuous improvement of business process for the achievement of an organization’s vision and mission. In addition, the need for the implementation of a culture that ensures all the employees become responsible could work in the improvement of BPM. This is because it ensures that there is accountability and subsequently commitment at the workplace. Furthermore, in ensuring the implementation of a teamwork culture in BPM, ensures the implementation of both formal and informal business structures.

Research Methodology

Indeed, there are two key methods of research, either quantitative or qualitative and the main difference between the quantitative and the qualitative method is that the qualitative method involves exploring meanings and interpretations of different things. On the other hand, the quantitative method is to count and measure different aspects of life. The quantitative method is always useful when one has adequate background knowledge about the research while qualitative method is useful when one has limited knowledge and seeks to develop theories about the research. Therefore, on these grounds, this study uses the quantitative method (Blaikie, 2009).

From the reviewed literature, it was established that very few studies have examined the importance of culture in the implementation of change management in reaction to BPM. These studies tend to focus more on the organizational culture and culture in general. Besides, most of the studies only review secondary sources, and only a few of them examined the topic using primary methods. This study employed an exploratory research approach to investigate the importance of national culture in the successful implementation of change management and BPM.

The research depended on quantitative method in order to gather primary data. However, the secondary data that used through in a very narrow extent. So, the research utilized a quantitative research method that included the use of survey and literature review of books, articles, and journals. Thus, in this research it was examined a random sample of population in the UAE region who had experiences when implemented change management in order to identify their perspectives. The research focused on two aspects to address the national culture in implementing change management: The first one is concentrating on the culture environment and behavior that are influencing on people during implementation BPM. The second aspect is
about the relationship and high communication that are affecting on national culture when implementing change management.

**Data Analysis and Research Findings**

**Research instrument**

The research depended on questionnaire survey in order to collect the results by examined a random sample and small size of population in the UAE region in order to gather the data during October - November, 2015 who had experiences when implemented change management in several sectors to identify their perspectives relevant to assessing the importance of national culture on success of implementing change management in reaction to BPM. Thus, during the study we focused on several group of people in different level regarding their job position, age, gender, marital status, years of experiences and project participated in order to identify their perspectives. So, we responded (32) and found the results which are demonstrating as bellow:

<table>
<thead>
<tr>
<th>No</th>
<th>Characteristics</th>
<th>Majority of respondents</th>
<th>Minority of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td>62.5% (n= 20) 26 – 33 years old</td>
<td>9.3% (n= 3) 34 – 41 years old</td>
</tr>
<tr>
<td>2</td>
<td>Gender</td>
<td>78.1% (n=25) Female</td>
<td>21.8% (n=7) Female</td>
</tr>
<tr>
<td>3</td>
<td>Marital status</td>
<td>50% (n=16) Married</td>
<td>50% (n=16) Single</td>
</tr>
<tr>
<td>4</td>
<td>Job title</td>
<td>58% (n= 18) Employees</td>
<td>29% (n=9) Managers</td>
</tr>
<tr>
<td>5</td>
<td>Years of experiences</td>
<td>35.4% (n= 11) From 4 - 6 years</td>
<td>6.4% (n= 2) More than 10 years</td>
</tr>
<tr>
<td>6</td>
<td>Participated in project</td>
<td>77.4% (n= 24) participated</td>
<td>22.5% (n= 7) Not participated</td>
</tr>
</tbody>
</table>

(Table 1)

**Primary data analysis**

The research is based on two dimensions and variables related to the literature:

1. The national culture environment and behavior that are influencing on people during implementation BPM.
2. The second variable is about the relationship and high communication that are affecting on national culture when implementing change management.

The study demonstrated the majority of respondents 42.9% (n=13) were agree that the organization’s culture is directly link and lead to implementing BPM. Thus, the organization’s culture and its environment can impact during implement BPM. Furthermore, the study showed that 48.3% (n = 15) were agree and 45.1% (n = 14) from respondents perspective were strongly agree that the critical success factor have large influence and play extremely role on
implementing change management and BPM, thus it provides clear view that from these factors the national culture can identify the key aspects to support organization to implement BPM successfully (Grau & Moormann 2014).

In addition to that, the study evaluated how the organization’s culture and values are important elements of change management, so the results clarified that the majority of respondents 48.3% (n = 15) were agree, on the other hand, the minority 6.4% (n = 2) were disagree and that ensures the national culture’s varies and share values are very important when implementing change management particularly between group members and understanding their activities clearly is supporting to implement BPM perfectly.

Also, the research showed that the majority of respondents 64.5% (n = 20) were strongly agree that the technology can be the knowledge of processes and increase the organization performance. Thus, it illustrates that the technology and information system can maintain performance development, even though the organization has diversity culture. Regarding the relationship and high communication are affecting on national culture during implementing change management. The study verified that 70.9 % (n = 22) from respondents were strongly agree that leaders are key players in managing the culture of employees during implement change management. So, that it explained the leadership role is important in handling employee’s national cultures and the attitudes or social networks during BPM implementation. On the other hand, only 3.2% were disagreeing (Rosemann and vom Brocke, 2014).

Besides, the study observed the national culture is supporting to reduce the behavior resistance change within organization, therefore it showed the majority of respondents 51.6% (n = 16) were agree. Thus, it finds diversity of culture can play the main role to eliminate the change resistance in order to avoid any failure. On the other lateral, the study showed that only 12.9 % were disagreeing. According to the processes orientation, the study assessed if it’s very important to all people involved in BPM and change management projects. Thus, it demonstrated that 54.8% (n = 17) from respondents were strongly agree. So, in this part the result ensured there is a strong link with first dimension which is the national culture environment and behaviors are influencing on people during implementation BPM. Regarding the collectivist cultures, such as china that operates in multinational companies which is facing little resistance when they implement change management. The study validated the majority of respondents 63.5% (n = 20) were agree, 29% (n = 9) were neutral and only 6.4% were disagreeing. Thus, it clarifies that working as one group is influencing on speed responding to change, avoid uncertainty and resistance to achieve affordable BPM implementation, regardless of different culture and share values (Hofstede, 2005). Additionally, the study measured the employee’s link to the personal values of change management that they must understand about the role of process management in order to enhance their performance. Thus, the study demonstrated that 87% (n = 27) of respondents were agree and 6.4% were disagreeing.

Furthermore, the study showed that the majority of respondents 54.8% (n = 17) were agree, 38.7% (n = 12) were strongly agree that the national culture can be highly effective in the performance of an organization and it has direct impact on the change management process.
On the other hand, 3.2% were disagreeing. So, It seems that the national culture can be extremely effective in the performance of an organization during the implementation of change management in several group and diversity culture or even in particular workplace environment, it has a direct impact on the implementation of BPM. The emotional commitment among employees is contributing positively to the success of change management, according to the variable of national culture and environment change. The study illustrated that the popular respondent’s perspectives which is 54.8% (n = 17) were agree, also the 35.4% form them were strongly agree. On the other side, only 9.6% were disagreeing (Shmiedel et al. J 2012).

Ultimately, the study showed the majority of respondents 45.1% (n = 14) were strongly agree that the most of change management and BPM implementation failures occurs because of the miscommunication between employees and managers during implementing change management but, 35.4% were agree, 12.9% were neutral and 6.4% were disagreeing. Thus, relevant to the second variable about the relationship and high communication are affecting on national culture when implementing change management. The data results ensured that one of the element successes to implement change management is depending on the established relationship between employees and managers. Nevertheless, out of communication and high power distances are contributing to change management failure especially in India. Otherwise, US has a low context culture where people focus on the meaning of the words that are employed in communication way. However, Japan has a low circumstance culture where relationship and context play a key role to implement change management. According to the study demonstrated, the indicators referred in the UAE have a high context culture and the communications are extremely important between managers and employees during implementing BPM (Schmiedel et al., 2013).

Conclusion
With the increasing competitiveness in the global business environment, businesses have no choice but to continually change their processes and operations to remain competitive. While studies have been conducted to determine the influence of culture in change management, few have examined the critical importance of national culture in the successful implementation of BPM. Thus, the outcome of this study has contributed to the existing knowledge about the importance of national culture in change management. As noted in this study, national culture can either support or undermine the implementation of BPM. Organizations that operate in the individualistic culture and low power distance find it easy to implement their BPM initiatives. However, for those, which operate in regions that have collective culture and high power distance, they are likely to face resistance when it comes to the implementation of BPM. Similarly, people from countries with low uncertainty avoidance tend to follow the implementation process stepwise and carefully to avoid negative consequences that could emerge due to low, and poor implementation. In addition, it's critical that companies align the dominant values with their efforts to create change to ensure that they succeed in their change management efforts.

References


Financial Audit Quality From UAE’s Auditors Perspective

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**Introduction**

Auditing is an independent and systematic examination of accounts, documents, books, and other valuable papers of a business to investigate if the financial statements represent the true status of the reporting firm. In addition, auditing is an attempt to provide reasonable assurance that the account books were maintained in a proper way and follow the accounting standards and rules and regulations. Nowadays, it has become an object of a common perception in the public and corporate sector (Ingram, 2015).

Since recent times, researchers begin to identify the whole society of auditing. Auditors recognize the propositions for examination, obtain evidence, evaluate it and formulate their judgment an opinion on the ground of judgment shared through their audit report (Ingram, 2015).

At the same time, audits provide stakeholders with third party assurance. Audits are done in other areas and functions of business like Quality management, internal controls and project management. Audit assists stakeholders in effective evaluation and improvement of the effectiveness of control, risk management, the process of governance over the topic discussed and others. In the Middle Ages when manual book-keeping was widespread, auditors in Great Britain heard the accounts declared to them for checking whether the personnel of a business were not fraudulent and negligent or not (Arter, 2008).

Strong incentives to provide fraudulent information, such as misstating, taxation, and various forms of fraud, made auditing become a legally required procedure for most organizations that could use financial information for their gain. Mainly, auditing is aimed at obtaining information about financial records and financial systems of a business or organization (Arter, 2008).

Financial audits are applied to clarify the reliability and validity of information. In addition, they help to assess the internal control of a system. Therefore, a third party can present an opinion of a system, business or person in question. The opinion concerning the financial statements is strongly dependent on the audit evidence. There are numerous restriction that make auditing seeks to assure that the statements are free from material error. As a result, audits adopt the statistical sampling method. In terms of financial audits, a number of financial
statements are considered true and fair in case it is free of material misstatements. There is an increased attention to the idea that auditing goes over just true and fair (Carey & Simnett, 2011).

In many countries auditing should be conducted following generally accepted standards provided by responsible bodies. They assure external users or third parties that they can be confident in the opinion of an auditor concerning the financial statement fairness or other subjects on which auditors express their opinion. In the USA, auditing of publicly traded companies should follow the rules provided by the Public Company Accounting Oversight Board (PCAOB) established in 2002. This auditing procedure is referred to as an integrated audit meaning that auditors have to express their judgment on the effectiveness of an organizational internal control related to the financial reporting. It should be done according to the PCAOB Auditing Standards (PCAOB, 2015).

There are new integrated auditing types that have become available and use a unified compliance material. A number of regulations and auditing standards, and the need for transparency in terms of operation have made businesses adopt risk-based audits that enable covering multiple standards and regulations from a single audit event. Although the approach is new but it is necessary for many sectors as it ensures that all required governance requirements can be fulfilled without separating between efforts from an audit and audit hosting resources (Dowling, 2009).

An assessment aims at measuring or calculating the value. In this case, it aims at providing a measurement but not expressing a judgment about the statements fairness or performance quality. There are standards and guidelines to conduct auditing in a consistant proper manner. Generally Accepted Auditing Standards or GAAS are standards of quality audit performance and audit judgment. Some companies have developed such principles, but they vary by geographical location. In the USA, the standards are distributed by the Auditing Standards Board, which is a division of the American Institute of Certified Public Accountants (AICPA). At the same time, the Public Company Accounting Oversight Board develops standards (Auditing Standards or AS) for publicly traded companies since the 2002 passage of the Sarbanes-Oxley Act. However, it initially adopted the GAAS that is applied to all organizations (IAASB, 2011).

**Auditors**

An auditor is a person who is assigned a task, which is to provide reasonable assurance to the fairness of financial statements and if they are free of errors and material misstatements. As a rule, auditors of financial statements are classified under two categories, external auditors and internal auditors (Matthews, 2006).

An external auditor is a person from an independent institution that deals with the client subject to the audit. Its aim is to express an opinion concerning the financial statements of a business and find out whether they are free of material misstatements or not. Publicly traded companies may also require external auditors as they can present an opinion over the internal control effectiveness over financial reporting. Sometimes, external auditors are engaged with
the performance of other agreed-upon procedures. It is essential to emphasize that external auditors should be treated as independent, despite the fact that they are paid by the audited business (Matthews, 2006).

An internal Auditor is a person who is working inside an organization. This person is assigned to provide the company with assurance and consulting services independently and objectively in order to enhance an organization’s operations and procedures. The internal auditor is mainly concerned with risk management, control risk and corporate governance issues and how to effectively enhance them. They also evaluate the risk controls in the organization and check compliance of information with the rules and regulations of it. Internal auditors make sure that risks are minimized, corporate governance is effective and provide recommendations for further improvement (Matthews, 2006).

Consultant auditors are referred to as external staff used by the company to provide audit in accordance with business standards of auditing. They differ from external auditors as they do not follow their own standards of auditing. The independence level is the line between the external and internal auditor. Consultant auditors work independently in an audit team (Matthews, 2006).

Audit Evidence

Concept
When talking about audit evidence, the most important thing is to have sufficient and appropriate audit evidence. The records and documents used in auditing will be documented and kept as audit working papers that later on will help the auditors to formulate their opinion on the audited firm. Sufficiency in audit evidence represents the number of obtained evidences. Appropriateness stands for the relevance of evidence. The audit evidence supports the auditors to detect misstatements in account balances, transactions and disclosures. Sufficient and appropriate audit evidences help auditors decide the nature, timing and extent of the evidence (Whittington & Pany, 2012).

Gathering and usage
Audit evidences are used to reduce overall audit risk, which is the failure of auditors to modify their opinion on the materially misstated financial reports of a company. In addition, audit evidences are collected to evaluate the risk of material misstatement also to reduce the detection risk. The financial reports of a company contain management assertions so auditors must audit those assertions through sufficient appropriate audit evidence. To obtain Audit evidence, auditors carry out audit procedures. The evidences that were obtained will eventually help them to come up with reasonable conclusions about the auditee’s financial reports whether they were prepared according to the IFRS or GAAP or not. The audit procedure is made of several steps. First, risk assessment, which provides the auditor with the needed understanding of auditee’s work environment, secondly, check the internal controls that were enforced by the management and see whether they are effective or not, thirdly, perform substantive procedures to detect material misstatements. The substantive procedures may require testing details and analytical procedures. The details to be tested are records of account balances, transactions and disclosures. The analytical procedures help auditors get audit evidence about account balances,
transactions and disclosures by figuring out the relationship between them. Moreover, the analytical procedures are carried out to help the auditors with risk assessment and provide an overall review of financial information near finishing the audit. The inherent risk is relatively higher when considering accounts with estimates by the management. Auditors must pay extra attention to those accounts in the financial reports. All in all, audit documentation provides the connection between the auditee’s accounting records and the auditor’s report. The audit documents belong to the auditor, it is considered as a proof for the auditor’s adherence to auditing standards and it is considered as supporting material to the auditor’s report. In addition, audit documents are used to assist in planning and performing the audit, help supervising and reviewing audit work, stand as a record that can be of a use in the future and help future auditors of the same auditee in their work (Whittington & Pany, 2012).

**Audit planning**

Planning an audit is perhaps is the most important phase of the auditing process. To plan an audit, auditors must understand the client’s business and environment, assess risks of misstatement and know how to respond to those risks. The auditing process consists of planning the audit, understanding the client’s business and environment as well as the internal control, assess the risk of misstatement and design further audit procedures, carry out the auditing procedures, finalize the audit and provide the opinion in the auditor report. Before planning or taking any actions, auditors investigate their potential audit client. Part of the investigation involves contacting the previous auditor to know more about the client. Eventually, auditors turn down client’s with bad management practices because auditing might be difficult and problematic (Whittington & Pany, 2012).

**Audit engagement and program**

In audit planning, auditors provide the client with an engagement letter. In the engagement letter, the auditor clears the nature of the engagement, any possible limitations to the audit and the responsibilities of the auditee. The engagement letter puts the auditor and the auditee on common ground and eliminates all unclear matters.

After that, the auditor puts together an audit strategy including an audit program. In this program, audit procedures are developed regarding the management assertions. The management assertions are included in the financial reports as well as the assessments of risks and controls provided by the auditor. The risk assessments provided by the auditors include inquiries, analytical procedures, observations and inspections; it may also include other procedures. The end result of these efforts is to provide reasonable assurance that the financial statements are free from material misstatements caused by fraud or error. Auditors are more concerned about fraud. Fraud can occur in two ways, ether by fraudulent financial report or misappropriation of assets. To understand fraud risk, the auditing team talks about possible fraud and errors. The team makes inquiries, perform analytical procedures and takes into consideration the existence of incentives to commit fraud. The auditors respond to any potential fraud risk through proper procedures. Another risk that the auditors should be careful about is
the management override of internal control. Again proper procedures must be taken in response to this type of risk (Whittington & Pany, 2012).

**Materiality concept**
Auditors realize that some matters are material and others are not in regards of the fairness of the financial statements. This is known as the materiality concept in auditing. Auditors use this concept in planning and evaluation of findings. There are quantitative measures and other qualitative measures for materiality. In planning, auditors focus on the quantity however, in evaluation, auditors focus on both quantitative and qualitative measures. Some misstatements are tolerable because they are not material. Therefore, auditors evaluate the misstatement risks that were identified and conduct further audit procedures in accordance with the earlier developed audit program (Whittington & Pany, 2012).

**Audit ethics**
In every business, there is a need for professional ethics to be followed and adhered to. Ethics are defined as the moral principles and values that govern the behaviors of people. Sometimes people face a situation in which they have to make a decision and the right course of action is not clear or involves ethical implications as well as harming other parties so this is called an ethical dilemma. The American institute of certified public accountants adopted a professional code of conduct of two sections, principles and rules. Moreover, the American institute of certified public accountants provided extensive guidance on proper conduct of ethics through issuing interpretations on ethics and rulings. One of the most important ethics in auditing is auditor independence. When auditors carry out auditing it is vital for them to be independent. The AICPA made a conceptual framework for independence standards and according to it, auditors shouldn’t have any direct financial interests in an auditee’s operations or any material indirect financial interests. Along to the AICPA framework, auditors must follow the SEC independence requirements, SOX act of 2002 and the PACOB. Another important ethical value for auditors is to maintain confidentiality about audit clients. While performing an audit, auditors have access to auditee’s information some of which is critical to the business and if disclosed it might damage the company’s operations. Auditors may carry out their services to sole ownership companies, partnerships and corporations. Auditors take fees and commissions for engagements that do not include providing attestation and compliance services. There is a crucial need for auditors to follow the standards of ethical conduct and understand that code so that auditors and auditee’s have a common ground (Whittington & Pany, 2012).

**Audit Risk**
Audit risk is usually defined as the risk that an auditor can issue an incorrect opinion over the audited financial statements. The opinions concerning an inappropriate audit may be, failure to emphasize significant issues in the audit report, issue of an unqualified audit report with a reasonably justified qualification or issue of a qualified audit opinion with no need of qualification. Audit risk is referred to as the product that is strongly related to various risks, which may be experienced in the audit performance. Audit risk is the sum of control risk, inherent risk, and detection risk. The auditor should assess the risk level pertaining to each audit risk component to keep the overall engagement audit risk below the acceptable level. The
model of an audit risk is applied by the auditors with the aim to control and deal with the overall audit engagement risk (Phillips, 2009).

Inherent Risk is defined as the material misstatement risk in the financial statements that arise because of error or omission resulting from factors and the control failure. These factors may lead to a misstatement because the absence of controls is taken into consideration separately in the control risk assessment. This type of risk is higher with higher involvement degree of judgment and estimation or with highly complex entity transactions. For instance, the inherent risk in the audit process of a newly established financial institution, which is characterized by an essential trade and exposure in complex derivative instruments, tends to be higher in comparison with the audit of a well-established manufacturing concern that operated in a stable and highly competitive environment (Phillips, 2009).

Control risk is the material misstatement risk in the financial statements that arises because of failure or absence in the operation of proper entity controls. Business should have professional internal controls to detect or prevent instances of fraud and error. This type of risk is high in case the audit entity fails to have adequate internal controls to detect and prevent instances of fraud and error in the financial statements (Generally Accepted Auditing Standards – GAAS, 2015). Control risk assessment may be higher when a small sized entity does not have a well-defined separation of duties and the accountants with no experience or technical knowledge provide financial statements (Phillips, 2009).

Detection risk is defined as the risk of the auditors’ failure to find out a material misstatement in the financial statements. It is evident that an auditor must perform a number of audit procedures to detect material financial statement misstatements and instances of error and fraud. Omission or misapplication of crucial audit procedures may lead to the failure to detect a material misstatement. Some detection risk is always present due to the inherent audit limitations, such as the sampling use for the selection of transactions indicate the presence of some detection risk.

Auditors can reduce detection risk through the increase of the sampled transactions number for detailed testing. Auditors get an opportunity to process by examining the inherent and control risks related to an audit engagement while gaining a proper entity understanding and becoming aware of its environment. Detection risk causes the residual risk after taking into account the inherent and control risks related to the audit engagement and the overall audit risk. High assessment of control and inherent risk by the auditor indicates that the detection risk is lower as it enables to keep the audit risk at an acceptable level. It is possible to achieve lower detection risk through the increase of the sample size for audit testing. Contrary to it, low inherent and control risks of an engagement indicate that the detection risk can be set at a relatively higher level (Phillips, 2009).

**Auditor’s Report**
The auditor’s report is defined as a formal opinion issued by an independent external auditor as a result of external auditing. The report is provided to a ‘user’, for example a company, an
individual, a group of persons, a government and others, as an assurance service to make decisions needed for a user based on the results of the audit (Henderson, 2015). An auditor’s report is an essential tool used for reporting the reliability of financial information to users. Many audited companies rely on auditor reports as they want to certify information in order to improve their public appearance, attract investors, and obtain loans. It is related to the fact that many third-party users prefer and even require financial information certified by an independent external auditor. Some users even claim that financial information without the report of an auditor are invaluable for investing purposes (Henderson, 2015).

**Unqualified Opinion**

An opinion is unqualified in case the auditor concludes that the financial statements provide a true and fair view that follows the framework of financial reporting used for the preparation and presentation of the financial statements. An auditor provides a clean or unqualified opinion in case of absence of any significant restraints in terms of matters contained in the financial statements. The most common type of report is called an unqualified opinion. It is considered to be the equivalent of a ‘clean bill of health’ to a patient, but in reality it is not such as the auditor can only give reasonable assurance concerning the financial statements, but not the business condition or the integrity of business. An auditor provides this type of report when the financial statements are free of material misstatements, are fair, and follow the Generally Accepted Accounting Principles (GAAP). It means that the financial condition of a business position, its condition, and operations are fairly represented in the financial statements. The unqualified opinion report is the best report type that an audited company may get from an external auditor (Henderson, 2015).

**Qualified Opinion**

An auditor provides qualified report in the following cases, the financial statements are materially misstated because of a misstatement in one particular account balance, transaction class or disclosure but it does not affect the financial statements. In addition, if the auditor cannot find audit evidence concerning particular account balance, transaction class or disclosure that does not influence the financial statements. The report is a clear opinion report; however it includes a paragraph that is a basis for qualification after a scope paragraph and before opinion paragraph. A qualified opinion report is issued in case an auditor experiences one of the two types of situations, which do not follow the financial reporting standards such as the generally accepted accounting principles or international financial reporting standards. However, the rest of the financial statements are presented in a fair manner. This opinion type is very similar to an unqualified or ‘clean opinion’. The only difference is that the report states that the financial statements are fairly presented and have a certain exception which is otherwise misstated. An auditor issues this opinion over the unqualified one in the following cases, single GAAP deviation. This qualification type occurs in case one or more financial statement areas do not conform with GAAP. However, they remain unaffected by the rest of the financial statements presented in a fair way. For example an organization that operates in a retail business that miscalculated the depreciation expense of its building. Even if this expense is material because the rest of the financial statements are presented in accordance with GAAP, the auditor qualifies the opinion through the description of the depreciation misstatement in the
report. In addition, he or she continues to issue a clean opinion on the rest of the financial statements. Scope limitation. This qualification type occurs in case the auditor fails to audit one or more financial statement areas. Although it is impossible to verify them, the rest of the financial statements are audited and follow GAAP. An example of this is the case when an auditor cannot observe and test organization’s inventory. If the auditor provided the audit of the rest of the financial statements and is sure that they follow GAAP, the auditor simply states that the financial statements are presented in a fair way. The only exception is the inventory which could not be audited (Henderson, 2015).

**Adverse Opinion Report**

An adverse opinion report is usually seen on the financial statements of an organization when the financial statements are materially misstated. The basis for an adverse opinion paragraph is added in the audit report after the scope paragraph and before the opinion paragraph. In the opinion paragraph, the wording changes to because of situations mentioned in Basis for Adverse Opinion paragraph, in our opinion the financial statements of XYZ Co. Ltd. as mentioned in first paragraph does not give true and fair view/are not free from material misstatements. An adverse opinion is issued in case the auditor determines that the audited company’s financial statements are materially misstated. In addition, it is issued when these statements are considered as a whole and do not follow GAAP. It is usually referred to as the opposite of an unqualified or clean opinion providing a statement that the information contained is unreliable, materially incorrect, and inaccurate to assess the audited company’s financial position and operation results. Lending institutions, investors, and governments do not accept the audited company’s financial statements if the auditor issued an adverse opinion. In this case, the company is requested to make the corrections of the financial statements and get another audit report. Thus, an unfavorable opinion is only given if the financial statements are not prepared in accordance with generally accepted accounting principles or international financial reporting standards (Henderson, 2015).

**Disclaimer of opinion**

In some cases an auditor might not be able to carry out the auditing full procedure therefore, he or she will not be able to formulate an opinion on the financial status of the audited company and eventually the auditor will issue a disclaimer of opinion. This does not necessarily mean that there is a potential case of fraud. However, this happens due to missing documents or improper bookkeeping. The auditor may advice the client to get professional help to put the needed documents in a proper way according to the generally accepted accounting principles or international financial reporting standards. Only then, the auditor will be able to go on with auditing and issuing an audit report or opinion (Henderson, 2015).

**Audit quality**

From philosophy point of view, quality is regarded as the special feature of the object by which it differs from the other object. Quality is regarded as a category depending on the level of cultural and consumer income. From the economic point of view, quality is seen as a result of the consumption or consumer tolerance to afford the cost of the object. The technical aspect of quality is linked to the technical patterns in education and the physical appearance of the properties and other objects. To the audit, this aspect of quality is applicable in part of following
the standards, as the service is provided. The legal aspect of quality is defined as the set of object properties that meet the requirements established in legal documents. Audit is regulated by auditing standards. (Prawitt, et al., 2009).

There are several approaches to the quality of auditing. The first approach is the fact that the quality of audit services and the quality of the auditor’s report are a direct result of professional competence and experience of the auditor. This approach puts the quality of the audit in dependence on the ability of auditors not including the environment, in which he or she operates (Prawitt, et al., 2009).

In the second approach, the quality of the audit is determined by the rating of the audit firm, which takes into account such items as a competitive advantage, financial performance, the duration of the company in the market of audit services, experience and qualifications of auditors, the number of customers, and the size of the company (Prawitt, et al., 2009).

The third approach is determined that the quality of the audit is compliance with auditing standards and other regulations on auditing (Prawitt, et al., 2009).

The fourth approach is the measurement of the quality of the audit from the perspective of the provided audit services taking into account that the basis of the quality of the audit is based on two clearly measurable variables – the level of the acceptable audit risk and materiality. This approach does not take into account that the auditor’s services are the result of the customer-specific integration of the entire control system of the audit organization (Prawitt, et al., 2009).

In the fifth approach, audit quality is determined by compliance of a combination of standards and cost (Prawitt, et al., 2009).

**Requirements for Quality Auditing**

To conduct a qualitative auditing, the auditors should have certain high professional qualifications. During the auditing process, the auditors determine the forms and methods of auditing based on current legislation, the existing rules and standards, terms of the contract with the customer, professional knowledge, and experience. Auditors are entitled to receive all the necessary documents for inspection, as well as an explanation for them. Auditors can also check the existence of the cash, property, and other assets (Prawitt, et al., 2009).

Along with that, the auditors are required to provide auditing services in a proper way, report to owners and customers about the existence of deficiencies of accounting and reporting, maintain the confidentiality of information obtained during the audit. To ensure the objectivity and integrity in the conduct of audits, it is prohibited to have checks by the auditor who has personal property interests, direct family relations with the management of the company that is audited, or who is a member of the management, the founder, or the employee. The results of the audits are registered by the auditor’s in the auditing report, which is the official document certified by the signature and seal of the auditor or the audit firm. It should include conclusions
about the reliability of reporting, completeness and compliance with applicable laws and regulations of accounting of financial and economic activity (Prawitt, et al., 2009).

**PACOB**

PACOB stands for the public accounting company oversight board which is authorized under Sarbanes-Oxley 101 © (5) of the Sarbanes-Oxley Act, 15 U.S.C. 7211 © (5). The board is mainly concerned with improving and increasing audit quality. The PACOB started a project back in 2013 called the audit quality indicator (“AQI”) project. The purpose of the project was to come up with quantitative indicators for public company auditing. The indicators would help to better understand the auditing process as well as evaluating its quality. In addition, the project aims to discover how to benefit from these indicators and eventually have higher quality audits. The (“AQI”) project outlines 28 potential indicators. The PACOB looks forward to reduce the number of indicators to a smaller and more effective number and refine them. The 28 indicators are aimed at three groups of users. The first group of indicators is for auditors or audit professionals and their indicators deal with availability, competence and focus. The second group of indicators is for the audit process and it covers leadership, incentives, independence, infrastructure, monitoring and remediation. The third group of indicators is for auditing results such as audited financial statements, internal control tests, going concern matters, communications between auditors and audit committees and enforcement and litigation (PCAOB, 2015).

**Methodology**

In this section, the researcher will identify the approach and methods used to collect data for this research. The researcher intends to use primary and secondary data in this research. The primary data are going to be obtained by following a research method called triangulation. The secondary data will be obtained through usage of e-library sources and databases.

**Triangulation**

Triangulation can be defined as using different methods in research or investigation to have better quality and validity of data. Another definition is that triangulation is a method to crosscheck the data for better reliability and validity. When using different methods and all of them lead to the same results, it gives the researcher more confidence about the reliability of the obtained results. The purpose of using this method is the fact that a single method will never adequately shed light on the subject matter however; triangulation would (Cohen, 2006).

**Secondary data**

The secondary data that will be used in this research will be obtained from the e-library sources and databases as well as online sources. The researcher will focus on using other research papers that were published in the same line of study. There are journals, articles, reports and research papers all over the e-library and the internet from which the researcher will gather data. The secondary data is important to carry out the research. Another thing is that the secondary data will give an indication about the research path through comparing this research to other researches in the same field of study.

**Research sample**
The research sample will be made of randomly chosen auditors among the professional body of auditors in the UAE. A list of the registered auditing firms in the UAE can be easily obtained from the Dubai financial market website, the UAE yellow pages or a simple Google search. A sample size of 300 participants will be questioned in this research.

**Primary data collection**
The researcher prepared a set of questions that will be discussed with the supervisor and once agreed upon it will be distributed among the targeted sample. Through this questionnaire, the researcher will get the opinions and thoughts of the respondents and analyze it to come up with conclusions. The questionnaire represents the qualitative data collection method. The other method is interviewing the respondents for further questioning. Interviews represent the qualitative way to collect data. Interviews can be carried out face to face or through mobile calls. Face to face interviews may give a better understanding about the respondents views as well as their impressions. However, it is time consuming and a bit costly. The mobile calls are more convenient and efficient but it might not be favorable by the respondents as most people tend not to share their numbers.

**Data analysis**
The collected data will be analyzed through critical thinking and figuring out patterns of answers. The interviews will help to better understand the respondents thoughts and opinions. All in all, this stage will enable the researcher to draw conclusions and recommendations and finalize the research.

**Limitations**
There are several limitations to this research first, the researcher’s lack of experience. Lack of experience raises another important issue, which is proper time management. Improper time management might reduce the quality of the research since the researcher might take shortcuts to meet deadlines. The researcher will seek the minimum acceptable level of work not the level in which the research will be great and worth of publishing. Another limitation is the level of cooperation from the respondents. Some respondents turn down the researcher by not participating in the questionnaire for unknown reasons, which might extend the time over which the research is carried out. Moreover, the researcher would have saved a great deal of time had he knew how to use statistical software for analyzing data.

**Data collection and analysis**
The researcher conducted a questionnaire in several auditing offices in the UAE. A total of 163 auditors responded to the questionnaire. The researcher will use descriptive statistics and classification methods to analyze the results.

**Gender**
The total number of respondents was 163 of which males were 133 and females were 30.
It is obvious that males are a lot more than females in auditing field. The reasons behind this significance are unknown.

**Experience**
The respondents varied in regards of their years of experience. Some of them were seniors and most of them were juniors. The classifications were from 1 to 5, 6 to 15, 16 to 25 and 26 above.

Male respondents show more diversity than females. 39% of the total number of respondents had experience from 6 to 15 years of both genders. This percentage grows up to 44% when considering males separately and it declines to 20% in females. Only 9% of the total respondents had more than 26 years experience and they were only males. 35% of the total
number respondents belonged to the 1 to 5 years of experience. This percentage declined to 25% in males and increased dramatically to 80% in females. Only 17% of the total respondents were of the 16 to 25 years of experience category and they were all males.

These results show that males have been in the auditing field for years more than females and therefore some of them are having such a career in auditing for more than 26 years. It also shows that females entered the auditing field in the past few years and only a small percentage of them have been working in auditing for more than 6 years.

**Level of education**

In this part of the questionnaire, the researcher checks the degree that the respondents are holding.

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor</td>
<td>57%</td>
<td>97%</td>
</tr>
<tr>
<td>Master</td>
<td>38%</td>
<td>3%</td>
</tr>
<tr>
<td>PHD</td>
<td>5%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Almost two thirds of the respondents hold a bachelor degree with 64%, 32% of them hold masters and only 4% hold a PHD. On the One hand, the male respondents show a bit of diversity, 57% of them hold bachelors, 38% of them hold masters and only 5% of them have a PHD. On the other hand, the female respondents show no diversity with about 97% of them holding bachelors and only 3% holding masters.

The results from checking the educational level of the respondents can be justified with the fact that males have been in the auditing field longer than females so we can see in the
sample that at least one third of them hold masters and some of them hold PHDs. However, females seem to be new entrants to the field so they are less experienced and did not seek higher education.

**Workload**
The workload question checks to which extent auditors agree or disagree that reducing the workload on an auditor would have a positive effect on the audit quality. In any profession, working under pressure might force the employee to take shortcuts or spend less time than needed therefore reducing the quality of work.

<table>
<thead>
<tr>
<th>Reducing workload on the engagement team can positively affect audit quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>strongly agree</td>
</tr>
<tr>
<td>31</td>
</tr>
</tbody>
</table>

The respondents to this question were quite agreeable with it. One hundred plus of the respondents agreed to this statement and almost 30 respondents strongly agreed to it. Some were neutral and only few disagreed with this statement. The disagreeable respondents said that it is in the nature of auditing work to be pressuring and demanding so they have to manage their time and workload regardless.

**Senior auditors**
This question checks to which level auditors would agree or disagree that having senior auditors assigned on the job will increase the audit quality.
All the respondents to this question were strongly agreeable or at least agreeable to it. Some of the respondents pointed out another benefit of having senior auditors assigned on the job, which is that junior auditors and fresh entrants can learn a lot from seniors.

**Experts of other fields**

This question checks to which level auditors agree or disagree that using experts from other fields other than auditing and accounting to assist in auditing work that involves their expertise can increase audit quality.

The vast majority of respondents strongly agreed with this statement. A fine share of respondents agreed and only few were neutral about it. Auditors argued that this will help them provide a better opinion on the audited company specially if it involves some technical issues that they are unaware of. Some of them also said that it would enrich their knowledge and awareness in other fields that will definitely help them in future audits. Moreover, it will add value to them and make them better persons.
The quality of financial reporting
This question checks to which level auditors agree or disagree that the better quality the financial reporting of a firm is the better quality audit they can perform.

The quality of financial reporting can positively affects the quality of audit

<table>
<thead>
<tr>
<th></th>
<th>strongly agree</th>
<th>agree</th>
<th>neutral</th>
<th>disagree</th>
<th>strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The quality of financial reporting can positively affects the quality of audit</td>
<td>87</td>
<td>73</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Most of the respondents strongly agreed and agreed to this statement. A Very tiny group of respondents was neutral about this statement. Some of the respondents commented that a company’s financial reports that are well prepared could ease the auditors work and save time during auditing.

Awareness about auditee’s industry
This question checks the level to which auditors agree or disagree that auditor awareness and knowledge about the auditee’s industry would help to conduct a better quality audit.

Auditors awareness and knowledge about the auditee’s industry can positively affect audit quality

<table>
<thead>
<tr>
<th></th>
<th>strongly agree</th>
<th>agree</th>
<th>neutral</th>
<th>disagree</th>
<th>strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auditors awareness and knowledge about the auditee’s industry can positively affect audit quality</td>
<td>69</td>
<td>90</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
The vast majority of respondents to this question agreed to it and a fine share of them strongly agreed. Few of them were neutral about it. Some of the respondents commented that having knowledge about the auditee’s industry helps them to know the soft spots within companies in that particular industry. For example, they would know where misstatements due to fraud are more likely to occur or misstatements due to error can take place. Auditors added, it would help evaluate the internal controls placed in the firm as well as all control related matters.

Auditor job
This questions checks to which level auditors agree or disagree that if an auditor moves quite a lot from one firm to another it would positively affect the auditors work quality. This is the most controversial question in the questionnaire since the answers varied a lot. The researcher believes that the respondents interrupted this question in different ways. Some of the respondents agreed to this statement and tiny few strongly agreed to it. The researcher believes that this group of respondents considered the auditor movement from one firm to another as a positive element that would enrich his or her career, give a chance to get more experience, be exposed to various types of audit clients and have a good overall affect on the auditor. Another group of 18% of the total number of respondents was neutral about that statement. The biggest group of respondents disagreed and some strongly disagreed. The disagreeable group considered the movement between auditing firms as a sign of failure and job instability. This group commented that failure and instability in ones career means that this person has no actual experience therefore he or she might not be looking at any type of success in the future in that particular line of business.

Work centralization
This question checks to which level auditors agree or disagree that if a lot of work is centralized in a one place would it negatively affect audit quality.
The vast majority of respondents to this question were neutral about it. Some of them disagreed and a tiny bit of them strongly disagreed. Auditors commented that it depends on the work center facilities as well as on the planning of work, placing more emphasis of planning. Good planning and task dividing will lead to good output regardless of the amount of work centralized.

**Auditor training hours**

This question checks the level to which auditors agree or disagree that the more training hours per auditor the better quality audits he or she will perform.

The graph shows that almost 83% of the respondents agree with the question, 9% of the respondents strongly agree and 8% are neutral about it. Some of the respondents commented that training is definitely important and it is a contributing factor to increasing audit quality. The respondents added, training should be continues and progressive, it should cover new topics and technological breakthroughs that are potentially related to the field.
Audit hours spent on risky areas
This question checks the level to which auditors agree or disagree that the more time auditors spend on the identified risk areas the better quality the audit would be.

The more audit hours spent on the identified risk areas of the auditee the more reduced risk and better affect on audit quality

- The vast majority of respondents agreed to this statement. 30% of the respondents strongly agreed to this statement and only one respondent was neutral about it. Respondents commented, problems and issues while auditing a firm rises from risk areas so the more time spent on them the better it would be. Respondents added, we calculate audit risk of the auditee and based on it we take actions.

Audit planning
This question checks the level to which auditors agree or disagree that the more time they spend on planning the audit the better quality it would be.

The more time spent in planning the audit the better quality the audit would be

- The more audit hours spent on the identified risk areas of the auditee the more reduced risk and better affect on audit quality

- The vast majority of respondents agreed to this statement. 30% of the respondents strongly agreed to this statement and only one respondent was neutral about it. Respondents commented, problems and issues while auditing a firm rises from risk areas so the more time spent on them the better it would be. Respondents added, we calculate audit risk of the auditee and based on it we take actions.
One hundred plus of the respondents agree with this statement. About 24% of the respondents strongly agree with it and only 6% are neutral about it. Some of the respondents commented, that the planning phase of the auditing is the most important phase through the auditing of a company. The literature review conducted by the researcher supports this fact and the results from this question match the literature review.

Conclusions
In conclusion, the researcher reviewed the literature about the subject matter. The researcher started broadly and introduced auditing. Then the researcher identified auditors and went through the different stages of auditing. The researcher reviewed auditing reports and eventually audit quality.

The researcher stated the methodology section and talked about his approach to the topic through distributing a questionnaire on a random group of auditors. The questionnaire was distributed and the results were collected. The researcher analyzed the results by using pie charts and graphs as well as comments of the respondents.

The results from the questionnaire showed clearly that males are more than females in the auditing field. The vast majority of respondents had bachelor degree and 6 to 15 years work experience. Female auditors are younger than male auditors are; it might be caused by the fact that they entered the auditing line work in the past few years.

The respondents agree that reducing workload, assigning senior auditors, using experts from other fields than auditing and accounting, getting high quality financial reports from auditees’, having knowledge about auditees’ industry, having more training hours, spending more time in auditees’ risk areas and spending more time on planning the audit can increase audit quality. However, the respondents’ opinions varied in regards of centralizing work in service centers and the effect on auditor work if he or she move a lot between audit firms and the reasons were explained above.

Some of the respondents emphasized in their comments on the importance of training and planning the as important factors in increasing audit quality.

References


Dubai Becoming a Smart City

Noora Al Hajji
Hamdan Bin Mohammed Smart University, UAE.

Abstract
This study has looked the definition of smart city, the characteristics required to adopt smart cities approaches, the requirements and resources needed. As well as, the paper will study the benefits and highlight the issues and challenges faced Smart city. The study the situation in the emirate of Dubai with an aim to highlight the government efforts and initiatives in this regards to increase customers satisfaction and happiness. The study looked at the different scenarios of other cities in USA, Singapore efforts and Spain and their practices in providing Smart Services. The finding was that UAE and Dubai in particular made a big jump, rise the customers’ expectations by providing elite, and distinguish services to their populations.

Introduction
Nowadays new changes are being made every day to cope with requirements of modern civilization. As the populations are growing and becoming more educated and more knowledgeable; new needs and desires. Especially when the life styles involve having more technology and smart and more luxurious needs and desires.

Research Question
The aim of this study is understand the definition of smart city, its characteristics and to look the different requirement to shift towards Smart Cities and what are the requirements and government efforts needed.

Literature Review
Technologies is a highly essential tool and key factor for the adoption and moving towards a more developed and high quality approach. A forecasted population growth is expected to be enlarged by 70% by 2050 which put a pressure on the development of parts and perceptive of life. Technologies should be employed to support the different industries such as education, transportation, health, ecommerce..etc. The idea is to implemented smart technologies in all daily transactions while employing innovative and save techniques to perform the work, (Schaffers, Ratti, & Komninos, 2012).

Right from the beginning of history, it’s indicated the populations prefer to live in the developed or urban parts of the cities which facilities their lives and provide them with the necessities of living, (Schuurman, etal, 2012).The shift towards smart cities started fifteen years ago in 1990s were technologies were employed to promote the advancements and smartness of cities, (Glaeser, 2011).
Smart City Definition

Smart city consist of three main components according to IBM definition, which are having a sophisticated and reliable infrastructure, availability of services and the existing population. Smart city is a connected and integrated system with an effective system in all different aspects. A strong city with a reliable solid economic and development. A city, which functions and collects information effectively and efficiently this support the community, government and decision makers. This city is proactive rather than reactive to the issues. Definition of smart cities include utilization of smart means utilizing different information and various available connections tools and technologies for the sake of population and community’s goodness. This is by smart and efficient usage of resources and technologies, (Violino, 2014). There are various names for smart cities such as intelligent cities, digital or even ubiquitous cities. Some examples of smart cities are cities, which are gathering and providing different information collection and by presenting this information to the public. Plus, smart cities are referred to as connected cities or wired cities with a dynamic environment to exchange information and effective communication. Some of the examples are Helsinki Finland and New York in USA, (Schuurman, etal, 2012).

Smart Cities are no longer a dream and hard to reach. They have been implemented and employed in different places throughout the implementation of advance technologies and network connectivity to spread, analyze, tweet and communicate different information, (Von, 2005)).

These cities have been built on the concept or aim for having a competitive solid and reliable development. The main six criteria of smart living are smart lifestyle, smart economic climate, smart environment, smart transportation, smart community living under the patronage of smart government. Adoption towards cities was always the aim for European Union 2010 and 2020 strategic plan, (Abid).

Intelligent or smart community utilize different external and internal resources to have more connected, reliable and sustainable environment which will increase life conditions and quality of its inhabitants as well as it will make it more effective and provide with a competitive advantages over other communities. This for sure will require the efforts of everyone government, community members, schools and corporate efforts to adopt to more intelligent or smart community. In corporation in particular this require the engagement of top management and their concentration; then everyone else will be aligned to the bigger pictures and will be involved, (Musil, 2011).

Adoption towards ‘smart growth’ has been the objective of many governments which working to have an effective and dynamic environment and atmosphere in which all resources and conditions are used effectively with a strong reliable demographic and economic conditions. Even, the smart community promote effective communications and relationships between different governments, which will promote the transparency and sharing the information in the society as direct, up to date and various information are being accessible and available for the public to retrieve, (Editorial, 2001).
Previously it required lots resources and efforts to assure the connection or harmony between businesses. Companies were going through different strategies and decisions to acquire, merge, investment, open multinational branches this is all to make the communications more useful and more effective. As well as; many transportations and logistics expense were wasted in the process. This required additional efforts and additional staff to run and operate the activities, (Musil, 2011).

There is an available internet connection everywhere in the cities, even its free wifi in majority of the cases. People are connected through different electronic addresses ip. By initiating new approaches and shifting towards smart cities; this will support the government and its citizens to stay more connected and have a dynamic relationship, (Schuurman, etal, 2012).

**Benefits and Challenges of Smart Cities**

One of the main reasons to shift towards smart cities is due to the increase the demand and production of governmental services. For example, its increase the productivity of the city as for example number of houses increase with a reasonable pricing and increases of jobs opportunities, (Davis, 2010).

There different tools should be employed like applications which are enabling different stakeholders to stay connected and rise any feedback directly to address any potential challenges directly and assure the efficiency and sustainability of performance, (Pallot, Trousse, Senach, etal, 2011). Moving towards innovative and advance industry will require innovate and entrepreneur individuals and governments who are innovative, open minded and flexible. Moreover, the government has stated an open data environment in which the data is accessible and available for the public with quality and reliability standards. This increase the transparency and usability of information, (United Nations, 2008).

Sustainable and solid smart developments are required to satisfy the current situation as well as satisfy the future requirements. Smart cities are linked with the approaches to go green and start new initiatives such as having green and infinite resources with the minimum pollution and damage to the society, (Batagan, 2011).

Some of the challenges for going smart are innovations especially in this highly competitive market, which pressure the government, market, and all relevant stakeholders. When companies decide to go open and to adopt to innovate dynamic situation, they should be willing to reveal information and pass their ideas to the market, (Schuurman, etal, 2012).

Still some things need to be considered such as the proper and secure storage of information and assure the privacy of information, (Violino, 2014). Sensitive government information and data are available online on the web and its be handled with care stored properly so that it won’t fall in the wrong hand and won’t be hacked and use inappropriately. For example Dubai Statistics Center is collecting some sensitive information which are exclusively reported to key decisions’ makers in the emirate. Smart cities have various target
such as improving the life style and quality of living for the population, developing the current processes exercise, efficient usage of resources, (Reilly, and Battelle, 2009).)

Within the different economic situation and the past financial crisis; adoption to smart cities was actually a very smart and a wise decision that support the reduction and cut for many costs and unneeded expenses, (SMART-UR, 2009).

Individual’s privacy is main issue that need to be addressed and considered while implementing any adoption towards smart and full time Wi Fi or network connectivity will definitely put this at risk. All individuals’ records will be available online and all individuals movement will be monitored 24/7 by surveillance camera, (Violino, 2014).

"Networks are believed to be one of the least secure parts of the nation - often built with underfunded budgets by local contractors who have relationships with city officials but little experience with government-level security," says Rob Enderle, principal analyst at Enderle Group. Moreover, network attacks aren't always reported, he adds.Cities must harden their networks before embarking on smart city initiatives, Enderle says. If they don't, he adds, they risk having "a disaster that will make their smarter effort look pretty stupid. Security is indeed an ongoing concern for municipalities, , (abid).”

Examples of Smart Cities Practices

One example was in 2013 in Scottsdale on of the American states that started a mobile application, which can be used by the citizen to report any issue or damage in the public properties and its being handled directly by government’s officials. The city provide a Wi Fi network coverage for the entire city. One of Scottsdale’s official stated that as everyone own a smart phone nowadays so it is better to utilize these devices efficiently, (Ratti, and Townsend, 2011).

In Iowa, the government started a Smarter Sustainable Dubuque to provide the necessities, which the communities need at affordable manners and with efficient utilization of resources. For example, the government managed in 2010 to reduce water usage by households by 7%. As the water consumption was calculated directly and reports by a system designed by IBM, which created an awareness of for the households and supported in changing their habits of using water as reported by 77% of the residences, (Pallagst, Aber, Audirac, etal. 2009).

Smart travel system was introduced in 2011 as well as residences traveling patterns were studies and analyzed. This helped the government to develop and enhance its development plan. Moreover, this study will support in making the roads more efficient and more smooth and having an easy transportation for all road users who will be able to reach their destination on time with less congestion. Another initiative that the city design and implemented an intelligent traffic signal to automate and make sure its road smooth, (Violino, 2014).
Another USA city started a system called COSnet which stands for combined sewer overflow network; which is about creating a smart system to track water level and accordingly transfer it to sewage network. This is to keep it smooth and assure no water get flooded, (Pallagst, Aber, Audirac, etal. 2009).

Violino research in 2014 has stressed on government readiness and preparation to shift towards more connected and more advanced systems. As well as this will require changing people thinking or mind set. Plus, the challenge of allocating the needed financial resources to adopt towards smart and innovative society.

Yet, if advance technologies were perceived correctly they will be an investment and way to lower expenses and save costs. For example, the storage of confidential or any government documents through clouds which will help to reduce the rent or file costs, human costs as no one is needed to maintain or archive the documents properly, save time and efforts of people, can be accessed and retrieved easily, (Ratti, and Townsend, 2011).

According to a retailer in IT Technologies; due to the huge demand and movement towards smart technologies; this create competition in the market. So the major players in the marketing are competing to provide easy solutions with different features at convenient princes that its affordable by everyone, (Ratti, and Townsend, 2011).

Barcelona is consider as an extraordinary example of a city who adopted smart and new technologies with the use of a reliable infrastructure which increases its competitiveness and actually in 2009 Barcelona got the 4th place among Europe cities as the preferred place to run and operate business in, (Bakici, Almirall, & Wareham, 2013).

The city introduced smart product all over the streets by introducing lighting and humidity sensors which can inspect and measure the conditions and act accordingly. As well as the introducing for pollutions and sounds sensors plus, having a Wi Fi access that cover all its infrastructures and neighborhood, (Domènech and Saur, 2011).

Barcelona adopted the smart city model by provide Wi-Fi network everywhere in the city. As well as, Barcelona has covert its government services to be smart service which is required for the sake of government entities, residents and key decision makers in the city. This is all to make their services more value added and effective, (Davis, 2010).

Moreover according to (Bakici, Almirall, & Wareham, 2013) Barcelona experience included “services created by citizens for the citizens, including also the professional arena, boosting cooperation between the several elements of civil life are grouped under Citizen to Citizen services. These services are based on public Open Data, representing the real social innovation and the real openness of a city.”

The issues or challenges faced by Barcelona were lack of needed environment, and technologies needed, innovations issue, availability of skilled labors and experts, lack of
financial resources...as adoption to Smart Government is an expensive exercise which not everyone can adopt, (Caragliu and Nijkamp, 2009).

One of the challenges which Singapore faced as a small country with a very limited and scare essential resources like water. Singapore being the country which drive and lead innovation came up with a new way by utilizing the water resulted from the heavy rain it get through the area identified as ‘catchment areas’ and then process it to become a very clean and suitable water for drinking. Another way was it production of “NeWater” which is produced by the treatment of the water and filter it by advance techniques with the involvement of ultra-violet tool. As a result of this innovation, Singapore became one of the biggest seawater reserve and osmosis plants in the world. Another smart initiative was actually the keenness of Singapore to take care of its youth population to cope with the technology and advancement through the introduction and building for universities with high technologies facilities and many developed resources. Singapore even built a university especially for Technology and Design to lead innovation and new style of learning, (Dubai Smart Government, 2014).

As Singapore comes in the second place as one of the world most congested country, it worked on having an very sophisticated and smart transportation infrastructure to facilitate the movement of its population. It initiated new transportation modes such as Mass Rapid Transit and Light Rail Transit. As well as; Singapore developed a new smart way to control and organize the traffic system by introducing smart system to control, manage and alert road users and government authorities and police in case of accidents. Plus, the parking guidance and alerting system which is designed to advise people and inform them about the parking spaces. Another initiative, was the launching of the Electronic Road Pricing which directing people and urge them to take another uncongested roots. People who wants the luxury to reach their destinations on time and not stuck in traffic will have to pay the road fees. This also a smart move to encourage the populations to use public transport modes rather than private vehicles (Abid).

The trend of Smart Learning is a highly demanded and it’s the direction of everyone. A panel discussion on Dubai Best Practices Forum in which management coming from different learning and academic background was discussing the revolution of the smart adoption of technologies. The entire classes experience has been changed the classes are available and accessible at any time, teachers and learners could be distant in separate continents. No longer heavy books and notebooks are involved no need to come to the school or campus premises. Learners should could be seating at their own house comfort and spending their time with the families and friends and login online and interacting with their classmates, (Ratti, and Townsend, 2011).

As well as, books are available and affordable and convenient pricing at any time. There will no longer be the issue of books running out stock or being borrowed by others. The books will be light and easily accessed through networks or downloaded to their smart phones and android devices. Books won’t be heavy to carry or expensive to purchase, plus, the approach will make book publication in an environmental friendly approach, (Violino, 2014).
UAE & Dubai Shift towards Smart City

Dubai Government announce its 2014 to 2017, five years strategic plan with a key target is to boost government services and become the smartest city in the whole world. Adoption to smart styles will require having innovate and high technologies solutions with combined efforts of different authorities, firms, systems in the emirate of Dubai. His Highness Sheikh Hamdan Bin Mohammed Bin Rashid Al Maktoum, Dubai Crown Prince and Chairman of the Executive Council stated that “Our strategic plan has accurately shown the channels through which customers will get government services through smart devices, provided that such services are always aimed at simplifying the transactions of the public.” Two KPIs’ were added in Dubai Strategic Plan one was to increase customers happiness by 100% on their satisfaction of services provided online, in addition to make 60% of Government’s services through smart technology. This is a giant move for the easiness and integration of services as the government organizations will combined their efforts and work together to provide elite and value added to their services. As well as, this support in providing opportunities to work with an integration with the private companies and expose to the knowledge and innovation in the field, (About Dubai Smart Government, 2015).

Dubai Smart Government ‘DSG’ (2015), previously known as Dubai Electronic Government main concern and vision to make Dubai a world class city that focus on the luxury of its citizens. DSG work on establishing a network society in the emirate of Dubai in which all services will be available and provided online for the wellbeing and happiness of the Dubai’s population. Currently Dubai is turning quickly to become a customer online solution by having more than 1,500 services on Dubai Government Portal, (Dubai Smart Government, 2014).

According to an official from UAE Smart Government Prime Minister Office, Dubai has tailored its own definition of smart cities according to the goal it sets and the expected outcomes. UAE definition or Dubai definition is about having a strong economy, strong transportation and logistics facility, an environment which attract customers and tourists and certainty with the existing of technologies to ease the living of the population. Connections in the city. The entire tourist experience landing off, finding taxies, finding hotels, roaming around in the city... etc. The conversion is to go smart in all Government Services. Smart way of running resources and utilize them
efficiently such as using solar energy, smart lighting system to sense cars movement and based on that moving of cars. Dubai Government is very flexible and supportive in implementing changes on spot without any bureaucracy or different layers of governments’ approval layers,

UAE Government has developed a road map to convert the government towards Mobile Government with combined efforts from different parties such as TRA Telecommunications Regulatory Authority, Emirates Identity Authority and UAE Central Bank. The aim is to integrate the government and provide a value added service. They are working on a smart environment in which everything will be facilitated and connected for all users or inhabitant, (Telecom Regulation Authority, 2013).

UAE Government is even promoting the smartness in household by producing and preparing smart households who reserve energy and assure the proper usage of resources. Moreover, the government is launching exhibitions and awareness campaign to assure smart living lifestyles. In Abu Dhbai, the government launch the smart house exhibition which promotes the smartness in all households’ facilities such as lighting, gardening, air-conditioning, utilities water and electricity consumptions...etc, (Alitihad, 2015).

UAE Government is working on a regulation to organize the usage water and assure it has be consumed in a smart way; as its considered as one of the scares and limited resources in the country and its been heavily used by households in many ways. According to a report launched by the UAE ministry of environment UAE is consider as one of the poorest countries in natural resources like water yet, its considered the second country in the world in water sweating initiatives. The sweating results in high costs, increase the percentage of salt in the sea and the release of heat gases which is causing pollutions and harming the environment. The regulation will support to reach the UAE National Target in reducing the reserving the energy by 30% by 2021, (Emaratalyoum, 2014).
Highness Sheikh Mohammed bin Rashid Al Maktoum stated that “we are embracing the most modern concept in innovative government by moving towards the delivery of government services through mobile phones. We have one of the best communication infrastructures in the world today, with mobile phone subscribers in the UAE reaching 14 million, which represents an average of two mobile phones per individual.”

This emphasized on the importance of taking advantage of the offered service through smart phones and utilizing it in the best advantage of the population, (Telecom Regulation Authority, 2013).

**Examples of Smart Initiatives by Dubai Government**

Back in 2013 Shaikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, notified Dubai Government Officials that they should adopt and shift their services to be smart within the next two years. The deadline was with a warning to retire those who won’t manage with the adoption towards Smart Services and throw them a very nice farewell party. One of the competitive advantage which Dubai has is the visionary ruler with greatest dreams and innovations. This by itself puts a great pressure on departments’ general managers and pressure them to perform and get out the best out of them, (Khaleejtimes, 2015).

The convert towards smart services has been completed by 96.3% in where 337 services were automated for 41 Governmental Departments within two years period. H.H. Shaikh Mohammed Bin Rashied stated that the combined team efforts have managed to shift to smart government and now the next step is to integrate the services and raise the quality of the smart services and solutions. Thus, will achieve higher satisfaction rate and make all services easier and smoother, which will all lead to happier customers. Dubai Government departments started to collaborate and work together to move to smart approaches by signing agreements and organizing the requirements for each party. The Government departments are signing agreements and MOUs to make sure they benefited and utilize the software and infrastructure of the smart government which can provide them with the facilities and infrastructure as well as the required the platform to submit the service. His Highness even set another challenging target by 2018 is to boost the customers’ satisfaction and covert the services to be smarty by
80%. He said it’s all about making our customers happier and more satisfied with the services offered, (Emirates News Agency, 2015).

Smart Government has set a road map to convert the government. UAE has become the pioneer in building smart government for all of its applications.

Converting to smart government will make all government entities have open data projects, jointly work in coherence to combine their efforts, resources, assets and knowledge, they should also develop a methodology and mechanism to track and assess the situation. As well as, the former’s laws and regulations need to be revised and updated to cope with the expected changes.

The relevant Smart Government Satisfaction indicators are as the following; with the presence of 6 main initiatives which are as having smart system, smart involvement, smart transformation and employees training, providing convenient and suitable information, having smart records and most importantly

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2017</th>
<th>2021</th>
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<tbody>
<tr>
<td>Availability of smart services</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Integration of smart services</td>
<td>90%</td>
<td>100%</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>90%</td>
<td>95%</td>
</tr>
<tr>
<td>Ratio of adopting e-services</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>Adoption of smart services</td>
<td>25%</td>
<td>60%</td>
</tr>
</tbody>
</table>

All government departments responded to the initiatives such as Dubai Health Authority is working on launching Smart Medical File for all patients by 2017, Dubai Electricity and Water Authority converted more than 150 services to smart services which can be used through DEWA’s mobile application. As well as, shifted to preparing paper less organization and soft or green invoices to its customers, Al Awqaf initiative their Smart Mosque initiative, all Dubai Police services and tracking of requests are available now through its smart application and it can store driving license and vehicle registration paper. These efforts led to Dubai winning the Mena Smart City award 2015 for its great efforts and convert to Smart City, (Khaleejtimes, 2015).

There has been a huge and rapid growth in the field of smart city for the emirates of Dubai as more than 2,000 governmental services are introduced through Dubai Government application and under the supervision of Dubai Government, (About Dubai Smart Government, 2015). Advanced technology was utilized also to communicate with special needs people like deaf people. Visual aids communication and calls will be performed by different programs such as skype, tango and WeChat. This different initiatives are part of his highness Shaikh Mohammed direction “my community is a place for all”. As well as, many government organizations have designed website convenient for readers or users with special needs, (Dubai Smart Government, 2014).
Dubai Customs Authority has started to provided its different services such as services provided, progress provided, payment...etc through smart watches which provided location, environment,...etc. Dubai Government has become the pioneers and early adopters to automate their services, (Dubai Smart Government, 2014).

The Roads and Transport Authority has introduced a new services enabling the customers to have a unique pin number in which they could use it for all the vehicles registration, sales, renewal, plate number transfer...etc. This service is available to them to be used remotely rather than paying an actual visit to the customers’ service center. It’s defined as “Self Operated Channels” in which customers can use their own smart phones to perform the needed transaction. The offered services can be customized to suit the needs of different individuals such as females, children and elderly people, (Dubai Smart Government, 2014).

Even Dubai Courts and Regulatory Authorities were affected by the smartness trend. A smart case record was launched which will allow the public to access their file and get a live updates. In addition, it will allow them to complete all legal transaction, perform the needed payment and will notify them about any appointment or due dates. Another was the project names “Future Judge” to market the legal frames and regulations to youth and students. Thus, will increase their knowledge and awareness about legal framework and might encourage them to consider a local job as a profession, (Dubai Smart Government, 2014).

Dubai Government has introduced Government Resources Planning (GRP) which is an available solution to governance different governmental services, unified them and make sure they are conducted according to standards. The solutions is currently being all Dubai Government employees for different services such as Finance, HR, Procurement, Payroll,..etc and its currently integrated with more than 60 government solutions, (Dubai Smart Government, 2014).

Another efforts for the users luxury is by introducing a solution of having an electronic or online payment called “mPay” in which users can pay the fees directly with full security that is controlled by Dubai Smart Government to cover many governmental services, utilities, TV and internet services. Even, the customers have the options of scheduling payment on a periodic time, (Dubai Smart Government, 2014).

While searching at apple store, you shall get more than 200 hits looking at the word Dubai. Lots of Government applications are available to be downloaded at apple store as Dubai Government wish to provide elite and distinguish services, (Dubai Smart Government, 2014).

Dubai Roads & Transport Authority RTA has introduced a new service to order a taxi in a very smart and creative way. Users who downloaded the ‘Smart Taxi” application can place a request for Taxi just by shaking their phone the application is connected to the web so their location will be identified as well as its connected to the dispatch center as well so it’s will register the request at taxi and public transport authority. Moreover, the users will be having a short survey to assess and evaluate the experience provided. This application will
support the time, money and efforts of the Taxi users as well as, will support the tourists and people who are not familiar with the locations and can’t provide clear guidance of their location, (Dubai Smart Government. 2014).

Smart Government award has been launched to increase the efforts and competitiveness of different government department to automate their services, (Dubai Smart Government, 2014).

The Department of Islamic Affairs and Charitable Activities (IACAD) has automated its services provided to Muslims residents as different religious related activities and enquiries can be addressed and handled through smart applications. These services included identify the nearest Mosque, Prayer Timing, Zakat, Fatwa and many more Government Services. Plus, the department has introduced the ‘Smart Mosque’ project, (Dubai Smart Government, 2014).

These different initiatives and moves towards adoption of smart technologies help making Dubai a very joyful place to live, increase the competitiveness of the city as Dubai ranked as top destination for travel and preferred place to start and raise a family as well as it’s a very preferred location, (Dubai Smart Government, 2014).

The competitive advantages can be furtherly proven by having professionals with key expertise to shift to Dubai to look for job opportunities. These professions are Management, Engineering, Accounting, ..etc.

Back in 2013 the UAE Telecommunications Regulatory Authority has published the framework to convert to Smart Government. The framework document is an important document in which government departments can use as guide to refer to. All government department should adopt this guidance to cope with the direction towards UAE Vision 2021. The framework has been prepared and passed to different government entities locals and federal for their feedbacks and comments to ensure the engagement and commitment. Later on, it was published in Arabic and English to assure its wide usage across the country. Several workshops and meetings will be conducting with the government departments coordinators to assure easy understanding and coping with the information, (Emirates 247, 2013).

Government services become more convenient and more customers friendly. The customers will no longer have to stand in lines or waste time scheduling an appointment. Everything is available 24/7 at the customers’ convenience and with a cheaper rate as human resources costs, cost of waiting, cost of asset have started to disappear and decrease. One of the interviewed government officials stated “it was three years ago when I have visited government organization to pay a bill or get any other services. Everything is available online now”, (SMART-UR, 2009).

UAE Government has launched an award for the best Government Service launched through smart phone application in different fields such as education, health, economic & commerce, environment, social affairs, tourism,..etc. The application should be offered in
Arabic or English or both language, introduction video, it should be short precise, users friendly and surfing this application should not take more than three minutes...etc. In order to assure the goodness for all, UAE has launched this award on Local, Middle East, International levels as well as for Universities’ students, (Best M Government Service Service Award, 2014).

To make people life easy, as part of the latest Dubai Strategic Plan. His Highness Shaikh Mohammed Bin Rashed Al Maktoum has initiated a new happiness KPI’s in which the results are reported directly to his office with any further layer of reporting to Government’s departments. This is all part of highness care and desire to make Dubai a better place for living and to ensure the happiness, comfort of the citizen and their satisfaction on the smart services provided by the different government departments, (SMART-UR, 2009).

**Methodology**

This is study looked at Government adoption and shift towards smart cities. The study looked at the definitions, requirements of other smart cities and some examples of cities who have successful shift. The study focus on UAE efforts and Dubai in particular and analyze the efforts performed by Government Departments. The study employed secondary data collection for the literature review and benchmark and UAE situation mentioned above. Primary data collection was implemented in conducting focus groups with different government officials to assess and understand the situation in a better way. Not only one city has been selected but several cities have been studied to compare the situation of Dubai; as Dubai has a mass efforts in different services.

**Focus Group Interviews**

Eight Government officials were interviewed in this survey study to assess the benefits of Smart City approach and how did this impact Dubai city and how will it change the life of Dubai residence. The official come from different local and federal authorities and work at different specialization such as Strategy, IT, Corporate and Management background. Five of them were holding MBAs Degree and two were PhD Holders. The eight respondents were UAE nationals with middle management to top management.

One of the interviewees confirmed that although there is a shift to move towards Smart Government, yet, we should not neglect the elderly citizens and the citizen who are not comfortable with smart technologies. This so no will be left behind and everyone will benefit from the services offered.

Another respondent was excited and said that adoption to smart city is a definitely a huge investment and shift towards the right track. As the life of the citizens will be much easier and less complicated.

A very interesting feedback heard from one of the interviewees stated that a big and a huge marketing campaign is significantly required to alert the public and comers to the city about the different available options and software which are custom made to their requirements.
As there are many applications that will for sure facilitate the life of people and ease their daily transaction. If these services are not used; there won’t be a point in having them.

A Strategy Director who was interviewed confirmed that Capital is a main challenge for Government departments to set budget and start working according to the plan. The adoption or shift will require additional resources and capital to investment and start new projects. Moreover, it will require having technical expertise, which might not available and have to be outsource and recruited this will sure require so much time in headhunting and looking for suitable candidates and expensive advertisements and marketing. As well as; this will require set training and development program for the staff to be able to stop to the smart technologies. Yet, certainly, these investments not costs will paid off and will provide better services, revenue generations and cost reductions over the long period of time.

An IT Expert who work on projects to automate the services and convert them to smart services; stated that Dubai Government is urging the different departments to spend time and efforts and come up with new initiatives to promote the shift. For instance, the smart service award launched three years a back with an aim to encourage the department to innovative and creative. This is a very prestigious and important award in which all government departments want to participate and perform their best efforts to be honored by his highness Shaikh Mohamed Bin Rashied directly.

Findings
The shift towards smart city is a very big and essential move, which governments are taking in the right directions. Its deals with different aspects of people lives not just one area. Many governments are moving on and have worked on the right directions. It requires the efforts of the government and authorities to initiate these changes and the users to adopt and use these services. Dubai is an extraordinary and distinguish example who adopted quickly and launch full package of different services. Still there are things to be addressed such as the availability of human resources, financial and technical resources to cope with these changes and the flexibility of the community to adopt and implement the smart services.

Conclusion & Recommendations
UAE government and Dubai in particular is employing great and mass efforts to increase the adoption towards smart technologies. Luckily, Dubai has the potential and the making to success in this area; a very innovative and visionary government who is willing to invest in human resources, infrastructure, technologies,...which are all key components for the success of any city. Dubai Government has even went steps further by starting awards and criteria to convert to smart government. The next step is to create more incentives for the public to use these services and launch intensive market campaigns. Moreover, educate the individuals and corporation on how to use the resources smartly to assure saving efforts and resources.

Limitations & Suggested Future Studies
The research is very general study, which looked at different scenarios of different cities and its work towards smart technology without focusing or selecting a particular city to benchmark
with Dubai. Plus, there was not a clear focus of this paper on one particular aspect of characteristics of smart city or a particular service.

It will be a very interesting research to study the adoptions towards smart cities in the perspective of particular or focus areas such as open data and information security and the impacts these topic that are highly demand and required at the present time. Moreover, if qualitative data analysis is employed in this study this will help to conduct a survey to measure Dubai Community perceptions about the conversion to Smart Government and how will this impact their lives.

References


CORPORATE SOCIAL RESPONSIBILITY PRACTICES & PERSPECTIVES Case: Moroccan companies

Wafâa Fathi
Morocco

Introduction
The public interest cannot be reduced to a compromise of interests, or a sum of interest. Especially, it does not fundamentally opposed to private interests. Each of them, it extracts meaning. It is itself, by the extraction and clarification work.

Where we see an interest from private sources is never just private. It has, in itself, a component of general interest. It is for the public sphere to recognize this component, as it is for entrepreneurs to carefully consider this aspect of their work.

Corporate Social Responsibility (CSR) is precisely the link between private initiative and public concern. In this sense, the public sphere is not the monopoly of the public good. Each company participates by its nature and by its own dynamics, which makes its management more efficient and more responsible when sustainable development through Corporate Social Responsibility is implemented.

Background
Definition of Corporate Social Responsibility in the international context: The World Bank defines social responsibility (CSR) as "the commitment of business companies to contribute to sustainable economic development by working with employees, their families, the local community and society at large to improve their lifestyle in ways that are conducive to business and development."

In other words, companies accept the law, ethical standards and international regulations. The impact on the environment, consumers, employees, communities, officials and other staff of the public sphere have to consider the responsibility of the business world, as well as the economic benefits of shareholders. In addition, business promotes public interest in the growth and development of communities and the refusal of harmful practices in the public sphere, regardless of legality.

Clearly, "CSR is the inclusion of the public interest in the collective decision-making." Social and environmental responsibility (CSR) has become a key theme in the reflections on the regulation of globalization and has given rise to many recent initiatives. The current economic crisis makes it even more debate. France's commitment to CSR is characterized by both their full participation in many international negotiations, a state intervention in legislative and as the
initiator of a dynamic multi-stakeholder and by the proliferation of initiatives by economic and social actors.

**What does CSR mean for France?** ISO 26000 standard defines the social responsibility of an organization such as control by the latter "the impacts of its decisions and activities on society and the environment, resulting in transparent and ethical behavior that contributes to sustainable development, including health and well-being of society taking into account the expectations of stakeholders; respecting laws while being consistent with international norms of behavior , and which is integrated throughout the organization and implemented in all relationships.”

The United Nations Global Compact, launched by the Secretary General of the United Nations in 2000 believes that CSR is for companies to "embrace, support and enact, within their sphere of influence, a set of core values in the areas of human rights, labor standards and the environment and the fight against corruption. » The European Commission has adopted a definition of CSR that uses the " voluntary integration by companies of social and environmental concerns in their business operations and in their interaction with their stakeholders "(Commission Communication of 22 March2006) For the OECD, "the companies has to comply with various laws applicable to them and, in practice, they often respond to societal expectations that are not reflected in the legislation "CSR is a positive contribution that companies can make to economic and social and environmental progress, and minimize the difficulties to which their operations may give rise, especially in areas such as human rights, labor relations, the environment, the fight against corruption and consumer protection. As part of following, the Bamako Declaration of 3 November 2000, which marked "the commitment of States and French governments for the promotion of a democratic culture internalized and full respect for human rights," the Quebec Declaration, adopted by the Francophone member states in October 2008, this CSR as providing "value added for peace, the rule of law, cooperation and sustainable development" in order to cope with economic challenges faced by the most vulnerable members in their pursuit of sustainable and harmonious development. "Promoting social / environmental and social responsibility of business is to encourage businesses in member countries to accede to the instruments, standards and their harmonization and promote international principles."

**The emergence of CSR within Moroccan companies**

Policy makers of large companies have faced since 2000 to increasing both from the financial markets (finance requirements) but also from various internal and external stakeholders that have pressure and influence on considering CSR part of organizations’ operations management. In Morocco, for business models, meeting the expectations of stakeholders can be understood through the level of commitment of the company's CSR (Corporate Social Responsibility). Achieving a level of commitment in this area, however, result seems contrary to the objectives assigned to the executive by the classical financial theory (Friedman, 1970) as part of his agency relationship with investors.

As of the 2nd half of the nineties and within an economic recovery prospect, in the aftermath of Structural Adjustment Plan (SAP) fallout on one hand, and under the pressure of reengineering the world economic order on the other hand, Morocco has started a process of so-called “reform” actions.
Mainly economic, such actions have emphasized and focused on the position and decisive part of the private sector in any Moroccan economy revival venture.

If the bases and ultimate purposes of this plan are perceived differently by the concerned operators, they have however stirred expectations, namely at the productive structure level and broadly among the society.

Nevertheless, the recent National Initiative for Human Development, initiated in a royal speech, introduces both an acknowledgment of failure of the social policy, and a warning towards all the parties concerned. In other words, it is an opportunity for the various participants to reconsider their input to building the Moroccan society and State, based on the principles of justice, democracy and modernity.

According to such vision, growth conditions have to be set up in a country with limited resources and potentials that have not been rationally utilized so far. If growth is assumed to lead to social prosperity, as it gives way to wealth, employment, quality of life, access to resources, in short, thanks to its ability to trigger the prosperity cycle, it fully depends on its main generator: that is investment.

But investment is neither economically nor politically impartial. It conveys values, stands up for interests and creates conditions of their influence and blossoming. It is also an implicit compromise of several participants, while unmistakably remaining the work of the private sector, within a so-called “liberal” economy. This should not however release the State or citizens from their respective roles. In other words, just like the growth outcome is designed for the whole society, the responsibility for generating it pertains to all its elements.

However, as it has proved difficult to set up a continuing and growing investment pace, and therefore a regular growth of an admissible standard, social deficits have piled up, generating unknown phenomena in our society, which magnitude was not so clear only few years ago.

In order to handle the situation, relying on a traditional solidarity culture, operators from institutions, civil society and private sector have shaped up actions designed for people, to meet their needs and create opportunities to give them access to resources in various forms. But they are overall drawn from charity and patronage visions.

The impact of such initiatives has proved to be restricted, as long as the available means and proposed solutions, given the needs’ nature and extent, are not outlined within a global and integrated vision, defining the roles and identifying the ultimate purposes. The absence of such a method raises the issue of the optimum adequacy between the two: the one that provides a structuring and sustainable solution to:

- Low and irregular growth;
- Moderate investments and urgency to upgrade the economic fabric;
- Increase of social needs and exclusion of populations.

To express the various elements of such answer, three assets should be taken into account:
1. Morocco’s positive image capital, owing to its participation in a large proportion of international instruments in terms of sustainable human development;

2. Investment in reforms, despite their limitations and their implementation pace, as a basis for political, economic, and social upgrading;

3. Willpower to integrate into the world economy, along with its requirements in terms of upgrade plans of the national productive structure and the adoption of proper governance rules, both within institutions and companies.

Such three factors are reinforced by the emergence of a civil society, focusing its action on human development areas and supporting the respect of the values governing them.

The combination of these various items, wherever it may be, is now the groundwork of the reconstitution of economic acts. These seek both the financial opportunity to develop and grow, but they also satisfy social responsibility principles.

However, although Social responsibility is shareable and shared, the company, as an outstanding economic participant, occupies a first-class position. This is proved by experiences all over the world, mainly in developed countries.

Starting from the increasing interest characterizing the CSR issue, as shown by evolutions worldwide, and considering Morocco’s willingness to pursue its integration in the world economy, establishing an overall strategy in CSR may be an opportunity to conciliate between the so-important economic interests and the populations social rights, both for Morocco and all MENA countries.

**CSR at BMCE and its impact in relation to the public sphere**

The bank "BMCE" operates in an emerging economy, sustainable development strategy is within its operations and CSR in its organizational management. Since it was one of the first Moroccan banks to include the concept of CSR in the environment of Moroccan companies and one of the pioneers to adopt its strategy, we considered appropriate to study this case through an exploratory analysis of a literature review and a qualitative empirical analysis.

This paper will process and analyze the main question of levers to promote CSR in public policy: the case of BMCE? This bring us to ask the following questions: 1. What CSR brings to the socio-economic life in Morocco? 2. The economic definition of CSR and its value vis-à-vis the public sphere? 3. The reasons why the emergence of a demand for social responsibility? 4. The changes of CSR to both public management and organizational management of the company?

The notion of corporate social responsibility (CSR) and sustainable development (SD), particularly in the Moroccan financial institutions, like other businesses, are challenged to account for their contribution to society and thus be more transparent about their performance not only economic but also social and environmental. Banks, like other large companies are increasingly asked to demonstrate their commitment to the imperatives of corporate social responsibility (CSR) and sustainable development (SD). For many decades, banks have limited their role as good corporate citizen to significant forms of engagement but certainly limited to philanthropy and
specialized services to disadvantaged communities. The series of corporate governance scandals, combined with the movement for SD, had the effect of driving the concept of CSR. Banks, like other businesses, have been started to account for their contribution to the public sphere and to become more transparent about their performance not only economic but also social and environmental. How do they define their social responsibility, and how they incorporate this responsibility into their strategies?

**Methodology**

Empirical study recommended: As part of this proposal project, we recommend the outline of the methodological protocol used for addressing the problem of our research. Then, an analysis of search results is planned. The essential elements of the empirical approach: Four dimensions to remember for data analysis during fieldwork: • **The economic definition of CSR: a production that incorporates interest societial**

CSR is a new management style that is between the satisfaction target markets and its impact on society in a broader, comprehensive and long-term vision in particular, allowing the player to make choices decentralized in a collaborative sense, he will find a satisfactory return in terms of recognition, preference and its risk management. And especially in terms of opportunities for cost reduction and search for new revenue. It is a management style that is based on close listening to societal changes and collaborating with the regulation of major public interest that affect the sustainability of the contexts in which it operates. • **The reasons why a request for economic responsibility as compared to traditional management system emerge:**

The public sphere calls to rethink the model of global growth in a sense more "sustainable" to decouple resource consumption, to promote the accessibility of many goods and integrate applications equity legality and avoid social and environmental dumping. This model induces important innovations in processes and in the offer, which stem from a desire to act.

**What changes CSR management of the company**

The desire to integrate the societal interest in the operation and delivery of the company in a market model that seeks its "sustainability", is characterized by three specific contributions. 1. Eco-design in the heart of the offer: This is how to provide efficient responses matter, energy, waste, moving towards simple and efficient uses in their functionality. 2. Creating Shared Value as dynamic innovation and growth.3. Reducing risks faced by all stakeholders: Rather than discharge poorly integrated upstream risks - accidents, product returns, absenteeism, loss of reputation, the company will strive to improve its supplier relationship / employee / customer / regulator to limit the societal costs that may be very costly for investors to act on the reputation and sustainability.

**The levers for promoting CSR in public action**

The Company can be found on the market return on investment to its CSR initiatives through lower management costs, meet new customers concerned, improving their preference by contractors and improved its social compact with all its stakeholders. However, it may need in situations where the momentum is weak and incentives; public support is justified by the general desire to see sustainable economic model progress at national and international level. Public CSR policies respond to this incentive target.

"The collaborative enterprise" in the social sphere is the result of any serious CSR policy, which after asking its challenges and risks, translated into opportunities progressive commitments
positively connect economic actors and stakeholders, rather manage conflict, combinations of influence and defensive postures that are ultimately costly and only retardant. This structural and generational revolution is creating a divide between the businesses which understood and to seize the opportunity, through innovation and dialogue, and others.

CSR is no longer a moral luxury or a trick of speech, as Michael Porter has fully theorized and as public officials concerned to "shoot up" to promote their business model now and is the new phase of a capitalist who wants to reconcile the response to the request of 9 billion people on earth with sufficient durability and fair competition still to create proactively, as labor law, environmental law and company law were not imposed on commercial law. From a theoretical point of view, the notion of "corporate social responsibility" allows it to balance, or to integrate economic, environmental and social imperatives. While meeting the expectations of stakeholders in general which is usually one of the main features of the concept, since the weather is changing and the expectations of the public against businesses because its role previously focused on the development of the economy and efficiency, in order to have more profit; Not, it turns out that the evolution leads us increasingly to combine economic growth, environmental and social wellness.

Indeed social responsibility is accepted as being applicable to companies regardless of the place where they operate out in the national or global economy. View the absence of standards it at national or international level: Is this policy of social responsibility can be properly conducted by Moroccan companies? Since its practice involves beyond what the law requires and that it has a different meaning from one company to another.

As above mentioned, the present paper does not claim tackling the CSR issue in Morocco. Its ultimate purpose is to cover most developed practices, in order to pave the way that can lead to the outline of a CSR culture in Morocco and that can be adapted elsewhere.

In light of the various presented elements, we can easily conclude by asserting that interest in CSR and in its development potential is present.

All items supporting this conclusion are introduced in the following tables. Major weak and strong points inherent to Moroccan companies, besides opportunities and threats related to CSR development in Morocco are also presented.

<table>
<thead>
<tr>
<th><strong>Strong points</strong></th>
<th><strong>Weak points</strong></th>
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<tbody>
<tr>
<td>Presence of significant representative structures (CGEM, federations, CJD, young developers associations, federation of chambers of commerce and industry)</td>
<td>Structure of the productive base of small and medium-sized businesses more concerned about its financial durability and competitiveness</td>
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<tr>
<td>Awareness among employers’ organizations of the importance of CSR areas</td>
<td></td>
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</table>
within the company (governance, sustainable development, respect of workers’ rights)
- Involvement of companies in various CSR-related actions
- Existence of a groundbreaking hard core involved in CSR in the public and private sectors
- Will of companies to carry out CSR actions and be qualified as such
- Presence “at least in theory” and sometimes in practice of CSR integration in the strategy as a management tool.

<table>
<thead>
<tr>
<th>Area</th>
<th>Opportunities</th>
<th>Threats</th>
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<tbody>
<tr>
<td>Politics</td>
<td>Shared commitment to face social deficits</td>
<td>Fragile transition due to concomitant changes internally and externally</td>
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<tr>
<td></td>
<td>□ Transition characterized by huge projects showing interest in governance,</td>
<td>□ Escalation of new political powers and terrorist trends</td>
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<td></td>
<td>democracy and human rights issues</td>
<td>□ Slow reform implementation</td>
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<td></td>
<td>Morocco’s</td>
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<tr>
<td></td>
<td>□ Morocco’s commitment internationally by entering main conventions with</td>
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<td></td>
<td>values based on CSR areas</td>
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<td></td>
<td>□ Legislative and regulatory arsenal based on international commitments and</td>
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<td></td>
<td>derived from consensus of various parties in Morocco (for e.g. labor code,</td>
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<td></td>
<td>environment laws, family code, freedom to undertake, position of private</td>
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<td></td>
<td>sector in economic development strategies)</td>
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<tr>
<td>Economy</td>
<td>The environment is in favor of private initiative development</td>
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<tr>
<td></td>
<td>□ □ Productive base mainly made up of small and medium-sized businesses aspiring to growth and durability</td>
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<tr>
<td></td>
<td>□ □ Economic opening to competition and modern practices of foreign companies (quality, governance, social responsibility, etc.)</td>
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<tr>
<td></td>
<td>□ □ Development of partnerships between the Public sector and private sector and between the private sector and civil society</td>
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<td></td>
<td>□ □ Social dialog / program contracts for sector development / Emergence strategy for the industrial sector / development strategy of the tourist sector</td>
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<td></td>
<td>Launching constructive projects in infrastructures, tourism and industrial areas…</td>
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<td></td>
<td>□ □ Increasing accountability of private operators as to sustainable development stakes</td>
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<td></td>
<td>□ □ Structures of stock exchange market regulations Plan to upgrade Moroccan companies</td>
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<tr>
<td></td>
<td>□ □ New development strategy of the industrial sector (Emergence program)</td>
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<tr>
<td></td>
<td>Low number of companies listed on the stock exchange, poor capitalization at the financial market and a weak public interest in stock exchange activities</td>
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<td></td>
<td>Fragile conditions for a sustainable economic growth: oil bill, droughts…</td>
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<td></td>
<td>□ □ Corruption and related practices, impunity and non-independence of justice</td>
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</table>

| Civil Society | □ □ Divergence in interpreting the social situation and the appropriate method to correct |
### Shared belief regarding the social development stakes and challenges

- Dynamic civil society: various areas of associative action in different environments contributing to social, economic and political life.

### CSR

<table>
<thead>
<tr>
<th>Regulation and institutional system in favor of CSR culture</th>
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<tbody>
<tr>
<td>- Existence of interesting practices that are worth conveying and reproducing (reporting, promotion, company / association partnership)</td>
</tr>
<tr>
<td>- Increase of interest in CSR over the last few years (sustainable development, proper governance, citizen company)</td>
</tr>
<tr>
<td>- Huge needs to be met within and without the company (report to stakeholders, human resources management, image, environment and customer report, search for competitive assets…)</td>
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<tr>
<th>Practices still restricted, mainly borne by large companies, multinationals and the public sector</th>
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<tr>
<td>- Practices related to the manager’s philosophy, more inclined to sponsoring and charity actions than to responsibility</td>
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<tr>
<td>- No appropriate knowledge of CSR references, stakes and impact</td>
</tr>
<tr>
<td>- Absence of social rating agencies or specialized autonomous audit structures</td>
</tr>
<tr>
<td>- Poor integration of CSR-related practices in general as a management tool.</td>
</tr>
<tr>
<td>- No structures for CSR observation and development.</td>
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</table>

By going again through these two tables, we can assert the presence of three key elements, helping define priority development main lines for a consistent and eventually “concerted” strategy in favor of CSR culture in Morocco:

1. The company itself, now at the center to make relevant choices likely to ensure its development and durability;
2. The society and the environment, two components whose protection, preservation and blossoming have become vital issues that can no longer be procrastinated;

3. An emerging community’s drive from various sources and calling on innovative skills, intelligence and responsibility of the company.

Along with these findings, other questions persist in connection with the CSR concept itself, its extensions and effectiveness.

**Conclusion**

The meaning given to CSR dialogue between governments, the private sector and civil society is greatly influenced. Indeed multiple interpretations lead to some implications among the various stakeholders (Stakeholders) in particular with regard to legitimacy and the impact of obligations related to corporate social responsibility standards.

However, CSR should never be confused with initiatives motivated by marketing, public relations, corporate philanthropy or just with law enforcement. In its most rigorous sense, CSR can be regarded as a complete and coherent set that includes policies, practices and programs for economic development, improving the quality of life for active people and their families; the same is true for actors in the public sphere or those who have decision-making power, influence or action and society in general. This principle can be applied to governmental and non-governmental organizations to the extent that they are human constructs, driven by logic and general interest. At their respective levels, whether peasant, worker, boss, employee, elected politics, etc..., are concerned as individuals and as members of communities of the society. Therefore, the responsibility is not a global public good?
Diversity of Doctoral Education in the UAE: Implications for Knowledge-driven Innovation

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Abstract
The purpose of the present study is to explore the implications of doctoral education on the knowledge-driven innovation in the UAE. This study will be developed through analysing different information related to the scope of the study, besides some self-observations of the current status of doctoral education in the UAE, which will be supported by trusted resources. The findings of the study reveal that there will be numerous impacts on the innovation of the different fields in the UAE, because of the expected contributions of doctoral education. However, the study discovered one main limitation, which is the limited number of resources talking about the doctoral education in the UAE. The paper claimed that this limitation is due to the fact that the field of doctoral education is almost new and still under the emerging process. This limitation will be diminished since the field is emerging and more studies are conducting to serve it, so the future studies will have a broader base of information in comparing with the current situation.

Keywords: Doctoral Education, Knowledge, Innovation, UAE.

Introduction
Over decades, people are looking at education as the magic wand that shifts both individuals and/or societies to a better tomorrow. Huge number of literature is proving the same. For instance, Sipos, Battisti, and Grimm (2008), in addition to a study prepared by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in the year 1997, both are claiming that education considered as an effective tool used to confront and shape the life. The word education here is broad in a way that it refers to not only studying a particular subject or gaining knowledge about it, but also it refers to “research, invention, innovation and adaptation” (UNESCO, 1997).

United Arab Emirates (UAE) and in particular after the economic crisis 2008-2009 noticed the importance of the other sectors beside the gas and oil sector in the overall growth of the country (Schilirò, 2013). This fact does not mean that the other sectors such as tourism and education were not noticed before, but the crisis form an alertness that push oil countries to give the same amount of care to all the sectors. This shift towards other sectors and especially the education sector was the reason behind that doctoral education is emerging and varying in the UAE and also the reason behind the move towards an economy that considers both knowledge and innovation as the two main keys (Schilirò, 2013).

Accordingly, in linking the two facts discussed above, which one of them is that doctoral education is mainly about creating and contributing with knowledge for the better of
life (Anderson, Cutright, & Anderson, 2013). The second one is the fact that UAE has started to look at education in general and doctoral education in particular as a fuel to generate knowledge that will revive innovation in its economy. A common controversial topic is revealed, which has been chosen to be discussed in this paper. However, some questions will remain as ‘will UAE be able to apply knowledge-driven innovation with the absence of doctoral education?’ and another question is that ‘is doctoral education considered as a key to sustainable wealth of countries?’. This study will try to answer these questions while discussing its overall findings.

However, the main purpose of this paper is to explore and analyse the implications of doctoral education in the UAE on the knowledge-driven innovation. Moreover, the study will try to facilitate in highlighting the main outcomes and enhancements the doctoral education is having in knowledge sector. In doing so, and even before analysing the main problem of the paper, compiling several findings from previous literature is mandatory in order to explore more into the issue and not just sticking to the surface information.

The objectives of the research paper are as follows
1. To highlight the link between knowledge, innovation, and doctoral education.
2. To cast light on the shift the economy and strategy of the UAE is going through.
3. To identify the main enhancements doctoral education is having in any country.
4. To analyse the expected impacts of the diversity of doctoral education on the innovation of the UAE;
5. To end up with recommendations that might help UAE and other countries in better utilizing doctoral education and also these recommendations could pave the way for future studies in the same context.

The present study will make an attempt to gather the most recent information about the doctoral education status in the UAE, along with presenting some previous empirical insights of the subject. In view of the above research objectives, the paper has been divided into sections that will help in covering the problem comprehensively.

The coming section of the paper reviews in some more details the importance and outcomes of doctoral education in a country and how doctoral education started and emerged in the UAE. The theoretical and empirical literature of the link between knowledge, innovation, and doctoral education will be presented. The third section explains the research method will be followed in this paper, which is mainly based on exploring, gathering, and analysing available information. After that two sections will come to cover how data will be collected and analysed. In the sixth section, attention is focused on the findings of the study. The paper concludes with a seventh section, which includes the overall findings of the study, the recommendations, and some limitations future studies can take advantage from as starting points for building extension papers.

**Literature Review**

In talking about the beginning of doctoral education in the whole world; Park (2005) stated that the first doctoral degree has been conferred in Germany during the early nineteenth century,
and afterward the United States started to adopt the idea specifically in Yale in the year 1861. Park (2005) added that the twentieth century witnessed the spread of doctoral education idea among many countries starting with Canada, then Britain, after that Australia, and lastly Ireland before being introduced to the other countries of the world gradually.

Although, Arab and Islamic countries were not mentioned, but the importance of knowledge and research were noticed and practiced long-time ago by Muslims and the Golden Era is an evidence of that (Falagas, Zarkadoulia, & Samonis, 2006). The Golden Era witnessed great contributions from Arabs and Muslims in general to the different fields such as medicine and philosophy, which came as a result of the efforts paid in gathering information, experimenting, and researching (Falagas, Zarkadoulia, & Samonis, 2006), which considered as the summary of what a doctoral scholar should practice during the doctoral education journey. These contributions are used until now as bases in the different fields. In this context, Falagas, Zarkadoulia, and Samonis (2006) in their article summarized that by saying “the contemporary world owes much of its progress in all fields of human intellectual activity, including medicine, to Arabic culture, especially the advancements made during the Golden Age of Arabic-Islamic science (8th to 13th centuries C.E.)”. If the title of doctoral education was just introduced during that time, many experts of the Arab and Islamic worlds will be titled with it such as Ibn Sina in the field of medicine (Falagas, Zarkadoulia, & Samonis, 2006). Therefore, this was the reason of not mentioning any country from the Arab and Islamic worlds in the previous paragraph, besides the fact that after the Golden Era Arabs and Muslims retreated from the glory position in research field in particular (Falagas, Zarkadoulia, & Samonis, 2006).

Going back to doctoral education and after it has been introduced and practiced among different countries; one of the key questions being debated across the world and over many years is related to the link between doctoral education and the development of countries (EUA, 2007). Baaska Anderson, Mark Cutright, and Stoerm Anderson (2013) in their article has clearly summarized the answer to that question by claiming that doctoral education is considered to be as the “backbone of scientific innovation and creativity and is a critical fuel for the global knowledge economy”. This argument made the link between doctoral education and the development of countries clear, because the development and growth of any country nowadays is measured by the amount of knowledge and technology this country is having, and the influence of technology and knowledge on the other hand becomes more appealing day-after-day, which encourage the countries to invest more in these two sectors (OECD, 1996).

Doctoral scholars are supposed to “understand what is known and discover what is yet unknown” (Shulman, 2008 cited in Anderson, Cutright, & Anderson, 2013); this means that one of the doctoral education outcomes is having enough knowledge that helps in solving problems and make valuable decisions and another outcome is creating new knowledge either incremental or radical. In addition, doctoral education is expected to prepare individuals that are able to rationally analyse issues that will help in shaping the future (Commission on the Future of Graduate Education in the United States, 2010 cited in Anderson, Cutright, & Anderson, 2013). The outcomes of the doctoral education can be seen as the factors that pave
the way towards a more innovative life that is ready to apply the most recent technologies to improve the standards of living. Additionally, this perspective has been agreed in another article with an argument saying that “in knowledge-based economies, governments see universities as engines for social change and expansion of prosperity” (Ramsden, 2003 cited in Al-Hattami, Muammar, & Elmahdi, 2013).

The last two decades showed how doctoral education attracted the attention because of the effectiveness of the outcomes it assures (Anderson, Cutright, & Anderson, 2013). The number of doctoral education scholars in the US for instance started to increase, although historically it used to be “the least studied level of formal education” around the world (Anderson, Cutright, & Anderson, 2013). This demand’s increasing is obviously taking us back to how effective the outcomes of doctoral education for any country as a whole. The attention from the different countries has been drawn to doctoral education in different forms of initiatives that reflect how countries are becoming more aware of the importance of doctoral education (Anderson, Cutright, & Anderson, 2013).

Before talking about United Arab Emirates particularly as it is the focus of this study, talking about the Arab world in general is applicable since UAE is one of the Arab countries. Higher education and scientific research are not new trends in the Arab world; they have their roots in the history of Arab countries (Abu-Orabi, 2013). This can be obvious by looking at the early and prestigious universities in the Arab world such as Mustansiriya University in Iraq (984 AD), but if looking at the modern history it can be noticed that during the past decade “most Arab students used to study mainly at few Arab universities spread in the Arab World in addition to universities in Turkey, Pakistan, India, Europe, Russia and USA” (Abu-Orabi, 2013) and this is applicable to people from this part of the world (Gulf countries). This leads to the fact that higher education in general was not available and was not occupying the place it deserves in the structure of the countries. However, this is not the situation nowadays where many local governmental and private with very good academic standard universities established in many Arab countries and particularly in the Gulf region, in addition to the foreign universities (Abu-Orabi, 2013), which played a big role in increasing the number of locals holding high education degrees.

The United Arab Emirates as a young country in comparing with others has established the first governmental university under the name of United Arab Emirates University in the year 1976, and now this university is competing other universities around the world in different worldwide records and indexes (Abu-Orabi, 2013). However, the awareness of the need of higher education in the UAE paved the way to the need of doctoral education, and as mentioned above that the economic crisis played a role in guiding the attention to the importance of scientific research for the development of the country as well (Schilirò, 2013). Globalization and being open and connected with the different parts of the world flourished the idea of doctoral education and made people in the UAE aware of the importance of it, especially that developing a country needs people that are capable to make decisions based on solid bases and this is one of the most important outcomes of doctoral education (Commission on the Future of Graduate Education in the United States, 2010 cited in Anderson, Cutright, & Anderson, 2013). Nowadays, many local and foreign universities in the UAE are offering doctoral
programs and day after the other the field of doctoral education is emerging and occupying a more pioneer place in the plans of the country (Schilirò, 2013).

Research Method
The literature review provided an understanding of how doctoral education has started in general, how it has entered UAE, and how it is emerging in it. After understanding the situation, effective techniques should be used to help in accomplishing the purpose of the study. There is an argument saying that, the research method of any study should be chosen as a function of the research situation (Yin, 1994). In line with this argument, a particular attention will be given to exploring and analysing the available information about the topic along with observing the current situation of doctoral education in the UAE. In doing so, this study will be carried out using qualitative research method for the sake of developing an intensive piece that concentrates on uncovering the problem by diving deep into it. Primarily, qualitative method helps in exploring, describing, and understating specific situation in details using different research tools such as observing (The SERVE Center at the University of North Carolina at Greensboro, 2008) as this study will be using.

Qualitative data collection techniques vary and the coming section will describe the relevant techniques to this study in more details.

Data Collection
This research administrated collecting the needed information from both primary and secondary sources of data. The primary source of data will be self-observation of the current situation of doctoral education in the UAE. The observations here will be more descriptive and analytic. Hence, since the paper is conducting in the same country aimed to study, the environment of the observation will be easy to understand. However, the study will rely more onto the secondary sources of information and this is to support the observations and link the findings to solid evidences, as well as, to mitigate bias. The secondary sources will be mainly the published resources in the same context of the topic that will be gathered and then the relevant and useful information will be analysed for the sake of meeting the objectives of the paper successfully.

In addition, this study will not be limited to a specific period of time, but it will look at the previous literature in general, both if it was old or recent and this in order to cover the issue from different angles to be able to have a full understanding of it.

In talking about the limitations of the study; there was no ethical limitations considered since the observations are self-paced and also the analysed information are gathered from opened and available resources. However, the only limitation is in the fact that doctoral education is in the process of emerging in the UAE, which is the reason behind the limited good resources available that talk about the same topic. To this end, the self-observations will be considered in order to enrich the study.

Data Analysis
In seeking to derive findings from the collected materials, the information gathered went through three main steps. The first step was listing down the general self-observations of what
is happening nowadays in the UAE in all the different fields. The second step was gathering good evidences to support the observations and link the different fields to doctoral education with the help of the link found in the literature review section between doctoral education, innovation, economy, technology, and knowledge. The third and last step was analysing the relevant information to draw valuable findings. However, referring to the literature review will be considered during all the steps.

The next section of this paper makes an attempt to present in details how the information has been explored and analysed along with discussing what the analysis has revealed.

**Discussion and Findings**

‘Boom turns to gloom’ is not a title that decorates the newspapers for no reason, but it is a fact noticed after the economic crisis near the end of 2008. UAE noticed the need of a quick change and the need of speeding up the ingraining in the different fields to harvest a better and solid country development that keeps on growing and adapting itself to the changes occur in the world to assure its sustainability (Shayah, 2015). The quick change here does not mean stepping forward without studying what is coming, but it meant step forward, look at the different experiences of other countries, benefit from them and act in the way that will help you overtake your own obstacles. This is exactly what happened and can be proven with the different conferences and international gatherings held during that time to enhance the open dialogue between countries and benchmark with them (Al-Maktoum, 2012).

Accordingly, this situation draws the attention to the non-oil sectors and one of the sectors that witnessed a remarkable attention was the higher education in general and doctoral education in particular (Schilirò, 2013). Schilirò (2013) explains the reasons behind this attention by claiming that high quality doctoral education “is an important and necessary condition to enhance human capital and it is also a key driver for the growth in the UAE and the whole region” and he added that, it is also “crucial in the knowledge economy since it can inculcate attitudes toward change”.

After having the doctoral education as one of the main drivers toward the whole country growth; varying the concentrations of it was mandatory, especially that the growth of countries is not exclusive to one field, but it is achieved by collaborating between all the different fields. In this context Schilirò (2013) added that promoting different doctoral programs such as engineering and applied sciences “can favour the development and application of new technologies”; especially that doctoral education is an interdisciplinary domain or body of knowledge that works as a foundation for any disciple and can be effective in all the fields (Marcos, 2010). However, it can be noticed that many local and foreign universities are offering good quality doctoral programs nowadays as a result of the awareness created among the community to the importance of such education. If tracking the list of accredited doctoral programs in UAE through the Commission for Academic Accreditation webpage (2015), it can be noticed that the number of programs are increasing year after another and even the number of academic institutions offering the programs are increasing as well. Also, the programs became more diverse and serving different fields, it includes for instance business administration, education, project management, computer sciences, health, and quality
management (Commission for Academic Accreditation, 2015). In addition, the increasing initiatives of partnerships between local and abroad well-known and prestigious universities around the world; as a way of enhancing, varying, and adding quality to the doctoral programs offered in the UAE (UAEU, 2013).

In line with the above, came the UAE vision 2021 to draw a clear way towards translating the experiences gained from the previous years and from looking at other leading countries’ journeys toward sustainable development. One of the main pillars of the vision is knowledge, which to having “a competitive economy driven by knowledgeable and innovative Emiratis” (UAE National Charter, n.d.). This pillar includes the activities of promoting high quality standards education, incorporating innovation and technology in all the different aspects, and investing in science and research (UAE National Charter, n.d.). Hence, the aim of this pillar was summed up by stating that the UAE wants “to transform its economy into a model where growth is driven by knowledge and innovation” (UAE National Charter, n.d.); and here comes the link between knowledge, innovation, and doctoral education again, as doctoral education is the key of contributing to knowledge that promise enhancing innovation and then aid the growth of the country as a whole. This fact as discussed in the literature review section was the secret ingredient behind the development of the leading countries nowadays. Moreover, the interaction between knowledge and innovation for the better development and competitiveness of the countries in the context of knowledge-driven innovation has been illustrated by Khaledabadi (2008) as shown in the figure below:

![Figure #1: “Knowledge Innovation” (Khaledabadi, 2008)](image)

Most of the global reports and indexes are proving the above, such as The Global Gender Gap Report of the year 2015 which ranked UAE as the third among Arab countries in the educational attainment (World Economic Forum, 2015). In addition to, The Global Innovation Index of 2015, which proved what have been explained in this paper by stating that “over the past years, the UAE’s leaders have worked to diversify the country’s economy and move into a new phase of growth. Their ambition of fostering innovation and knowledge-driven growth is clearly documented in the country’s Vision 2021 national strategy” and this statement was translated by ranking UAE as the second Arab country in innovation and number 41 among the whole world (World Intellectual Property Organization, 2015).
The main outcomes of doctoral education as mentioned previously are creating knowledge, promoting knowledge transfer, and providing qualified intellectual leaders that are able to analyse situations and make rational choices. Consequently, these outcomes are helping in developing innovation and applying the most recent technologies, which summarize the idea of knowledge-driven innovation as it is the main topic of this paper. UAE has shown that it is aware of the importance of doctoral education and its outcomes. One of the evidences of that is the Knowledge Village and Academic City with its increasing number of well-known universities both local and foreign. These oases of knowledge are forming a good and attractive environment for the world to invest in and the benefits will not be only for the investors, but also for the UAE (Schiliro, 2013).

United Arab Emirates as the main scope of this study has already adjusted its policies and strategies to meet the demand of intellectual leaders that are able to promote both knowledge and innovation. The adjustments can be noticed in its strategic vision for the coming years as discussed in the above paragraph. The adjustments can be noticed as well, by the decision made as one of the outcomes of the 2015 government summit, to have an executive director of innovation in all the different federal entities in the UAE with specific qualifications as the ability to research and analyse are the main two qualifications (The Government Summit, 2015). In addition to the most recent declaration of having the coming year of 2016 as the year of reading in the UAE as all the news agencies reported after the announcement made through the official Twitter account of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, the Vice President of the UAE (2015), who added that this declaration is aiming to support the UAE position as a global capital for knowledge. This can be a translation of the desire to ingrain awareness of the importance of knowledge to harvest ambitious knowledgeable generations looking to holding doctoral degrees for the benefit of the country. In short, it is investing in humans. In general, UAE has started to enhance all the sources of innovation that interact with each other for the better development of the country, which higher education and research are two of them and this can be shown in the figure illustrated by Schilling (2013) below:

![Figure #2: “Sources of Innovation as a System” (Schilling, 2013)](image-url)
However, as the world is changing very fast and what is new today might be out-of-date tomorrow, especially in term of technology (McFarlane, 2010); flexibility should be considered to ensure keeping pace with the evolutions. This might lead the decision makers in the UAE to find a general policy that require all the entities to include flexibility as one of the top practices in their plans. Although, it can be noticed that flexibility is included in most federal entities lists of values for instance, but a policy that monitor the actions taken under this value might be needed to ensure going parallel with other leading countries.

Conclusion
In conclusion, this study purposed to cast light on the implications of doctoral education in the UAE on the knowledge-driven innovation. This has been done through exploring and analysing published resources, as well as, examining and comparing the findings with the self-observations of the current status of doctoral education in the UAE. To meet the main purpose, the paper has been divided into different sections to help in covering the topic comprehensively and to draw valuable conclusions at the end. The study started with reviewing the literature, gathering and analysing information, and then interpreting findings with the help of self-observations and available literature.

While the study was developing, the link between knowledge, innovation, and doctoral education has been highlighted, and also the outcomes of doctoral education have been identified along with the diversity the doctoral programs are witnessing among UAE. Additionally, the shift the economy and strategy of the UAE is going through has been explained.

The discussion and findings section elucidated that one common finding can be highlighted as an overall finding. This overall finding is saying that doctoral education is the main ingredient for knowledge creation, and knowledge from its end is the main engine for the innovation wheel. However, in going back to the two questions stated at the beginning of this study, which the first one was ‘will UAE be able to apply knowledge-driven innovation with the absence of doctoral education?’ and the second one was ‘is doctoral education considered as a key to sustainable wealth of countries?’. After going through all the phases of the study it can be said that UAE will not be able to apply knowledge-driven innovation with the absence of doctoral education, since it has been proved through the study that the main doctoral education outcome is knowledge creation, so there will be no innovation without knowledge and without having doctoral education as one of the main sources of this knowledge. However, as doctoral education is a main source of knowledge and knowledge is a key driver of innovation, sustaining the country wealth might not be very successful without considering doctoral education. These two answers for the questions can be clearly proven by Figure 1 discussed in the previous section, which illustrated that competitiveness and sustainability are attained with ensuring a continuous interaction between knowledge and innovation.

After discussing the findings, some implications on the policies have been determined. Although, UAE has shown how aware it is by started changing and adjusting its policies, but it is recommended for the decision makers to consider flexibility factor more strictly for the benefit of the boosting the country is going through in the different sectors. Another
recommendation could be that, UAE can offer scholarships for chosen local individuals based on specific criteria in the different doctoral programs available to ensure that these programs are benefiting its citizens. Also, UAE can encourage the different universities to develop different doctoral programs than the available ones by a support given from the federal government itself. The last recommendation is for the international agencies responsible of the world indexes and reports, to include doctoral education as one of the aspects used to measure the development and innovation of the countries and have it as a separate criterion for the sake of showing how important it is for the countries.

Finally, it is hoped that the findings and recommendations of this study will support the government of the UAE in its changing journey and will help in highlighting some points that might increase the overall success percentage. On the other hand, the study aimed at paving the way for future research. Especially that the main limitation was the limited available resources talking about the doctoral education in the UAE in particular, since doctoral education considered as a newly emerging field in the country. However, as the field is emerging more studies will be available in comparing with the time this study has been conducted in, and this study can be considered as one of them. Therefore, future researchers could investigate more in the future of doctoral education in the UAE or the whole region and can use the two questions stated at the beginning and attempted to be answered at the end as starting points for their studies. In addition, the researchers could extend this research by exploring and expecting the position UAE will be occupying in term of knowledge and doctoral education in the coming years and especially after Expo 2020.

References


Solar Heater Water Access in India: The Innovation of Pay As You Go

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Abstract
The proposed case study will showcase the most innovative ‘Pay As You Go in Solar Water Heater- the Case of 15 Paise per Unit in the world’. Over the past several years, India has swiftly developed its solar power sector. Not only has the country accomplished the target of 1 gigawatt (GW) of installed solar capacity but the cost of domestic solar power is now on par with the cost of electricity from is declining further. For India, this is the first step toward achieving overall grid parity for solar, a goal that the consulting group KPMG projects will be attainable in the country by 2017-19. This estimate is based on two assumptions: (a) that the cost to consumers of conventional power generation will continue to increase, and (b) that the costs of solar power will continue to decrease.

Towards the goal, the research case paper documents distribution and accessibility initiatives of a long time solar energy company in India- Anu Solar Power (www.anusolar.com). Anu Solar Power offers flat plate, and evacuated tub collector solar water heaters for both domestic and industrial use. The company pioneered a new method of deploying solar water heaters in homes when they launched I-Hot in 2009. The pay as you use concept, allows consumers to access hot water at an astounding 15 paisa per unit, thus making solar water heaters highly accessible to the growing population.

The short audio-visual, interactive presentation will create a discussion platform for Water and Energy Leaders to discuss the concept, preparations, marketing steps and customer feedback to this latest solar energy access innovation to the millions of low income energy and water consumers in India.

Keywords: Solar Energy, Pay as you go, Pricing and distribution Innovations, Affordable solar heated water in India.

The Evolving Context of Pay-As-You-Go
The concept of the ‘Pay as you go (Paygo) is described variously in the varying contexts and still evolving. Commonly referred to as the “adjective of or relating to a system or practice of paying debts as they are incurred” (source: www.yourdictionary.com/pay-as-you-go#504M1JfsCBJWXo5A0.99).

In finance, public policy and economics, Paygo is defined as follows)
• A budgeting technique that requires expenses to be paid for when they are incurred. It doesn’t allow for debt to be incurred. Typically state and local governments adopt this type of budgeting process.

• The federal income tax collection system, in which employees have taxes taken out of each paycheck and submitted to the federal government. (Source: www.yourdictionary.com/pay-as-you-go#504M1fsCBJWXo5A0.99)

• The PAYGO compels new spending or tax changes not to add to the federal deficit. Not to be confused with pay-as-you-go financing, which is when a government saves up money to fund a specific project. Under the PAYGO rules a new proposal must either be "budget neutral" or offset with savings derived from existing funds.[1] The goal of this is to require those in control of the budget to engage in the diligence of prioritizing expenses and exercising fiscal restraint.

In the field of marketing and business, Paygo is most commonly used as a fair and affordable payment method where credit is purchased in advance, used in small amounts and topped up when required. It has been most extensively used on essential services such as mobile phones and transport ticketing. (Source www.yourdictionary.com/pay-as-you-go#504M1fsCBJWXo5A0.99)

To illustrate the concept, a pay-as-you-go mobile phone (also commonly referred to as prepaid, pay-as-you-talk, pay and go or prepaid wireless) is a mobile phone for which credit is purchased in advance of service use. The purchased credit is used to pay for mobile phone services at the point the service is accessed or consumed. If there is no available credit, then access to the requested service is denied by the mobile phone network. Users are able to top up their credit at any time using a variety of payment mechanisms.

The alternative billing method (and what is commonly referred to as a mobile phone contract) is the postpaid mobile phone, where a user enters into a long-term (generally lasting 12, 18, or 24 months) or short-term (also commonly referred to as a rolling contract or a 30-day contract) billing arrangement with a mobile network operator or carriage service provider. (Source: https://en.wikipedia.org/wiki/Prepaid_mobile_phone)

The concept of Paygo has equally strong early strong advantages and disadvantages. For instance, a prepaid mobile plan may have a lower cost (often for low usage patterns e.g. a telephone for emergency use) and make it easier to control spending by limiting debt and controlling usage. They often have fewer contractual obligations – no early termination fee, freedom to change providers, plans, able to be used by those unable to take out a contract (i.e. under age of majority). Depending on the local laws, they may be available to those who do not have a permanent address, phone number, or credit card. This makes them popular amongst students away from their home towns and also travelers. Additionally, they are popular with parents who wish to have a way to stay connected with their college age students but do not want the surprise of an unexpected and lofty bill.
Sometimes, pay-as-you-go customers pay more for their calls and messages, and in some cases they are limited in what they can do with their phone – calls to international or premium numbers may be blocked, and they may not be able to roam. These limitations are usually the results of a system deficiency whereby the prepaid system used by the wireless carrier as technology has evolved to the place where all this is easily managed by triggers or APIs to 3rd-party solution providers (data, international LD, content, roaming). Current models being deployed by wireless carriers today are capable of setting the price points for all services on an individual basis (via packages) such that higher pricing is a marketing decision. The days of higher pricing being due to more expensive network costs are gone.

"Pay-as-you-go", "PAYGO" and many similar terms are also used for other non-telephone services paid for in the same way. The case under reference uses the same concept of PAYGO in accessing and distributing solar heated water to household customers in India by a company specializing in the many products and services connected with solar energy in India. How the concept has been handled and what are the benefits is the focus of case analysis.

**India’s Solar Power Sector**

![Jawaharlal Nehru National Solar Mission Timeline](https://commons.wikimedia.org/wiki/File:Jawaharlal_Nehru_National_Solar_MissionTimeline_0.jpg)

Over the past several years, India has swiftly developed its solar power sector. Not only has the country already reached its target of 1 gigawatt (GW) of installed solar capacity **this year** but the cost of domestic solar power is now on par with the cost of electricity from **new coal-fired power plants**.
For India, this is the first step toward achieving overall grid parity for solar, a goal that the consulting group KPMG projects will be attainable in the country by 2017–19. This estimate is based on two assumptions: (1) that the cost to consumers of conventional power generation will continue to increase, and (2) that the costs of solar power will continue to decrease.

Reaching grid-parity for solar has great significance for India for several reasons

1. **Greater reliance on solar power will boost the country’s energy security and loosen its heavy (and costly) dependence on coal.** Contrary to the belief that India has huge domestic coal reserves, the country in fact must import coal to meet its energy demands. Currently, India’s top power producer, National Thermal Power Corporation Ltd, meets about 15 percent of its needs through imported coal, and it plans to increase coal imports to 16 million tons this fiscal year due to local shortage. Already this year, the company has called bids seeking 7 million tons of imported coal to supply its 16 power stations. This import reliance makes India not only politically vulnerable, but also economically shaky. Fossil fuel subsidies contribute to India’s mounting public deficit in the fuel sector—a deficit that has led rating agency Standard and Poor to consider downgrading India’s debt from “investment-grade” to “junk” status.

2. **Cheaper solar power will help thousands of Indian homes gain access to electricity for the first time ever.** According a 2010 report from the International Energy Agency, the government of India has pledged that the entire nation will have access to electricity by 2012. This plan appears to be ambitious, however, because India would need to install an estimated 200 GW of generation capacity to sustain economic growth of 8 percent.

3. **Solar power at grid-parity can help address India’s 9 percent power deficit.** The nationwide blackout that affected India this July, which has been attributed to poor grid management and over-drawing of the power supply, is still fresh in the country’s memory. Such problems will likely continue unless new power supplies are identified and connected to the grid.

4. **Comparable costs for solar and conventional generation could lead to an increase in solar’s share of India’s power generation portfolio.** This in turn would contribute to an associated decrease in the power sector’s greenhouse gas emissions.

Unfortunately, India’s progress under the Jawaharlal Nehru National Solar Mission (JNNSM), a program designed to reach an installed capacity of 20 GW by 2022, could falter because of the current international trade war in the solar market. This trade war has led to a development dilemma for India’s solar power sector: continue to import low-cost solar panels to keep costs down and achieve grid parity, or protect domestic solar industries that cannot yet match the low prices offered by countries such as China? While developing a solar manufacturing hub in the country is a goal of JNNSM, many domestic solar equipment
manufacturers are demanding the implementation of entry-barriers, such as Domestic Content Requirements (DCR), and anti-dumping probes against China.

**PAYGO in Selling Solar Heated Water in India**

*The case of Anu Solar Power in India*

Anu Solar Power ([www.anusolar.com](http://www.anusolar.com)) has been around for nearly three decades, and has had extensive and intensive exposure to the growth and development of the renewable energy sector in the country. The organizations founding fathers share a deep ‘commitment to develop world class renewable energy products for the Indian masses at affordable rates’. One of the few companies with a significant and highly accomplished R&D team, Anu Solar Power has developed and customized a host of products from solar water heaters, LED lights and solar inverters for the Indian scenario.

The vision of the company is to “To pioneer the renewable energy sector with products that are indigenously developed, qualitatively superior and affordable to adopt.”

The vision is served by a following three pronged mission and multipronged values.

- To be the preferred choice of customers desiring to adopt renewable energy and energy efficient products and services
- To provide world class products and services which are value driven and help reduce dependence on non renewable energy sources
- To facilitate pro environment choices that allow people to reduce their carbon footprint and protect the environment for a better tomorrow

The values of the company are as follows:

1. Service oriented company that likes to WOW our customers every time. We innovate, deliver world class products and support our customers as they make decisions of foresight. We put our customers first and their contentment is our true reward.
2. We believe our employees are our indispensible strength. They power us on to greater heights of achievement and excellence. We have a tremendous respect for their service and put employee interests above all other aspects of business.
3. Creativity and innovation are the sacred tenets of our existence. With or without Government support we are committed to innovating in the field of alternate, renewable energy, so that our consumers can access high quality products at affordable rates.
4. We are deeply committed to change, and an environment that is safe and healthy. We will do all in our power to give consumers environmentally friendly choices, and develop products that a qualitatively superior and less burdensome on the environment.

Anu Solar Power offers flat plate, and evacuated tub collector solar water heaters for both domestic and industrial use. The company pioneered a new method of deploying solar water heaters in homes when they launched I-Hot in 2009. The pay as you use concept, allows
consumers to access hot water at an astounding 15 paisa per unit, thus making solar water heaters highly accessible to the growing population.

**Case Research and Discussion Questions**

1. Discuss the rationale and role of PAYGO globally and India. Do they enhance or diminish the brand equity?
2. Analyze deeply the stimulus PAYGO for the demand of solar heated water for the Indian households. Was the inevitable?
3. List the key design and context concerns and issues arising out of the PAYGO for the solar heated water access and pricing?
4. What are the key marketing takeaways out of this case episode?
An Investigation into the Moderating Role of National Culture in the Relationship Between Corporate Social Responsibility and Service Quality Outcomes: The UAE Experience

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Abstract
This proposal studies the relationship between corporate social responsibility (CSR) performance and service quality in terms of customer outcomes, with national culture as a moderator. The research focuses on the extent to which national culture has an impact on the relationship between firms’ CSR performance and service quality outcomes, from customer perspectives. This study seeks to investigate the impact of national culture as a moderator of the relationship between CSR and service quality outcomes in the public and private sectors of the United Arab Emirates (UAE). The proposed objectives are to: (1) explore the relationship between CSR performance and service quality outcomes in public and private firms in the UAE through the perspectives of customers; and (2) examine the moderating effect of national culture on CSR performance in public and private firms in the UAE. Given the above aim, a quantitative methodological approach with a cross-sectional time horizon will be adopted. Related questionnaires will be developed for customers of the companies that are implementing CSR policies and engaging in CSR activities. Population of the research will be defined as medium and large companies established in the UAE and engaged in the service sector.

Keywords: Corporate social responsibility, national culture, customer satisfaction, customer loyalty

Introduction
Many firms in the Middle East are directing their focus towards corporate social responsibility (CSR), which has appeared as a high-profile concept with strategic significance for a lot of firms in the current competitive service market environment. Increased emphasis on CSR is influencing the relationships between these firms and their stakeholders, such as customers, employees and communities. These relationships are predicated on the assumption that CSR practice and involvement at all levels has an impact on the service quality offered to such stakeholders.

Argenti et al (2005) illustrated that responses to topics such as the effect of CSR projects on customer attitudes remain mainly subjective, and have barely been studied; however, arguments on the link between CSR and positive outcomes in customer attitudes have increased in recent years. Nevertheless, the limited empirical data available in previous studies on the impact of CSR on consumer attitudes and behaviors are multidirectional. Sen and Bhattacharya (2001) emphasized that CSR has no effect on consumer attitudes, whereas other studies oppose this view. This inconsistency in the impact of CSR critically indicates that the effect of CSR depends on other factors.
Moreover, most CSR studies have investigated its practices and impact on organizational performance, service quality performance, employee outcomes and customer outcomes; however, in reality, there is not always a straightforward linear relationship between CSR and service quality (i.e., customer outcomes) because many aspects can affect the relationship as CSR is not something to be taken for granted.

In some countries, due to various reasons, such as internal/external, the constitution at the pressures groups and religious background are important aspects and have a fundamental impact on such relationships, which in other cultures may not be important. As culture forms the way people think, behave, adopt and accept, we expect that the impact of CSR on service quality is moderated or shaped by the national culture. The broad concept of national culture is linked with many other perceptions; however, the details of many of those relationships still need to be more closely studied as the concepts of both national culture and CSR remain vague.

Cultural disparity is one of the challenges for the possible success of CSR; therefore, the necessity for intercultural sensitivity and the awareness of diverse cultural values among significant proficiencies is essential for CSR practitioners. This proposal particularly focuses on national culture, which CSR researchers seem to have far less interest in as the prominent aspect that verifies the firm’s CSR practices.

Although scholars have emphasized the link between CSR and national culture, it can influence the firm’s approach to CSR, the stakeholders’ expectations of a company’s responsibilities, and what entails ethically acceptable behavior—and very few scholars have studied this within the Arab world. This proposal explores the relationship between CSR and service quality outcomes from customer perspectives, and examines the idea that differences in national culture can explain a certain amount of the variability in customer satisfaction, and customer loyalty. Given that Arab cultures have distinct characteristics, it is this proposal’s intent to examine the extent to which features of national culture in one Arab country, the United Arab Emirates (UAE), affect the relationship between CSR practices and service quality outcomes.

If the Emirati culture is explored through the lens of the dimensional Hofstede Model, we can gain a good overview of its drivers relative to other world cultures, in terms of power distance (score 90), individualism (score 25), masculinity (score 50), and uncertainty avoidance (score 80) with no current score registered for long term orientation and indulgence dimensions.

**Statement of the Problem**

Scholars studied customer perceptions and behaviors towards firms’ social practices, and found consumers to have positive attitudes to these initiatives. However, some research gaps are still present. The existing perception of CSR effects on customer responses is limited. For instance, each concept, such as service quality, customer satisfaction, customer loyalty and national culture, is still essential and has been discussed by many papers in top-quality journals; however, studies on the relationships between CSR, service quality, customer satisfaction, customer loyalty and national culture are rare. Moreover, in spite of the large number of studies
on the range of impacts of CSR, the issue of whether CSR is meaningful for the service provider has yet to be tackled.

Moreover, most of the current research has studied CSR in relation to customer perceptions of companies’ motives, as well as its impact on customer assessments of the product/company. Though many studies have been conducted on the influence of CSR on customer attitudes, many questions remain unanswered. This proposal studies consumers’ perceptions of service quality and CSR, through concepts such as customer satisfaction.

The current literature offers contrasting evidence regarding the moderating effects of CSR versus the moderating effects of perceived service quality. The first viewpoint is that perceived service quality moderates the link between customer perceptions of the motives of company involvement in CSR initiatives and customer attitudes. Researchers who are in favor of this concept have argued that customers usually ignore organizations’ improper social activities (practiced only as a firm marketing tool and not in support of the actual cause) when customers perceive the service quality to be high.

The second viewpoint, reported by other scholars, is that CSR moderates the link between perceived quality and customer attitudes. Researchers who agree with this concept believe that the impact of perceived service quality on customer attitudes will depend on the desired CSR initiatives of the firms. These contrasting concepts and diverse findings call for more comprehensive examination of the link between service quality and CSR, in terms of customer outcomes.

Moreover, as per Aguinis and Glavas’ (2012) extensive review of the CSR literature, the authors stated that only 4% of studies have focused on the individual level of analysis, and called for more studies examining the micro-foundations of CSR.

Many CSR studies in the literature are performed within tangible product-based sectors, prompting research in service-based sectors. Though fewer initiatives have been executed in the service sector, there is no clear argument as to why such relationships might be different and/or significant in a service sector versus a product-based sector. The current study attempts to fill this gap in the literature.

Additionally, CSR has emerged as an unavoidable priority for many organizations in the world. Most of the previous research findings regarding CSR were obtained from European, US and other Western contexts. The Middle East is seen as an emerging economy that attracts the attention of many different international entities. To the best of the researcher’s knowledge, no previous studies have examined the relationship between CSR and service quality, or the moderating effect of the national culture in the Arab world particularly UAE, as per the goal of this study.

It is also difficult to contrast cross-cultural results, as they have utilized diverse samples, environments, industries or service encounters. Additionally, the majority of cross-cultural studies investigating cultural sensitivity have only nearly split customers into Asian and
Western cultures. Consequently, to systematically investigate cultural sensitivity of customer behavior, it is vital to link Hofstede’s national culture to service quality. 

Though certain studies regarding CSR have been conducted in the UAE, the following question remains: whether the relationship between CSR and service quality is affected by national culture components. As a result of the limited research, this proposal focuses on answering this question.

Significance of the Study
The major contributions of this study are twofold. The study contributes to the need for better investigation of CSR in relation to customer satisfaction, customer loyalty, employee satisfaction and employee motivation. It also contributes to understanding of the relationship between CSR and service quality, from customer perspectives, with moderating effects of national culture on the point of view of the developing country, specifically the UAE, which represents an emerging economy in a new region with national and international businesses within service sector in which this research will fill the current gap.

Quality and excellence can provide a strong foundation from which to extend CSR practices and activities in an organization; therefore, companies may benefit more from CSR expenditure if they recognize the impact CSR can have on customer outcomes.

Moreover, scholars and experts within the field have mostly reported on CSR activities in Western communities; therefore, its acceptance and practice in developing regions is still not clear. Some scholars have reported that variations in cultural norms indicate that the current Western understanding of CSR practices may not fit non-Western countries. Therefore, the current body of literature on CSR contains few research studies in developing regions in comparison to developed countries. The present proposed study will address this limitation.

On the national policy level in UAE, the concept of excellence in service sector is very important and that is why the “Fourth Generation of Government Excellence System” for organizations in the UAE, implemented in 2015, works toward encouraging all companies to voluntarily seek quality and excellence, in which the CSR concept is embedded within its second pillar under community responsibilities which calls for more focus on such issue. Additionally, all the results and enablers related to the employees of firms and the firms’ customers, which are important components of the current study, are linked to all of its nine pillars.

Research Question
The following is the constructed research question for this proposal:

To what extent does national culture have a moderate role on the impact on the relationship between the CSR performance and service quality outcomes from customer perspectives?
**Primary Aim**
This study seeks to investigate the impact of national culture on the relationship between CSR performance and service quality outcomes in the public and private service sectors of the UAE. The proposed objectives are as follows:

- Explore the relationship between CSR performance and service quality outcomes through customer perspectives in public and private service firms in the UAE.
- Examine the moderating effect of the national culture on CSR performance in public and private service firms in the UAE.

**Conceptual Framework**
Figure 1 depicts the conceptual framework of the study, which, as previously mentioned, builds on the emerging psychology of CSR literature. A central tenet of this model is that (1) CSR perceptions and performance influence service quality outcomes (i.e., satisfaction, loyalty) and (2) national context, more specifically power distance, individualism, masculinity and uncertainty avoidance, serve as moderators of the effects of CSR perceptions and performance.

The conceptual framework for this research presents CSR performance as the main independent variable. CSR performance includes the following three relations: employees, community and environment. The national culture acts as a moderator of this relationship; four dimensions for measuring national culture, as introduced by the researchers, are added as independent variables of the study. Scholars identified the following dimensions of national culture: power distance, uncertainty avoidance, individualism and masculinity. They stated that these aspects originated from Geert Hofstede’s (1980) dimensions of national culture. Service quality outcomes, from customer perspectives are the dependent variables and include customer satisfaction, and customer loyalty.

*Figure 1: Research Model*
**Literature Review**

As the purpose of this proposal is to explore the impacts of national culture on the relationship between CSR performance and the service quality outcomes, this review of literature addresses the relationship between national culture, CSR and service quality from customer perspectives.

Service quality is becoming an important subject in many parts of the world, as it affects the sustainability of firms. Parasuraman et al. (1985) defined service quality as “the expectation – before customers accept service” and “the perception – after customers accept service.” Both SERVQUAL, introduced by Parasuraman et al. (1988, 1991), and SERVPERF, introduced by Cronin and Taylor (1992, 1994) are tools used to measure specific service quality. As this study focuses on service quality outcomes, the researcher is interested in only the overall service quality, which is more a direct antecedent to service quality outcomes and intervenes the effects of specific service quality on those outcomes, as previous studies have revealed.

Another variable that will be discussed in this proposal is CSR, which is a perception that supports voluntary actions and/or social responsibilities for companies with no standard definition.

Aguinis (2011) concisely captured several key elements of CSR when he defined it as “context-specific organizational actions and policies that take into account stakeholders’ expectations and the triple bottom line of economic, social, and environmental performance.” This proposal aims to address the three dimensions of CSR, including employees and the community, as above definition of CSR.

The interactive effect of CSR on service quality is discussed in the literature for many reasons. Some empirical studies have shown a mixed relationship between the variables. Furthermore, some scholars have presented negative effects and some have found no effect of CSR upon novel product assessment. Moreover, scholars justified the lack of positive effect of CSR based on corporate ability–CSR trade-off, in which customers feel that any firm with a high level of investment in CSR may not show the same level in its quality development.

Due to the popularity of CSR, it has been frequently discussed in the literature regarding its orientation in terms of individual attitude. Scholars have discussed the relationship between national culture and CSR, identifying effects of the former on CSR, in terms of stakeholders’ expectations (i.e., list of organization’s responsibilities and ethically tolerable manners) and the organization’s approach to CSR.

The results indicated that the dimensions of power distance and masculinity had significant negative effects on corporate social and environmental performance. Individualism and uncertainty avoidance had no significant effect. In other words, corporations based in countries characterized by high power distance and high masculinity exhibited lower levels of social and environmental performance. There was no impact of home country individualistic and uncertainty avoidance values on corporate social and environmental performance.
Moreover, scholars studied the relationship between national culture and CSR engagement, they set the cultural scores on Hofstede’s (1980, 2001) cultural dimensions; the results revealed that dimensions of individualism and uncertainty avoidance had positive effects on corporations’ CSR engagement, whereas power distance and masculinity had negative impacts on corporations’ CSR engagement. The inconsistency of such results urges further research on the effects of cultural variables and their impact on CSR practices in firms.

National Culture
This section presents a basic definition of culture and introduces national culture frameworks, specifically Hofstede’s framework. Defining national culture as a combination of norms, values, approaches and conducts is complex and nonspecific. Scholars have not yet agreed upon an international set of dimensions to define culture.

Cultural Dimensions
Due to the complex nature of cultural standards, and to ease the comparison between different cultural studies, scholars have suggested that the cultural dimensions should be language, religion, history, legal system and political system.

The national culture models include single dimension and multidimensional models such as Hofstede model. Among many of the developed cultural frameworks, “Hofstede Five National Cultural Dimensions” is the most well known. This model received international recognition due to its ability to numerically measure national culture. Scholars are now able to use this calculation model to illustrate the national culture of countries and contrast diverse nations in a practical way.

This research proposal chooses the national culture definition as proposed by Hofstede’s Cultural Dimensions model. This preference is justified by the model’s recognition and its capacity to numerically measure culture, which is most appropriate for the purposes of this study. Despite the popularity of Hofstede’s model, it is important to keep in mind its various limitations, as stated by many scholars; these include it being too old and too context-specific, which inhibits it from reflecting other components, such as race, religion and mother language, which hinder its generalizability.

This well-known cultural tool has been extensively recognized and applied at both the national and individual levels in cross-cultural studies. Nevertheless, unlike in classic consumer research where a survey is administered to a person to precisely assess his/her disparities from other individuals, Hofstede’s metric has been used in such a way that people are evenly assigned Hofstede’s national culture indices according to their national identity. This method is typically used for country-level analysis; however, it is not appropriate when a study investigates the effect of an individual’s cultural orientation.

Although Hofstede’s measure has been used as a contextual variable, it is still needed to directly measure cultural values for individual customers. This is because national culture can be measured at either national, organizational or individual levels. As this study’s participants are individuals (i.e., customers) and the study adopts national levels of the
cultural dimension, a psychometrically sound measure of Hofstede’s culture at the individual level will be used; that is, the Individual Cultural Values Scale (CVSCALE), which is a 26-item, five-dimensional scale of individual cultural values, and assesses Hofstede’s cultural dimensions at the individual level. The scale shows adequate reliability, validity and across-sample and across-national generalizability.

**Hypotheses**

National culture is known as the vital feature shaping differences between individuals’ and firms’ values and principles, norms and traditions within diverse cultural environments. The subject of national disparities is noteworthy to firms in determining a strategy for organizational change, and CSR strategy in particular.

**Power Distance Index (PDI)**

The concept of PDI is the level of acceptance of lower-power individuals in a society of inequality. Scholars revealed in their studies that there is a negative relationship between PDI and CSR performance. Additionally, previous studies have indicated that CSR has a direct, positive effect on customer satisfaction and loyalty.

Visser (2008) identified not only that the national context is important in CSR research, but also that existing CSR models have mainly been established in Western nations, thus not fully fitting into the framework of emerging economies. Additionally, most of the literature has focused on the macro level of analysis and less on the individual level of analysis. The only reliable idea among all studies, nevertheless, is that organizations’ CSR behaviors and customers’ or employees’ CSR perceptions are affected by the cultural context, as this is operationalized using Hofstede’s (2001) cultural dimensions.

Building on this literature, we predict that national culture variables are likely to have an impact on how customers evaluate and react to CSR initiatives. We build on previous studies that have identified cultural differences as a vital driver of how CSR is conceived and practiced.

The UAE scores highly on the PDI dimension (a score of 90), which means that people accept a hierarchical order in which everybody has a place and that needs no further justification. Hierarchy in an organization is seen in the following ways: there are inherent inequalities, centralization is popular, subordinates expect to be told what to do and the ideal boss is a benevolent autocrat. Therefore, we expect that firms in the UAE with high PDI culture will have a lower degree of CSR performance, which in turn will decrease service quality outcomes.

- H1: Higher PDI relates to lower levels of CSR dimensions in the UAE and lower levels of the customer dimension of service quality.

**Individualism (IDV)**

An individualist (IDV) culture is one in which members focus on their own interests rather than the group interest, such that individuals primarily focus on their immediate families (Hofstede 1980), and relationships between individuals are loose. In contrast, collectivistic
societies focus primarily on the welfare of the group. Scholars have found a negative relationship between IDV and CSR. Additionally, previous studies have indicated that CSR has a direct effect on customer satisfaction and loyalty, and positively affects customer satisfaction and loyalty.

The UAE, with a score of 25, is considered a collectivistic society. This manifests in a close long-term commitment to the member “group,” be that a family, extended family or extended relationships. Loyalty in a collectivist culture is paramount and overrides most other societal rules and regulations. The society fosters strong relationships, where everyone takes responsibility for fellow members of their group. In collectivist societies, offense leads to shame and loss of face; employer–employee relationships are perceived in moral terms; hiring and promotional decisions take into account the employee’s in-group; and management is the management of groups.

Therefore, it is expected that firms in the UAE, with high IDV cultures, will put less emphasis on the impact of business on society, which will result in a lower degree of CSR and, in turn, a lower degree of service quality outcomes.

- H2: Higher IDV relates to lower levels of CSR dimensions in the UAE and lower levels of the customer dimension of service quality.

Masculinity (MAS)
Masculinity (MAS) in social studies refers to placing more attention on competitiveness, achievement, assertiveness, power and material reward for success. However, feminine societies signify relationships, cooperation, caring, modesty and quality of life (Hofstede 1980). Within MAS societies, individuals express less cooperative behaviors. Moreover, scholars indicated that unethical practices are allocated to individuals of masculine societies, which include pursuing personal competitiveness, achievement, assertiveness, power and material reward for success. Moreover, other scholars found a negative relationship between MAS and CSR. Additionally, previous studies have indicated that CSR has a direct effect on customer satisfaction and loyalty, and positively affects customer satisfaction and loyalty.

The UAE scores 50 in terms of MAS, and can thus be considered neither masculine nor feminine. Therefore, it is expected that firms with a high MAS culture will put less emphasis on CSR and, in turn, have a lower degree of service quality outcomes.

- H3: Higher MAS relates to lower levels of CSR dimensions in the UAE and lower levels of the customer dimension of service quality.

Uncertainty Avoidance Index (UAI)
Uncertainty avoidance index (UAI) is defined as the level of individuals’ acceptance of uncertainty and ambiguity within their society. Individuals with a high UAI score are uncomfortable with uncertainty, and mainly inflexible codes of conduct, and harsh laws and policies to lessen the uncertainty (Hofstede 1980). However, individuals with a low score exhibit more risky behaviors, which is correlated with unethical practices. On this basis, a positive relationship between UAI and CSR is predicted. Additionally, previous studies have
indicated that CSR has a direct effect on customer satisfaction and loyalty, and positively affects customer satisfaction and loyalty\textsuperscript{11}.

UAE scores 80 on this dimension and, thus, has a high preference for avoiding uncertainty. Countries exhibiting high UAI maintain rigid codes of belief and behavior and are intolerant of unorthodox behavior and ideas. In these cultures, there is an emotional need for rules (even if the rules do not seem to work), time is money, people have an inner urge to be busy and work hard, precision and punctuality are the norm, innovation may be resisted and security is an important element in individual motivation. Therefore, we predict that firms in the UAE, with high UAI and in which strict rules are enacted, place more emphasis on CSR and, in turn, have a high degree of service quality outcomes\textsuperscript{8}.

- H4: Higher UAI relates to higher levels of CSR dimensions in the UAE and higher levels of the customer dimension of service quality.

Methodology

Quantitative Research Methodology

Given the aim, a quantitative methodological approach is the most appropriate for this research\textsuperscript{22}. In order to measure the customer outcomes in the present study with reference to the relationship between CSR and service quality, the researcher needs to be objective and to measure the relationships quantitatively. The effect of this relationship is evaluated by measuring customer outcomes. The current research adopts a quantitative approach with cross-sectional time horizon.

A questionnaire will be used as the survey tool and will be developed in both English and Arabic. A pilot study will be conducted with 10\% of the sample\textsuperscript{22} in order to ensure that the :

- participants do not respond in the same way, such that the respondents’ data would form a variable;
- questions are clear to the respondents; in this way, skipping of questions can be avoided.

Sampling: Description and Size

Customers of the companies that are implementing CSR policies and engaging in CSR activities will form the survey’s respondents. There will set of questionnaire to address the related issues for customers. First, the socially responsible firms will be identified. The analysis of prior research on CSR issues demonstrated that the most active firms in CSR are medium and large organizations\textsuperscript{1}. Based on this finding, the population of the research will be defined as medium and large companies established in the UAE and engaged in the service sector.

Data of firms’ CSR performance will be obtained from the CRB that rates firms based on a number of CSR dimensions. The total number of observations are 100 corporations located in UAE\textsuperscript{13}. The sample corporations will be drawn randomly from the list of the companies provided by the CRB. Then, the population will be divided into two groups:
companies who are certified as quality-driven and companies who do not have any quality-related certificates. A random sample will then be drawn from each group. These sample companies will be supplemented with measures of national cultural values including PDI, IDV, MAS, and UAI.

**Work Plan**
The project is planned to take approximately 12 months, starting from Jan 2016 and ending June 2017. The GANTT diagram below illustrates the expected time flow of the project, including milestones (M) and deliverables (D).

**GANTT Diagram**

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
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<tbody>
<tr>
<td>Month</td>
<td>1 2 3 4 5 6 7 8 9 10 11 12</td>
<td>1 2 3 4 5 6</td>
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<tr>
<td>Finalize literature review</td>
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<tr>
<td>Finalize and pilot test questionnaire</td>
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<tr>
<td>Obtain the list of firms for survey</td>
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<td>Conduct survey</td>
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<tr>
<td>Enter and analyze data</td>
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<tr>
<td>Write report and disseminate results</td>
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<td>Milestones</td>
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<td>M 2</td>
</tr>
<tr>
<td>Deliverables</td>
<td>D 1</td>
<td>D 2</td>
</tr>
</tbody>
</table>

M1: Completion of the pilot study review and preparations for surveys

D1: Study design presentation at conference/seminar

M2: Completion of survey

M3: Completion of project
D2: Final report, presentation of project findings at Innovation Arabia conference

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Impact of Corporate Social Responsibility on Organizational Performance of Higher Education Institutes

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Abstract
CSR can provide opportunities to create true competitive advantage and positive reputation for organizations and businesses. Many researchers studied the impact of CSR activities on organizational performance in different sectors. The share of higher education from these studies was insignificant. While some studies revealed positive relationship between CSR and organizational performance, other studies showed negative relationship or no relationship at all. Keeping in mind that higher education institutes operate within different missions, stakeholders and business models comparing to other businesses, we do not know the status of higher education in terms of the impact of CSR on academic performance. In addition, most of these studies were conducted in the context of western developed economies. Researchers are yet to examine the impact of CSR in emerging economies such as Arab countries and Middle East.

This study aims to shed lights on the impact of CSR on organizational performance of higher education Institutes. The organizational performance of higher education institutes will be tested using quantitative methods by applying three specific aspects of organizational performance: financial performance, employee commitment, and corporate reputation. Also, the study will examine such impact that CSR makes within the context of Arab countries. The scope of the study will consider Academic institutes from United Arab Emirates.

Answering the above questions will fill a gap that is currently available in literature with regards to evaluating the impact of higher education CSR initiatives on universities’ performance. This is expected to provide useful insights and opportunities to academician as well as administrators to plan and implement the appropriate CSR strategies that reflect the stakeholders’ needs in a way that improve the performance of higher education institutes. Furthermore, this study will provide a good case study about a United Arab Emirates higher education institutes.

Keywords: CSR; Organizational Performance; higher education; UAE

Introduction
Corporate Social Responsibility (CSR) has received a huge attention by researchers since the inception of the concept in the 1950s (Carroll A. B., 2008). This should not be misinterpreted that CSR practices did not exist before that period, but it means that the formal writings on social responsibility were initiated during that time. In fact, there are enough evidences of CSR practices that took place prior to 1950. Furthermore, the history of CSR records that the term corporate social responsibility was often referred to as social responsibility (SR) in the initial writings in the 1950s before the dominance of the corporate form of business organization.
According to Patrick Murphy (1978), the history of CSR has witnessed 4 eras that incorporated the period before and after the 1950s. He discussed that while the period up to the 1950s was the ‘philanthropic’ era in which the CSR activities of companies were more charitable in nature, the period from 1953 up to 1967 was categorized as the ‘awareness’ era, in which the efforts of the companies were more recognized for their activities and involvement in community affairs. Furthermore, Murphy termed the period 1968–73 the ‘issue’ era. During those period, certain issues such pollution and racial discrimination were taking the attention of companies. The final period which is from 1974 and beyond was the ‘responsiveness’ era. During the responsiveness era, companies tend to consider specific actions that address certain CSR issues including defining corporate ethics and altering boards of directors (Murphy, 1978).

Interestingly, the evolution of CSR was very obvious by the late 1990s, as the idea of CSR became almost universally endorsed and sponsored by almost the whole society; from governments and corporations to non-governmental organizations and consumers (Lee, 2008). The interest in CSR did not only cover certain geographical areas such as United States, Europe and Asia but also covered many sectors including manufacturing, production and retail. Furthermore, CSR has been widely accepted in many disciplines such as HealthCare, Tourism and Education. In the contrary, developing a unified definition of CSR has never been agreed upon in literature.

CSR definition has evolved from being very narrow and limited to philanthropy to being a corporate commitment that is inclusive to the whole community. In early literature, the terms social responsibility (SR) referred to the contribution that the corporation provides for solving social problems (Wood & Logsdon, 2002). Howard Bowen – called by Carroll (2006: 5) as the “Father of Corporate Social Responsibility”- was one of very early writers about social responsibility (SR). He defined SR as “the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society” (Bowen, 1953). Frederick (1960) identified CSR as “private contribution to society’s economic and human resources and a willingness on the part of business to see that those resources were utilized for broad social ends”. Furthermore, Davis’s (1960) believed that CSR “… refers to businessmen’s decisions and actions taken for reasons at least partially beyond the firm’s direct economic or technical interest”. Also, the World Business Council for Sustainable Development suggests the following definition of CSR: “Corporate Social Responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large” (Lord & Richard, 2000). The European Commission (2001) defines CSR as a “concept whereby companies decide voluntarily contribute to a better society and a cleaner environment”. The definition is taken further by the following statement: “Being socially responsible means not only fulfilling legal expectations, but also going beyond compliance and investing ‘more’ into human capital, the environment and the relations with stakeholders” (Promoting a European framework for corporate social responsibility - A Green Paper, July 2001).
The evolution of the CSR since the 1950s has witnessed a gradual analysis in multiple aspects. “The level of analysis has moved from the macro-societal level to the organizational level, and the ethical orientation has been made more implicit than explicit” (Lee, 2008). With the shift in analytical focus, researchers have explored many theories that explain and describe CSR. In the past 40 years, many theories that placed bigger emphasis on managerial and strategic issues regarding CSR have been introduced. Examples of those theories include: the Stakeholder Theory of CSR, the Triple Bottom Line Theory of CSR and the “Corporate Social Responsibility” Theory, Business and Society Theory, Corporate Citizenship Theory, Theory of Social Contract, Theory of Social Costs and The Functionalists and the Neo-functionalists (Secchi , 2007).

Some researchers have spent good efforts to review and categorize CSR Theories in order to analyze CSR from a broader multidisciplinary perspective and to provide definition of clear cut classes of CSR theories. Garriga and Melé (2004) grouped CSR theories into four categories: (1) instrumental theories, (2) political theories, (3) integrative theories and (4) ethical theories. Each of these groups has its own characteristic that justifies being part of such classification (Garriga & Melé, 2004). Secchi (2007) suggested a different categorization based on the role that CSR theories confer to the firm and hence grouped them into 3 groups: (1) Utilitarian theories, (2) managerial theories and (3) relational theories. Each one of the three groups includes several theories that have homogeneity in common (Secchi , 2007).

**Research Gap**
CSR can provide “the opportunity to create a true competitive advantage and positive reputation for the business world” (Smith 2007, Porter and Kramer 2006). There is no doubt that universities are in need of solid corporate strategies in order to be effective in the highly competitive higher education sector (Dahan & Senol, 2012).

While the topic of CSR has generally witnessed a great development in terms of defining its concepts and conceptualizing its theories and models, such development has spread to all industries and sectors until it has become a global concept (Topal, 2009). However, the share of Higher Education sector of such conceptualization in literature does not seems to be equally significant. When comparing the amount of work that has been done since the existence of the term “CSR”, we can notice that higher education field attracted less efforts comparing to other fields.

Likewise, while many studies have tackled the issue of the impact of CSR activities on organizational performance in business sectors, the Higher Education sector received very little attention. Higher education institutes operate within different missions, stakeholders and business models comparing to other businesses. A number of researchers have shown the positive relationship between CSR and organizational performance of businesses (Margolis and Walsh, 2003; McWilliams et al., 2006; Orlitzky et al., 2003). We do not know however, if this applies too to Higher Education sector. In addition, most of these studies were conducted in the context of western developed economies. Researchers are yet to examine the impact of CSR in emerging economies such as Arab countries and Middle East.
Hence this study aims to shed lights on the impact of CSR on organizational performance of Higher Education Institutes. The organizational performance of Higher Education Institutes will be tested using three specific aspects of organizational performance: financial performance, employee commitment, and corporate reputation. Also, the study will examine such impact that CSR makes within the context of Arab countries. The scope of the study will consider Academic institutes from United Arab Emirates.

**Research Problem**
The research problem can be summarized by the following questions:

1) What is the impact of CSR on organizational performance of Higher Education Institutions?

   o What is the impact of CSR on financial performance of Higher Education Institutions?
   o What is the impact of CSR on employee commitment in Higher Education institutions?
   o What is the impact of CSR on reputation and ranking of academic institutions?

**Importance of the Topic**
Answering the above questions will fill a gap that is currently available in literature with regards to evaluating the impact of Higher Education CSR initiatives on universities’ performance. This is expected to provide useful insights and opportunities to academician as well as administrators to plan and implement the appropriate CSR strategies that reflect the stakeholder’s needs in a way that improve the performance of Higher Education institutes. Furthermore, this study will provide a good case study about a United Arab Emirates Higher Education institutes.

**Literature Review**
Although the attention for CSR studies has notably increased recently, there are still yet many areas that require extensive research and analysis. This includes CSR definition, CSR dimensions, CSR measurement tools and CSR impact on organizational performance. Furthermore, some sectors (i.e. Higher Education) and regions (i.e. Middle East) still require bigger attention. Furthermore, it was observed that increased interest in CSR has resulted on very diverse research outcomes which made a fundamental base of CSR like CSR definition, an area for disagreement. As a result of this, until this moment, there is not a universally agreed definition of CSR. This rapid attention of CSR has faced an increased social awareness mainly from stakeholders including customers, shareholders and society at large. In the current global market environment, companies do not have a choice but responding to the emerging needs of their stakeholders including issues related to economic, legal, ethical, and philanthropic responsibilities (Dahan & Senol, 2012). While many organizations’ actions toward implementing CSR strategies were more re-active in nature, they intended at the beginning to respond to the increasing social pressure by the society. However, in the implementation stage, they recognized that CSR strategies can be profitable and create added value for their corporates, including competitive advantage and corporate reputation (Husted & Allen, 2000).
CSR and Higher Education

Higher education plays a vital role in the development of any socio-economic system. In the era of knowledge-based economy, where knowledge becomes a commodity, higher education becomes very essential for the country’s sustainability. The UNESCO Task Force Report on Higher Education in Developing Countries (2000) highlighted the importance of higher education in improving countries’ competitiveness.

Like other service providers, higher education institutes (HIEs) provide its services to its stakeholders, primarily learners. Other stakeholders that are involved in the higher education process and context cannot be ignored. These include: parents, regulatory and accreditation authorities, funding bodies and the society at large (Khan, 2012). It is worthwhile to mention that although there seems to be a common understanding about the importance of higher education and its role to achieve sustainability and competitive advantage, there has been a problem with regards to reaching to an agreement to define the major customer of higher education. While many believe that learners should be considered the premier customer, others believe that other parties including governments, industries and society should be at the driving seat (Cuthbert, 1996). In fact this is one key differentiation factors between higher education institutions and traditional corporate entities. “A traditional corporation can easily and legitimately talk about the “customer”. Yet to label the students as customers in higher education is nearly a sin” (Dahan & Senol, 2012).

Globalization and competition in higher education industry has made universities apply different strategies than before. The target of achieving high academic profiles and attracting highly qualified learners and academic staff, locally as well as internationally, forced higher education institutes to act like academic enterprises and adopt a more business-like tactics so they can compete and survive (Weymans, 2010). There is no wonder why issues like corporate image, corporate identity, corporate reputation and mainly CSR became of interest to academic institutes (Dahan & Senol, 2012; Ahmad, 2012; Othman & Othman, 2014).

The interest in community support activities, call it social responsibility, has always been part of universities, and more specifically academic staff missions. It is very normal nowadays to find that educational institutes evaluate their academic staff not only for instruction and curriculum development, or for research and scholarly activities, but also for community services as well. Furthermore, the interest of CSR in academia drove academic institutes to include an essential part of their strategy for development and growth. “By developing such strategies higher education institutions are also discovering the opportunity to move the focus beyond the classroom into their own institutional operations” (Dahan & Senol, 2012).

In addition, while universities’ decisions about their CSR activities are ‘philanthropic’ in nature in some countries, they are regulated by official authorities in some other countries. In Sweden for instance, the Universities Act in 1998 included components about service elements and interaction with the society. In the US, a consortium of universities known as Campus Compact was established to support learners to advance their skills through participation in public and community service (Othman & Othman, 2014). In Finland, the
latest amendment of the Universities Act was to strengthen universities’ social role where academic institutes “are expected to engage and interact with the rest of society and to promote the social impact of their research findings” (Kantanen, 2004). In the United Arab Emirates, the Standards for Licensure and Accreditation published by the Commission for Academic Accreditation of Ministry of Higher Education and Scientific Research (2011) included a major standard about community engagement where academic institutes are expected to accept their responsibilities to serve the needs and the support the local community in a variety of ways. Furthermore, the standard defines three types of community engagement required by academic institutes including: institutional engagement, employer engagement and community relations (Standards for Licensure and Accreditation, 2001).

The role of academic institutes in implementing CSR is quite different than other corporations. While traditional organizations exercise CSR by providing their services to the community, universities while they are also expected to voluntary provide support to the community take the role of transferring the knowledge to the new generations by teaching, training and research activities. Nowadays, CSR is becoming a core subject in many academic programs (Ahmad, 2012). According to Christensen et al. (2007) 42% of the top global MBA programs include CSR as part of their core content. Hence, academic institutes bear the burden of changing the behavior and actions that are reflected in their learners and alumni. As a result their impact on society is very direct and immediate.

**CSR and Organizational Performance**

Researchers made significant efforts to study the possible impact of corporate social responsibility on organizational performance (Rettab et al., 2008; Griffin and Mahon, 1997; Husted and Allen, 2000; Husted and Salazar, 2006; Okwemba et al., 2014, Pérez & del Bosque, 2013). While many studies revealed positive relationship between CSR and organizational performance, other studies show negative relationship or no relationship at all (Rettab et al., 2008). This explains the status of disagreement between researchers on whether or not, and how, CSR affects organizational performance. A number of researchers have discussed the reasons behind the lack of consensus suggested that that is partially because of the use of “questionable” measures of organizational performance (Carroll, 1991; Rettab et al., 2008). Other scholars highlighted that depending on one single measure of performance; mainly financial performance; may not give a full overall assessment of the whole organization (Husted & Allen, 2000).

Furthermore, many studies suggested different measures for organizational performance including customer satisfaction, financial performance, employee commitment, corporate reputation and corporate image, competitiveness, customer retention and development of new products (Rettab et al., 2008, Okwemba et al., 2014). However, while some of these measures can be applicable for academic institutions, many others cannot be applied.

With an aim to define tools for measuring CSR, Carroll (1991) suggested four dimensions and developed what he called the Pyramid of Corporate Social Responsibility. The pyramid (Figure 1) entails economic, legal, ethical, and philanthropic responsibilities. The
economic responsibility acts as a foundation for the pyramid focusing economic performance of the organization keeping in mind those organizations must be profitable in order to be sustainable. The legal responsibility concentrates on organization’s conformance to the prevailing laws and regulations. The ethical responsibility looks after the ethical expectations that corporate operate with in as avoiding harm or discrimination to the community. At the top of the pyramid are the philanthropic responsibilities looking for contributing resources to the community and improving the quality of life to the surrounding environment. Carroll explains that corporates are not to consider performing philanthropy CSR before satisfying the first three levels of the pyramid; economic, legal, and ethical responsibility (Carroll A. B., 1991).

![Figure 1: The Pyramid of Corporate Social Responsibility](source)

As this study aims to shed lights on the impact of CSR on organizational performance of Higher Education Institutes, the following measures are suggested to represent organizational performance of academic institutions: financial performance, staff commitment and reputation and ranking. These measures are directly linked to the nature of the academic life. Also, the study will examine such impact that CSR makes within the context of Arab countries. The scope of the study will consider Academic institutes from United Arab Emirates. The UAE higher education environment has recently witnessed the development of academic cities as well as academic free zones with in the country; this resulted in a significant increase on the number of higher education institutions, including branches well-known universities offering a huge range of academic programs. Hence, the result of this study can be representing the Gulf Area and the Middle East and will contribute to the existing body of knowledge.

**CSR and Financial Performance**

In his pyramid of CSR, Carroll (1991) suggests that financial performance is the fundamental measure of any organization success and sustainability. Interestingly to note, financial performance is considered to be one of the most studied indicators of the strategic value of
CSR (Rettab, Ben Brik, & Mellahi, 2008). While most of those studies revealed a positive relationship between CSR and organizational financial performance, we must note that few studies reported no relationship, mixed relationship and negative relationship (Margolis & Walsh, 2001). This had led to the impression that organizations that are socially responsible would in most cases, have an improved financial performance.

Some researchers went further and attempted to explain why there is – in most cases - a positive relationship between CSR and organizational financial performance. Allouche and Laroche (2006) explained that the CSR activities that are run by the firms imply a satisfaction factor which in turn results in better financial performance. Consequently, it is very essential for organizations to communicate their CSR activities to stakeholders. This does not only satisfy the existing customers, but also can - in a way or another- bring new customers. There is no doubt that implementing CSR activities involve cost that could be a short term or continuous outflows. While implementing such CSR strategies, organization keep an eye on the case flow as well as to the shareholders’ interest. Therefore, being socially responsible must be associated with sustainability and this can only happen by positive financial performance.

In order to measure the relationship between CSR and financial performance, researchers attempted to assess the accounting measures that comprise of short-run financial impact which the organization is involved in social responsible activities. In addition, other researchers tend to look at the return based on the stock market measures and focus on futuristic market performance.

Financial performance is no less important in higher education institutes than other organizations. In fact, academic institutes are licensed by the authorities only if they prove sustainable financial performance. In the United Arab Emirates, the Standards for Licensure and Accreditation published by the Commission for Academic Accreditation of Ministry of Higher Education and Scientific Research (2011) included a major standard about Fiscal Resources which academic institutions applying for licensure or re-licensure are expected to demonstrate “present and future financial stability with resources adequate to accomplish its mission effectively and to ensure that all enrolled students are able to complete their academic programs”. Furthermore, the standard demands that essential policies and procedures for “budgetary planning, expenditure control, accounting, external audits and risk management are in place”.

Based on the above, the following hypothesis is proposed:

- **H1:** CSR is positively related to financial performance of Higher Education institutions.

**CSR and Staff Commitment**

Staff commitment refers to the degree to which employees are caring about the organization and willing make personal sacrifices for it. (Jaworski & Kohli, 1993). It is important for Academic institutes with its diversification of staff, both in academic affairs or in administration, to measure such dimension considering that staff are the cores of differentiation
for academic institutes as well as other organizations. Overall, studies that focused on the impact of CSR on staff commitment concluded that employees, who are pleased with the efforts of their organization toward the society and environment, tend to be more positive, engaged and productive than those working for less responsible organizations. Also organizations with known CSR involvement can have better opportunities to attract better job applicants, retain them once hired, and maintain employee morale (Rettab et al., 2008; Backhaus et al., 2002; Albinger and Freeman, 2000; Amble, 2007). Stawiski et al. (2010) provide an explanation for such commitment by stating that “When a company has CSR initiatives, employees are more proud of and committed to the organization. This is because our personal identities are partly tied up in the companies that we work for. If my company is saving the world, I am too, so my association with the company reflects positively on me and makes me feel good about the work I do for the company” (Stawiski, Deal, & Gentry, 2010).

Furthermore, the influence of CSR goes beyond the existing employees to the prospective ones. Organizations with social responsible activities send positive signals to potential workers (Gond, El-Akremi, Igalens, & Swaen, 2010). Also, for those job seekers with many job choices, CSR can have a strong organizational attractiveness. Furthermore, some studies suggest that CSR actually can impact corporate attractiveness for prospective students such as undergraduates and MBA students (Albinger & Freeman, 2000).

Based on the above, the following hypothesis is proposed:

- **H2: CSR is positively related to employee commitment in Higher Education institutions.**

**CSR and reputation and ranking**

Reputation, call it ranking, is a very familiar term in academia. Universities usually compete with each other’s based on known list of indicators that result in an index of universities in one area or more. For academic institutes a clear and direct measure of performance is the ranking which differentiate high performers from the low ones. According to Gotsi & Wilson (2001), reputation can be defined as “a stakeholder’s overall evaluation of a company over time”, this evaluation is made up from the stakeholder’s experience of the visible behavior of the company, as well as the images based on the company’s communication and in addition its symbolism in comparison with its major competitors (Gotsi & Wilson, 2001).

Many researchers studied the impact of CSR on organizational reputation. Such impact however is not straightforward. Reputation depends on the organization’s ability to properly communicate its CSR strategies to its stakeholders. “Contrary to employee commitment where employees are able to observe their firms’ CSR activities, the impact of CSR on corporate reputation, in the eyes of different but mostly external stakeholders, is shaped by how the firm communicates its CSR activities and how its activities are reported in the national media and other communication mediums” (Rettab, Ben Brik, & Mellahi, 2008). Lacking the appropriate skills to communicate the CSR initiatives to stakeholders, and loss of media interest about such initiatives can limit the organization ability to build better reputation regardless of how good they are doing in terms of CSR.
On other hand, some studies revealed a positive relationship between CSR and organizational reputation. Reputation Institute, a private international consulting firm based in New York, USA, has recently published its annual “Global CSR RepTrak 100” report (2015) which indexes the global CSR reputation ranking of the 100 most reputable firms by the general public across 15 countries. The study covered more than 150,000 consumers across those countries, and revealed that 42% of how people feel about an organization is based on their perceptions of the firm’s corporate social responsibility (CSR). A similar finding was revealed by the MIT Sloan Management Review in its Sustainability & Innovation Global Executive Study and Research Report (2012). 2,600 executives were asked to report on the greatest benefits to their organizations in addressing sustainability. 40 Percent of the answer was “improved brand reputation”.

Based on the above, the following hypothesis is proposed:

- **H3: CSR is not positively related to reputation and ranking of Higher Education institutions**

**Research Conceptual Model**

The following figure represents the research conceptual model

![Research Conceptual Model](image)

**Methodology**

As the main purpose of this study is to study the relationship- if any – between CSR on organizational performance of Higher Education Institutes, the researcher intends to test the three predefined hypothesis that are related to the measures of organizational performance of academic institutions. This section discusses the research methodology including sampling, instrument, data collection, and, finally, the statistical analysis that will be used for this study.

**Sample Design and Data Collection**

To address the research questions, and to test the research hypothesis, a preliminary questionnaire that depends on the Likert scale with 5-point scales ranging between 1 and 5 will be carried out. In order to ensure that the questionnaire items are free of redundancy and important aspects are not omitted, the questionnaire will be tested on a random sample of 25
participants that consists of university administrator positions from UAE universities. After making the necessary adjustments (if any) and confirming the final set of items, the final questionnaire will be tested for validity by Cronbach's Alpha (α) to measure internal consistency and hence ensure that the questionnaire has suitable validity. Furthermore, the validity of each item will be tested with Confirmatory Factor Analysis (CFA).

After that, the questionnaire should be ready to be disseminated to a representative sample of academic management positions including Chancellors, Vice Chancellors, deans and program directors positions.

The Sample size will be calculated based on the following formula: \( N = \frac{Z^2 \sigma^2}{E^2} \)

Where, \( Z \) is taken as 1.96 which value of \( Z \) at 5% level of significance or 95% confidence level. \( E \) is precision or tolerable limit. It is taken as 5%. \( \sigma^2 \) is target population variance. Its estimate is taken as \( p^*q \) with \( p=0.5 \) and \( q=0.5 \).

\[ N = \left( \frac{(1.96)^2 \times (0.5 \times 0.5)}{0.5^2} \right) = 384. \]

In addition, since there are more than 88 licensed academic institutes in UAE according to the UAE higher Education Fact book (2013/2014) in addition to 27 non CAA-licensed academic institutes, the above estimated sample size seems to be reasonable.

**Data Analysis, Validity and Reliability**

In order to analyze the data, an exploratory factor analysis will be performed using principal component analysis as the extraction method and oblimin (with Kaiser Normalization) as the rotation method. Furthermore, the data will be tested for Multicollinearity, normality and Reliability. Structural Equation Modeling (SEM), Correlation Analysis and Regression Analysis will be used to analyze the data collected. In addition, in order to ensure the suitability of the scale, a reliability analysis will be conducted by grouping the items according to the conceptual dimensions from which they were obtained. By examining correlation of the set of items with their respective dimensions, items whose elimination will improve reliability coefficient alpha should be omitted. Finally, in order to study the proposed model’s goodness of fit, a three-level assessment will be performed: (1) test of overall model fit (absolute, incremental and parsimonious), (2) test of measurement model, and (3) test of structural model fit. Also, to ensure scale validity, the validity of the new constructs will be tested with Confirmatory Factor Analysis (CFA). In addition, exploratory factor analysis and Cronbach’s alpha will be used to test the reliability of the new set of dimensions and items.

**Expected Implications**

The impact of CSR in organizational performance is perceived as a very important, yet a very complex issue to measure in today’s competitive environment. This study paves the theoretical and empirical ground for measuring such impact in the performance of higher education institutions.

The findings of the study once conducted will fill a gap that is currently available in literature with regards to evaluating the impact of Higher Education CSR initiatives on universities’ performance from the eyes of its management. This is expected to provide useful
insights and opportunities to academician as well as administrators to plan and implement the appropriate CSR strategies that reflect the stakeholder’s needs in a way that improve the performance of Higher Education institutes. Furthermore, this study will provide a good case study about a United Arab Emirates Higher Education institutes and generalize the results to the Gulf countries as well as Middle East.

References


Student satisfaction in online learning: Investigating Differences across gender

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Abstract
During the past decade, higher education has witnessed a notable growth in online or blended learning. Since management of higher education (HE) institutions consider student satisfaction as a major factor influencing the quality of their programs, it is important to identify the determinants of student satisfaction. Recognizing that subtle gender differences are embedded in our cultures, management of HE institutions need to determine whether the satisfaction of female and male students are influenced by similar or different factors. This represents a key consideration for the development of effective market segmentation and targeting strategies. The objective of this study was to develop and empirically test a conceptual model of student satisfaction within an online setting in higher education, to explore whether gender of students influenced the determinants of their satisfaction. The study used a mixed method approach comprising a qualitative phase to develop the study questionnaire, followed by a self-administered structured online questionnaire. A campus-wide sample of 824 students (511 females and 313 males) enrolled in an online course at the University of Mauritius were surveyed. Using exploratory and confirmatory factor analyses to develop the measurement models, and structural equation modeling to test the study hypotheses, three significant antecedents of student satisfaction emerged for both male and female students: university reputation; physical facilities; and faculty empathy. Various theoretical and managerial implications are discussed and directions for further research are proposed.

Keywords: satisfaction; online learning; gender; reputation; interactions; culture

Introduction
Student satisfaction has emerged as one of the major elements in determining the quality of programs offered by HE institutions (Parahoo, Santally, Rajabalee, & Harvey, 2015; Yukselturk & Yildirim, 2008), as student satisfaction is linked to the quality of academic experiences (Kuo, Walker, Belland, & Schroder, 2013; Yukselturk & Yildirim, 2008). In this regard, the shift to focus on student orientation has been warranted, since student satisfaction leads to various positive consequences for students including: quality of academic experiences (Gibson, 2010, Parahoo et al, 2015), persistence (Allen & Seaman, 2008; Gibson, 2010), self-confidence (Letcher & Neves, 2010), and retention (Debourgh, 1999).
The Higher Education (HE) environment is changing as it is witnessing a growing demand for online courses (Croxton, 2014; Parahoo et al., 2015). In the USA, demand for online courses has exceeded that of face-to-face courses (Kuo et al., 2013), while a similar trend is emerging in other markets as well (Parahoo et al., 2015). But is higher education addressing the needs of its customers in the era of online learning?

It is reasonable to predict that the technology-enabled environment would potentially alter the dynamics of interactions of students with faculty (e.g. electronic communications, online forums, immediacy of response), IT staff (e.g. training on virtual platforms and technical support services), as well as with course content (e.g. virtual platforms and e-libraries available 24/7); it would also potentially alter student expectations. But while various research studies have focused on antecedents and consequences of student satisfaction (Helgessen & Nesset, 2007; O’Driscoll, 2012), the difference in behavior across female and male students has not been addressed adequately. The rationale of focusing on gender differences is that subtle gender differences are embedded in all our cultures, while teacher expectations shape gender roles in the classroom and eventually influence choices in majors and career paths that follow with tertiary education (Barone, 2011). An important issue that emerges is whether these embedded gender differences affect student satisfaction in online learning? The lack of research attention to this issue represents a pertinent concern as women now make up the majority of the students enrolled in universities and colleges in numerous countries (Finlow, 2013).

**Literature Review**

**Gender & Education**

Men and women are expected to interact differently in an educational setting, a behavior learned and reinforced from a young age and known as primary gender bias. Numerous studies have highlighted greater amounts of teacher attention directed toward boys rather than girls, so that boys and girls develop different attitudes towards school, their learning orientation, and their working habits (Legewie & DiPrete, 2012). In HE these cultural gender biases take shape and influence choices in majors and in effect map future career and life options.

Tucker (2014) looked at online learning engagement and reported that the contributions of male students to online discussions were typically more numerous, longer and included greater levels of social exchange than those of female students, although the women appeared to be more interactive than men in the online environment. Findings also revealed that instructional design and comfort with technology were significant factors across gender (Rossing, Miller, Cecil, & Stamper, 2012). Females may perceive and use an online system differently than males, therefore design and implementation choices should accommodate both genders (Lin, Tutwiler, & Chang 2012). Moreover various studies in face-to-face settings in western universities have shown that the satisfaction of students with their university varied across gender (e.g.; Brown, 2000; O’Driscoll, 2012; and Young-Jones Burt, Dixon & Hawthorne, 2013).
Culture and technology
But are these truly gender differences or cultural differences masked by gender roles and societal expectations? The Hofstede Center is one of the foremost authorities on cultural variables and their work has been taken and applied to better understand and predict cultural influences around the world and in various contexts. Hofstede (1991) in his early research identified several key constructs that offer insight into these cultural components (power distance, individualism, masculinity, uncertainty avoidance, long-term orientation & indulgence). In 2012, Thowfeeka, & Jaafar suggested that masculine/feminine dimension is one of the important factors that should be explored before moving towards adopting an e-learning system at an educational institution.

When it comes to technology Davis developed the Technology Acceptance Model (TAM) to explain computer usage behavior, related to both human and social change processes (Legris, et al., 2003). The TAM showed that acceptance of new computing technology was based primarily on two major characteristics: perceived usefulness and perceived ease of use. However since its conception, globalized results have had findings that are contradictory when applied to different cultural contexts. Straud (1994) demonstrated that specifically in Switzerland, Asia & the ME that culture was a key factor influencing the use of technology by individuals and societies.

Online education and student satisfaction
Despite the recognition of gender differences in cultures and in educational experiences, overall student perceptions on the integration of emerging technology into classroom instruction, showed overall positive experiences with the technology (Rossing, Miller, Cecil, & Stamper, 2012). Even though TAM and other models developed to explain acceptance of information systems and their subsequent adoption behavior have overlooked cultural factors (Thowfeeka, & Jaafar, 2012), continuous technological advances, previously constructed definitions and conceptual frameworks are constantly being reframed and redesigned, as online learning is still in its growth phase. These advances in technology and continued globalization have resulted in universities creating new benchmarks of service quality in HE, with a shift in how universities are choosing to engage their students (Cinque & Brown, 2015). As a result, research into student experiences is necessary to comprehend how universities might better respond (Parahoo, Harvey, and Tamim, 2013), for students experience frustration when this expectation is not met (Rossing, et al., 2012).

Methodology
Qualitative phase
The study used a combination of qualitative and quantitative methodologies to support the development of a pool of items representing the different study constructs. The first stage involved two focus groups that were jointly facilitated by the authors, followed by a meeting among the researchers to finalize the emerging themes affecting student satisfaction.

Developing questionnaire items
To develop measures for the study constructs, validated measures were identified from the literature and fine-tuned to the context of the present study. At the conclusion of this process,
a battery of 29 items representing the study variables was drafted. After pilot testing, these items were purified using study data, as next described.

**Empirical context, sampling and collection of data**
An undergraduate course (“GEM in Educational Technology”) common to students of different schools at the University of Mauritius was selected for the empirical context. At the conclusion of the online course, the online survey was administered to all enrolled students for purposes of convenience and anonymity. This approach was effective, resulting in a total of 824 usable responses, representing a response rate of 90%.

**Finalizing measurement scales**
The data from the 824 students was analyzed in a multi-stage process. First an exploratory factor analysis (EFA) was undertaken (Hair, Black, Babin, & Anderson, 2010), then the resulting factor structure was then confirmed by Confirmatory Factor Analysis (CFA) using LISREL 8 (Hair et al., 2010).

**Data Analysis**

**Identifying latent factors**
Principal component analysis was used as an extraction method in the EFA, followed by varimax rotation. Seven factors with eigenvalues exceeding 1.0 emerged, which cumulatively accounted for 59.1 % of the variance. The factors were named as follows: Student satisfaction; IT/Admin staff interactions; Faculty empathy; Reputation of university; Student interactions; Physical infrastructure; and Faculty feedback.

![Conceptual model](image)

**Figure 1: Conceptual model**

**Measurement models and reliability and validity of scales**
The internal consistency of the different study scales was determined through composite reliability (CR) using a threshold of 0.70 (Hair et al., 2010). Face validity was established by
using validated measures from literature. Convergent validity was established by examining the path loadings, which were all high. Further, the average variance extracted (AVE), exceeded 0.5 for all constructs for both genders. This process confirmed convergent validities of the scales for both genders. Discriminant validities between a pair of latent variables was established by comparing the two respective AVE values to the squared correlation estimates between the same two variables. Since the AVE values exceeded the related correlation estimates, discriminant validity was established. Having established unidimensionality, as well as reliability and validity for each of the measurement scales, it was appropriate to investigate the study hypotheses by structural equation modeling (SEM).

**Testing Of Study Hypotheses**

Using SEM in LISREL for the two groups (female and male students), non-significant paths were omitted and the reformulated model resulted in 3 significant independent variables (Reputation; Physical infrastructure; and Faculty empathy) affecting satisfaction was again tested. The fit of both models for male and female were good, with normed chi-squared values being 2.3 for females and 2.6 for males, while SMR values were 0.035 for females and 0.047 for males, and IFI values were 0.99 and 0.98 for both genders respectively.

**Discussion**

Theoretical implications

It was observed that the satisfaction for both genders were influenced by the same three factors in decreasing order of importance:

- Reputation (Gamma= 0.45 and 0.42 for female and male students respectively)
- Physical infrastructure (Gamma= 0.27 and 0.35 for female and male students respectively)
- Faculty empathy (Gamma= 0.21 and 0.19 for female and male students respectively)

In addition, the respective path coefficients for the three independent variables were found to be quite similar for both genders. This implied that the male and female students tended to demonstrate homogeneous behavior as “consumers” of education services. Their satisfaction was driven by the same factors with the relative importance of each factor also being quite similar. The current finding is interesting as it implies that both genders generally comprised a homogeneous group of customers. However, this finding is in sharp contrast to those of a study on student satisfaction in a technology-enabled environment in Saudi Arabia (Parahoo, Harvey and Tamim, 2013), which found that the male student satisfaction was determined by two factors named: Reputation (beta=0.763) and Faculty academic competence (beta=0.301), while for female students, only Reputation (beta=0.499) affected their satisfaction. Leaving the question open to whether culture is confounding or influencing their gender differences, and whether this should be considered in context when measuring student satisfaction.

From a practical influence, management of the University needs to recognize the key role reputation plays in influencing satisfaction of their students, and is similar to findings by
Mourad, Ennew, & Kortam (2011), and Ahmed & Dar (2015). However a bit more surprising was that physical infrastructure, was more important than faculty empathy, as it could have been expected that faculty related factors would play a more significant role in influencing student satisfaction. The implication is that university management may develop similar marketing strategies for both genders, and devote their efforts and resources to strengthen the three factors that contribute in enhancing the satisfaction of both genders.

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e-Service Quality Dimensions in Higher Education in the United Arab Emirates

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Abstract
With the rapid growth of the Internet and information technology, methods of delivering learning and education in the higher education environment have evolved, with e-learning fast becoming a trend of this new era of education. On the other hand, to date, there have been very few studies conducted on the concept of e-service quality in relation to higher education, compared to other fields. Therefore, the purpose of this research is to identify the determinants that lead to e-service quality in higher education environment. Furthermore, the research aims at understanding students’ perception of e-service quality dimensions by understanding the overall satisfaction of students with the e-services provided by universities such as recruitment, registration, retention, advising, counselling and financial services.
Feedback from two focus groups that consist from students and experts will be used to generate and validate e-service quality constructs. The final set of e-service quality dimensions will be tested and used to design the questionnaire. Validity and internal consistency will be measured by Cronbach’s alpha while the validity of each item will be tested using confirmatory factor analysis. Finally, data will be tested using exploratory factor analysis, multicollinearity, normality and reliability, structural equation modelling, correlation analysis, and regression analysis.
It is expected that the findings of this research will enable academic institutions providing e-services to obtain valid, reliable, and consistent measurements of the quality of educational services provided, thereby offering opportunities to academicians as well as administrators to plan and implement appropriate strategies that reflect their customers’ needs and improve the quality of education and students’ satisfaction levels in these institutions.

Keywords: e-learning; e-service quality; e-learning service quality; higher education; UA

Introduction
In today’s era of globalization, firms in the services or manufacturing industries, whether in the private or public sector, are faced with the challenges of an increasingly competitive environment – and one way to meet such challenges is to adopt customer-centric strategies.
Customer satisfaction has become an important measure of a firm’s success, as it is considered a major indicator of consumer loyalty and repurchase intentions. According to Wicks and Roethlein (2009: 38), ‘an organization that consistently satisfies its customers enjoys higher retention levels and greater profitability due to increased customer loyalty’.

Since service quality is an antecedent to customer satisfaction (Ivanauskienė & Volungėnaitė, 2014; Sugant, 2014), its conceptualization and measurement has received
significant attention from corporations and other institutions across the world. Accordingly, organizational attention is shifting to pre- and post-sales services, rather than products’ manufacturing and specification; particularly in the knowledge economy, service is increasingly seen as the key to sustainability (Zaim, Bayyurt, & Zaim, May 2010).

Higher education plays a vital role in the development of any socio-economic system. A UNESCO report titled Higher Education, Research and Innovation has highlighted the importance of higher education in improving countries’ competitiveness (Meek, Teichler, & Kearney, 2009). Moreover, in a knowledge-based economy, in which knowledge becomes a commodity, higher education has been shown to be essential for a country’s sustainability – with service the key to such sustainability.

With respect to service quality and the education sector, the twin performance objectives of achieving prestigious academic profiles and attracting highly qualified learners has forced higher education institutes to pay more attention to service quality issues. Yet, despite a rapid growth in the field of education over recent years, there is still a paucity of research in the area of defining the scales, dimensions, and measurements of service quality in higher education institutions around the world. Scholarly focus should not, therefore, centre on whether service quality is important or not in higher education sector, but, rather, on how to define and apply the most applicable measurements that impact on learners’ service experiences (O’Neill & Palmer, 2004).

As their sector is evolving, educators are facing issues such as higher costs and shrinking budgets that will also cause such institutions to reassess the way that education is being delivered (New Media Consortium, 2007). There is no doubt that e-learning is becoming a trend of the new era of education. According to recent research published by EDUCAUSE Centre for Analysis and Research (ECAR) regarding the use of information technology in higher education, ‘nearly all institutions have a major interest in e-learning, at least at the level of some departments’ (Bichsel, 2013: 3). In the United States, the results of a survey conducted by the Online Learning Consortium revealed that more than 6.7 million learners took at least one online course during a semester of their study (Allen & Seaman, 2013). A year later, data published by the Babson Survey Research Group showed that these numbers had increased by 3.7 per cent from the previous year (Allen & Seaman, 2015).

Although educational institutions in the Middle East are still in the early phases of e-learning adoption, there have been serious efforts made by some governments – particularly in the United Arab Emirates (UAE) and Saudi Arabia – to become pioneers of providing high-quality programs using a virtual learning environment. Furthermore, in the UAE, such ‘smart education’ is part of the country’s national agenda, as emphasized in its ‘UAE Vision 2021’ strategic plan (Ministry of Higher Education & Scientific Research, 2013/2014).

**Statement of the Research Problem & Significance**

To date, the area of e-service quality has not been investigated in much depth. Some work has been undertaken by researchers in adopting and expanding existing service quality models.
and tools that considered to be appropriate for use in online services, but these have typically been more pertinent to online shopping and e-banking services than for educational applications. Given the increasing interest of higher education institutions in e-learning, though, this lack of research in defining suitable measurement tools of e-learning service quality appears even more inopportune (Martínez-Argüelles, Castán, & Juan, 2010; Farooq & Bassam, 2012; Sugant, 2014).

Reviewing the amount of related work published since the term ‘service quality’ first entered management theory’s lexicon, it becomes clear that the higher education sector has attracted far less scholarly scrutiny than has other fields. Moreover, while very little research has been conducted on e-learning service quality in higher education as a whole; there is almost a total absence of applicable work concerning online environments in the context of the UAE’s higher education sector. Specifically, there is a marked lack of studies setting out to define a reliable e-service quality scale or delineate its dimensions and measurements in online education.

The coverage of current literature on e-learning service quality is not only small in size, but also insignificant in terms of its generalizability and impact. While a few studies have attempted to develop e-learning service quality determinants and scales, they featured limitations in terms of the scope of study (e.g., Sugant, 2014, was limited to service quality in asynchronous self-paced e-learning) or with respect to validity and reliability (e.g., Farooq & Bassam, 2012; Li & Suomi, 2009, in which service quality in e-learning was never tested). In addition, most of these studies attempted to modify or reword the existing dimensions of the prevailing service quality framework SERVQUAL without considering the particular characteristics of e-learning services. SERVQUAL was developed for use in a traditional service context, although its domain was later expanded by Parasuraman, Zeithaml, and Malhotra (2005) to include the ‘e’ component of services, and thus E-S-QUAL was developed. Yet even E-S-QUAL proved only appropriate for discrete and transaction-based services, such as website services and online shopping. As the nature of e-learning is continuous and interactive, the service’s corresponding contentment process can last for days or even months, and hence the suitability of such scales for e-learning remains questionable (Sugant, 2014). Furthermore, as many studies suggest that perceptions of service quality vary between different cultural groups, and that culture has an impact on service quality perceptions/expectations, which, in turn, influence customer satisfaction (Furrer et al., 2000; Tsoukatos & Rand, 2007; Tsoukatos, 2011), we cannot assume that those dimensions and scales are universal and can be applied in the Middle East including the Arabian Gulf area.

With the increased focus of UAE higher education institutes on e-learning, measuring e-learning service quality has become an essential part of the educational quality improvement process. The scope of the present study will include all universities that use technology in providing support services such as such as recruitment, registration, retention, advising, counselling and financial services. Also, with regard to e-learning service quality, the definition of an e-learning institute will be extended to include those academic institutions and
universities that adopt technology in one or more function in delivering their educational and support services.

The present study proposes to develop and validate e-learning service quality dimensions in the UAE higher education system, and, as such, will fill a gap in the current literature related to e-service quality scales and models. More specifically, we still do not know what are the most relevant and reliable e-service quality dimensions in UAE Higher Education sector with regards to the support services. Hence, we need to study the impact of those dimensions on students’ perception of educational services. More importantly, we need to understand the level of importance of different e-service quality dimensions in UAE’s higher education sector. In other words, we need to know which of the e-service quality dimensions are most responsible for driving e-learning service quality in the UAE’s higher education sector.

The contribution of this study is mainly linked with the proposed dimensions which are expected to be integrated in a holistic way with various relevant determinants affecting e-service quality into a single model. These determinants features both traditional and e-services, distinctive characteristics of e-services, and relevant e-learning service quality dimensions.

The result of this study which is expected to contribute to and extend the existing body of knowledge, can be representing the Gulf Area as well as the Middle East considering that the UAE higher education environment has recently seen the development of academic cities as well as academic free zones within the country, resulting in a significant increase in the number of higher education institutions, including branches of well-known universities offering a vast range of academic programs.

Finally, as this research is expected to report on a reliable dimensions of e-learning service quality, and considering that students’ perceptions of service quality and satisfaction are likely to lead to word-of-mouth substantiations, which, in turn, are likely to affect the image or reputation of an institution (Song, 2010), this process will offer opportunities to academicians as well as administrators to plan and implement appropriate strategies that reflect customers’ needs and improve the quality of education and levels of student satisfaction in these institutions. Furthermore, by identifying the importance of each dimension as perceived by students, this will drag the attention to where the investment in higher educational institutes should be directed to, and to what strategies, processes, approaches, and tactics should be altered in order to have the greatest impact on service quality, learners’ retention and learners’ satisfaction.

**Literature Review**

Although the quality control field has existed for many decades, the focus of researchers’ attention has been largely on the quality of production. Before the introduction of the concept of service quality in the late 1970s and early 1980s, the literature concerning quality used to describe and measure tangible goods (Schneider & White, 2004; Parasuraman, Zeithaml, & Berry, 1985). The subsequent service quality literature, on the other hand, reflects an understanding of the different attributes that constitute a service. Its intangible nature – it
cannot be owned or stored and only comes into existence at the time and place of delivery – requires that it is defined and measured differently than goods quality previously had been.

Many researchers have explained service quality by comparing customers’ expectations with their perceptions of the actual service delivered. For example, Lewis and Booms (1983) defined service quality as a ‘measure of how well the service level delivered matches customer expectations’. Similarly, others have explained service quality as the comparison between (a) what customers expect, (b) how a company or organization should perform according to customer expectations, and (c) the actual service performance (Parasuraman, Zeithaml, & Berry, 1988). Dedeke (2003) referred to service quality as the ability of service providers to meet and exceed the service that both the customer and the service provider have mutually agreed upon at the beginning of the service. Ultimately, a customer’s judgment of how he perceives the service and his overall impression of organization performance and its services is key to understanding and measuring service quality (Zeithaml, 1988).

Service Quality and SERVQUAL
While the service quality domain involves both customers’ expectations and the actual performance of service, the SERVQUAL scale has dominated many prior studies on service quality (Hongxiu & Suomi, 2009). Developed by Parasuraman, Zeithaml, and Berry (1985), it is a model that sets out to assess and measure service quality as perceived by the customer. By performing a ‘gap’ analysis of an organization’s service quality performance against its customer service, SERVQUAL measures service quality by subtracting customers’ ‘expectation score’ from their ‘perception score’. Initially, SERVQUAL’s framework was based on 10 determinants that customers were thought to use in developing expectations and perceptions of service: access, communication, competence, courtesy, credibility, reliability, responsiveness, security, tangibles, and understanding/knowing the customer. Later, the model was revised by its authors to include 22 items in just 5 dimensions, as detailed in Table 1.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Explanation</th>
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<tr>
<td>Tangibles</td>
<td>Appearance of physical facilities, equipment, personnel</td>
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<tr>
<td>Reliability</td>
<td>Ability to perform the promised service dependably and accurately</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Willingness to help customers and provide prompt service</td>
</tr>
<tr>
<td>Assurance</td>
<td>Knowledge and courtesy of employees and their ability to inspire trust and confidence</td>
</tr>
<tr>
<td>Empathy</td>
<td>Caring, individualized attention that the firm provides its customers</td>
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</table>

Parasuraman et al. (1985) proposed a ‘gap model’, featuring five gaps between consumers and service providers, and suggested that these gaps have an impact on the consumer’s evaluation of service. Figure 1, below, summarizes the five gaps as follows:
• Gap 1 – that between the expectations of the customer and the management team’s perceptions of those expectations;
• Gap 2 – that between the perception of customer expectations by the management team and the service quality specifications by the service provider;
• Gap 3 – that between the service quality specifications and the actual service delivery;
• Gap 4 – that between the actual service delivery and what is communicated to the customers;
• Gap 5 – that between the customer’s perceived service and what he expected from the service.

![Figure 1. The Five-Gap Model of Service Quality (Parasuraman et al., 1985)](image)

It is worthwhile mentioning that, while many studies have concluded that the SERVQUAL dimensions provide an effective methodology with which to measure customer expectations and perceptions of service quality, and that the model’s dimensions constitute a foundation for the universal measurement of service quality (Alanezi, Kamil, & Basri, 2010), other studies have found the opposite to be the case. Zaim et al. (2010), for instance, tested six criteria of SERVQUAL – tangibility, reliability, responsiveness, assurance, courtesy, and empathy – in the hospital industry in Turkey, and established that, while tangibility, reliability, courtesy, and empathy seemed to be important for customer satisfaction in this context, assurance and responsiveness were not (Zaim et al., 2010). Further, Francis Buttle (2006) criticized...
SERVQUAL in his examination of five dimensions of the model (reliability, assurance, tangibility, empathy, and responsiveness), concluding that, although there is no doubt that the model has had a substantial impact on the business and academic communities, there were several doubts concerning its central assumptions. One criticism is that the authors (Parasuraman et al., 1994) neglected to include some essential services, which are high in customer contact or intervention (Jain, Sahney, & Sinha, 2013). In addition: ‘There are still doubts about whether customers routinely assess [service quality] in terms of expectations and perceptions; there are doubts about the utility and appropriateness of the disconfirmation paradigm; there are doubts about the dimensionality of [service quality]; there are doubts about the universality of the five RATER [reliability, assurance, tangibles, empathy, responsiveness] dimensions. These are serious concerns which are not only significant for users of SERVQUAL but for all those who wish to understand better the concept of [service quality]’ (Buttle, 1996:25).

**Service Quality in Higher Education**

Service quality within higher education has attracted the attention of many researchers, who have explored the question in a variety of contexts and cultures (Martínez-Argüelles, Castán, & Juan, 2010; Khan, 2012; Subrahmanyam & Shekhar, 2014; Senthilkumar & Arulraj, 2011; Jain et al., 2013; Shaari, 2014). Like other service providers, higher education institutes provide their services to stakeholders, primarily learners. There are other stakeholders involved in the higher education process and context to consider, though, including parents, regulatory and accreditation authorities, funding bodies, and society at large (Khan, An Empirical Study of Students’ Satisfaction with Education Service Quality in Institutions of Higher Education in Pakistan, 2012). Furthermore, although there seems to be a common understanding about the importance of higher education and its role in achieving sustainability and competitive advantage, there has been disparity with regard to reaching agreement on the definition of the major customer of higher education. While many believe that learners should be considered the premier customer, others feel that parties such as governments, industries, and society should be in the driving seat (Cuthbert, 1996).

Keeping learners at the heart of the education process, service quality in higher education can be defined as the overall evaluation of services perceived by learners as part of their educational journey. It comprises a diversity of educational endeavours – both inside and outside of the classroom – including teaching activities in class, the interaction between instructors and learners, the educational facilities, and the administrative processes (Holdford & Reinders, 2001).

The literature revealed a great range of methodologies and models used to assess and measure service quality in higher education. Service quality models such as the aforementioned SERVQUAL, SERVPERF, Grönroos’s model, HEdPERF, HiEduQual, the TQM approach, and the Higher Education Commission of Pakistan Quality Assurance (HECPQA) framework have been used by researchers to evaluate students’ experience of service quality in higher education (Khan, 2012; Subrahmanyam & Shekhar, 2012), with SERVQUAL in particular being widely used by researchers (e.g., Gatfield, 2000; Wright & O’Neill, 2002, Cuthbert,
1996; Pariseau & McDaniel 1997; Mostafa, 2006; Oliveira & Ferreira 2009) to measure perceptions of quality in higher education. It has also been noted that, as SERVQUAL was first developed for use in a marketing environment, it needed to be modified in order for it to become applicable to the higher education context (Jain et al., 2013).

**Dimensions of Service Quality in Higher Education**

Although service quality in general has attracted considerable attention within the service sector, there is a gap in the literature in defining and agreeing upon a set of dimensions of service quality in higher education. A variety of dimensions have been used by different researchers, which suggests a need to unify them according to their importance and acceptance by stakeholders.

Khan (2012) studied service quality in higher education using the HECPQA framework, and found that five dimensions of higher education service quality have a positive influence on learners’ satisfaction: quality academic courses, the learning environment, students’ assessment, feedback from other students, and quality of the academic faculty. Ford, Joseph, and Joseph (1999) studied the higher education service quality perceptions of business students in New Zealand and the USA and identified seven dimensions that impact service quality in the higher education context: program issues, academic reputation, physical aspects/cost, career opportunities, location, time, and others. Subrahmanyam and Shekhar (2014) studied and validated a higher education quality service instrument called HiEduQual to measure the perceived service quality of students in higher education institutions. Their study identified 23 items grouped into 6 service quality dimension: teaching, administrative services, academic facilities, campus infrastructure, support services, and internationalization. Senthilkumar & Arulraj (2011) explored the determination of service quality measurement of higher education institutions in India by developing and testing a model called Service Quality Measurement in Higher Education Institutions in India (SQM-HEI). Their model revealed three quality service dimensions believed to support quality outcomes in higher education in India: teaching methodology, environmental change in study factor, and disciplinary action. Placement services (graduates’ employability) was considered as a mediating factor.

Shaari (2014) employed the SERVQUAL model to study issues in higher education service quality among adult learners in two main learning centres in Malaysia. The research concluded that three dimensions out of the five that constitute SERVQUAL (in its simplified, RATER form) were central to adult learners’ service satisfaction: responsiveness, tangibility, and empathy. Green (2014) also used SERVQUAL to measure service quality in higher education, in this case in South Africa. Specifically, the study attempted to measure the perceptions and expectations of both students and staff and to define their satisfaction with the service quality provided at the Durban University of Technology. The findings of the study revealed that, on average, students and staff had high expectations in respect of the tangibles, reliability, and assurance dimensions; empathy and responsiveness dimensions did not score high in this study. Furthermore, Owino, Kibera, Munyoki, and Wainaina (2014) utilized SERVQUAL with the aim of investigating the dimensions of service quality among university students in Kenya. Their study revealed four major dimensions, two of which were already part of SERVQUAL
and two were entirely new: human elements, reliability; human elements, responsiveness; non-human elements; and the service blueprint. Kontic (2014) examined the SERVPERF scale, which was modified to fit the context of higher education and used to assess service quality during the Bologna Process and higher education reforms in Serbia. The research findings revealed that these students perceived the most important dimensions to be assurance and reliability, followed by responsiveness and empathy. The study also found that perceptions of service quality dimensions and items changed over the period of study and were not the same across both genders.

Table 2 summarizes the service quality dimensions in higher education discussed above, and clearly shows that there is no universal agreement on a single service quality model that can be used in higher education institutions around the world.

### Table 2. Service Quality Dimensions in National/International Higher Education Institutions

<table>
<thead>
<tr>
<th>Research</th>
<th>Context</th>
<th>Service Quality Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Khan (2012)</td>
<td>Pakistan</td>
<td>• quality academic courses&lt;br&gt;• learning environment&lt;br&gt;• students’ assessment&lt;br&gt;• feedback from the students&lt;br&gt;• quality of academic faculty</td>
</tr>
<tr>
<td>Ford et al. (1999)</td>
<td>New Zealand, USA</td>
<td>• program issues&lt;br&gt;• academic reputation&lt;br&gt;• physical aspects/cost&lt;br&gt;• career opportunities&lt;br&gt;• location&lt;br&gt;• time&lt;br&gt;• others</td>
</tr>
<tr>
<td>Subrahmanyam &amp; Shekhar (2014)</td>
<td>Worldwide</td>
<td>• teaching&lt;br&gt;• administrative services&lt;br&gt;• academic facilities&lt;br&gt;• campus infrastructure&lt;br&gt;• support services&lt;br&gt;• internationalization</td>
</tr>
<tr>
<td>Senthilkumar &amp; Arulraj (2011)</td>
<td>India</td>
<td>• teaching methodology&lt;br&gt;• environmental change in study factor&lt;br&gt;• disciplinary action&lt;br&gt;• mediating factor: placement services (graduates’ employability)</td>
</tr>
<tr>
<td>Shaari (2014)</td>
<td>Malaysia</td>
<td>• responsiveness</td>
</tr>
</tbody>
</table>
Research | Context | Service Quality Dimensions
--- | --- | ---
Green (2014) | South Africa | • tangibility  
• empathy
Owino et al. (2014) | Kenya | • human elements reliability  
• human elements responsiveness  
• non-human elements  
• service blueprint
Kontic (2014) | Serbia | • assurance  
• reliability  
• responsiveness  
• empathy

e-Service Quality

The term ‘e-service quality’ or e-SQ has been used by researchers in different ways and in various contexts. Zeithaml, Parasuraman, and Malhotra (2000) used it to refer to website service quality, and defined it as ‘the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery of products and services’. The literature of electronic service quality has depended a lot on the earlier work of Parasuraman et al. (1985), which was subsequently extended into many other fields of e-service quality. Zeithaml, Parasuraman, and Malhotra (2002) also developed their previous work on service quality and SERVQUAL into the e-service delivery environment; the conceptual model of e-service quality that was thereby developed was limited to a single context – e-shopping and the retail environment – and therefore its generalizability to other service contexts was limited. Their initial work was extended through the development of E-S-QUAL, a multiple-item scale for measuring the service quality delivered by the websites used by customers who shop online. The final E-S-QUAL scale consisted of 22 items on 4 dimensions: efficiency, fulfilment, system availability, and privacy. In addition, a scale for e-recovery service quality (E-RecSQUAL) was developed, comprising 11 items on 3 dimensions: responsiveness, compensation, and contact (Parasuraman et al., 2005). The work of Parasuraman et al. (2005) has been a starting point for many researchers, who have developed adapted e-service quality scales based on the revisions of the SERVQUAL and E-S-QUAL instruments. Like SERVQUAL, the seven-dimension E-S-QUAL scale measures e-service quality by evaluating the difference between a customer’s expectations and their perceptions of the performance of a service (Parasuraman et al., 2005).

Other researchers have studied e-service quality in the context of different environments, such as online banking (e.g., Salehnia et al., 2014; Zavareh et al., 2012; Paschaloudis & Tsourela, 2014), online hotel booking (e.g., Yoon & Kim, 2011), online auctions (e.g., Yen & Lu, 2008), online travel services (e.g., Li, Liu, & Suomi, 2009), and mobile services (e.g., Kuo...
et al., 2009). It is notable that most have used a combination of traditional service quality dimensions and web interface quality dimensions to come up with a scale that is suitable for their study’s chosen field. For example, Swaid and Wigand (2009) measured the e-service quality of online retailers, and examined the impact of e-service quality dimensions on customer loyalty. They suggested a scale to measure e-service quality using six dimensions: information quality, website usability, reliability, responsiveness, assurance, and personalization (Swaid & Wigand, 2009). Lee and Lin (2005) studied the customer perceptions of e-service quality in online shopping, and examined the relationships between e-service quality dimensions and overall service quality, customer satisfaction, and purchase intentions. Their study revealed four dimensions of e-service quality: website design, reliability, responsiveness, and trust (Lee & Lin, 2005). Wolfinbarger and Gilly (2003) studied the e-service quality of online retailers and hence developed an ‘eTailQ’ scale for the measurement of ‘e-tail’ quality. This model suggested that the four dimensions of website design, fulfilment/reliability, privacy/security, and customer service can positively predict customer judgments of quality and satisfaction, customer loyalty, and attitudes toward the website (Wolfinbarger & Gilly, 2003). In addition, Burgess (2006) studied e-service quality in the context of business-to-business (B2B) environment and formed a scale of ten determinants: website design, ease of use, technical reliability, usefulness, intuitiveness, presentation, accuracy, availability, service reliability, and flexibility.

Most of the suggested dimensions for e-service quality use a combination of those of SERVQUAL plus additional dimensions related to the particular characteristics of e-service and the individual field of study. This trend supports the findings of Zeithaml et al. (2002), who concluded that, while some dimensions of SERVQUAL are still applicable to e-service quality, there are added determinants that are specific to it, many of which are related to technology.

Comparing the dimensions of SERVQUAL (Parasuraman et al., 1988) discussed above with those of e-service quality that were part of the subsequent works of Zeithaml et al. (2000, 2002) and Parasuraman et al. (2005), it can be seen that many e-service quality dimensions are already part of the original SERVQUAL scale. In particular, the dimensions of reliability, responsiveness, assurance, and empathy/personalization are shared across the different studies, as shown in Table 3.

| Table 3. SERVQUAL and E-Service Quality Studies – Shared Dimensions |
|-----------------------|------------------|---------------------|
| SERVQUAL (Parasuraman et al., 1988) | dimensions | E-Service Quality Studies Featuring the SERVQUAL Dimension |
| Reliability | • Zeithaml et al. (2000)  
• Zeithaml et al. (2002)  |
| Responsiveness | • Parasuraman et al. (1988)  
• Zeithaml et al. (2000)  
• Zeithaml et al. (2002)  
• Parasuraman et al. (2005) |
Although the above-listed dimensions of SERVQUAL were also used in e-service quality scales, their definitions were altered according to the new context. While Parasuraman et al. (1988) defined reliability as the ‘ability to perform the promised service dependably and accurately’, Zeithaml et al. (2000) defined the same term as ‘correct technical functioning of the site and the accuracy of service promises (having items in stock, delivering what is ordered, delivering when promised, billing, and product information)’. Responsiveness held similar definitions in most of the studies; Parasuraman et al. (1988) defined it as ‘the willingness to help customers and provide prompt service’, while, in Zeithaml et al. (2000), it referred to a ‘quick response and the ability to get help if there is a problem or question’, and Parasuraman et al. (2005) defined it as the ‘effective handling of problems and returns through the site’. Assurance was defined by Parasuraman et al. (1988) as the ‘knowledge and courtesy of employees and their ability to inspire trust and confidence’, whereas, in the work of Zeithaml et al. (2000) and in the context of website service quality, assurance or trust was defined as the ‘confidence the customer feels in dealing with the site [which] is due to the reputation of the site and the products or services it sells, as well as [being] clear and truthful’. Empathy was defined in the SERVQUAL scale as ‘caring, individualized attention the firm provides its customers’ (Parasuraman et al. 1988). It was termed as ‘customization’ or ‘personalization’ by Zeithaml et al. (2000) and defined as ‘how much and how easily the site can be tailored to individual customers’ preferences, histories, and ways of shopping’.

It is also noteworthy that, while many of the dimensions of e-service quality remained the same as in SERVQUAL, several new ones also arose as being important in assessing e-service quality. Studies that discussed scales and/or measurements of e-service quality suggested new dimensions such as flexibility, ease of navigation, efficiency, security/privacy, system availability, compensation, and contact. Some of these new dimensions are related to the context of e-service quality while others pertain to a researcher’s particular field of study.

**e-Service Quality, Higher Education and E-Learning**

In the context of higher education, e-service quality is mostly related to e-learning. Therefore, for the purposes of this study, the term e-service quality will be used to refer to e-learning service quality. ‘E-learning’ and ‘online education’ are used interchangeably in the literature, with the former being defined by the learning guru Elliott Masie as ‘the use of network technology to design, deliver, select, administer, and extend learning’ (Waller & Wilson, 2001). Here, ‘technology’ can include a variety of mediums such as smart phones, CD-ROMs, TV, the Internet, etc., and, thus, in an e-learning environment, faculty and students can be separated geographically (e–Learning Standards For Licensure and Accreditation, 2007).
Many higher education institutes adopt a blended learning approach – also known as hybrid learning – that ‘combines online delivery of educational content with the best features of classroom interaction and live instruction to personalize learning, allow thoughtful reflection, and differentiate instruction from student to student across a diverse group of learners’ (All About e-Learning). Furthermore, the role of faculty in e-learning environments is different from that of traditional instructors; in addition to transferring knowledge to the learners, lecturers in an e-learning environment provide coaching and mentoring, ensuring the enhancement of the learner’s experience and adding value during the learning journey.

E-learning has been widely accepted in many learning organizations, including higher education institutions, and there is no doubt that it is becoming a trend of the new era of education. According to the ECAR report The State of E-Learning in Higher Education (Bichsel, 2013: 3), ‘[N]early all institutions have a major interest in e-learning, at least at the level of some departments’. With substantial Internet availability and usage all over the world, e-learning has even become a preferred option for academic institutions, as well as for learners. For universities, e-learning provides reach and access to students, while for students it represents convenience, access, and affordability (Sugant, 2014).

As noted earlier, while many studies have proposed different scales and measurement tools for e-service quality, very few have been conducted in the context of an e-learning environment. Most of the scales previously discussed – including that of Parasuraman et al. (2005), which expanded the remit of SERVQUAL to include e-services and facilitated the development of E-S-QUAL – were only suitable for use in discrete and transaction-based services like website services and online shopping. By contrast, e-learning is continuous and interactive in nature, and the contentment process can last for much longer periods of time, and so the suitability of such scales for measuring e-learning service quality seems doubtful (Sugant, 2014).

Furthermore, while the issue of service quality in higher education has received increasing scholarly attention, and several of the studies have focused on the development of valid and reliable measures of service quality, the emphasis, at least in the early phases of research on the topic, has been on evaluating and measuring teaching and learning issues. Thus, over the past decade, a number of researchers have studied the evaluation of university services such as their administrative and technical provision (Abdullah, 2005).

Comparing service quality in higher education with e-learning service quality, it is clear that e-learning education has its own characteristics for which many measurements of traditional higher education are not directly applicable. For example, the interaction produced in online environments is a source of many complications when applying the traditional service quality measurement models (Martínez-Argüelles, Castán, & Juan, 2010). As the e-learning education process is mostly characterized by online campuses, facilities, and services (including educational services), many of the traditional, tangible elements or physical reference points such as premises and service staff that can act as indicators of the quality of service do not exist. The measurement tools for e-learning service quality must therefore
include other variables, such as the aesthetics and ease of use of the online interface (van Riel et al., 2004. Although research in the area of e-learning service quality seems to be very limited compared with that of e-service quality in general, it should be acknowledged that this is at least in part because it is only in recent years that e-learning has become popular within higher education. Moreover, researchers have begun to attempt to address this gap and to develop models that can be used to evaluate the service quality of e-learning services provided by higher education institutes. Many have been motivated by E-S-QUAL or other item scales that more or less adopt very similar measurements of service quality models in higher education, such as SERVQUAL and SERVPERF. As previously observed, though, E-S-QUAL is more suitable for use in evaluating static services such as websites and online shopping, and is not intended to evaluate e-learning service quality. Also, such service quality models were not developed with the aim of measuring e-learning aspects of the educational process such as accessibility, content and system usability, and assessment and evaluation.

Furthermore, the review, above, of prior studies incorporating e-learning service quality showed that the proposed scales, determinants, and measures are not universal. Additionally, some studies have attempted to research a specific area of e-learning service quality, instead of providing a holistic approach pertaining to a whole organization. O’Neill & Palmer (2003) studied the effects of experience on consumer perceptions of the service quality construct in a university library, using their own scale adopted from SERVQUAL and SERVPERF. More recently, Ahmadi et al. (2013) investigated e-services characteristics in the context of a university website, based on the SERVQUAL model. They concluded that the following dimensions impact university e-services: responsiveness, competence, empathy, call-back systems, web assistance, and quality of information. Kim-Soon et al. (2014) developed a measurement tool comprising six items to measure the quality of e-service in higher education in the specific areas of learning, research, and communication support. Their study was constructed based on innovation diffusion theory, and its conclusions suggested that the following items be used to measure e-service quality: availability of e-service, convenience of use, user interface, availability of information, meeting needs and experience, and flexibility. Wang (2003) developed a model to measure users’ satisfaction with e-learning that specifically evaluated teaching quality and satisfaction with information systems. His study revealed four key factors impacting satisfaction: learner interface, learning community, content, and personalization.

In addition, Martínez-Argüelles et al. (2010) studied and discussed the importance of measuring how students perceive quality of service in online higher education. Their study resulted in the identification of six key quality dimensions, from a student’s point of view: the learning process, administrative processes, teaching materials and resources, user interface, relationships with the community network, and fees and compensations. It is worth mentioning, too, that the population of this particular study comprised students of an Internet-based university (the Open University of Catalonia, Barcelona, Spain), which seems particularly relevant to the present topic under discussion, unlike many of the other studies that featured traditional/conventional universities that provide some online courses. This work was subsequently extended by Martínez-Argüelles et al. (2013), and the scale dimensions were
modified to include 24 items grouped into 4 dimensions: core business (teaching), facilitative or administrative services, support services, and user interface.

Only a few studies have considered e-learning service quality from the standpoint of its overall characteristics. Sugant (2014) attempted to devise a framework for measuring the service quality of e-learning services, which featured 4 major dimensions (namely, content, usability, technology, and responsiveness) and 12 sub-dimensions: design and presentation, structure, completeness, attractiveness of interface, ease of navigation, interactivity, progress tracking, speed, reliability, support, assessment and evaluation, and feedback. However, as the study was limited to service quality in asynchronous self-paced e-learning, the results cannot be generalized to other services. Furthermore, the methodology used in the study included an intensive focus group that came up with the suggested scale, and so no reference was made to existing e-service quality literature in the scale’s development.

The proportion of studies concerned with the Arab world in the literature of e-learning service quality seems to be very small. In one rare example, Farooq and Bassam (2012) attempted to identify factors that lead to service quality of e-learning in a Jordanian higher education environment by using a modified theoretical model based on SERVQUAL. However, in this instance, the researchers gathered the proposed dimensions from the e-services literature without confirming their applicability to the context of Jordan’s higher education sector. Notwithstanding, they determined that the factors that lead to service quality of e-learning in this setting are interface design, reliability, responsiveness, trust, and personalization.

Other than the Farooq and Bassam (2012) research, there seem to be no other studies available for review that have analysed the issue of e-service quality in higher education in the Arab world. This is may be a result of the educational institutions in the Middle East being in the relatively early phases of e-learning adoption – despite serious efforts by some governments, particularly in the UAE and Saudi Arabia, to become pioneers of providing high-quality programs through the virtual learning environment. As noted above, ‘smart education’ is part of the UAE’s national agenda, as well as its UAE Vision 2021 (Ministry of Higher Education & Scientific Research, 2013/2014), while smart learning is soon expected to be a requirement in all of the region’s academic institutions (Gulf News, 2015).

The UAE’s higher education institutes have made considerable advances in utilizing technology in their operations and services. Officially, only one e-learning institute exists in the country, but almost all of its other, traditional universities use technology in delivering their academic programs. As reported by Gitsaki et al. (2013), the role that UAE is considering in employing the use of high-end tablet for higher education students is big. In addition, Learning Management Systems (LMS) are widely used across the UAE’s higher education system. Higher Colleges of Technology (HCT) has been excelling in implementing the web-based Blackboard Learn in all of its 17 campuses and for its 23,000 students across the UAE (Turner, 2014). Furthermore, most universities in the UAE have moved toward implementing academic ‘enterprise resource planning’ (ERP) solutions that support communication, improve efficiency, and, ultimately, advance student success. Academic ERP solutions typically include
one of more of the following modules: recruiting and admissions, student enrolment and retention, degree advising and faculty support, financial aid-processing tools, and academic administration tools. Attending such services is very essential as some researches indicate that student in general will have less tolerance for service failures comparing to the academic side. Furthermore, student success in e-learning programs is not determined only by individual’s learning experience but also by the academic and administrative services provided by the institute (Eastmond, 2000).

Considering the above, then, the scope of the present study will include all universities that use technology in support service delivery. Also, with regard to e-learning service quality, the definition of an e-learning institute will be extended to include those academic institutions and universities that adopt technology in one or more function in delivering their educational services.

Dimensions of e-Service Quality in Higher Education
As previously noted, while the dimensions of e-service quality do include some of the original dimensions of the SERVQUAL scale, other new dimensions have been added. The latter, additional dimensions are either relevant to the characteristics of the e-service environment (e.g., ease of navigation, security/privacy, system availability) or to the specific nature of the field of study (i.e., banking, tourism, e-government, etc.).

Importance of e-Service Quality Dimensions in Higher Education
It is not known if e-service quality dimensions hold the same priority for customers in different fields. For example, assuming that reliability is the most important dimension in traditional service quality (Zeithaml et al., 2002; Wolfinbarger & Gilly, 2003); will it be as important in e-service quality in general, and in specific fields (e.g. Higher Education)? If not, which dimensions are most responsible for driving e-learning service quality? “Because the limited conceptual development of [e-service quality] suggests that reliability consists of attributes that are different from those for [service quality], the importance of reliability relative to other dimensions needs to be reassessed in this context” (Zeithaml et al., 2002: 368). Furthermore, website design and reliability are part of the dimensional scale of e-service quality in online shopping that was developed by Lee and Lin (2005); they were also part of the scales that were developed by Jun and Cai (2001) for e-service quality in online banking, by Wolfinbarger and Gilly (2003) for e-service quality in relation to online retailers, and by Burgess (2006) for e-service quality in the B2B context. But, do the two dimensions carry the same importance/weight from the customers’ perspective across these different contexts?. Hence, Considering this gap in literature, we will need to investigate a research question about the importance of the pre-defined dimensions to overall e-learning service quality.

Research Question(s), Aims, and Objectives
Key Research Questions
The fundamental research question driving this research is “What is the impact of e-service quality dimensions on students’ perception of service in UAE Higher Education sector?”. Another question derived from the above one is: “Which of the e-service quality dimensions
are most responsible for driving e-learning service quality in the UAE’s higher education sector?".

**Aim and Objectives**
The underlying objectives of this study are:

1) To develop and validate e-learning service quality dimensions in the UAE higher education system.
2) To identify the most relevant and reliable e-learning service quality dimensions in UAE Higher Education sector.
3) To understand the impact of e-service quality dimensions on students’ perception of service in UAE Higher Education sector.
4) To understand the level of importance of different e-service quality dimensions that are responsible for driving e-learning service quality in the UAE’s higher education sector.

**Methodology**
As the main purpose of this study is to understand the impact of e-service quality dimensions on students’ perception of service in UAE Higher Education sector, the following section discusses the research design, sampling, instrument, data collection, and, finally, the statistical analysis that will be used for this study.

Given that the selection of a research methodology should correspond to the research problems and objective(s) (Frankel et al., 2005), and considering that all research methodologies have strengths, weaknesses, and limitations (Vogt et al., 2012), the choice of research methodology for use in this study is restricted by the choice of whether to maximize generalizability, precision, or realism. Therefore, in order to achieve the research objectives, the selected methodology will include two main stages: the first is qualitative and include a preliminary step for the proper development of the second, which is the subsequent quantitative study. For the research design, the process employed by Parasuraman et al. (2005) in developing the E-S-QUAL scale will be drawn on as a guide and a reference for this study.

**Preliminary Scale, Sample Design, and Data Collection**
Bearing in mind that, in the context of this particular field of study, it is essential to evaluate e-learning as a whole (Song, 2010). Equally, considering that there is a paucity of research in this area, the determinants of e-service quality in higher education will be derived based on feedback from two focus groups of 10 members in each. The first focus group will be representing a number of second year graduate learners of UAE universities that provide e-services to their learners. The second focus group will be directed to the experts in the field and may include deans, faculty and faculty administrator the same domain of study. The focus group seems to be a reasonable tool to understand respondents’ reactions to alternative ways of phrasing, modifying, adding and eliminating scale items.

The dimensions and items generated from the focus groups will be compared the earlier dimensions developed from literature review. Based on the final refined list of dimensions and items, detailed research questions, hypotheses and conceptual framework may be modified.
Furthermore, the final set of dimensions will be used to design a preliminary questionnaire that utilizes the Likert scale format, with a five-point rating scale ranging between ‘1’ and ‘5’. In order to ensure that all items are free of redundancy and important aspects are not omitted, the questionnaire will be tested in advance on a random sample of 50 participants, a mixed group of graduate students of an e-learning university. After making the necessary adjustments (if any) and confirming the set of dimensions and items, the final questionnaire will be tested for validity by Cronbach’s alpha to measure internal consistency and hence ensure that the questionnaire has suitable validity. Furthermore, the validity of each item will be tested using confirmatory factor analysis. Then, the questionnaire should be ready to be disseminated to a representative sample of e-learning services users.

**Sampling Technique**

According to the 2013/2014 UAE Higher Education Factbook, the higher education sector in UAE consists of a total of 69 federal and private universities and colleges operate within the country. Furthermore, there were a total of 128,279 students in all universities and colleges in 2013 (Ministry of Higher Education & Scientific Research, 2013/2014). As indicated in the report, the average annual increase in students’ enrolment from the year 2009 to the year 2013 is 8.31%; hence, we can anticipate that the number of students in 2015 reached to 150,496 students.

The study’s sample will comprise a sound mixture of male and female students who have interacted with one or more e-service within universities in the UAE. A proportionate stratified random sampling technique will be used. The sample size is calculated based on the following formula: 

\[ N = \frac{Z^2 \cdot \sigma^2}{E^2} \]

Where, \( Z \) is taken as 1.96 which value of \( Z \) at 5% level of significance or 95% confidence level. \( E \) is precision or tolerable limit. It is taken as 5%. \( \sigma^2 \) is target population variance. Its estimate is taken as \( p \cdot q \) with \( p=0.5 \) and \( q=0.5 \).

\[ N = \frac{(1.96)^2 \cdot (0.5 \cdot 0.5)}{(0.5)^2} = 384. \]

However, a sample size of 400 students will be considered to take care of some rejects due to inconsistency or missing values.

**Data Analysis, Scale Revision, Validity, and Reliability**

In order to analyse the data, exploratory factor analysis will be performed using principal component analysis as the extraction method and oblimin (with Kaiser normalization) as the rotation method. Furthermore, the data will be tested for multicollinearity, normality, and reliability. Structural equation modelling, correlation analysis, and regression analysis will be used to analyse the data collected. In addition, in order to ensure the suitability of the scale, reliability analysis will be conducted by grouping the items according to the conceptual dimensions from which they were obtained. Examining the correlation of the set of items with their respective dimensions, any items whose elimination will improve the reliability coefficient alpha will be omitted. Finally, in order to study the proposed dimension’s goodness of fit, a three-level assessment will be performed: first, a test of the overall model fit (absolute,
incremental, and parsimonious); next, a test of the measurement model; and, third, a test of the structural model fit. Also, to ensure scale validity, the validity of the new constructs will be tested using confirmatory factor analysis. In addition, exploratory factor analysis and Cronbach’s alpha will be used to test the reliability of the new set of dimensions and items.

**Expected Outcomes**

Perceiving a gap in the literature in defining scales and measures for evaluating e-learning service quality in higher education, and also observing that the Middle East in general is almost entirely absent from this area of research, the present research first establishes that it is vital to develop systems, models, and scales that enable e-learning academic institutions in this region to obtain valid, reliable, and consistent measurements of the quality of educational services provided. Ultimately, the objective of this study is to validate e-learning service quality dimensions that can be used to measure the quality of service in e-learning institutions in the UAE.

Given that students’ perceived service quality and satisfaction levels are likely to lead to word-of-mouth references, which, in turn, can be expected to affect the status of an institution (Song, 2010), this research will offer opportunities to academicians and administrators to plan and implement appropriate strategies that reflect the customers’ needs and thereby ensure and improve the quality of education and student satisfaction in these institutions. Furthermore, by identifying the importance of each dimension as perceived by students, this will drag the attention to where the investment in higher educational institutes should be directed to, and to what strategies, processes, approaches, and tactics should be altered in order to have the greatest impact on service quality, learners’ retention and learners’ satisfaction.

Moreover, the projected outcomes of this study will not only fill a gap in the current literature related to e-service quality scales and dimensions, but the findings could also be generalized to other countries in the Middle East, not least as, due to the mixture of academic institutes currently operating within the country, the UAE can be seen to represent other Gulf and Arab countries in the context of higher education provision.

**References**


The Relationship Between Service Quality and Customers’ Happiness In the Public Sector
An Empirical study of the UAE Federal Government

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Abstract
In the new millennium, customers’ happiness with government services in the public sector is well and truly in vogue. There has been veritable exploration of research into customer’s happiness, optimism and positive thinking (Bagnall 2004; Lyubomirsky, King and Diener 2005). His Highness Sheikh Mohammed Bin Rashid Al Maktoum, clearly stated that the role of the government is to deliver happiness to its people. With more than 4,000 federal government services in the UAE, and with the emergence of the new services delivery channels and its impact on the overall role of today’s customers, existing models for the measurement of perceived quality, satisfaction and happiness are worth revisiting. This is specifically important in light of the prominent progress of some service improvement initiatives that are being undertaken on the federal level. This study attempts to bridge the gap in existing literature by examining the customer happiness in its entirety, attending within the study to both the needs and expectations of government customers and giving special attention to emerging aspects in the public sector. Therefore, the study includes a comprehensive review of a large body of knowledge, both in consumer behaviour and marketing literature as well as quality management literature. This is in order to understand the impact of service quality on customer’s happiness. Firstly, a thorough review of the early and emerging studies in consumer behaviour and marketing literature will be examined to develop a better understanding of the needs of customers in the public sector. Alongside, an intensive study of the quality management literature will be carried out to understand the conceptual and methodological foundation for service quality and its effect on customer happiness in the public sector. This is in order to identify a list of service quality attributes that impact customer’s happiness. Upon the synthesis of the list of service quality attributes that impact customer’s happiness, a focus group will be conducted to create a deeper understanding of what customers want and what impacts their happiness. Following, a questionnaire will be administered in two stages, once for measure purification purposes through pilot responses and one for mass data collection purposes. As a result of this study, an integrated model for the measurement of customer’s happiness that emphasises the significance of service quality will be proposed.

Keywords: service quality, customer happiness, measurement, quality attributes, public sector.

Introduction
The United Arab Emirates aims to be a global leader in government by providing quality services to the public. In order to reach this goal, the UAE federal government has launched multiple initiatives to transform government services into a customer-centric. While the delivery of services
is the main public face of the government, therefore, customers happiness is a key goal for the UAE federal government.

The UAE’s service sector plays a vital role towards the contribution of the nations’ GDP with figures on par with most developed world economies, Almost half of the UAE’s 49.1 billion dirham ($13.37bn) federal budget for 2015 is slated for social spending on healthcare, education, and other welfare services squarely aimed at promoting further growth within the public sector. The Cabinet approved the 2015 budget with a 6.3% increase (2.9 billion dirham$790m) in expenditure over 2014. It is expected that the UAE’s fiscal accounts will continue solidly in the black with annual surpluses ranging from 6.9% to 10.5% of GDP.

The Federal Government is keen on developing the level of services it provides to its customers and have taken into account many initiatives to help translate this goal into reality. Witnessed in the Federal Government Strategy launched in 2007, updated in 2010 and 2013 as well its clearly articulated UAE Vision 2021, there is a clear emphasis on the public sector customers and their overall satisfaction.

The Federal Government has also launched the Sheikh Khalifa Government Excellence Program in June 2009 with the vision of growing the practice of Excellence and the pursuit of superior performance in the Federal Government. Through the program, customers’ perception and level of satisfaction for 42 UAE's Federal Ministries and Authorities are evaluated through a customer happiness survey and mystery shopping study.

Both studies aim at assessing the level of satisfaction from the customer’s perspective based on perception measurement techniques, such as questionnaires, focus groups, and phone interviews. The information gathered through this process is then used to enhance the awareness of UAE's Federal Ministries and Authorities and initiate continuous improvement activities.

Assessment in the UAE federal government is conducted against several dimensions of service provision, such as quality, time, cost, availability, and accessibility, to name some of many.

According to the World Happiness Report launched in 2012, the concert of happiness is considered a proper measure of social progress and goal of public policy. A rapidly increasing number of national and local governments are using happiness data and research in their search for policies that could enable people to live better lives. Governments are measuring subjective well-being, and using well-being research as a guide to the design of public spaces and the delivery of public services.

The word “happiness” is not used lightly. Happiness is an aspiration of every human being, and can also be a measure of social progress. The key to proper measurement must begin with the meaning of the word “happiness.” The problem, of course, is that happiness is used in at least two ways — the first as an emotion (“Were you happy yesterday?”) and the second as an evaluation (“Are you happy with your life as a whole?”). If individuals were to routinely mix up their responses to these very different questions, then measures of happiness might tell us very little. Changes in reported happiness used to track social progress would perhaps reflect little more than transient changes in emotion.

Happiness is a fundamental human concern that has occupied human thought across time and cultures (Diener and Oishi, 2006) and therefore happiness has served as a central theme in the arts, literature and cultural life in general and has remained an important philosophical question in world religions. The modern individual’s interest in happiness becomes evident from the popularity of all sorts of self-help literature and various types of life coaches and TV psychologists whose primary goal is to make people happier (Oishi, Diener and Lucas, 2007). In fact, empirical evidence suggests that happiness is not only a universal, but also the ultimate objective in life for human beings.

**UAE Government Improvement Efforts**

Government improvement and performance goals often focus on generating new revenues and cutting costs, and they use other government agencies as peer benchmarks. However, in the United Arab Emirates (UAE) the government took a different approach by setting its sights on delivering services that would rival the best in the private sector: the customer-centric feel of a 5 star hotel and the efficiency of a leading bank. In 2013, His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice President, Prime Minister of the UAE, and Ruler of Dubai said, “I want all UAE Government services to be delivered to the public through mobile phones.” His vision is for every citizen in the UAE to be able to access to all government services, anywhere, any time and with maximum convenience.

For the UAE and many other countries, the challenge is defined in large part by demographics – the country’s population composed of a fusion of nationalities with the oftentransient non-local population accounting for about 88 percent of the total, and a high percentage of youth. The diversity and mobility of the population requires the UAE government to deliver services at a standard that matches the global best while being easy to navigate and understand for even the newest residents. The young age of the population also requires the services to constantly innovate to meet changing needs – for example, having web and mobile-based services in addition to standard field offices and call centers.

With these challenges, changes and goals at the forefront, the government acknowledged aspects of its services that can be tedious and invested in significant improvements. Though the initiatives aimed to increase citizen satisfaction with government services, they were at the same time unifying different government entities by necessitating groups to work together to reach the goals and breaking down silos with the standardization of cross-functional processes.
Here I briefly describe a number of initiatives including E-Voting, Best mGovernment Awards the Star Rating Program, and the e-Dirham. By sharing insights about how they were designed and why they are effective, the aim is to create greater awareness about the power of these practices among Gulf Cooperation Council (GCC) and for other government leaders around the world.

E-Voting: A path to greater convenience and participation
E-Voting was introduced by the UAE’s Federal National Council in 2011 to increase civic participation by improving its convenience and appealing to the youth. That year, only 5 months before Election Day, the National Election Committee (NEC) set up voting centers across the country in just 2 weeks. But these were not your typical voting centers. The votes were not cast using traditional methods of filling out forms and depositing them in ballot boxes, but instead through electronic voting machines.

The program leaders used business-efficiency principles to design the system and ensure successful operations. For example, plans for the number of machines and support staff needed were made using historical data and anticipated turnout and tested through pilot projects. In the end, 13 voting stations were distributed in each of the 7 emirates based on population density. The physical locations had to be spacious enough to contain the large number of voters and to ensure a smooth flow of voting activities, supported by hundreds of personnel that the NEC trained to aid voters at the stations.

In addition to the physical features of e-voting, the voting campaign also explored non-traditional channels to increase youth participation. The NEC leveraged social media to reach out to and educate eligible voters, including an entertaining brief video and article that described the process. This helped younger voters feel more comfortable with and interested in voting.

Best m-Government Award
The UAE leadership set an ambitious goal as part of their call to action for customer-centric government: by May 2015, all government services should be accessible through mobile devices.

To support and encourage ministries and to generate citizen engagement, the government launched the Best m-Government Award in 2013. The annual awards are given to 4 categories of participants: national, Arab, and international government entities, in addition to students in UAE universities. Any type of government service delivery solution provided via a mobile phone can be eligible, from smartphone apps to web solution to automated SMS. The award recognizes innovations in 8 categories: health, education, environment, social affairs, safety and security, tourism, economy and commerce, and transportation and infrastructure. The entries are assessed based on three criteria: efficiency and effectiveness (40 percent), ease of use (40 percent), and innovation (20 percent). In addition, the solutions must be related to a core government service offered to external customers – namely government to consumer (G2C) or government to business (G2B) but not government to government (G2G). While G2G improvements are important to the UAE, the goal if this award is to generate citizen and business focused solutions.

To encourage creative and new ideas from students, the winner of the student category is rewarded a monetary prize of 1,000,000 AED (roughly $300,000 USD) and given business support
to take that application into reality. The award has generated significant public interest. The number of participants increased by 58 percent, from 260 in the first year to 411 in the second, creating a range of new app for citizens. Government entities across the Emirates and abroad have come up with ways to ease customer transactions.

E-dirham: Innovation in convenience for citizens payment to government
E-dirham is a prepaid card that can be recharged at ATMs to pay fees to any federal government entity, replacing the need for traditional payments that were mailed or submitted to a government office in cash. The program stands as a powerful example of the UAE government’s push for mobile access to all government services and one of the government’s landmark innovations to improve customer experience and efficiency. The Ministry of Finance encourages the use of these prepaid cards by offering reduced rates and fees for all edirham users. Since its launch, the range of services and options available through e-dirham has continued to expand, now including remote online access even when travelling abroad and payments to local governments and non-government entities.

Rather than trying to independently to develop, manage and operate the program, the government collaborated with a state owned company, the National Bank of Abu Dhabi that already had many of the innovative capabilities e-dirham aimed to deliver. The design of the system has included from the start 24/7 dedicated customer support to maximize responsiveness to customers concerns and develop new generations of the e-dirham.

As an example of successful innovation with new delivery models between sectors, edirham has already collected about 60 percent, or 6 billion AED, in government fees. Out of 6.5 million transactions conducted, 2 million took place on pure online channels and reported only 30,000 issues that have been tracked and addressed. The e-dirham concept is now gaining momentum abroad with delegations from Iraq, Kuwait, and Saudi Arabia exploring ways to roll out e-dirham in their countries.

Star Rating Program: Creating a culture of excellence
Government entities heeded the UAE leadership’s call to enhance their front-facing processes for citizens through the Star Rating Program to use private sector standards for the quality of service delivery and private sector approaches to identify the problem areas to address. Launched in 2014, the program uses a detailed, measurable citizen feedback process to focus improvements on the issues that matter most to customers, much like the hotel system that rates locations from 2 to 7 stars to help hotel management teams decide what to keep or fix, and to celebrate outstanding customer service. Entities across the UAE are evaluated once every 2 years on 8 criteria: strategic alignment, customers, services, channels, customer experience, service efficiency and innovation, people, and technology. The entities are given both a classification plate and an evaluation report with recommendations to improve the level of their service delivery.

To overcome initial resistance from government entities, the central government took a number of proactive steps before implementing the new system. For example they held roadshows, workshops, and promotions that all local and federal government attended. The first pilots were
conducted on a voluntary basis and a self-assessment was introduced to allow government services to self-rate as well. Finally, the country’s leadership gave a strong message on the importance of the program and that all services should be rated with equal standards and transparency.

While the aim is to have all federal entities reach a 7 star service delivery level in the next 5 years, to date all government entities have been rated between 3 and 5 with a roughly equal distribution. The criteria to obtain a 7 star rating are challenging by design to ensure excellence comparable to the best of the private sector. Earning a 7 requires receiving a score of no less than 95 percent, innovating across all 8 elements, and maintaining consistent customer and customer center staff satisfaction of no less than 95 percent in the last 3 years, while maintaining record cost per service. At the same time the government recognizes that 5 stars is an achievement worth celebrating.

**Statement Of Problem**
The UAE’s Prime Minister, His Highness Sheikh Mohammed Bin Rashed Al Maktoum, has clearly stated that the goal of the government in the UAE is to bring happiness to people which was translated into launching many government service improvement initiatives to employ innovations that will contribute to customer’s happiness.

However, the effectiveness of these initiatives is unknown as up to now customers’ happiness has not been studied nor measured in the UAE federal government, therefore there is a need to study the relationship between service quality and customer happiness in the federal government and generates a model that can be used to measure customer’s happiness and assist public sector entities in design, improving and delivering their services.

**Research Opportunity and Significance**
A research like this is essential to assess and improve service delivery and design, because it will provide management with data that they can use in making inferences about the customers. (Wilson et al. 2006, 27). Thus the results of this study should be proved useful for academics; business in the field of positive marketing and management researchers of customer happiness and service quality especially in the public sector.

There is a need for a holistic and an integrated model for the measurement of customer happiness in the public sector that:

* Identify the relationship between service quality and customer’s happiness;
* Addresses the unique characteristics and behaviours of the public sector customers;
* Takes the views of the public sector customers into consideration, and addresses all of their different needs;
* Tackles the entire life cycle of the public sector customer experiences;
* Ensure the momentum and effectiveness of the service improvement initiatives;
* Uses a triangulated approach that combines both quantitative and qualitative methods to gain an in-depth and detailed understanding of customers’ happiness;
* Generates a generic model that can be used in the public sector entities to help them design and improve their service based on customer’s happiness measures.
Research Aim and Objectives

This research attempts to fill the gaps specified in the customer happiness study by identifying the relationship between service quality and customers happiness in the public sector. Additionally it aims to develop an integrated model for the measurement of customers’ happiness in the public sector which addresses the needs of customers at all stages of the experience life cycle.

The objective of this study includes:

- To identify the attributes of service quality in the public sector
- To identify the attributes of customer’s happiness in the public sector
- To determine which service quality attribute most influences customer happiness
- To identify the relationship between service quality and customer’s happiness in the public sector

Literature Review

Service Quality

Service evaluation is considered an important concept within the service marketing literature and scholars’ interest in it stems from findings showing that both perceived service quality and satisfaction are positively related to customer retention and buying behavior (Mittal and Kamakura, 2001). Therefore, marketing scholars and practitioners have been interested in creating measures that capture the customer’s subjective evaluation of the service and in understanding how service quality is formed, and as a consequence service quality is a well-studied concept (see for instance Brady and Cronin, 2000; 2001; Bolton and Drew, 1991; Dabholkar, Shepherd and Thorpe, 2000; Dagger, Sweeney and Johnson, 1997; Ganesan-Lim, Russell-Bennett and Dagger, 2008; Grönroos, 1982; Parasuraman, Zeithaml and Berry, 1985; 1988).

Service quality is generally referred to as the customer’s cognitive judgment about an entity’s overall excellence or superiority (Zeithaml, 1988) and serves as a global judgment (Bitner and Hubbert, 1994; Holbrook and Corfman, 1985; Zeithaml, 1987). This definition is in line with Bitner and Hubbert’s (1994, p. 77) definition of service quality as the customer’s overall impression of the relative inferiority/superiority of the organization and its services.

Customer service is a system of activities that comprises customer support systems, complaint processing, speed of complaint processing, ease of reporting complaint and friendliness when reporting complaint (Kim, Park and Jeong, 2004). The improved customer services are the focal point of the government entities for social as well as for economic reasons. From a social point of view, services should be available to the customers on reasonable terms. As far as economic factor is concerned, services should satisfy the needs of the customers (Turel and Serenko, 2006; Melody, 1997).

From the beginning of the “customer service revolution” almost 20 years ago, a body of business research has studied customer-focused organizations. Business consultants, corporations and others have worked to identify the characteristics of organizations that consistently please their
customers, to develop tools for monitoring customer happiness, and to build continuous, quality improvement systems that respond to consumer feedback.

Although much of the research has been conducted by and for the corporate world, customer service is not limited to the private sector. Government organizations that are incorporating practices developed in the business world provide a growing body of experience and study. Increasingly, federal, and local government agencies are attempting to gauge their performance and the effect on those they directly serve.

Throughout the public sector, initiatives to “reinvent” government—including education reform, privatization, and managed care—have elevated customer service and satisfaction to new priorities.

For developing satisfaction among customers, the government entities need to be extra careful for the customer services they provide. Satisfaction of a customer is determined by their evaluation of a service provided to them. (Gustafsson, Johnson and Roos, 2005). The study of Ahn, Han and Lee (2006) shows that when the customers, do not get their complaints considered properly, their satisfaction level drop. It happens because either the customer service centers did not handle the complaints or the customers are not able to address them properly. Sometimes, government entities take considerably longer time to resolve the problems like waiting time or incorrect information, while customers cant bare with this and hence they lose satisfaction with that particular service (Ahn, Han and Lee, 2006).

Furthermore, the friendly attitude and courteous behavior of the service workers at service firms leaves a positive impression on the customer which lead towards customer satisfaction (Soderlund and Rosengren, 2008). On the other hand, if a government entity lacks in providing services (call drops) to its customers it experiences customer churn. Kim, Park and Jeong (2004) argued that service provider should provide customer oriented services in order to heighten up customer happiness. It was also found that the customers get satisfied to a service more if they get all the needed services accumulated in that very service (Ahn, Han and Lee, 2006).

Despite the valuable contributions of the existing measurement studies in suggesting attributes and factors that are important in impacting on customers’ evaluation of their experience. Generally, the examination of these studies revealed some limitations in the existing models, and in their individual inability to attend to recent developments in the public sector, particularly in the area of customer engagement in self-driven experiences or in catering for the multiple types of customer needs.

Additionally, conceptual and measurement issues, in the available models still exist. Consequently, overlaps between the factors that impact on customer perceived quality, satisfaction and loyalty are evident, this makes reaching a consensus regarding what constitutes each one of the three constructs a challenging task.

Moreover, factors relating to the measurement of public sector customer experiences are fragmented and diversified in different bodies of literature. Little attempt has been made to integrate all types of measurement or to study the interrelationships between them. As such, there is an
absence of unified theories that review the entire customer experience holistically, from all the different perspectives. Most existing studies look at the customer experience from a single perspective such as technology and therefore produce a set of variables that might explain a small proportion of what impacts the customer’s experience in the public sector, but this does not contribute to illuminating what truly impacts the customer’s experience in its entirety.

Various scholars have considered different dimensions of service quality, such as (Gronroos, 1984) which addresses the technical, functional, and reputational quality; (Lehtinen and Lehtinen 1982) which considers the interactive, physical, and corporate quality; and (Hedvall and Paltschik 1989) which focuses on the willingness and ability to serve and the physical and psychological access to the service.

Studies on understanding customer needs, perceived quality, satisfaction and loyalty have moved emphasis from products (Juran 1977; Garvin 1984; Garvin 1987) to services (Parasuraman, Zeithaml et al. 1985; Parasuraman, Zeithaml et al. 1986; Zeithaml, Parasuraman et al. 1990; Parasuraman, Berry et al. 1991; Parasuraman, Berry et al. 1991; Boulding, Kalra et al. 1993; Zeithaml, Parasuraman et al. 2002).

The table below outlines the variation in determinants of product and service quality as identified in the literature.

<table>
<thead>
<tr>
<th>Table 1. Determinants of Quality</th>
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<tr>
<td>Quality Determinants</td>
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<tr>
<td>Customer perception, customer expectation</td>
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Studying customer needs from a different perspective shows that early consumer behaviour literature emphasized that customers’ motivation go beyond the utilitarian motives of mere product or service acquisition to include hedonic motives such as feelings, emotions, aesthetics, pleasure and enjoyment that satisfy the experiential needs of customers (Holbrook and Hirschman 1982; Hirschman 1984).

As a result of that, the experiential behaviour model emerged to advocate that customers are triggered by the need to enjoy the experience by itself in addition to the mere need of obtaining a product, or completing a mission (Hirschman 1984; Babin, Darden et al. 1994; Addis and Holbrook 2001).
Conceptualizing service quality

Although there has been intensive research on service quality (Fisk, Brown and Bitner, 1993), marketing scholars have been unable to discover dimensions of service quality that would apply to all customers and services. Much research attention has been devoted to understanding service quality dimensions. Although scholars generally accept that perceptions of service quality comprise several dimensions, there is no consensus regarding the nature or content of the dimensions (Brady and Cronin, 2001).

SERVQUAL

The SERVQUAL method, originating from three eminent marketing scholars, Zeithaml, Parasuraman and Berry stipulates that regardless of the type of the service, customers use basically similar criteria to evaluate service quality. Perceived service quality is a result of the consumers’ comparisons of expected service with perceived service (Parasuraman, Zeithaml et al. 1985; Parasuraman, Zeithaml et al. 1986; Zeithaml, Parasuraman et al. 1990; Parasuraman, Berry et al. 1991; Parasuraman, Berry et al. 1991).

Service quality is an overall evaluation that represents the consumer’s judgment about an entity’s overall excellence or superiority. “It is a form of attitude, related but not equivalent to satisfaction, and results from a comparison of expectations with perceptions of performance” (Parasuraman, Zeithaml et al. 1988). They add that perceived service quality is a global judgment or attitude relating to the superiority of the service.

In order to develop a sound conceptual foundation for investigating service quality, the authors undertook an exploratory study to investigate this concept (Parasuraman, Zeithaml et al. 1985). The research conducted 12 focus group interviews with consumers, in addition to in-depth interviews with 14 executives from four nationally recognised service firms in: retail banking, security brokerage, credit cards, product repair and maintenance.

Interviews of customers and executives were undertaken to help the authors answer several key questions related to what is perceived as key attributes of quality service from the perspective of customers and from the perspective of executives, how these perceptions are discrepant, and whether these perceptions can be combined in a general model of service quality from the perspective of the customer.

The 12 focus groups for customers comprised of 3 for each service, and focus group discussion focused on instances of and reasons for customer satisfaction and dissatisfaction with a service. They also considered descriptions of an ideal service, what service quality means to customers, what factors are important in the evaluation of service quality, and performance expectations of the service.

The results of the study revealed that although some perceptions about service quality are industry-specific, commonalities among the industry prevailed during the interviews with executives and the focus groups with customers and allowed for establishing a general model of service quality.
One of the main outcomes of this study was the suggestion that there are a series of gaps that exist in relation to executives’ perceptions of service quality and the tasks associated with service delivery to customers.

**Gap 1**: consumer expectation-management perception gap: This gap represents that executives of service firms may not always understand what features constitute high quality to consumers, what features are critical to meeting customer needs, and what levels of performance are needed for high quality service. Some of the attributes that were highly emphasised by the customers were rarely mentioned by the executives, such as privacy and confidentiality of banking and security services, the physical and security features of credit cards, and firm size in the maintenance and repair industry.

**Gap 2**: management perception-service quality specification gap: This represents the discrepancy between the management perceptions of consumer expectations (when needs and expectations are known) and the actual specifications established for a service due to reasons such as lack of resources, market conditions, or perhaps lack of management commitment.

**Gap 3**: service quality specifications-service delivery gap: This represents the discrepancy between well designed service (with clear specifications and guidelines for high quality performance) and the actual delivery of the service due to the strong influence on the service quality as perceived by customers.

**Gap 4**: service delivery-external communications gap: This represents the discrepancy between service delivery and the external communication whether in the form of exaggerated promises through marketing campaigns or the absence of communicating important information about the service aspects intended to serve consumers well.

**Gap 5**: expected service-perceived service gap. This gap indicates that judging the degree of service quality depends on how consumers perceive the actual service performance in comparison of how they expected of it.

Based on the above, the authors suggest that perceived service quality depends on the size and the direction of Gap 5, which in turn is a function of the other four types of gaps associated with the design, marketing and delivery of services. This model posits that if service providers intend to increase customer satisfaction, they have to shorten/diminish disconfirmation between the expected service quality and service quality received by consumers.

\[
\text{GAP5} = f (\text{GAP1}, \text{GAP2}, \text{GAP3}, \text{GAP4})
\]

The authors then added that according to the focus groups results, components of perceived service quality, regardless of the service type, can be summarised in ten categories (which potentially overlap) which they call „service quality determinants“.

The initial exploratory study revealed ten components for service quality, namely: accessibility, communication, competence, courtesy, credibility, reliability, responsiveness, security, tangibles and understanding (knowing the customer) (Parasuraman, Zeithaml et al. 1985).
### Table 1 The ten components of service quality

<table>
<thead>
<tr>
<th>Component</th>
<th>Definition</th>
<th>Evidence</th>
</tr>
</thead>
</table>
| Reliability | Consistency of performance and dependability. The firm performs the service right the first time. The firm honours its promises. | • Accuracy in billing  
• Keeping records correctly  
• Performing service at the designated time |
| Responsiveness | Willingness or readiness of employees to provide services. | • Mailing a transaction slip immediately  
• Calling the customer back quickly  
• Giving prompt service such as setting up appointments quickly |
| Competence | Possession of the required skills and knowledge to perform the service. | • Knowledge and skill of the contact personnel, or operational support personnel  
• Research capability of the organization |
| Access | Approachability and ease of contact. | • Service is easily accessible by telephone  
• Waiting time to receive service is not extensive  
• Convenient hours of operation  
• Convenient location of service facility |
| Courtesy | Politeness, respect, consideration and friendliness of contact personnel including receptionists, telephone operations, etc. | • Consideration of the consumers’ property  
• Clean and neat appearance of public contact personnel |
The authors believed that it is quite possible that the relative importance of the ten components of service quality in moulding consumer expectations may differ from their relative importance in comparison with consumers’ perceptions of the actual delivery of service.

The authors also outlined that ease of evaluation for the ten determinants is not always equal depending on the service properties, be it search properties, experience properties and credence properties. Only two (tangibility and credibility) of the determinants are of search properties which are related to attributes that the consumer can determine prior to the purchasing of the service/product, i.e. colour, price, feel, fit, style, etc. Whereas credence properties (competence and security) are difficult to evaluate or sometimes impossible to evaluate even after purchase and

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Determinants</th>
</tr>
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| Communication   | Keeping customers informed in a language they can understand and listening to them. It means that the company has to adjust its language for different consumers – increasing the level of sophistication with a well-educated customer and speaking simply and plainly with a novice. | • Explaining the service itself  
• Explaining how much the service will cost  
• Explaining the trade-offs between service and cost  
• Assuring the consumer that a problem will be handled |
| Credibility     | Trustworthiness, believability, honesty. It involves having the customer’s best interests at heart. | • Company name  
• Company reputation  
• Personal characteristics of the contact personnel  
• The degree of hard sell involved in interactions with customers |
| Security        | Freedom from danger, risk or doubt. | • Physical safety  
• Financial security  
• Confidentiality |
| Understanding/knowing the customer | Making the effort to understand the customer’s needs | • Learning the customer’s specific requirements  
• Providing individualized attention  
• Recognizing the regular customer |
| Tangibles       | Physical evidence of the service | • Physical facilities  
• Appearance of personnel  
• Tools or equipment’s used to provide the service  
• Physical representation of the service  
• Other customers in the service facility |
consumption, i.e. medical services or mechanical services that require an expert to evaluate how they were performed. Experience properties, which represent most of the determinants of the model, can only be discerned after purchase or during the consumption, such as taste or dependability (Parasuraman, Zeithaml et al. 1985).

Following the initial study, the authors developed a 22-item instrument called the SERVQUAL to assess customer perceptions of service quality (Parasuraman, Zeithaml et al. 1986) where service quality as perceived by the customer is viewed as a degree and direction of discrepancy between expectations and perceptions of customers, where expectations are „desires and wants of consumers, i.e. what they feel a service provider should offer rather than would offer‟.

In the development of the SERVQUAL instrument, the authors used the 10 components of perceived service quality that were produced in the original study in 1985 (Parasuraman, Zeithaml et al. 1985), and their description served as the basis structure from which items were derived to build the SERVQUAL initial pool of items starting with 97 items. Each item was recast into two different statements: one to measure consumers‟ expectations about a firm over a seven-point scale and the other to measure, using the same scale, consumers‟ perceptions of the same firm.

Throughout the survey process, questions against each of the dimensions are used to determine:

• The relative importance of each attribute.
• Measurement of performance expectations for an „excellent” organization according to the customer.
• Measurement of the actual performance for the organization in question according to the customer.

Additional research has expanded the use of SERVQUAL to include retail consumers of healthcare, residential utilities, job placement, pest control, dry cleaning, financial services, and fast-food services, and the resultant dimensions have ranged from one to eight.

In summary, it can be concluded that scholars have failed to find common dimensions that would be applicable in wide ranges of service settings. Therefore, researchers have used modified versions of either Parasuraman and his colleagues’ (1988) five-factor model or Grönroos’ (1982) two-factor conceptualization (Rust and Oliver, 1994).

Because of the reports of SERVQUAL’s inconsistent factor structure, it has been suggested that service quality may comprise several overarching or primary quality domains that reflect elements of technical quality, functional quality and environment quality (Brady and Cronin, 2001; Grönroos, 1982; Rust and Oliver, 1994; McDougall and Levesque, 1994).

Dabholkar, Thorpe, and Rentz (1996) propose a hierarchical conceptualization of retail service quality with three levels: 1) customers’ overall perceptions of service quality, 2) primary dimensions, and 3) sub-dimensions. This multilevel model recognizes the many facets and dimensions of service quality perceptions. Dagger and her colleagues’ (1997) service quality scale
comprises three different levels. They suggest that practitioners or researchers can measure service quality at any one or all of these levels depending on the purpose of the study. For instance, measuring overall perceptions of service quality gives a broad indication of a firm’s service quality performance. Similarly, researchers could measure service quality only at the primary dimension level or at the sub-dimension level for a detailed analysis of service quality perceptions. In this study, service quality is measured at the overall level for easier comparison between different services.

For the sake of this study, it will be started to investigate all 10 dimensions of SERQUAL using a focus group to understand what of these dimensions relates and affect customer’s happiness, then the refined list will be used as a base for the questionnaire.

Below in chart 1, a list of the original 10 and refined 5 dimensions of the SERVQUAL:

<table>
<thead>
<tr>
<th>Original Model</th>
<th>Refined Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangibility</td>
<td>Tangibility</td>
<td>Physical aspects of what is provided to users.</td>
</tr>
<tr>
<td>Reliability</td>
<td>Reliability</td>
<td>The ability to accurately accomplish what was promised.</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>Responsiveness</td>
<td>Ability to help users and promptly provide the service, capturing the notion of flexibility and the ability to adjust the service to the users’ needs.</td>
</tr>
<tr>
<td>Competence</td>
<td>Guarantee</td>
<td>Competence and courtesy extended to users and the safety provided through operations.</td>
</tr>
<tr>
<td>Courtesy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding the user</td>
<td>Empathy</td>
<td>Individual attention provided to users.</td>
</tr>
</tbody>
</table>


Happiness
Survey results suggest that happiness seems to be the most valued universal goal for human beings (Diener and Oishi, 2006). For instance, King and Napa (1998) report that ordinary people see happiness as a resource that is more relevant to the judgment of a good life than are, for example, wealth or moral goodness. Happiness has interested humans for a long time, but it is only recently that scientists have begun, through systematic empirical research, to solve some of the old philosophical questions on what constitutes a happy life (Kesebir and Diener, 2008). There is plenty of empirically based knowledge about what makes people happy so there is no longer a need to rely solely on personal wisdom, introspection, or authors and philosophers to learn about happiness.

Customer happiness
Customer’s happiness is an evolving research domain within marketing and services marketing In the past decade, the call to include broader societal measures in research created a new stream of articles in multiple disciplines, such as psychology, economics and sociology focusing on happiness and subjective well-being (terms that can be used interchangeably; Mogilner et al., 2012; Nicolao
et al., 2009). We adopt the definition of Merunka and Sirgy (2011, p. 21) defining consumer happiness or consumer well-being as “a judgement made by consumers regarding the extent to which the focal brand/company makes a significant contribution to his or her quality of life.”

Within the domain of marketing, the positive marketing or QOL approach has gained a lot of attention with a steadily growing research output and influence on marketing thinking. At its core, QOL marketing seeks to combine marketing and business ethics (Lee and Sirgy, 2004). Lee and Sirgy (2004) posit QOL marketing to become a new marketing paradigm of similar prominence to other research topics such as sales and profit, competition, customer satisfaction and relationship marketing. QOL marketing provides a route to enhance understanding of the potential of marketing activities, rather than representing a view that must compete with traditional financial and growth-oriented objectives (Dagger and Sweeney, 2006).

As Dagger and Sweeney (2006, p. 5) argue, “marketers can, therefore, positively influence the lives of consumers through the QOF concept” (Sirgy, 1996; Sirgy and Lee, 1996; Sirgy et al., 1982). Furthermore, the relevance of marketing for QOL and societal welfare issues has been widely confirmed in various industries, including travel and tourism, finance, health care, food and nutrition, and high-tech (Sirgy, 2001; Sirgy and Samli, 1995).

Specifically within the services domain, the QOL movement builds on the ideas by urging service researchers to investigate the overall impact services and service providers have on their customer, employees and environment (Ostrom et al., 2010).

Positive psychology as a research field
The happiness research reported in this thesis stems to a large extent from a research field in psychology called positive psychology. Around 1999, Martin E. P. Seligman began meeting with a group of scholars to form the positive psychology network. Seligman wanted to bring together researchers and practitioners who were working on human strengths and positive attributes rather than focusing exclusively on human problems and in a matter of a few years this research field has grown rapidly (Kesebir and Diener, 2008).

The positive psychology field focuses on research that examines human strengths and virtues, mainly happiness. The positive psychologist movement can be seen as a critique against the field of psychology, as positive psychologists claim that traditional psychology has solely focused on negative aspects of human life and on human problems and misery. The positive psychologists argue that positive aspects of human life are at least equally worth research attention (Kesebir and Diener, 2008). They argue that their foremost practical contribution is to answer questions that can help to build healthier societies (Kesebir and Diener, 2008).

Conceptualizing happiness
Lay people, philosophers and academics have conceptualized happiness differently, and the understanding of the nature of happiness is still divided. Diener, Napa Scollon and Lucas (2009) mention that happiness can mean pleasure, life satisfaction, positive emotions and a meaningful life, among other concepts. Research on the meaning of happiness confirms that a lack of consensus on the definition of happiness is not only found among philosophers and scientists but also lay
people. Mogilner and Aaker (2009) show in their working paper that the meaning of happiness shifts as people age: Whereas younger people are more likely to associate happiness with excitement, older people are more likely to associate happiness with feeling peaceful. Kesebir and Diener (2008) conclude that positive psychology researchers perhaps cannot hope to define happiness to everyone’s satisfaction; nonetheless, for science to progress there is a need for clearly defined concepts.

It can be said that although definitions of happiness seem to be different, scholars agree on the characteristics of happiness even though they would not necessarily recognize these in their definitions. In short, there is a consensus in the positive psychology literature that happiness is characterized by at least five aspects. More specifically, 1) happiness is high in abstraction, 2) happiness is subjective, 3), people underestimate other people’s happiness, 4) frequent positive and infrequent negative affect predicts happiness, and 5) a sense of meaning in life.

Also, one can conclude that happiness has been conceptualized differently both among academics and the public. I have chosen to conceptualize happiness as an overall summary judgment of one’s life (Diener, Napa Scollon, and Lucas, 2009) because it captures the subjectivity and high abstraction level that happiness researchers have agreed is central for the concept. In this thesis, happiness is not referred to as the momentary feeling state of happiness that is common in the marketing literature. Rather, happiness here refers to a stable trait of perception of happiness in one’s life. This is the highest abstraction of happiness as hierarchically organized to emphasize the complexity of the concept (Diener, Napa Scollon, and Lucas, 2009).

Customer’s happiness and customer satisfaction
Merunka and Sirgy (2011, p. 21) define customer satisfaction as “a judgment made by consumers regarding the extent to which the focal brand makes a significant contribution to his or her quality of life”. The two concepts are inherently different, in that customer satisfaction focuses on the evaluation of the product/service itself, whereas customers happiness takes a broader perspective by looking at the effect of the product/service on the life of the consumer. Grzeskowiak and Sirgy (2007, p. 291) argue the following “much customer satisfaction is grounded by the theoretical notion that customer satisfaction leads to higher loyalty, sales and profit. In contrast, the concept of consumer well-being is inherently guided by a different meta-level concept, namely the link between consumer satisfaction and QOL”.

Service Quality And Customer Happiness
Service quality has been (in)directly linked to a number of customer outcomes, including customer satisfaction (Cronin and Taylor, 1992; Kang and James, 2004; Lassar et al., 2000; Larivie`re, 2008), customer trust (Chiou et al., 2002; Sharma and Patterson, 1999), loyalty intentions (Anderson and Sullivan, 1993; Bell et al., 2005; Jones et al., 2002; Varki and Colgate, 2001), repurchase behavior (Conlon et al., 2001), share of wallet (Larivie`re, 2008), word-of-mouth intentions (Boulding et al., 1993; Parasuraman et al., 1991), and profitability (Roth and Jackson, 1995; Soteriou and Zenios, 1999).

However, following the increased focus on societal outcomes (e.g. well-being) of marketing scholars, several researchers within the services subdomain have urged the need to investigate the
effects of services and service providers on consumer well-being (Anderson et al., 2013; Ostrom et al., 2010). As consumers are continuously confronted with services and interact with service providers, it is fair to assume that these encounters can affect consumers in many ways, including their emotional and physical well-being (Anderson et al., 2013). This makes well-being an under-researched topic within services marketing literature.

Additionally, quality model conceptualizations within happiness-literature suggest that high-quality consumer goods and services determine consumer well-being (Sirgy et al., 2007), such that consumer happiness increases when the quality of consumer goods and services is higher. Yet service marketers largely continue to neglect measures of the effect of service quality on larger societal outcomes, such as consumer happiness.

Dagger and Sweeney (2006) instead demonstrate that technical and functional quality have direct effects on patient quality of life. In their healthcare setting, they find that technical quality exerted a slightly larger impact than its functional counterpart, which suggests that the service outcome is most important to consumers. However, healthcare settings differ notably from other, profit-based services (Berry and Bendapudi, 2007). Arguably, healthcare services are the most personal and important service that consumers buy (Berry and Bendapudi, 2007), which justifies specified research into their impacts on quality of life and happiness. But it’s also important to note the growing interest in consumer happiness from business practitioners in other, more commercial service sectors as well (Mogilner et al., 2012). Therefore, research is necessary to determine if the impact of service quality on customers happiness extends to other settings.

**Research Questions**

The earlier mentioned objectives can be translated into the following research questions:

1. What are the attributes of service quality in the public sector?
2. What are the attributes of happiness in the public sector?
3. What is the relationship between service quality and happiness in the public sector?
4. What are the service quality dimensions that most influences customer happiness?
5. Is service quality a strong predictor of customer’s happiness?
**Research Framework**

1. **Review of existing body of Service Quality and Happiness literature**
2. **Synthesis of the attributes from the literature and build the initial construct**
3. **Validation of the construct** (Triangulation approach)
   - 1. Qualitative method “Focus Group” to validate attributes
   - 2. Quantitative method “Pilot questionnaire” to test the survey
   - 3. Quantitative method “Full questionnaire”
4. **Research findings**
5. **Discussion and proposed model**
6. **Conclusion**
Covariates: Happiness literature provides clear evidence that customer characteristics influence consumer well-being (LaBarbera and Gu’rhan, 1997), so we need to account for the effects of customer characteristics when investigating the relationship between service quality and consumer happiness. We include the following customer characteristics: age, employment status, marital status and nationality.

Hypothesis
In the literature review, the core concepts; services quality and customer’s happiness were presented. This study was carried out for four main objectives as follows:

To identify the attributes of service quality in the public sector
- To identify the factors of customer’s happiness in the public sector
- To determine which service quality attribute most influences customer happiness
• To identify the relationship between service quality and customer’s happiness in the public sector

These objective examines and identifies attributes that impact service quality in the public sector. A focus group will be conducted to determine and refine the service quality attributes out of the 10 SERVQUAL components in preparation to draw the initial construct. Until the focus group is conducted, these objective poses a predetermining hypotheses, which are:

H1: There is a positive association between reliability and customer happiness in the public sector.
H2: There is a positive association between responsiveness and customer’s happiness in the public sector.
H3: There is a positive association between competence and customer’s happiness in the public sector.
H4: There is a positive association between access and customer’s satisfaction in the public sector.
H5: There is a positive association between courtesy and customer’s satisfaction in the public sector.
H6: There is a positive association between communication and customer’s satisfaction in the public sector.
H7: There is a positive association between credibility and customer’s satisfaction in the public sector.
H8: There is a positive association between security and customer’s satisfaction in the public sector.
H9: There is a positive association between knowing the customer and customer’s satisfaction in the public sector.
H10: There is a positive association between tangibles and customer’s satisfaction in the public sector.

Research Methodology
This study represents an exploratory research that aims to identify service quality attributes that affect customers’ happiness in the public sector. The understanding of “what” factors and “how” they interrelate necessitate the use of a mixed-method approach where both qualitative and quantitative data collection tools are applied.

The qualitative method through a focus group will be used to create deep understanding of customers and their perceptions of government services and to confirm the list of attributes that will be identified within the intensive literature review. Additionally, a quantitative methodology
through a questionnaire will be used to help validate the attributes identified throughout the study, this will measure the association between them and maximise the happiness leverage.

**Review of Existing Body of Literature**

The study starts by comprehensively scrutinising the relevant literature concerning service quality and happiness dimensions. This includes all possible references available, including:

- textbooks,
- academic papers,
- online resources,
- government reports and guidelines.

The purpose of the literature review is to identify results from other studies that are related to the current study (Brewer and Hunter 1989).

The first part of the literature review will intensively review the consumer behaviour and emerging marketing literature in the area of customer experience. This will be followed by a review of the conceptual and measurement approaches in the quality management literature, particularly in relation to theories and models of perceived quality and happiness. This is for the purpose of developing a taxonomy of factors that affects customer’s happiness in the public sector.

A construct for the measurement of customers’ happiness will then be proposed, based on the analysis and synthesis of the literature. Components of the proposed construct will be then refined and validated in subsequent phases of the research, in order, to reach to the final model.

**Focus Groups**

Focus groups represent an emerging qualitative method that is advantageous in many ways (Wolfinbarger and Gilly 2001). It serves the purpose of this study as it will help gain a richer understanding of government customers wants and needs, as well as identifying what impact their happiness level with the public services.

As discussed earlier the topic of services quality’s dimensionality and mentioned that the SERVQUAL dimensions may or may not be sufficient for a particular industry or organization. The question that presents itself is how to determine if the 10 SERVQUAL dimensions need to be modified or supplemented. At this point, the use of focus groups comes into play. Talking to individual customers through focus groups is recommended as a way to generate the qualitative data that is a good starting point for developing quantitative measurers of service quality (Dabholkar et al., 1991; Kasper et al., 1999; Zeithaml & Bitner, 2000). Thus just as the original SERVQUAL authors used focus groups to determine the themes that they wanted their services quality survey to cover, focus groups remain a good way to elicit issues that are of concerns to customers.

The unity of analysis which will consist of public sector customers, high federal government officials, university academics and students who will be asked to provide examples of positive and negative experiences that affect their happiness with public services. The unity of analysis will be
directly asked about what services quality meant to them, what factors they considered in evaluating service quality, what their expectations were for services performance and what contributes to their happiness.

The discussion threads will be created to initiate respondent discussions and will be centred on understanding customers' motivations and the factors that affect their happiness. The main themes will then be extracted from the focus group data and analysed in preparation for the pilot questionnaire.

**Analysis method of qualitative data**

Analysis of qualitative data is usually undertaken by content analysis software. Content analysis software divides into three major categories, according to intended function: dictionary-based content analysis which performs text analysis functions such as word counting, sorting, and simple statistical tests; development environments which are designed to partially automate the construction of dictionaries through the analysis of text; and annotation aids which perform content analysis through digitizing researchers’ marginal notes or comments and cross-references (Lowe 2002).

In this research, the qualitative data analysis will stem from the focus group. To analyse the content, Atlas.ti will be used. Atlas.ti is a content analysis software and is suitable for the analysis of this study in terms of the software structure and study complexity (Barry 1998). Content analysis is a scientific instrument and a methodological research design that can be used to analyse the apparent content of a certain subject in a systematic and objective way, aiming to arrive at certain reasoning (Kent 2001).

**Questionnaire**

A survey approach will be adopted to study the proposed hypotheses regarding the interrelationships between service quality and customers happiness. The empirical research consists of a study on customers in a genuine service settings in a federal government entity. The study will focus on getting respondents from customers who will be asked to evaluate the service quality of different services from four main service settings: customers visiting the UAE National ID Authority, patients visiting a healthcare enter related to the Ministry of Health and customers visiting the service centre of Ministry of Interior and the Ministry of Labour. The data will be analysed with partial least square modeling (PLS).

Customers in this paper are those who consume the services, desiring to maintain a business relationship with the organization and it is also the feelings of the customers towards the services provided to them by the organizations; while customer happiness in this study is the pleasures obtained by customers for the services provided to them by the organizations.

**Methodological choices**

The methodological choices that will be made in the quantitative part of this paper concern five aspects: 1) the use of a survey approach, 2) choice of services, 3) the measures, 4) the sampling and 5) the analysis method.
A survey approach
A survey approach was chosen to collect data for either rejecting or supporting the proposed hypotheses. Positive psychologists who have studied the effects of happiness on behaviour and thought have mostly studied happiness using experimental settings (see especially the work of Lyubomirsky and her colleagues). However, survey approaches are also common, especially when researchers have been interested in studying research problems related to cross-cultural effects on happiness and the effects of happiness on national performance and well-being (see especially work by Diener and his colleagues).

Because the research question in this study concerns studying the effects of service quality on customer’s happiness, an experimental approach would have followed the research tradition of many positive as well as social psychologists. The study design in studies on happiness with an experimental approach typically follows a two-step procedure where the researchers first identify the happiest and the unhappiest groups of students (usually the happiest and unhappiest groups out of four equally large groups) from mass questionnaires. The happiest and unhappiest groups of customers are then recruited as participants in experiments where the aim is to find differences between them. A survey method is preferred in this study because conducting a mass survey and re-recruiting the happiest and unhappiest respondents requires a large amount of resources in terms of accessibility to data and might not fit the time proposed.

Choice of services
As the effect of service quality on customer’s happiness has not been studied before, it is decided to take a general approach to the services that were investigated, i.e. it is decided that the services would represent four main federal government entities that are highly transactional and have the highest numbers of customers.

For instance, the Ministry of Interior has 19 high priority services which are all procedural and are allocated in 40 service centres, they count for nearly 25% of all government services. The Ministry of Health has more than 600 services in general and 60 high priority services which count for 10% of all government services and are allocated in 20 service centres. The Ministry of Labour has 15 high priority procedural services which count for 10% of all government services and are allocated in 7 service centres. While the UAE National ID Authority have 5 high priority procedural services which are allocated in 20 service centres and is directly linked to each person who lives in the UAE.

Government entities can provide services to governments (G2G), businesses (G2B), and citizens (G2C). Government entities generally deliver two types of G2C services to the people – services to the general public, and services to individual customers. For example, a service to a customer is obtaining a National ID from the government, but a service to the general public is maintaining public roads.

Also, services ranged from many types such as:

- **Informational Service**: These services are for the transfer of information from the government to a customer. These services can be government initiated, such as training programs, awareness campaigns, or can be customer initiated such as inquiries.
- **Procedural Service**: These are all forms of services that meet a need of a customer and are transactional in nature such as issuing a birth certificate.
- **Commercial Service**: These are services that are provided to generate revenue for the government, such as selling geological maps, national statistics, etc.
- **Societal Service**: These are government initiated services that serve to the welfare of the society & a specific group within the society such as healthcare services.
- **Seizural Service**: These are all the services that customers must make or endure such as regular inspections.

The services included in this survey are chosen on two premises: Firstly, the services should be categorised as a Government to Customer service (G2C). As these services are of high priority to the UAE government. Secondly, the services type should be procedural, as these services consist of the majority of government services and include the highest interaction with the customers.

Respondents will be asked to evaluate the service right after visiting the service premise such as the service centre or the healthcare centre.

**Survey measures**

Two measures were used to capture service quality and customer’s happiness, both measures were chosen on the premise that they would capture a more abstract level of the concept, that is, service quality and overall happiness rather than underlying dimensions and be short and easy to administer.

Service quality will be measured on around five-item, seven-point Likert-type scale, ranging from 1 (=strongly disagree) to 7 (=strongly agree) (Dagger, Sweeney and Johnson, 1997). This scale is chosen because it is short and measures overall service quality. This scale will be developed upon the assumption that service quality comprises several abstraction levels.

In the literature review of happiness, it was shown that three major aspects should be considered when choosing a scale to measure happiness: it should 1) emphasize the high abstraction level of happiness, 2) allow a subjective approach to happiness, and 3), involve comparisons to other people’s happiness. Based upon these criteria, Lyubomirsky and Lepper’s (1999), happiness scale was chosen. The scale consists of four items, measured on a seven-point Likert-type scale, ranging from 1 (=strongly disagree) to 7 (=strongly agree). The benefits of the scale are that it is short and has been proven to be reliable and robust in several happiness studies (see for instance Lyubomirsky and Ross, 1997 ; Taylor, Lerner, Sherman, Sage and McDowell, 2003ab).

Also, this happiness measure reflects a broader category of happiness than just momentary feelings (Lyubomirsky and Lepper, 1999). Secondly, the scale allows the respondents to define happiness for themselves, i.e. it is assumed that the individual him- or herself is the best judge of his or her level of happiness (Myers and Diener, 1995, p. 11). Scholars argue that individuals are capable of reporting on the extent to which they are a happy or an unhappy person (Freedman, 1978). Therefore, it is important that the measure allows respondents to make subjective interpretations of their happiness. Thirdly, happiness studies worldwide show that most people underestimate the level of happiness of other people and consequently rate their own happiness as
being higher than neutral, but also that few people place themselves in the highest category of happiness (Myers and Diener, 1996).

This scale fulfils these criteria.

Sample
The study is to be conducted in a real service setting with respondents representing different age groups, employment status, nationalities and marital status. Which was taken in consideration in the study as covariates. For the sake of this study a stratified sampling technique will be used to select respondents for the survey. Stratified sampling technique is a probability sampling technique wherein the entire population is divided into different subgroups or strata, then randomly selects the final subjects proportionally from the different strata. In this study case, the customers full population will be divided into two main strata which are customers related to G2C services, and procedural services. After which, simple random sampling technique will be used to choose the respondents.

Since the daily average number of transactions of the mentioned services are 1,000 transactions, 150 respondents is targeted per government entity. Which will bring the targeted number of participants up to 600. Respondents will be asked to participate in the study immediately after being served in the service centre.

Data analysis: PLS
Data analysis is the process whereby researchers take the raw data that have been entered into a data matrix and create further information that can be used in achieving the objectives for which the research was undertaken (Kent 2001).

The hypotheses will be tested using partial least squares modelling (PLS) (Ringle, Wende and Will, 2005). Partial Least Squares Modelling is a structural equation technique that has lately gained ground among marketing researchers (see for instance, Henseler, Ringle, Sinkovics, (2009), and Hennig-Thurau, Hennig and Sattler (2007)). Being a components-based structural equations modelling technique, PLS is similar to regression, but simultaneously models the structural paths, i.e., theoretical relationships among latent variables and measurement paths, i.e., relationships between a latent variable and its indicators (Chin, Marcolin and Newsted, 1996).

In this study, PLS is preferred over other structural equation modeling techniques (e.g., LISREL and AMOS) because PLS places less stringent conditions on sample size and data distribution (Chin, 1998), i.e., it allows for small sample sizes (as in this study, N = 150) and is not sensitive to the distribution of the variables used (Falk and Miller, 1992). The sample size requirement for PLS is 5-10 times the number of parameters in the model (Barclay, Higgins and Thompson, 1995; Chin, Marcolin and Newsted, 1996). These requirements were met in this study. Furthermore, PLS avoids problems that are often associated with LISREL, like inadmissible solutions and factor indeterminacy, by being flexible in its requirements (Fornell and Bookstein, 1982).
To have a thorough interpretation of the data, it is important that the data can be organised in a specific way, so that it may be analysed efficiently. There are a number of computer programmes that can be used to analyse survey research data. Such programmes allow users to quickly sort information and review the data from different angles. Computer software programmes with database spreadsheets are widely available; Microsoft Access and Microsoft Excel are some of the commonly available programmes that can be used. More advanced statistical programmes such as Statistical Package for the Social Sciences (SPSS) are also suitable for data storage, but to use these more sophisticated statistical analyses programmes, greater technical skills are required. The SPSS software will be used for this study and analysis tests will be identified as advised by Churchill (1979) for similar constructs’ purification and validation and for hypothesis testing.

Reliability and validity tests of the instruments
The reliability and validity tests will be done on the instruments used in this study. Charles (1995) observes that reliability with questionnaire [test] items can be determined through the test-retest method at two different times. This attribute of the instrument is actually referred to as stability. If we are dealing with a stable measure, then the results should be similar. A high degree of stability indicates a high degree of reliability, which means the results are repeatable. Reliability could be obtained by using Cronbach’s alpha test on the questioner. (Quinn Patton, M. Cochran, M, 2002)

Both Factor Analysis, Item-to-total & Cronbach Alpha Analysis will be used where the rejection of items will happen if correlation is less than 0.3 and acceptance of dimensions of constructs with a minimum Cronbach alpha of equal to/or above 0.70.

Expected Challenges and Proposed Solutions
Some of the expected challenges that might be faced during the conduct of the research are: 1- Lack of literature in the field of customer happiness management in the public sector; this can be compensated by collecting primary data about the current practices at the public sector both in UAE and in other developed countries through interviews and focus group meetings. 2- Low response rate for the survey: this might be compensated for by continuous follow up and sending reminders to the respondents, or changing to other service centres. 3- Time Limitation: This can be handled through proper time management and delegating some of my authorities to the staff.

Expected Outcomes
It is expected that this paper will bridges the gap in the literature and answers the relationship question between service quality and customer’s happiness by examining the customer happiness in its entirety, attending within the study to both the needs and expectations of government customers and giving special attention to emerging aspects in the public sector. Therefore, the study will includes a comprehensive review of a large body of knowledge, both in consumer behaviour and marketing literature as well as quality management literature. This is in order to understand the impact of service quality on customer’s happiness.
Based on that mentioned before, the expected contributions of this research will be to through an empirical study of service quality critical factors, by demonstrating triangulation in qualitative and quantitative methods. Moreover, this research will propose a generic model that supports customer’s happiness implementation efforts in public sector organizations regardless of size, structure or maturity.

**Work Plan**

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<td><strong>Phase 1 [Deadline Jan 2016]</strong></td>
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<tr>
<td>Refine/finalize research question</td>
<td>September 2015 – November 2015</td>
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<td>Refine/finalize research model</td>
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<td>Finalize literature review</td>
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<td><strong>Phase 2 [Deadline December 2016]</strong></td>
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<td>Collect data</td>
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<td>Analyze Data</td>
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<td>Write final work</td>
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<td>Submit final work</td>
<td>TBC 2016</td>
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<td>Review and defend</td>
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**References**


An Exploratory Study
Into the Factors Impeding Ethical Fashion Consumption

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Abstract
In recent years, the fashion industry has become highly competitive, where fashion firms compete not only on price, but also on their ability to produce and deliver new trends to the markets. Consumers are changing their preferences at a frequent pace and in particular, women revise their wardrobes often. This fast pace of fashion trends and the continuous demand for new styles impacts social and environmental sustainability. Thus, ethical fashion is in search of solutions to address sustainability issues associated with fashion production. Existing literature on ethical fashion indicates that shoppers’ engagement in ethical consumption is still at a low level, some indicating that there is gap between consumers’ beliefs and their purchasing behaviors (Eckhardt, Belk & Devinney, 2010; Davies, Lee & Ahonkhai, 2012). Even though there is a widespread assumption that shoppers care about apparel sweatshops and demand more ethical responsibility from fashion firms (Joergens, 2006), it is debatable if shoppers would sacrifice their own personal needs to support ethically made apparel. The purpose of this study was to examine the knowledge of Saudi females about the hidden politics behind corporate brand names, and to explore their actual purchase behaviour to determine if these consumers have any ethical intentions or constraints with respect to ethical fashion. The study also sought to determine what these participants perceive to be viable solutions to common ethical dilemmas in the fashion industry. Between October 2014 and December 2014 semi-structured interviews were conducted with Saudi female students aged between 25-35 years old at Vancouver Island University in Canada in order to obtain their behaviours, beliefs and attitudes toward ethical issues in the fashion industry. The data were analyzed using thematic analysis. The results indicate that participants need more information to make better ethical choices and ethical fashion brands need to communicate this more effectively. Findings indicated that interviewees’ propensity to consider ethical issues is low in fashion consumption. This is due to a number of external or situational factors such as a lack of information about ethics in the textile industry and limited availability of alternatives. This research provides insight into the factors that influence young Saudi females’ decisions to purchase from socially responsible manufacturers and assists in building a foundation of knowledge from which government and apparel industry leaders can develop policy regarding apparel sweatshops. The results will allow researchers to understand more about how a specific gender and cultural group influences ethical consumption of fashion. This knowledge is important for local business owners and international managers to have in order to develop strategies and implement solutions to expand ethical fashion. Such knowledge can be used to advance initiatives that will motivate and encourage female shoppers from Saudi Arabia and the Arab world to purchase more ethically.

Keywords: Saudi Arabia; fashion industry; buying behavior; ethical fashion; sustainability and Innovation.
Introduction

It has been suggested that the fashion business in today’s world is going through an ethics era; an increasing number of fashion shoppers are becoming more aware of the unethical implications of the textile items they buy and of their own purchasing habits (Harrison, Newholm, & Shaw, 2005). Some of them look beyond the product itself into the social and environmental consequences of the entire supply chain (Davies, Lee, & Ahonkhai, 2012). However, ethical fashion products still account for less than 1% of the total market share and consumer involvement in ethical consumption is limited to small niche groups (Davies, Lee, & Ahonkhai, 2012; Eckhardt, Belk, & Devinney, 2010).

The problem in the apparel industry is that fast fashion mimics current luxury fashion trends and anticipates new styles to meet consumers’ preferences for the sake of making higher profits and avoiding lost sales or overstocks. These swift shifting trends have reduced the life span of popular fashion trends from months to weeks (Sull & Turconi, 2008). Fashion shoppers feel out of trend shortly after the first wear which leads them to buy more garments to remain in fashion. There are two different types of problems that have emerged as a result of this fast paced industry. First there are social problems that result. For example, employees in developing countries can be subject to physical, sexual, psychological or verbal abuse for noncompliance with production quotas and demands (Moran, 2004). They are sometimes required to work more than sixty hours per week in hazardous working conditions and they may not be compensated for overtime work. Bangladesh, El Salvador, and other developing economies where clothing is often manufactured, lack the social welfare programs that workers in North America and Europe take for granted (Arnold & Bowie, 2003). In Bangladesh, which is the second-largest garment exporter to the U.S. and many other countries, has approximately two million people working in the garment industry in approximately 3000 factories. Here, child labor is still common even though it is illegal (Bajaj, 2012). These factories have been known to break local laws with impunity; the local authorities are often aware of the violations, but nothing has been implemented to prevent these infringements due to the economic interests at stake and to keep companies from moving elsewhere (Hartman & Arnold, 2006). In November 2012, one of the fashion factories in Dhaka the capital city of Bangladesh burned down. This factory was producing clothes for Wal-Mart, Sears and other major Western clothing retailers. The fire trapped many workers; killed 112 and dozens were seriously injured. These workers were unable to descend smoke-filled stairwells or reach the ladder trucks. This building, like most factories in Bangladesh, lacked emergency exits, sprinklers, and other safety equipment. Workers have clashed with police demanding compensation for the victims’ families and policies for safer working conditions (Ross & Mosk, 2012).

Second, fast fashion manufacturers are concerned with the bottom line. Their business models depend on consumers’ desire for new clothing. Hence, they sell clothes at very competitive prices and manufacture pieces that are made to be worn less than 10 times or that fall apart easily (Morgan & Birtwistle, 2009). “A store like H&M produces hundreds of millions of garments per year” author Elizabeth Cline says in her book Overdressed: the Shockingly High Cost of Cheap Fashion “they put a small markup on the clothes and earn profit out of selling an ocean of items”(2012, p). With the demand for new clothing and the
The continual consumption of fashion, textile waste has increased dramatically producing millions of tons in landfills, giving textiles one of the poorest recycling rates of any reusable material (United States Environmental Protection Agency, 2014). A study stated that the average American throws away over 68 pounds of textiles per year, this figure does not include clothing donated to charitable organizations or sold to thrift stores (Hartman, Arnold & Wokutch, 2003).

The literature review of fashion and sustainability serves as the theoretical foundation of this study. It helps to gain an empirical understanding about what has been done in terms of the relationship between fashion and consumption, sustainability and ethical consumption. Moreover, it helps to identify an extensive set of opportunities, concepts and issues regarding sustainable fashion. This study was done to contribute to the existing body of knowledge of the practice of ethical fashion manufacturing and consumption.

The purpose of this study was to examine the knowledge of Saudi females about the hidden politics behind corporate brand names and to explore their actual purchase behaviour to determine if these consumers have any ethical intentions or constraints with respect to ethical fashion. The results will allow researchers to understand more about how a specific gender and cultural group influences ethical consumption of fashion. This knowledge is important for local business owners and international managers to have in order to develop strategies and implement solutions to expand ethical fashion. Such knowledge can be used to advance initiatives that will motivate and encourage female shoppers from Saudi Arabia and the Arab world to purchase more ethically.

**Research Questions**
The following questions guided this study:

- What are the current fashion habits of Saudi female consumers?
- How knowledgeable are the Saudi female consumers regarding the production of fashion?
- To what extent are Saudi females supporting ethical producers?
- What are the incentives and disincentives that motivate or impede female consumers with respect to engaging in ethical consumption?

From birth to death, each transformation in people’s lives requires a change of wardrobe. In daily life, each human activity requires a change of apparel. The fundamental reason for humans’ interest in fashion is the obsession with change and the desire to distinguish themselves from others around them; this provides people with a means to control their image (Goffman, 2005). Every individual can have limited access to another person’s identity through their appearance, as the body is the essential element to clearly discern a person’s personality or character. However, since the body must exhibit itself clothed, it is impractical to ignore the importance of clothing. Bovone stated, “clothes have the capacity to communicate outside rules for rationality, in a sui-generis language, such as the non-verbal language of the body” (2006, p.27). This notion has been upheld by many others scholars. For example, Silverman the author of Fragments of a Fashionable Discourse has noted “clothing draws the body so that it can be culturally seen, and articulates it in a meaningful form” (1986, p. 145).
The fashion industry relies intensively on the fast manufacturing (with minimum quality and expense) of seasonal trend-driven merchandise at a very low price in a competitive market (Gwilt & Rissanen, 2011). These industrial forms of production, innovation and fast-paced lifestyles drive modern society; moreover, change for the sake of change appears to lead people’s consumption of fashion. This is not a new notion, as an informative study from over a century ago identified the need for change as the mainspring of fashion behavior (Simmel, 1911).

The fashion industry has been subject to pivotal trends over the last two to three decades. The industry has evolved into a complex, fragmented, global system, which at its very core is based on the notion of continual consumption of the new and discard of the old. The emergence of the ‘fast fashion’ business model has increased the introduction of trends leading to premature replacement and garment obsolescence (Kozlowski, Bardecki, & Searcy, 2012). It has major social impacts, particularly on those at the bottom of the supply chain. For businesses, delocalized production in developing nations has become a prevalent choice because of the low-cost labor and less strict standards and regulations surrounding the social issues associated with garment production (Allwood et al, 2006). Social impacts such as low living wages, long hours, forced labor; hazardous working conditions, safety issues and child labor are still problems in undeveloped countries (Madsen et al., 2007). Because of the insistent and constant need for change, a contemporary method of producing clothing called ‘fast fashion’ has emerged in response to changes in the industry and an attempt to satisfy consumers’ demand for fashion clothing for day-to-day events and special occasions. The fast-fashion concept was pioneered by the Spanish brand Zara, which ships new collections twice a week to its stores around the world. Other popular stores such as H&M and Forever 21 both receive daily shipments of new lines (Cline, 2012). The rapid changes in styles and mass production have been linked to many social and environmental sustainability issues in the fashion industry (Joy, Sherry, & Vankatesh, 2012). “It is well accepted that the concept [of sustainability] is extremely vague and difficult to make operational” (Monto, 2005, p 29). Sustainability first came to public attention in Wes Jackson’s work on agriculture in the late 1970s and can be defined as meeting the need of the present generation without harming or damaging the future of upcoming generations (Orr, 2002). Sustainable development is any development that lasts, and any policy that inhabitants can continue to follow in the long run (Atkinson et all, 1997). The notion of sustainability can be consist of four filters that focus on reducing and controlling the human activities that lead to: (i) the continuous over-use of the natural resources; (ii) ongoing environmental degradation; (iii); progressive build-ups of substances produced by societies (iv) impeding people in meeting their needs (Gill & Williams, 2008).

Fashion shopping is a leisure activity that is linked to all four sustainability pillars, and everyone participates in it in some way. Nowadays, fast fashion is becoming more of a non-choice than people recognize. Economists agree that cheaper prices stimulate consumption, and the current low prices of clothing have encouraged a shopping “free-for-all” (Beker, 2011). Fashion consumers buy and dispose of millions of garments per year, which places the ecosystem, and the workers involved in the textile industry under pressure (Siegle, 2011).
**Social sustainability**

There is a growing literature on the conditions of workers in developing countries producing garments, textiles, footwear, and handbags for the developed world, including assessments by activists and non-governmental organizations (NGOs) (Connor, 2002). Literature indicates that workers choose to work in sweatshops because the alternatives available to them are worse (Kabeer, 2004; Zwolinski, 2007). However, once they are employed, their employers pay them less than the average wages and treat them as mere tools. Coercion is often used to ensure that they work long overtime hours and meet production quotas because local enforcement of minimum wages and other labor standards may be weak or nonexistent (Arnold & Bowie, 2003; Moran, 2004).

**Inadequate Wages**

Research shows that despite significant recent increases in the legal minimum wage, manufacturing workers continue to receive wages that provide only a fraction of the cost of an adequate standard of living (Moran, 2004). The Like Cutting Bamboo report (2000) revealed that workers in the garment industry receive inadequate wages that are below what they need to meet their basic needs, and that workers with children are in a particularly dire financial situation. In fact, their wages are considered to be the lowest minimum wage in the world. Furthermore, in a number of factories, they are frequently required to work more than 60 hours per week and workers who refuse to comply can face a range of possible punishments, which could result in their dismissal (Connor, 2002).

It is difficult to define a living wage, however; one useful way to is to use a method similar to that used by U.S. government to define poverty. It involves calculating the cost of a market basket of food needed to meet minimum dietary requirements and then adding the cost of basic needs (Adams & Neumark, 2005). Nevertheless, some retail and brand-name companies do not take that into consideration and they have ended up benchmarking wages against the minimum wage paid in supplier countries as a proxy for the living wage (Miller & Williams, 2009). These brands ignore the fact that there is a correlation between wage levels and productivity. Workers whose minimum daily caloric intakes are met, and who have basic non-food needs met, will have more energy and better attitudes at work (Arnold & Bowie, 2003). Therefore, paying workers a living wage could help improve productivity and alleviate the need for overtime work.

**Health and safety**

Health and safety are two of the most controversial issues concerning sweatshops. Factory workers are often at risk from hazards such as locked fire exits and failure to provide protective equipment. The failure of companies to provide a healthy and safe working environment for their workers continues to affect, and even claim lives. The processes involved in fashion production can pose very serious risks to workers’ health and safety (Connor, 2002). Many workers are vulnerable to workplace hazards such as repetitive motion injuries, exposure to toxic chemicals, exposure to airborne pollutants such as fabric particles, malfunctioning machinery, severe injury hazards and excessive exposure to heat and noise (Arnold & Bowie, 2003). One of the most common workplace hazard concerns is fire safety as workplaces often
lack emergency exits and fire extinguishers. In factories throughout developing countries, workers are often locked in to keep them from leaving the factory and when fire breaks out then workers are trapped, which results in fatalities. The International Labor Organization (ILO) reported, “every year about 250 million workers suffer accidents in the course of their work, and over 300,000 are killed or can be subject to occupational diseases, and the death toll is over one million people a year” (The International Labor Organization (ILO), Decent work p.39).

**Abusive treatment**

One of the most common forms of bullying is verbal abuse. This abuse has been defined by the workers as “harsh or unkind words, angry shouts, and words that humiliate and cause shame such as names of animals and insult to the workers’ intelligence” (Center for Societal Development Studies, 2001, p.4). In March 2012, Bangladeshi workers producing sportswear for Adidas, Nike and Puma were beaten, verbally abused and overworked (Kozlowski, Bardecki, & Searcy, 2012).

**Child labor**

An issue that continues to challenge the fashion industry is child labor. This refers to paid workers who are younger than 16 years old or younger than the age of completing compulsory education in the country they work in (Global Reporting Initiative, 2002). One study revealed that children as young as seven were sold to slave traders for working in the sweatshops of Delhi. In addition, in November 2010, Monsoon, used suppliers in India who employed child labor and paid them below the minimum wage (Kozlowski, Bardecki, & Searcy, 2012). Siegle stated that twenty to sixty percent of garment production is sewn and beaded by informal young workers (2011). According to ILO, approximately 250 million children working in the apparel industry all over the world are “deprived of adequate education, good health and basic freedom” (ILO, decent work p17).

Studies show that the main factor behind child involvement in the fashion industry is their willingness to accept lower wages than adult workers (Hartman, Arnold, & Wokutch, 2003). Another study has found that the low cost of young workers is not the only factor leads business owners to hire them (Liebel, 2003). For example, a study conducted by ILO revealed that there are other advantages of hiring child labor such as good health, less absenteeism and their willingness to do repetitive monotonous work tasks (2006).

In light of these practices, conditions in garment factories remain generally noncompliant with international labor standards. The literature indicates that there is some work that has been done to abate the outcomes of these practices, however the changes made, in most cases, seem unlikely to resolve the extent of the social sustainability problems identified (De Brito, Carbone & Blanquart, 2008; Fletcher, 2013).

**Environmental sustainability**

During the last few decades, the fashion industry has notably evolved. These dramatic changes have forced retailers to adopt low cost, low quality, flexibility to design the latest fashion shows and runways trends to maintain profitable positions in the current demanding market (Bhardwaj
& Fairhurst, 2010). There is a constant need to refresh products, which means that retailers need to increase the number of seasons to encourage consumers to visit their stores more frequently. To illustrate this, the fashion industry used to have two fashion seasons: spring/summer and fall/winter. For the last three decades however, things have changed. For instance, Zara, H&M and Forever21 produce 10,000 items every year in more than two seasons; most boutiques, by comparison, release between 50 and 100 pieces (Landgren & Pasricha, 2011). As such, the fashion industry has been increasingly under the spotlight as a significant contributor to global environmental issues (Kozlowski, Bardecki & Searcy, 2012). The impacts associated with the production and use of apparel throughout its lifespan includes wastewater emissions, solid waste production and significant depletion of resources from consumption of water, minerals, fossil fuels and energy (Farrant, Olsen & Wangel, 2010).

To illustrate, a single T-shirt in the fashion production process goes through four phases and in each phase pollution and natural resource overuse occurs. In the material phase, where fibers are harvested, pollution comes from cotton cultivation, and in the production phase, it comes from the use of chemicals and dyes. Moreover, in this stage, production needs excessive amounts of water (700 gallons of water) along with various fertilizers to produce one garment. Third, the use of transportation is increasing the carbon emissions as they deliver the products from factories to distribution chains and finally to fashion retail stores. In addition, in the disposal phase, the environmental problems come from incineration and occupied landfill (US Again, 2011). Approximately 900,000 tones of fabric are being discarded every year and go directly into the landfills (Mail, 2007). In the UK alone an estimated 30-kilogram textile waste per person reaches the landfills each year (Allwood et al, 2006).

Although there is an increasing awareness of environmentalism and ethical issues, sustainable fashion can appear complex as fashion designers and consumers are often confused by the concept of sustainability and how to incorporate sustainable practices in the garment manufacturing process which creates barriers for engagement with sustainability (Gwilt & Rissanen, 2011).

In the past few decades, ethical fashion has begun to emerge in an attempt to solve problems that are associated with the sustainability issues in the clothing industry (Moisander & Pesonen, 2002). Ethical fashion can be defined by using eco-friendly, natural and cruelty-free materials. As a part of this, it also includes providing humane working conditions and fair wages to the workers, which makes it a sustainable business model (Davies, lee & Ahonkhai, 2011). While some consumers have started to pay more attention to the ethical aspects of their consumption (Driesen & Rayp, 2005) and others claim to want to avoid unethical merchandise in the market, very few actions have been taken by people to stem this unethical tide (Eckhardt, Belk & Devinney, 2010).

What is ethical fashion? What does it mean for an apparel firm to conduct its business in a socially responsible manner or to be sustainable? The terms ethical fashion, socially responsible apparel business and sustainable fashion are often used interchangeably. Ethical fashion can be defined as an approach to the design, sourcing and manufacturing of clothing,
which maximizes benefits to people and communities while minimizing impacts on the environment. It promotes human dignity, rights and freedom and also seeks greater equity in international trade by offering better workplace conditions and preserving the rights of marginalized workers in developing countries (Orzada & Cobb, 2011). Ethical fashion as an innovative business model may resolve many problems that are associated with the conventional fashion industry.

Overall in the literature, there is consistency in the message that today’s world is going through an ‘ethical era’ where a huge number of buyers are switching towards more ethically responsible products and ethical practices in businesses are given significant attention as the public demand for social responsibility increases (Davies, Lee, & Ahonkhai, 2012; Freestone & McGoldrick, 2008; Barrientos, 2000; Dickson & Littrell 1996). In addition, some retailers have taken on a variety of socially responsible practices to avoid the bad publicity that can be generated by nonprofit organizations’ campaigns. Some retailers use social responsibility as a medium to brand their products. Indeed, many large companies now seek to create a ‘positive’ image which ethical trade can promote. This image paves the way to gain a more stable consumer environment in a competitive industry (Barrientos, 2000). This growing awareness has occurred not just among companies but also among consumers who have become aware of the social impacts of their own consumption, which has led to the increased demand for more ethical alternatives (Shaw, Hogg, Wilson, Shiu, & Hassan, 2006).

Gradually, consumers and businesses are being alerted to ethical concerns in clothing and the fashion sector. Most of these concerns are related to sweatshop production. Sweatshops refer to factory production in which clothing are made in insecure workplaces and employees are exploited by means of low financial return, excessive working hours, under-age workers, or other exploitative practices in developing economies where labor policies and workers’ rights can be less rigorous (Shaw et al., 2006, p.429). Another study has defined ‘sweatshop’ as any workplace in which workers are exposed to coercion, health risks, forced to work overtime, physical assault in case of any unmet target, sexual harassment of female workers or receiving income for a forty-eight-hour work week that is less than the overall poverty rate for the country (Hartman & Arnold, 2006).

Generally in the literature, there is some consistency in the notion that conscious customers can express their attitudes towards society and its inhabitants through ethical consumption (Davies & Ahonkhai, 2012). Ethical consumer behavior can be described as ‘decision-making, purchases and other consumption experiences that are affected by the consumer’s ethical concerns’ (Cooper-Martin & Holbrook 1993, p. 113). These consumers are aware that their purchasing decisions may have negative effects on workers and other people involved in this industry (Beard, 2008). Anon noted that buyers believe that by making ethical choices, they have the power to encourage and support socially responsible businesses, which avoid exploiting and manipulating workers (2002). In a sense, these shoppers use their buying decisions to demonstrate their beliefs and link their purchase to a ‘vote’ for ethical brands (Dickinson, 2005).
However, other studies have revealed that although buyers may declare that they intend to avoid sweatshop-produced fashion, in reality “words/deeds inconsistency” may emerge when they actually attempt to buy ethical items (Shaw et al., 2006, p. 430). That is, an ethical attitude does not necessarily reflect a buying behavior (Davies & Ahonkhai, 2012, p. 38). This phenomenon has been noted by other authors and termed the ‘ethical purchasing gap’ (Nicholls & Lee, 2006). According to Cow and Williams (2000) one possible explanation for the attitude-behavior gap may be the “social desirability bias” by research participants seeking to give the right, acceptable answers. The attitude-behavior gap remains unclear due to limited research in this area, which is an impetus to conduct research that explains factors that hinder consumers’ movement towards more socially responsible behavior (Bray, Johns, & Killburn, 2011).

Today, an increasing number of social and environmental activists are pointing out ethical issues behind the preparation of fashion products. Some of these issues are unhealthy and unsafe working conditions, long hours and low wages, mental stress and sexual harassment. In addition, every year, the clothing industry produces 2 million tons of waste, emits 2.1 million tons of carbon dioxide, and uses 70 million tons of water (Siegle, 2011). These numbers have dramatically increased in recent years since fast fashion became a retailing standard (McAspurn, 2009). Accordingly, the concept of ethical consumerism has risen over the last decade and has become an important topic in the popular press and academic studies (Bray, Johns, & Kilburn, 2011). High visibility issues such as the use of child labor or worker’s rights in developing countries appear to be pertinent issues. This industry remains underdeveloped despite media attention and the increased level of ethical awareness (Madsen et al., 2007). Research has revealed that consumers are increasingly considering ethical factors when forming opinions about purchasing. However, recent studies have highlighted significant differences between consumers’ intentions, and their actual purchase behaviors (Fritzsche, 1995).

The whole notion of ethical purchasing is gaining more ground in certain countries like the USA, the U.K, and Canada; nonetheless it is still an emerging one in many others. Consequently, most well-known apparel manufacturers and retailers have received harsh criticism because they have neglected the social ramifications of their business and production practices (McGoldrick & Freestone, 2008). Many apparel firms want to be described, as socially responsible but do not really know what it means. Many brands do not understand that it should go far beyond incorporating organic cotton into clothing production (University of Delaware Sustainable Apparel Initiative, 2009).

Methodology

In order to answer the study questions, this research used qualitative design to gain understanding and insights into a poorly understood phenomenon, ethical fashion consumption. Given the difficulty of studying actual decision-making behaviours, the researcher chose to conduct semi-structured interview which was the main methodological tool employed in this research. One of the merits of this type of interview is that it allows the researcher to weigh the credibility of the responses and explore some of the underlying answers more directly. It also gives the interviewees a degree of freedom to explain their thoughts and to emphasis areas of
particular interest (Humphrey & Lee, 2004). Although, an interviewer generally asks all the questions in the guide, it is not necessary that she or he follow a specific order and the interviewer can ask other questions if the opportunity, based on interviewee’s response, presents itself (Bryman & James, 2005) such as asking follow-up questions to provide more explanations. Furthermore, conducting semi-structure interviews allows and encourages participants to raise any aspects of the topic they consider important. In addition, using probes help manage the conversation by keeping it on topic and they are also useful in case the interviewee asks for examples or clarifications (Rubin & Rubin, 2005).

Findings
The research findings will be discussed in terms of respondents’ current fashion habits, knowledge about the fashion production, their support towards ethical consumption, as well as their intentions, actual behaviour and motives impacting the way they behave with respect to ethical consumption in this context in terms of availability and access to ethical retailers, information and price.

The current fashion habits
Fashion Importance
The study sought to understand the current fashion habits of the interviewees including how important fashion was in their lives. Approximately 95% of the interviewees’ answers indicate that fashion is an important component of their daily life either here in Canada or in Saudi Arabia. Fashion was important in that it allowed people to express their beauty, their identity, and their unique style. For some other participants, fashion was not important to them.

One respondent indicated that, “Fashion is important to me, maybe because I like to look good, to be different and to be seen.” Another respondent expressed, “I do care a lot about how I look, even though I do not put much time into choosing my daily outfits, but I do think is important to look nice and dress in a nice way. I do not want to walk around in my PJ’s.”

Some respondents went through significant efforts to remain fashionable including traveling to shop. For example, one respondent indicated, “I love fashion. I shop many times a week; I even cross the borders from Saudi to Bahrain to get valuable deals.”

In contrast, another interviewee pointed out that she does not shop frequently; she only goes to the mall to buy clothing when there is a real or perceived need for it not just impulse purchase. She commented, “I rarely shop. I think once every two months I may hit the mall to buy new clothes. “Some of the participants stated that they deliberately stray from mainstream fashion because they want to be seen as unique and one-of-a-kind. This indicates that the respondents use fashion to help frame their identity in the public eye. For example, one respondent stated, “I love fashion, but not in a way that makes me different from everyone else. I just prefer to be fashionable in a way that gives me confidence and reflects my personality.”

On the contrary, fashion was not as important for a couple of respondents due to the time it takes to shop, other priorities, and a preference for focusing on inner beauty. For example one respondent indicated, “Fashion is not that important in my life. It is just me. I do not like to spend time and effort to dress up fashionably. Sometimes, I think I do not want to
be pretty; I want to be a better person. What is important to me is to be wearing a freshly pressed, clean outfit.” Building on the inner beauty theme, another respondent indicated that, “I do not like to think about myself as a person who is addicted to fashion because I believe that there is another form of beauty that people should appreciate, which is inner beauty.”

One respondent revealed that fashion is such an important aspect of her life. Her travel to Canada to further her education has helped her to reassess and adjust her fashion style as she gained exposure to Western lifestyle. It inspires her to think about how she wants to look, what type of style suits her best and what to wear for different places; she described her clothing personality, “My life here in Canada has changed my clothing personality. I have become a big fan of the simple, comfortable, yet presentable style not only for school days but also for any special events I attend. In contrast, back home, the lifestyle is completely different. I would rather be trendy, stylish, and different from everyone else. It is the way things roll there.”

**Fashion shopping frequency and motivations**

In order to understand the participants shopping habits further, they were asked about how frequently they shopped, what motivated them to purchase products and the factors that influence their decisions to purchase an apparel item. Most respondents (99%) revealed that they go out two to five times in a month for fashion shopping. They also revealed different motives for this fashion shopping. Some do their fashion shopping when they need an outfit or need to replace an item; others go when they are bored and want to kill time, and a few go to the malls without a reason and shopping itself gets them excited.

One respondent indicated that she shops for fashion when she has an event and wants a particular outfit or she just goes for window shopping to explore the newest trends in the fashion stores. She commented, “I sometimes go fashion shopping if I have an event and want an outfit, and a lot of the time I go window shopping to see the latest trends in the market.”

Another stated that she visits fashion stores on a weekly basis, and she often goes without any real needs or intent to buy, yet she always walks out of that store with something she does not need it at the first place. She commented, “I pass stores all the time when I do my weekly errands around town. When I find something I like, I often take it. My last purchase was a black dress from Banana Republic on my way to buy groceries.”

Fashion shopping can be a form of entertainment and a quick solution to boredom. Shoppers can walk into a store without any real purpose in mind just because they are bored or in a bad mood, and they may walk out with an item. One respondent expressed that she goes out shopping when she is bored or stressed out and she cannot think of something else to do. She comments, “I pretty much go look around whenever I am bored; shopping is my ultimate leisure activity. It boosts my mood and releases any stress I feel.”

Affordable prices can be a strong influence on some participants’ decision to make a purchase, some participants find budget-friendly ways to buy clothes like consignment stores. For instance, one interviewee explained that her life here in Canada changed the way she perceives fashion. She used to buy from the fashion stores and spend money to get the look she wanted, later, she was introduced to a new way of fashion shopping, which is buying used or
vintage clothing from consignment stores. She also stated that she would not think to buy from these stores in her home country because of the influence of its culture on the people’s perception of buying second-hand products as it is considered shameful. She commented, “People here can buy second-hand clothing from thrift stores. I go there to buy clothes sometimes and I usually find items in good conditions for really good prices. However, I would never ever buy them in my home country, actually, these kind of businesses do not exist.”

Similarly, another participant explained that because she wants to stay within budget, she always looks for affordable ways to buy clothes. One way she discovered here in Canada was clothing swaps where she can exchange her valued but no longer used clothing for clothing she will use. She also revealed that the notion of swapping is not common concept in Saudi Arabia, and she would not consider as a choice if she has not moved to Canada. She indicated, “I was invited to a clothing swap last year in Vancouver, I found it a really good experience, I freshened up my wardrobe for free and also I de-cluttered my closet. At the end of the event, they donated the leftovers to charities. We do not do this kind of event back home, I am sure the idea would sound strange to people back there and I do not think they would consider doing it.”

High quality clothing is another motivation that can influence participants of this study to buy a fashion product as more than half of the interviewees (60%) take quality into consideration when buying any fashion product. One stated that her over-stuffed closet made her thinking about her buying habits; she started to focus on buying quality clothing that lasts longer. She indicated, “I don’t know how many times I’ve stood in front of my closet and complained that I had nothing to wear. That’s why now I am trying to reduce my fashion consumption. It is not like I do not like spending money; it is just that there is nothing worth buying at these malls. I am now more looking for the good quality clothing so I have started to invest in my clothes instead of looking for bargains that will fall apart in the laundry after two wearings.” Another participant shared the same notion that the quality is a top priority for her when buying any items of clothing, she claimed, “The fabric quality is a priority for me; I do not like clothes that fall apart in one wash. It is just a waste of money, isn’t it?”

Stylish design is another main focus for consumers when buying clothes. Participants of this study (40%) pointed out that. One interviewee emphasized the unique styles always draw her attention regardless of the quality, and because she changes her wardrobe often, she does not mind buying low quality clothing to wear them few times and then replace them with the current trend. She expressed, “I do not care about quality because I change my wardrobe very often. I look at style first; I like to be up-to-date in fashion. “In addition, another interviewee also considered stylish designs to be main force that drives her decision to buy a fashion item. “I shop almost every weekend. I like to keep up with the latest styles.”

Where they buy clothes
Participants of this study were being asked about where they go shopping for clothing. The purpose of this question is to explore whether they only go to the popular fashion retailers or they consider other choices like shopping online or buying from local small business boutiques and if there are any reasons behind their choice.
All the interviewees went on to say that they do their shopping for day-to-day outfits at fashion retailers like Zara, Top Shop, H&M and Forever21. Few indicated that they do online shopping besides visiting fashion brands. Yet, no one expressed any interests in visiting local boutiques for fashion shopping.

For instance, one of the respondents found that small local shops can be costly and more than she would want to pay, therefore, she goes to the mall for less expensive options. She stated, “I mostly shop at the malls, I do not buy online. I barely go to the local boutiques as I know they can be unreasonably expensive.” Moreover, another interviewee preferred to go to the same brands like Zara and Forever21 to find a wide variety of fashion collections that she may not find online or in local fashion shops. “I typically shop at Zara and Forever21. They have new collections every week and I like to browse and try on some fun trends.”

Another participant reported that in addition to shopping from malls, she also favoured online shopping because of its numerous advantages and benefits such as convenience. She addressed, “I go to the mall to check out my favourite brands and I also do a lot of online shopping because the Internet is a great resource for narrowing down my choices.”

One the other hand, two respondents articulated their thoughts on where they buy their clothing. Both emphasized that buying online does not appeal to them because they always prefer to try things on. In the case of buying a clothing item, they do not have the ability to feel the material, try it on, and see how it is made. They said, “Shopping online is not my thing; I am a picky girl when it comes to choosing my clothing style. Therefore, I like to touch the fabric and try it on before I buy it.” And another commented, “I buy from the fashion stores. I do not shop online because I prefer to see and feel the apparel’s fabric before buying it.”

How knowledgeable are the Saudi female consumers regarding the production of fashion

Where and how clothing are made

One of the research questions of this study is to investigate how knowledgeable the Saudi female consumers regarding fashion production. The majority of the answers (93%) indicated that they tend to check the clothing label to see where their clothing is made. They stated that the apparel they buy is mostly manufactured in a developing country like China, Bangladesh, or India.

One participant stated that she knows where her clothes are made because she checks the label. She expressed her thought, “I check the label to see the manufacturing country of the clothing I am going to buy. Even though I do this just out of curiosity, it can affect my decision whether to buy it or not because if they are produced in developing countries, I would assume that they are probably made from low-quality material.” Another shared the same beliefs, “Yeah, I usually check and I know that most of our clothes are made overseas in rural and poor areas in developing countries.”

Another participant made an interesting comment, as she believed that corporations are the ones who should investigate what goes on the factories they buy from and care about where their products are being manufactured not consumers. She argued, “I do not think it is my
responsibility for determining where things are made, I only look at the price tag. It does not really matter where it comes from.” Likewise, another participant declared that checking the clothing label to see where it is made is not something she usually does “Not really, I do not tend to.”

**Awareness on the ethical issues**

The respondents were asked if they are aware of any ethical issues behind fashion production. According to their responses, approximately 14% are not aware and do not have sufficient knowledge about this subject, 40% are slightly aware and have heard/read about it in the media or on the Internet, and 46% consider themselves to be knowledgeable on the topic.

One interviewee did not have knowledge about any ethical issues related to fashion production, she just purchases what suits her needs as she expressed that in her own words, “I am not aware enough on these issues, maybe because they do not stir my interest.” Additionally, another interviewee revealed that she did not have any familiarity with the ethical problems that are created by the fashion industry; she also indicated that it is the firms’ responsibility to resolve these issues. She said, “I always presume that fashion brands like Zara and H&M, with their reputation and successful marketing, would be responsible and respectfully deal with their stakeholders.” Other participants showed a basic knowledge on this matter, one stated, “I would say that I am slightly aware of the ethical concerns that emerge from the fashion industry.” Another reported that she was aware about these issues; however, she argued that fashion industry in developing countries may do more good than harm. That is workers in the developing countries need jobs to sustain their lives and escape poverty. She said, “I am slightly aware of the environment and social issues of the fashion system in developing countries, but workers in some of these nations need the work, actually the industry itself is a great tool to eliminate poverty and raise living standards.”

The other participants stated that they are fully aware, and the source of their knowledge varies from one to another. For example, one revealed that the Internet was her source of information about this topic. She answered, “Yes, I am aware, it is all over the Internet. So, I always try to find other alternatives that do good for the community and its people.” Media both print and broadcast were the primary source for another participant as she explained, “The media are already taking a role, the increased sensitivity towards unethical practices within the fashion industry is in large part due to media reportage and the exposure of child labour issues and unfair working practices in the supply chain.” Moreover, another one said, “the ethical and sustainable fashion is emerging now and I think media are endorsing it.” Another one said that education has broadened her knowledge and expanded her information about business ethics and corporate responsibility. She expressed, “When I started my MBA, I studied corporate social responsibility and how this initiative can assess and take responsibility for the firm’s effects on the environment and impact on society welfare. As a result, I got some information about it.”

**To what extent are Saudi females supporting ethical fashion?**

When interviewees were being asked to identify socially responsible firms, most respondents singled out The Body Shop's use of environmentally friendly materials for its products, as well
as campaigns for social responsibility coupled with Toms as an ethical social fashion brand because it gives back to the community and it matches every pair of shoes purchased with a pair of shoes for a child in need in a village in Argentina.

As an example, one participant described her point of view on why she thinks Toms is an ethical fashion brand. “I like Toms, it utilizes ‘one for one’ by donating a pair of shoes, an eyewear or a week of clean water to someone in need for every purchase made.”

Furthermore, half of the respondents named Joe Fresh, Nike, Wall-mart and H&M as the least socially responsible firms. One participant said, “There really are not that many [ethical fashion brands], I am sure they [fashion brands] are all unethical in one way or another.”

One participant commented that her awareness of ethical issues changed her purchase behaviour, “I used to buy from Joe Fresh. It has stylish collections with affordable prices, but after the deadly collapse of its garment factory building in Bangladesh where some of its clothes were made, I started to realize that I could be a key contributor in this crisis as I buy and wear clothes that someone in the other half of the world suffers to produce.”

More than half of the participants have never purchased a fashion product that can be described as ethical fashion. The results of this section suggest that even though they may be informed about ethical issues, they may not be prepared yet to take their concerns into the marketplaces. Best put in one respondent’s words, “I haven’t bought any items from this type of business; I do not see their stores around me. And I do not think I would take a long ride to visit their stores. They must reach out to their consumers not the other way around.”

**What are the incentives and disincentives that motivates or impede female consumers with respect to engaging in ethical consumption?**

**Lack of information**
The first most prevalent problem faced by consumers is the lack of information related companies’ policies and clothing production practices. One-third of the interviewees in this study agreed that they need more information to be able to make ethical purchases.

One complained about the lack of knowledge, she tries to find source to learn more about ethical consumption, but she does not seem to find reliable ones. This self-identified ethical consumer said, “Despite the deliberate effort I make and the intensive research I carry out, I cannot find reliable sources to get information from, which has made it [buying ethical fashion] so impractical.” Participants suggested that they did not have enough knowledge about which brand is ethical to pursue ethical decisions. One participant said, “I do not know which companies are socially responsible and which are not; more information would help me a lot to differentiate between them.”

It seems that a certain amount of information is required to encourage consumers to actively incorporate ethical considerations into their consumption choices. When questioned if more information would help, most respondents said it would make a huge difference, while some others said it would not really matter and it might confuse them more.
On the other hand, it emerged from the interview discussions that 90% of the respondents do not really make any effort to seek information about the production of any of the fashion items they usually buy and they rely mostly on the labeling information as their ultimate guide. One interviewee indicated that she finds it a time-consuming and exhausting task to research each item she buys. She felt it was the retailers’ responsibility to inform customers and stated, “I believe the owners of these brands should provide their potential consumers with more accurate and reliable information about how the production goes, maybe through campaigns, commercials or even the use of social networking sites. They need to be incisive and have intelligible strategies on what their factories are doing, how they are doing it and of course the positive outcomes of the buyers involvement.”

Another provided detail on what information would be helpful and commented, “I would like to know more information about the processes and the methods used to manufacture their apparel and how they incorporate the ethical and sustainable practices in their business”

One participant expressed scepticism about ethical fashion retailers’ claims, as she felt that these claims are just another marketing ploy to benefit from the consumers’ goodwill and to turn situations to companies’ own advantages. She stated: “I have feeling that the purpose of all the ethical allegations regarding clothing production are purely to make more profit by commanding higher prices.” This scepticism may be an outcome of consumers’ lack of information as mentioned in some literature, and will be discussed in the next chapter.

**Lack of availability**

Another obstacle that faces consumers today was the lack of platforms offering clothing that is fashionable as well ethical. Over half of the respondents complained about the lack of availability of ethical fashion brands, the fact that most of these brands are only available online or in big cities. This results in difficulties getting access to ethical retailers. One participant commented that she would buy ethically only if she has access to these brands. She expressed, “If I only knew where I could purchase ethically-made clothing I absolutely would buy them.” Another revealed that she lives in area where fashion brands do not have such thing. She said, “Where I live, retail outlets do not sell them [ethical clothes].” Another reported that she has not bought any ethical items before, and even if she wants to buy, she does not seem to find them and does not prefer to take a long ride to just buy ethically. She said, “I have not bought any items from this kind of business before, even if I want to buy from it, I do not seem to see their stores around me. I do not think I would take a long ride to buy from them, they must reach their consumers not the other way around.”

**Price**

A recurring theme in the interview responses (60% of the respondents) which is that individuals think more about price, and less about other issues when purchasing fashion goods, suggesting that they care more about how much they have to pay than ethical values. A participant indicated that price is important to her, and she might not be thinking about other aspect of the item when she decided to buy and if the price is relatively high, and higher than the normal everyday products, she would go with the reasonable price and the better style. She expressed, “I think less of the ethical issues when I buy any fashion products. I have to say that design and
price take more priority over other aspects.” Other few respondents mentioned that living on a limited budget would impede them to buy ethical fashion as they think it can be expensive. One stated, “For me as a student, price is the main hindrance. If I plan to buy an ethical item and it is really expensive, I would be hesitant to do so because it would affect my funds.” Another provided a similar thought, “This type of clothing can be pricy, and since I live on a tight budget, I cannot afford to buy them.” And another participant commented that she, “Would not mind paying a bit more for a good cause but when you have got a limited fund to spend each month, you cannot afford these things.”

**Quality perception**

Quality is another factor that impedes the participants of this study to fully engage in the ethical consumption. Some of them perceived fashion products branded ‘ethical/sustainable/green’ as poorer in quality.

One respondent emphasized quality when she shops for clothing and ethical brands may not be the best choice for her as she believes that their quality is not guaranteed. She expressed, “When I buy my clothes, I need the quality to be guaranteed, I believe that most of the ethical fashion brands make products that would be easily torn up and would not be durable.” Another added that High-quality clothing is a clear influencing factor in her decision-making process. She commented, “I would become a regular buyer if the ethical brands work on improving the quality of their products.”

**Design/trend**

Most of the respondents who were familiar with ethical fashion complained about the perceived “unfashionability” of many ethical apparel businesses. One participant believed that clothing is a representation of one's personality, culture and social status. Most of the women in her home country prefer to have their unique fashion styles and they do not just blindly follow the trends set by someone else. She expressed, “In my opinion, most Saudi females have a unique fashion taste and they always seek fashionable clothing as a means of acquiring acceptance from people around them and as a demonstration of social status. Since ethical fashion brands do not really have fashionable design they might not be the best alternatives available for them at this moment.” Another observed that the collection and styles produced by ethical apparel brands might be a drawback that hinders her from buying ethically. She said, “Most ethical shops have certain type of clothes; they manufacture only the basics like t-shirts, pants, shoes and socks. I cannot find an evening dress for instance. “Another shared the same thought and she added the unaffordable prices. She claimed, “I wish I could only buy ethical fashion but the limited collections and the extravagant prices prevent me from doing so.” Another respondent concluded that she would sacrifice ethical elements in favour of having a particular style or look. She asserted, “If I am buying a fashion item for a special occasion, I would go with my favourite design regardless of ethics.”

**Human rights**

Based on some responses, it became clear that some participants cared about certain kinds of ethical issues within the garment industry more than others. For example, animal rights and environment protection were low on their list of ethical priorities, while the idea that workers
in the production of fashion are suffering due to some corporations’ practices did matter to them.

One interviewee pointed out that she would consider boycotting a brand if she knows that its products are made under unethical circumstances. She expressed, “I would be less willing to buy my clothing from a company if I knew for a fact that it harms workers.” Another interviewee mentioned an interesting key point. She admitted that workers in the garment industry may experience hardship and suffering, however, their jobs would help them to endure and overcome many problems associated with being unemployed. She said, “All these abuses in fashion are heartbreaking, but if these workers have no jobs, they would suffer from poverty and all associated disadvantages that come from the lack of work.”

Comparatively, very few respondents made an argument in favour of child labour. Based on their opinions, if children were not allowed to work, they would be living in even greater poverty. These respondents believed that being able to work is a basic human right for people in developing countries despite how young they are because of the extreme poverty and the lack of other appropriate alternatives. In particular, one argued, “I have heard about the child labour argument in the fashion industry but let’s be realistic and think about the hard life in the developing countries. We cannot just say child labour is not right. Children there need to support their families or poverty would be perpetual.” Another offered a similar argument, “Child labour is accepted in developing world and it is not against the law. Why should human activists take a western or developed world’s approach to attempt to eliminate child labour and label it as an unethical practice if it is a matter of survival?”

Peer pressure

Another interesting theme that has emerged from the interview data is peer pressure. One participant mentioned how social pressure affects her preferences and actions. She does not want buy or wear ethical fashion because she would look different than her family members and friends. She expressed, “I have not bought any ethical fashion before, I think I would look weird in that type of clothing, they would not be fashionable or trendy. They seem unfamiliar to me, my friends and family do not have them.” This may indicate that some consumers may act in a certain way like continue buying fast fashion and do not change their buying habits to fit in and look similar to everyone else around them.

Discussion and Conclusion

The aim of this study was to contribute to a better understanding of ethical fashion consumption. However the findings of this study demonstrate little evidence that ethical issues have any effect on consumers’ fashion purchase behaviour. When it comes to fashion purchases, more than half of the interviewees were interested in their own personal fashion needs rather than the needs of others involved in the textile supply chain. When asked what factors most strongly influenced their buying decisions, they concluded that price, style, and quality were the three most important factors.
The approach taken in this research can broadly be classed as an attempt to make interpretive explanations to show the purpose of the actions being followed by the subjects (Carrigan, Szmigin, & Wright, 2004). Driesen and De Pelsmacker have revealed that many consumers claim that they want to avoid buying unethical fashion merchandise, whereas few of them translated their concerns into their buying of products, whether to buy based on positive ethical aspects of a company or to not buy, or boycott, others for their unethical issues. This contradiction between attitude and behavior can be caused by lack of availability of ethically made commodities, skepticism about ethical claims, and insufficient knowledge (2005).

Lack of information can cause confusion over what makes a product ethical and it can also lead to low customer awareness of both ethical issues and available products. Boulstridge and Carrigan (2000) found that most consumers lack enough information to distinguish whether a company has or has not behaved ethically, and for consumers to do efficient decisions making, they must be fully informed. However, having more information does not seem to be the most important factor for consumers to make a more ethical judgment. It appears from the findings of this study that while most participants say they are willing to buy "responsible" products and have enough knowledge to comprehend the ethical issues in the fashion industry, their actual behavior is not in accordance with their beliefs and thoughts. Their continuous demand for new, less pricy clothing can be seen as examples of the more widespread driving force behind the continual consumption of fast fashion. The results of this study were consistent with what was presented in the literature. That is, one-third of the respondents pointed out that the lack of knowledge was an obstruction that limited their ethical buying. Their responses indicated that individuals might rely on constant reminders about all the unethical practices that are happening in the garment industry and how to distinguish ethical brands from unethical ones. Therefore, when consumers have the ability to identify ethical brands in the marketplace and are aware of the ethical issues, they can think more about ethics in their purchases. To help fashion consumers to be more knowledgeable, mass media and the Internet can have great influence over people’s perception. The manner and speed in which media and Internet reach their audience is remarkable and widely acknowledged. Thus, this positive aspect of the role of media can assist to raise awareness about ethical consumption.

Despite the fact that there are numerous opportunities to consume ethically and more information is given to consumers, it seems that consumers rarely purchase ethical products (Carrington, Neville & Whitwell, 2010). That is, when facing the cash register, stated intention of ethical consumption seldom translate into actual purchasing behavior. This intention–behavior gap reflects the consumers’ unwillingness to sacrifice their own wants/desires.

Clothing has seen dramatic price decreases, and fashion consumers have accepted and benefitted from this trend in the industry. The competition between fashion brands has been fierce with only those with the lowest prices surviving (Rantisi, 2002). Thus, buyers try to find reasonable prices when shopping for apparel products to avoid any financial loss (Kang and Kim, 2013) because apparel is subject to fashion trends, which are hard to forecast or justify in monetary terms (Kwon et al, 1991) and because sweat-free clothing is often more expensive than the mainstream clothing, and this significantly hinders some shoppers from joining the ethical movement (Shaw, 2006). However, they may be trading quality for price as most of the
fashion items are of low quality and are, as described by Kozloski et al (2012) “100 percent polyester with no lining and buttons, fabrics fade and stain after 2 to 5 wear times, lose their shapes and buttons fall off”. According to Cline (2012), well-made clothes are often outrageously pricey and buying cheap fashion seems the only choice that is available to consumers. However, investing in high-end pieces can give clothes more meaning and longevity, which could help buyers to cut down their obsession for owing the latest and cheapest things on the market. This study reached the same conclusion, as 60% of the respondents concluded that price controls their buying habits. It was clear that they cared most about the pricing of fashion products. Therefore, fast fashion is the perfect choice due to its low prices.

Lack of availability of ethical products appears to be a significant problem, as fast fashion does not have equivalents accessible for consumers who want to fully engage in ethical fashion consumption. Research has revealed that in comparison to conventional fashion, there is less availability of ethical fashion alternatives and this market remains limited (Shaw et al, 2006). Hence, shoppers need to exert effort and cost to locate the alternatives, as ethical brands tend to not have convenient stores in small towns. Carrigan and Attalla (2001) found that there are very few customers willing to put excessive effort or personal cost into locating ethical alternatives. The findings of this study were consistent to this indication as over half of the respondents stated that the lack of availability of ethical fashion products could be the most important barrier to buying ethically. It has a negative effect on the relationship between consumers’ ethical intention and ethical purchase behaviour. This indicates that increasing in the ethical fashion availability may encourage consumers to be more involved in the ethical consumption.

Some participants brought up the theme of (clothing swap and buying from consignment stores) as a common practice in Canada. They got to experience these events and that helped them to move out of their cultural comfort zone. However, the concept of buying second-hand clothes either from consignment stores or from clothing swaps is still culturally unacceptable in Saudi Arabia, even though people buy used cars and jewellery. People in the region simply throw things out instead of selling them or donating them. This is indicative of a lack of understanding or belief that the items have no further possible use and no monetary value.

By overcoming this perception barrier and bringing recycling clothing into Saudi Arabia, it could open the opportunity for more people to venture into business and create more jobs, which may provide a solution to the high unemployment rate in the country. In addition, another positive outcome of this way is instilling methods of recycling among people and teaching them not to throw away old products which in most cases be passed along to others. This can help in easing off the pressure on the supply chain in the fashion industry to produce more items, which ultimately resolve the unethical social practices and reduce the fashion consumption.

Another interesting theme was that environmental and animal rights in the fashion production do not fit into some participants’ list of priorities; they seemed to care more about
human rights. This can be argued as the animals’ well-being and environmental sustainability are as important as other economic and social rights. Living in a protected environment with full access to natural resources and maintain that to the next generations is one of the important human rights that some people can overlook.

While the uptake of ethical fashion among participants in this study was minimal, there appears to be a growing awareness of ethical issues. A number of respondents ended the interview commenting how they had never even thought about ethics in fashion, but following the interview would probably end up asking themselves the questions ‘‘who made this dress?’’ ‘‘Is it environmentally, socially and ethically produced?’’ ‘‘Who am I hurting buying this product?’’ This means that consumers do care about ethics and sustainability in fashion, although it has not significantly affected their purchase decisions yet.

Few respondents seemed to not mind child labour involvement in the fashion industry. Their argument is that the income generated by the youth workers may assist in supporting that particular youth’s fundamental needs (food, clothing, and shelter) and, at the very most, it may be critical in supporting the entire family. Arnold and Hartman (2005) supported this notion and argued that no-child-labour policy may not be the answer for the children and the families involved. This is because alternative activities such as full time education programs or childcare are expensive and due to the tight budgets, limited families have access to them. Young workers engagement in fashion production businesses may also prevent them from becoming involved in less desirable activities, such as prostitution and drug dealing.

Some other interesting implications appear to be emerging from the findings. First, all participants involved in this study are either graduates or undergraduates in different academic majors. Some participants suggested that the sustainability-focused curricula they take in their Canadian university have increased their knowledge of sustainability issues. They have to complete assignments that require an understanding of corporate social responsibility and ethics in fashion marketing and brand management. Thus, it seems that education plays a key role in transforming their knowledge on ethical fashion. However, this may not be the case with consumers that are less educated, perhaps resulting in further disengagement from ethical consumption. This hypothesis can be explored and tested in future studies.

Peers play a large role in the social and emotional development of people. It is unquestionable for many social scientists that individuals’ opinions are influenced by the options of other individuals (Costello, 2010). For the ethical fashion consumption, Mandel reported that consuming ethical products might entail situations in which a negative consequence would result in embarrassment or disapproval from one’s family and peers (2003). This social pressure by members of one's peer group can put a lot of pressure on people to take a certain action, adopt certain values, or otherwise conform in order to be accepted (Pinheiro et al, 2014). One respondent made it clear that she is not interested to buy from ethical fashion brands as she addressed the role and impact of her peers on her consumer choices to act in a certain way.
It can only be hoped from this study that the disillusion with fast fashion and the interest to change trends would translate into greater consumer demand for higher quality, unique pieces that require more realistic production times. In addition, fashion brands and retailers would then have no choice but to adapt their products, and business models, to changing consumer tastes, thus initiating a more conscious consumption.

While this was an exploratory study and therefore acts as a starting point for further in-depth research, it provides valuable insights for all the stakeholders in the fashion industry on female apparel consumers’ personal values, beliefs and knowledge about the socially responsible business practices in the industry, and their likelihood of supporting socially responsible firms with their purchasing power.

Future research
For further research, there are many directions in which this research could be expanded. One direction is engaging some multinational corporations or local fashion businesses to learn about what challenges they face in setting and following ethical agendas. For instance, including Walmart or Inditex (the owner of Zara) to understand what obstruct them from establishing ethical model factories, which focus on workers’ rights and environmental protection.

A second direction for further research may focus on including a larger and wider sample to gain a more accurate reflection of any given context and conducting large-scale quantitative investigation and gathering data from different countries and different cultural backgrounds. It would be interesting to compare and contrast different shopping habits and ethical consumption knowledge related fashion across different cultures and regions of the world. This also resonates with the research limitation about demographic of research participants. For example, conducting research that involves Westerners sample (such as Canadians) and Easterners (such as Saudis). Thus, it would be interesting to learn how Westerners react similarly or differently from Easterners on the same issue. This in turn would contribute to understanding of the role of ethical knowledge in terms facilitating sustainable practices.

Thirdly, as the results of this study indicated the need for more knowledge on business ethics, future studies should include the consumers’ interest groups like the Saudi Consumer Protection Agency or the Ministry of trade to explore their strategies and plan to tackle the sustainability issues in one of the biggest business in Saudi, the fashion business.

Future research also can focus on social factors as they are among the factors influencing consumer behaviour significantly. Social pressure, which can friends, family or maybe one’s social status can influence people to do something they would not normally do, or stop them from doing something they would like to do, because they want to be accepted by someone/a group. Conducting another research is recommended to investigate this phenomenon and help understand it.

The main focus of this study was to better understand the knowledge of the young Saudi consumers on the production of fashion. It would be interesting to see future studies work in the same area include other age groups and compare between their ethical perspective in order to widen the knowledge on this topic.
To summarize, this research explored the extent that consumers consider ethical choices when purchasing fashion apparel using a sample of Saudi female students at Vancouver Island University. A substantial number of participants’ answers showed that they value the ethical dimension in fashion production. Nevertheless, their behaviour in real life is apparently not in accordance with their reported attitude towards ethical products.

One of the most noteworthy findings of this research is that Saudi female participants reported that ethical clothing brands need to fulfill their needs not only for ethics but they must also increase their visibility by having convenient locations, clear up confusion over labeling, and produce good-quality clothes. It is evident from the findings of this study that young consumers are influenced in their purchasing decisions by the latest fashion trends and prices. Moreover, some of the data discussed during the interviews suggested that there is an insistent call for fashion firms to adopt a new level of transparency and communicate the processes they follow more clearly and effectively through proper mediums.

There are some policy implications emerging from this study. One of these implications is that knowledge was a barrier in this study. Participants were unwilling to purchase ethical/sustainable fashion because they believed it is unstylish, pricy, limited availability or held other negative attitudes. According to Bonini and Oppenheim (2008) there are five barriers to ethical conduct including: lack of awareness, negative perceptions, distrust, high prices, and low availability. A system wide approach is needed to address the future of ethical fashion, it is a collective effort that needs to be taken by consumers, NGO’s and certifications, fashion producers, and government agencies. The following suggestions may rectify the knowledge barriers impeding ethical consumption:

- Consumers are key to driving sustainable production and play a central role in sustainable development; they have a great deal of power in their pockets like boycotting an unethical brand and supporting another ethical. In addition, it is their main responsibility to look for fashion products which, above all, are both friendly to the environment and also to the people who produce them.

- NGOs and certifiers can make it easier for consumers to understand the options available to them in relation to ethical certification. The meaning of different certifications and labels could be clarified by creating an online database that is accessible for consumers looking for ethical fashion products of all types. Consumers can find individual designers and brands, shops stocking these brands, and what is happening fashion industry through this database. Moreover, social and environmental organizations like the Ethical Trading Initiative, the Fair Trade Foundation and the World Fair Trade Organization can also play a role in setting up and running campaigns to address different labels, environmental or social sustainability, and consumers’ health in the textile and clothing industry.

- Fashion producers can improve their sustainable consumption policies and address the social and ethical dimensions of products and how they are produced
as well as their ecological impacts and work to share that with the public via advertisements or the social media.

- Professionals of all types can promote their skills to the ethical fashion community – from consultants to experts to designers and service providers. This makes it easy for businesses of all types to find the support and expertise they need to achieve their goals.

- Government agencies can provide supports to small businesses as these small independent ethical fashion brands have the potential to significantly contribute to national development. They create and expand employment opportunities, develop entrepreneurial skills, enhance market opportunities and encourage export promotion and import substitution. Government agencies can recognize the important role this sector plays by providing them with entrepreneurial development, access to finance and market development. These supports could make ethical fashion brands more available and accessible for consumers.
Employer Branding: Improve Employer Attractiveness to Win the War for Talent

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Abstract
Organizations worldwide are facing issues concerning the attraction and retention of talented employees due to the shortage of competent individuals. It is a world war for talents. Many researchers argue that employer branding can function as a tool for organizations to position themselves as an employer of choice, in order to attract and retain talented employees. This paper aims to contribute to the literature of Talent Acquisition by investigating the association between Employer Branding and Talents Acquisition. The paper examines the competitive advantage of implementing Employer Branding in organizations and what role such implementation plays in the context of talents acquisition and recruitment processes.

This paper critically reviews the recent perceptions of Talent Acquisition literature and present some future directions for research in the areas of Employer Branding and staff recruitment. Employer branding can be utilized both externally to attract talented employees, and internally to increase current employees’ commitment and loyalty. Employer Branding can make the Talents Acquisition process more effective. The consistency between the internal values and the external image is vital in order for the Employer Brand to be successful and trustworthy.

Key Words: Employer Branding, Talents Acquisition, Recruitment, Retention, Human Resource Management.

Introduction
In today’s era of globalization, technology revolution and fast paced competitive environment, one of the major organizational challenges is to attract and retain talent. The survival and success of organizations crucially depend on the quality of its talent. The challenge lies in how to win the war for talent in today’s highly competitive market.

Why employees prefer one employer over another is a popular question that requires to be explored from different aspects. The salary package, location and size of the organization are not the only reasons behind getting attracted to an employer. There has been cases were employees turned down employment offers with attractive salary packages and went for organizations with a lower salary package. Why would someone sacrifice a high salary package job offer and accepts a lower offer? It is simply the employer brand. For example most IT professionals would accept an employment offer from Google even if it was with a lower salary package and benefits than another lower branded IT organization. This is because Google’s employer brand attracts talents for more training and development, innovation and healthy work environment that supports creativity. Employers’ product or service brand portfolio also
counts to the overall employer brand. Well established employer brands are believed to attract and retain talent to build innovation (Subramaniam and Youndt 2005; To¨dtling, Lehner and Kaufmann 2009).

Organizations with strong employer brand gains many benefits such as low cost talent acquisition, better staff engagement, increased staff retention and lower staff salaries compared to organizations with weaker employer brands (Ritson 2002; Berthon et al. 2005).

However, it is not enough for organizations to be innovative, they also have to be known for being innovative, which is often an important element in employer brands and branding. Organizations should smartly promote its brand internally and externally were both current employees and job seekers are aware of the corporate image of the organization which should be attractive enough to attract and retain talents.

One of the early adopters of employer branding has been Coca-Cola Hellenic (CCH), the second largest company within the Coca-Cola Company’s global “system” of bottling and distribution partners. In 2005, CCH’s operations extended across 27 countries, including most of Southern, Central and Eastern Europe including Russia, and Nigeria (Kunerth and Mosley 2011).

“The senior team at CCH believes that investing in the company’s employer brand has significantly improved its ability to attract, engage and retain key talent, and in turn helped maintain its performance through the economic downturn”.

The application of employer branding appears to have changed significantly over the last years, with a more strategic role increasingly extending beyond the confines of recruitment communication, to become a more integrated and predominant feature of HRM strategic planning and implementation. However this paper concentrates on the correlation between employer branding and talent acquisition at this stage. The paper highlights the popular available definitions of employer branding and how it might be perceived from various perspectives. In addition, the paper will also discuss the importance of adopting a strategic employer branding strategy to organizations, and will shed light on the associated stages of strategic employer branding.

Literature Review

Employer Branding Comprehensive Definitions

The terms employer brand and employer branding are both in common use within the field of human resources. An employer brand refers to the reputation of any organization as an employer.

A quote from Jeff Bezos founder of Amazon, recaps this attractively: “Your brand is your reputation. It’s what people say about you when you’re not in the room”.

On the other hand employer branding refers to the tools and practices by which an organization manages its brand, or reputation, as an employer, among certain, specified audience groups.
From an organizational perspective, employer branding is generally positioned between Human Resources Management and Marketing. Both managerial functions should collaborate in the development and implementation of an employer branding strategic plan (Edwards, 2010).

A brand is “essentially a seller’s promise to consistently deliver a specific set of features, benefits and services to the buyers [and ...] is intended to identify the goods and services of one seller [...] and differentiate them from those of competitors (Kotler 1997, p. 443) “. Employer branding has evolved from a marketing base to the area of staff recruitment (Maurer et al., 1992). Mining deeply in the early phases of employer branding evolution it was found that Ambler and Barrow (1996) were amongst the first ones to merge both the domains of Human Resources Management and Marketing into a single terminology called Employer Brand. Employer branding is a unique form of creating, managing and promoting corporate identities. It does so through creating a corporate image on two corporate levels, externally as a desired employer of choice (Ambler and Barrow, 1996; Backhaus and Tikoo, 2004) and internally as an ideal workplace and environment (Bergeron, 2001). Some definitions of employer branding as found in existing literature are summarized in Table 1.

Table 1: Selected Definitions of Employer Branding as Found in Literature

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Definition</th>
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<tr>
<td>Kimpakorn and Tocquer (2009: p.534)</td>
<td>“An organization’s image as seen through the eyes of its actual and potential employees.”</td>
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<tr>
<td>Backaus and Tikoo (2004: p.502)</td>
<td>“Process of building an identifiable and unique employer identity...concept of the firm that differentiates it from its competitors.”</td>
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<tr>
<td>Ewing et al., (2002:p.12)</td>
<td>“Building an image in the minds of the potential labor market, that the company above all others, is a great place to work.”</td>
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<tr>
<td>Lloyd (2002) as cited in Berthon et al., (2001: p.152)</td>
<td>“The sum of a company’s efforts to communicate to existing and prospective staff that it is a desirable place to work.”</td>
</tr>
<tr>
<td>Ambler and Barrow (1996: p. 187)</td>
<td>“The package of functional, economic and psychological benefits provided by employment, and identified with the employing company.”</td>
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These definitions include two important features: First, employer branding has to be a long-term strategy and secondly its target group is not limited to prospective employees, but it also includes existing employees. While previous definitions of employer branding focused primarily on employment offerings, today employer branding extends far beyond talent acquisition and recruitment. Employer branding then can be defined as effectively promoting the organizations’ work environment and best offerings to both retain current staff and attract potential talents.
Strategic Approach
Organizations always look for the right candidates and equally applicants get attracted to some of those organizations. Talents nowadays are well educated and have wider access to more opportunities especially with the availability of internet that made the world as a global village. Talents has become selective and attempt to research offering organizations extensively before applying. This led organizations to employ employer branding strategies to retain and attract the current employees and potential employees, respectively.

In many developed countries were competition for talents is robust, strategic investments in employer branding to attract talent is essential. Employer branding in the context of recruitment is the package of psychological, economic, and functional benefits that potential employees associate with employment in a particular organization.

(Sullivan, 2004) has defined employer branding as “a targeted, long-term strategy to manage the awareness and perceptions of employees, potential employees, and related stakeholders with regards to a particular firm”. According to (Backhaus and Tikoo, 2004) the term employer branding suggests the differentiation of an organization’s characteristics as an employer from those of its competitors. The employer brand highlights the unique aspects of the organization’s employment offerings or environment.

All the above mentioned definitions indicate that organizations should strategically differentiate themselves from their competitors and promote what makes them the employer of choice. This should happen on both internal and external level. Internally, existing staff should be aware of their organization competitive advantage and externally potential talent should also be able to identify this competitive advantage in order for them to get attracted.

Adopting a strategic Employer Branding plan will lead to transfer staff from contractual employment to emotional contracting leading to higher staff engagement. Such engaged staff tends to stay dedicated to the organization for longer period even if the situations demand exploring other employment opportunities. Employer branding is presumed to positively affect the productivity and internal culture of any organization.

At this level it can be argued that strategic employer branding undergoes four stages:

1. **Stage 1**: Analyze the organization’s core values, strengths, culture, competitive advantage, internal policies, current organizational image, and trends.
2. **Stage 2**: Develop employer branding strategies through identifying organization’s value propositions.
3. **Stage 3**: After the strategies are developed the communication channels for internal and external marketing are identified for positioning the employer brand propositions in the perception of the potential and existing staff.
4. **Stage 4**: This will result in improved employer attractiveness for both potential talents and existing staff.
Discussion and Conclusion

The purpose of this paper is to examine the competitive advantage of implementing Employer Branding in organizations and what role such implementation plays in the context of talents acquisition and recruitment processes. Quality employees within an organization are essential as they form the basis of organizational knowledge and can be considered the foundation in the creation of a sustainable competitive advantage. The perceived reputation of an organization can impact its ability to attract top talent (Gatewood et al. 1993; Rynes 1991). The results of this paper support the concept that the knowledge obtained about any organization does affect potential candidates’ intent to apply to the organization. Hence, employer branding will help improve organizational awareness in order to strengthen its position, as an employer of choice.

It is not sufficient to own the best working environment, attractive staff engagement programs, top functional and technological features in the industry. Still, if potential talents are not aware of them, or perceive them incorrectly, the organization may end up with a small and insignificant pool of talents that will negatively affect the talent acquisition process. Therefore, the development of a precise employer brand image through an effective employer branding strategy is critical for talent acquisition within such a competitive environment.

The Employer Brand is based on more than just the tangible features of employment such as salary and benefits package. Furthermore, intangible qualities such as the organizations’ internal culture, prestige and its leadership. A successful employer brand also differentiates one organization from another. Talents nowadays are looking beyond what they will be paid or the benefits they receive.
Acquiring top talent does not ensure an organization’s success. However, it forms the basis of developing competitive advantage in an organization. The development of a successful employer branding strategy is vital to enhance recruitment efforts as shown in this paper.

It is argued that employer branding has a direct relationship with talent acquisition. Employer branding directly affects the talents attraction ability regardless of the organizations’ size. However, medium to large sized organizations tend to take care of their employer brand and invest in an employer branding strategy.

This paper is based on the first stage of a research project that will be followed by an empirical analysis to include a case study and interviews that will thoroughly study the effect of employer branding on the overall organizations’ managerial functions.

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An investigation on Financial Development and Economic Growth: A Panel Data Analysis of GCC Countries

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Abstract
The aim of this study is to evaluate the application of financial development indicators particularly insurance in the GCC region and to measure how these variables are related to economic growth. Because of the lack of studies in this area, many people do not see any difference between the life and non-life insurance on economic growth relationship. Therefore, this study aims to explain the differences between the insurances and the relevant financial variables in the context of GCC region. To achieve the objectives of this study, the correlation matrix, panel econometric analysis have been used through secondary data sources from 2000 to 2014 time periods. The results show that life insurance variable is positive and strongly related with the economic growth while non-life insurance is negative and significant relationship with growth. The results also indicate the degree of correlation of other financial development indicators and economic growth to understand the overall picture of financial system of GCC countries. Finally some recommendations have been made by emphasizing life insurance premium volume acceleration, investment opportunities through insurance sector development etc.

Introduction
To determine economic growth there are many important factors. Among these factors the role of financial markets are very significant which has also been proven by existing literatures on this topics. Financial markets through wisely utilizing financial institutions-from banks to insurance companies to mutual funds and pension funds, help investor to become specialize in certain markets or services.
To harness the best intuition of our work, we have used domestic credit provided by financial sector (% of GDP), life insurance premium volume (% of GDP) and non-life Insurance premium volume (% of GDP) as the proxy variables of financial development. We have also used GDP (constant 2005 US$) as the best proxy variable for economic growth.
UNCTAD recognized the importance of insurance in trade and development in its first conference (1964). Insurance is not much different from banks and capital markets. It is supposed to be very influential factor to determine economic growth though this intuition varies across countries. Like other financial intermediaries, insurance is able to accumulate its high amount of premium to invest in both long term and short term periods, thus making the sector important for sustained economic growth.

Under domestic credit that is provided by the financial sector, all credit to various sectors are included on a gross basis. There is one exception i.e., the credit that is provided to the government. Economic theories pose a negative relation between this and economic growth.

Gulf Cooperation Council (GCC) countries normally share a number of economic structures. Although GCC countries differ in terms of population and aggregate output, the common features are high dependency on hydrocarbons, rapidly booming labor force and private sector dependence on expatriate labors. Therefore, these six countries are selected in the study since they share common features and data is available for the panel analysis.

Literature Review

Economic Growth and Financial Development

We have considered domestic credit to private sector (% GDP), domestic credit provided by the financial sector (% of GDP) and broad money (% of GDP) as the best proxy indicators of financial development and real GDP as the proxy for economic growth.

(Sarkar, 2009) uses alternative dynamic panel data models to investigate the relationship between financial development and economic growth for a sample of 65 less developed countries over a period of 1980-2006. No relationship in either direction is suggested by the mean group model. But the other two models show credit to growth relationship as negative and growth to credit relationship as positive.

(Sanusi, Mo’osin, & Kusairi, 2012) examine the relationship between financial development and economic growth in ASEAN countries using (M2/GDP) as the proxy variable for financial development and both (GOV/GDP) and (TO/GDP) as the proxy variable for government policies through a static panel approach. Their study finds a positive relationship between the both variables.

Despite the huge amount of literatures analyzing finance and growth nexus, there are not many studies on GCC context concerning panel data analysis. To the best of our knowledge (Hamdi, Sbia, & TAS, 2012) conduct their research on GCC countries over the period of 1980-2010. They have used a modified version of the granger non-causality test and conclude that financial development significantly contributes to economic growth in the case of GCC.

(Muhammad, Islam, & Marashdeh, 2015) conduct both static and panel data analysis in the context of GCC countries. Their study suggest a significant positive effect of financial development on economic growth.

9. ratio of broad money to GDP
10. ratio of government expenditure to GDP
11. ratio of trade openness to GDP
Economic Growth and Trade Openness

Trade openness clarifies the degree of how countries are open to each other in terms of doing export and import, i.e., foreign trade. As trade openness variable we have used trade (% of GDP) which is the ratio of the sum of exports and imports of goods and services divided by gross domestic product.

(Uslu, Aydogan, & Ketenci, 2015) examines the long run relationships of the growth model in 21 emerging countries. Their findings reveal that economic growth of the emerging countries which are not affected by structural shifts is profoundly related to financial development and trade openness. Economic growth is not related to financial development and trade openness in the case of having structural shifts.

(Zeren & Ari, 2013) re-examines the causal relationship between trade openness and economic growth in the context of G7 countries implementing the most recently constructed Granger non-causality test in heterogeneous panels over the period of 1970-2011. Bidirectional causality relationship has been come out as the expected outcome of the study. That is, as openness increases, growth increases and side by side the increase in growth increases openness.

(Gries & Redlin, 2012) scrutinizes the long-run and short-term relationship between per capita GDP and openness for 158 countries over the period of 1970-2009. Using panel cointegration tests and panel error-correction models in association with GMM estimation the results of the study suggest a long run causality running from openness to growth and vice versa. On the contrary, the short-run coefficient shows a negative short run adjustment.

(Mercan, Gocer, Bulut, & Dam, 2013) research the effect of trade openness on economic growth in the context of Brazil, Russia, India, China and Turkey (BRIC-T countries), via panel data analysis covering the period from 1989 to 2010. Openness and growth nexus is found to be positive and statistically significant in line with theoretical expectations.

(Rehman, Ali, & Nasir, 2015) covering the period from 1971 to 2012 in the Saudi Arabian economy, the study investigates the relationship between the economic growth, trade openness and financial development implying unit root tests, co-integration tests, the Granger Causality test and the Vector Error Correction Model (VECM). The result of the study exhibits unidirectional causality running from the trade openness to the economic growth in Saudi Arabia. The economic growth also facilitates financial development according to the study.

(Saaed & Hussain, 2015) observes that there is no long run cointegration relationships between financial development, openness and growth in Kuwait then carried out the Granger-causality by the mean of VAR. They have shown that financial deepening plays a role in contributing financial development, globalization and economic growth, both directly and indirectly. This study fails to establish any viable indication of the existence of causal linkage between all these variables. There seems no significant study on growth-openness nexus in the context of GCC countries.
Economic Growth and Foreign Direct Investment

Through capital accumulation and transferring new technologies to the recipient country, FDI may affect economic growth directly. Moreover, FDI may facilitate economic growth indirectly where the direct transfer of technology increases the stock of knowledge in the recipient country by means of labor training, skill development, new management practices and organizational setup.

(Al-Iriani, 2007) examined the relationship between foreign direct investment and economic growth for the Gulf Cooperation Council (GCC) through a heterogeneous panel analysis which indicated a bidirectional causality between FDI and GDP, thus supported the endogenous growth hypothesis.

(Moudatsou & Kyrkilis, 2011) studies the case of association between FDI and economic growth for two regional organizations that is EU (European Union) and ASEAN (Association of South Eastern Asian Nations) using a panel data set over the period of 1970 to 2003. Heterogeneous panel analysis indicates growth driven FDI for EU countries. Regarding the ASEAN the study suggests two-way causality between GDP per capita and FDI in the context of Indonesia & Thailand. In Singapore and the Philippines, however, economic growth leads to inward FDI flows.

(Agrawal, 2015) scrutinizes the relationship between foreign direct investment and economic growth in the context of BRICS economies namely Brazil, Russia, India, China and South Africa over the period of 1989-2012. Implying the cointegration and panel causality tests, the results of the study suggest long run causality running from foreign direct investment to economic growth.

There exists lack of studies covering recent data sets in the context of GCC countries.

Economic Growth and Insurance

Life insurance premium volume (% of GDP) and non-life insurance premium volume (% of GDP) have been used in the study as the proxy variables of insurance.

(Madukwe & Anyanwaokoro, 2014) examines the causal relationship between life insurance business and economic growth in the context of Nigeria over the period of (2000-2011) using Pearson’s Product Movement Correlation Coefficient. The study reveals significant causal relationship between life insurance business and economic growth although life insurance premium has been proven unable to make meaningful contribution to economic growth due to low consumption and policy distortions.

(Arena, 2008) provides a systematic assessment of the causal effect of life and nonlife insurance market activity on economic growth for a set of 56 countries over the period of 1976-2004. By using the generalized method of moments (GMM) for dynamic models of panel data, the research finds significant causal relationship between insurance market activity and economic growth. Both life insurance and non-life insurance postulate a positive causal effect on economic growth.
(Lee, Lee, & Chiu, 2013) find that in the long run, the level of economic activity and life insurance market yield significant and positive bi-directional causal relationship for 41 countries within three levels of income covering the period of 1979–2007.

(Al-Amri, Gattoufi, & Al-Muharrami, 2012) evaluate DEA methodology and Malmquist Productivity Index (MPI) to resolve the technical efficiency of insurances in the GCC countries. This study spans from the period of 2005-2007 with a panel data covering the 39 insurance firms in the region. The findings from this paper suggest that the insurance industry in the GCC is slightly efficient and there is broad area for advancement.

(Al-Amri, 2015) examines the technical, pure technical, cost and allocative efficiency for an unstable sample of 115 firm-year observation of Takaful insurance companies conducting in the GCC countries over the period from 2004 to 2009. By using (DEA) methodology, the result shows that UAE and Qatar score the best technical efficiency, while Saudi Arabia and UAE are the most cost efficient in the midst of GCC countries.

**Relationship between economic growth and Inflation**

Inflation, GDP deflator (annual %) is used in this study as the best found proxy variable for inflation. (Kandil & Morsy, 2009) examine the determinants of inflation in the GCC countries by applying an empirical model. This study combines both domestic and external factors for the analysis. They have shown that inflation for the trading partners has been turned out to be the most important foreign factors. (Barro, 2013) investigates the effects of inflation on economic performance around 100 countries from 1960 to 1990. From the observational analysis the study finds significant negative effects of inflation on growth and investment.

By examining a threshold level of inflation, the researcher applies a panel data from 32 Asian countries, covering the period from 1980 to 2009. The study uses a dynamic panel threshold model which indicates a nonlinear relationship between inflation and economic growth (Vinayagathasan, 2013).

(Drukker, Gomis-Porqueras, & Hernandez-Verme, 2005) Find a nonlinear effect on growth from 138 countries over the period 1950 to 2000, by employing a new econometric technique for panel data. Once the inflation reaches a threshold level only then inflation affects the economic growth negatively.

**Measurement of Variables and Data Sources**

We have used panel data in our empirical analysis. This data is mainly from Gulf Cooperation Council (GCC) countries namely Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates. The years of our study covers from 2000 to 2014. We have selected these countries on the basis of data availability. Data are collected from World Development Indicators (WDI Database Archives (beta)) and also from the website of Data Market.
We have used the following variables. The dependent variable is the GDP measured in constant 2005 US$. The independent variables are Life insurance premium volume to GDP (%), Non-Life Insurance Premium Volume to GDP (%), Domestic credit provided by financial sector (% of GDP), Domestic credit to private sector (% of GDP), Broad money (% of GDP), Trade (% of GDP), Foreign direct investment, net inflows (% of GDP) and GDP deflator (annual). Due to some missing data we have applied interpolation process. Data and variables description are given in table 1.

Table 1: Variables Description

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<thead>
<tr>
<th>Variable Used</th>
<th>Notation</th>
<th>Data source</th>
</tr>
</thead>
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<td>LIPV</td>
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</tr>
<tr>
<td>Non-Life Insurance Premium Volume to GDP</td>
<td>NLIPV</td>
<td>Data Market(<a href="https://datamarket.com">https://datamarket.com</a>)</td>
</tr>
<tr>
<td>Domestic credit to private sector (% of GDP)</td>
<td>DCPS</td>
<td>World Development Indicator</td>
</tr>
<tr>
<td>Broad money (% of GDP)</td>
<td>BRM</td>
<td>WDI Database Archives(beta)</td>
</tr>
<tr>
<td>Trade (% of GDP)</td>
<td>TO</td>
<td>World Development Indicator</td>
</tr>
<tr>
<td>Foreign direct investment, net inflows (% of GDP)</td>
<td>FDI</td>
<td>World Development Indicator</td>
</tr>
<tr>
<td>GDP deflator(annual)</td>
<td>GDPD</td>
<td>World Development Indicator</td>
</tr>
<tr>
<td>Domestic credit provided by financial sector (% of GDP)</td>
<td>DCFS</td>
<td>World Development Indicator</td>
</tr>
</tbody>
</table>

Methodology
We begin the analysis of the relationship between the dependent and independent variables by using simple correlation test and correlation test with significance. Table 2 and 3 show the result of simple correlation test and significance test respectively.

Table 2: Simple Correlation Test results.

<table>
<thead>
<tr>
<th>correlate GDP BRM TO FDI DCFS DCPS LIPV NLIPV GDPD (obs=90)</th>
<th>GDP</th>
<th>BRM</th>
<th>TO</th>
<th>FDI</th>
<th>DCFS</th>
<th>DCPS</th>
<th>LIPV</th>
<th>NLIPV</th>
<th>GDPD</th>
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<tr>
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<td></td>
<td></td>
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<tr>
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<td>1.0000</td>
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<td></td>
<td></td>
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<td>DCFS</td>
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<td></td>
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</tr>
<tr>
<td>DCPS</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>GDPD</td>
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Table 3: Correlation Test with Significance

```
pwcorr GDP BRM TO FDI DCFS DCPS LIPV NLIPV GDPD, sig

<table>
<thead>
<tr>
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<tr>
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<td>DCPS</td>
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<tr>
<td>LIPV</td>
<td>-0.3422</td>
<td>0.4384</td>
<td>0.7334</td>
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<td>0.3333</td>
<td>0.5716</td>
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<td>NLIPV</td>
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<td>0.5995</td>
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<tr>
<td>GDPD</td>
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<td>-0.3358</td>
<td>0.0121</td>
<td>0.0956</td>
<td>-0.1700</td>
<td>-0.2671</td>
<td>-0.0879</td>
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Table 3: Correlation Test with Significance

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<tr>
<td>GDPD</td>
<td>-0.0278</td>
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</table>
```

GDPD | -0.0864 -0.3358 0.0121 0.0956 -0.1700 -0.2671 -0.0879 -0.0278 1.0000
From the correlation significance test, we have found that LIPV, NLIPV and DCFS are strongly correlated with the dependent variable (GDP constant 2005 US$).
Thus we have developed our econometric model based on the correlation results as follows.

\[
\text{GDP}_it = \alpha + \beta_1 \text{LIPV}_it + \beta_2 \text{NLIPV}_it + \beta_3 \text{DCFS}_it + \epsilon_it \quad \ldots \ldots (1)
\]

The equation (1) is a balanced panel model using 3 independent variables and one dependent variable. Here, i and t stand for cross section and time series ID. Usually for panel data analysis, there are three methods that we can apply namely, OLS, GLS and WLS to analyze linear panel model. In our context, we have applied OLS method to estimate the panel linear regression equation. However, unlike simple linear least square method, a panel model needs some certain modification; Such as we have to find out the appropriateness of fixed and random effect model for panel data analysis. After carefully doing fixed and random effect estimation, we apply Hausman test for fixed and random effect model selection to pinpoint and significance levels of our variables. The results of fixed effect, random effect and the Hausman test are given in the following table4.

Table 4: Panel Test results

|                         | Coef. | Std. Err. | t      | P>|t|  | [95% Conf. Interval] |
|-------------------------|-------|-----------|--------|------|----------------------|
| DCFS                    | -8.88e+08 | 3.16e+08  | -2.81  | 0.006 | -1.52e+09 -2.59e+08  |
| LIPV                    | 2.94e+11  | 8.77e+10  | 3.35   | 0.001 | 1.19e+11 4.68e+11   |
| NLIPV                   | -1.61e+10 | 3.04e+10  | -0.53  | 0.598 | -7.67e+10 4.45e+10  |
| _cons                   | 1.33e+11  | 2.53e+10  | 5.28   | 0.000 | 8.31e+10 1.84e+11  |
| Sigma_u | 1.459e+11 |
| Sigma_e | 4.204e+10 |
| Rho     | .92333248  |

F test that all u_i=0:  
\[ F(5, 81) = 66.45 \quad \text{Prob} > F = 0.0000 \]

. estimates store fixed

. xtreg GDP DCFS LIPV NLIPV, re

Random-effects GLS regression  
\( \text{Number of obs} = 90 \)  
\( \text{Number of groups} = 6 \)  
\( R^2: \text{within} = 0.1342 \)  
\( R^2: \text{between} = 0.0015 \)  
\( R^2: \text{overall} = 0.0069 \)  
\( \text{Wald chi2}(3) = 12.03 \)  
\( \text{Prob} > \text{chi}2 = 0.0073 \)

| GDP | Coef. | Std. Err. | z   | P>|z| | [95% Conf. Interval] |
|-----|-------|-----------|-----|-------|---------------------|
| DCFS | -8.51e+08 | 3.15e+08   | -2.70 | 0.007 | -1.47e+09 to -2.34e+08 |
| LIPV | 2.67e+11  | 8.61e+10   | 3.11  | 0.002 | 9.88e+10 to 4.36e+11  |
| NLIPV| -2.98e+10 | 3.00e+10   | -0.99 | 0.321 | -8.85e+10 to 2.90e+10 |
| _cons| 1.46e+11  | 5.65e+10   | 2.59  | 0.010 | 3.56e+10 to 2.57e+11  |

| Sigma_u | 1.233e+11 |
| Sigma_e | 4.204e+10 |
| Rho     | .89591277  |

. estimates store random

. hausman fixed random

| ---- Coefficients ---- |
| (b) | (B) | (b-B) | sqrt(diag(V_b-V_B)) |
| fixed | random | Difference | S.E. |
| DCFS | -8.88e+08 | -8.51e+08 | -3.64e+07 | 2.42e+07 |
Table 4 shows that the probability of the chi-sq is 6.17% which is more than 5% level of significance. Therefore we can’t reject the null hypothesis. Our null hypothesis is random effect model is appropriate and alternative is fixed effect model is appropriate to our analysis. Thus by looking at the Hausman result, we apply a random effect panel analysis.

**Empirical Results**

The output of the descriptive statistics of the variables from 2000-2014 are highlighted in table 5 of Appendix. The report of the descriptive statistics shows that all the series have consistent mean, std-deviation, maximum and minimum values. To examine the possible degree of functional estimation result, it is found that DCFS is negative and significant variables to explain the dependent variable. This implies that high credit expansion can penetrate inflation rate which can offset the economic growth of GCC countries. Secondly, LIPV has positive relationship with economic growth. This is probably due to the opportunity of higher investment in capital and money market which boost the growth process in this region. Finally, NLIPV shows negative relationship with growth which indicate insurance premium probably is used in unproductive sectors mostly in depreciation coverage of capital goods. From this analysis we can conclude, life insurance premium is more productive for economic growth than the non-life insurance premium. Theoretically speaking life insurance premium is related to life expectancy rate of the population which in our case high in the context of GCC countries. Thus, insurance companies can emphasize more on modern life insurance policy to strengthen investment opportunity in the Gulf region.

**Summary and conclusion**

The aim of this study is to investigate the relationship between financial development indicators and economic growth focusing on particularly insurance variables in GCC countries. We provided the overview of financial development indicators using money supply, trade openness, credit expansion, inflation and FDI of GCC countries. We started our analysis with correlation test followed by static panel data analysis. The empirical results show that life
insurance variable has positive and significant relationship with economic growth. On the contrary, non-life insurance has negative and significant relationship with the growth process. This is an interesting outcome for the policy makers in GCC countries while developing the insurance sector for greater economic development. Our results indicate that GCC countries should focus more on life insurance premium opportunities in order to accelerate investment prospect in the region. It is therefore recommended that the policies will set according to the results of our study.

One limitation of our study is, the research did not apply dynamic panel analysis. For future, researchers can apply dynamic panel analysis using both stationary and non-stationary variables together in order to get more robust picture of the model.

References


index mundi. (N/Y). *Domestic credit provided by financial sector (% of GDP)*. Retrieved February 3, 2016, from http://www.indexmundi.com/facts/indicators/FS.AST.DOMS.GD.ZS


Appendix 01

Table 5: Descriptive Statistics

<table>
<thead>
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<th>stats</th>
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<th>TO</th>
<th>FDI</th>
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<th>DCPS</th>
<th>LIPV</th>
<th>NLIPV</th>
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<tr>
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International Post-Acquisition Management

Nikola Perovic
Higher Colleges of Technology, Dubai, UAE

Abstract
The author has analysed post-acquisition changes, which are very applicable for both, international management and marketing. The survey presented here was based on author’s PhD dissertation, and had a focus on 24 target companies and management changes that have occurred after international acquisitions. Every management change has been analysed separately with comments about its repercussions on the future survival of the business. Based on the survey it is possible to define 11 recommendations important for management of international acquisitions, specially for the phase of post-acquisition integration.

Key words: Acquisition, Management, Marketing, Strategy, Finance

Introduction
International acquisitions of the target company (the whole or the control package of the company) in one country by a company acquirer from another country is one of the most frequent international entry modes. The importance of international acquisitions in terms of management theory and practice of international marketing is primarily in the fact that this phenomenon involves transnational exchange of different business principles. Problems of international acquisitions are subject of interest of many international business schools. The authors from the British Oxford University (Child et al., 2003) observed the international acquisitions in terms of country of origin of the acquirer and came to the conclusion that many of the changes that occur in the process of post-acquisition management are global and that they are not specific on the country origin of the acquirer. This primarily refers to the process of cost control and management of human resources, especially in the area of increased training of employees upon an acquisition of a target company. On the other hand, the authors Grotenhuis and Weggeman (2003) focus on the role of knowledge management in international acquisitions.

Most acquisitions do not reach success. According to many surveys, the failure rate ranges from 49 to 59% (Angwin, 2005), as shown in the Table 1.

Table 1: Data of selected consulting firms on failures of acquisitions

<table>
<thead>
<tr>
<th>Consulting firm</th>
<th>Year of survey</th>
<th>Method</th>
<th>Failure rate %</th>
</tr>
</thead>
</table>
Why many acquisitions do not create additional value for the acquirer? The reasons are as follows (Perovic, 2015):

1. Problems of integration and post-acquisition management,
2. The acquisition price is too high,
3. The lack of synergies following the acquisition,
4. Low-quality diagnostic studies (due diligence), and
5. The lack of rational decision-making, so-called 'CEO arrogance'.

The integration between the acquirer and the target company is necessary in order to achieve synergies. The problem of integration is complicated by the lack of continuity in all phases of the acquisition (prior, during, and after the deal making).

**Methodology**

Changes that occur in the management of the target company after the acquisition by international acquirer are different and various. Significance of post-acquisition management comes from the recognition that most of the acquisition fails because of defects in the implementation phase following the acquisition, and not because the research phase before the acquisition. ... Correlation between successful implementation and the overall success of the acquisition was 83% (Howson, 2006). Further, it is believed that a large proportion of the acquisitions that fall had a cause in the inadequate management after the acquisition. On the other hand, the pre-acquisition factors are bad for predicting post-acquisition performance (Angwin, 2005). Through primary research using interviews and surveys on a total sample of 24 target companies from the region of Southeastern Europe that belong to different industries (food industry- confectionery production, fruit, meat, wine, beer, pharmaceuticals, processing
and transport of oil; road maintenance; production of glass packaging; chemical industry; telecommunications; banking; cement production) and various countries of origin (United Kingdom, Russia, Austria, Switzerland, Germany, Denmark, Iceland, Lithuania, Hungary, Belgium, Holland, France, Greece), the goal was to identify the changes and systematically explored them. In overall, the sample was composed of 24 target companies, operating in 13 branches of the economy, and whose international buyers came from 13 countries.

**Analysis of strategic changes**

In summary, on the basis of this study, all the post-acquisition management changes can be represented as follows:

**Table 2: Summary of all post-acquisition changes**

<table>
<thead>
<tr>
<th>Type of a change</th>
<th>% companies with this change</th>
</tr>
</thead>
<tbody>
<tr>
<td>The focus on core business</td>
<td>91</td>
</tr>
<tr>
<td>Spreading corporate culture</td>
<td>95</td>
</tr>
<tr>
<td>Integration with the acquirer</td>
<td>87</td>
</tr>
<tr>
<td>The increased role of the management hierarchy</td>
<td>71</td>
</tr>
<tr>
<td>Increased openness in communication between employees and managers</td>
<td>83</td>
</tr>
<tr>
<td>Increased cost control</td>
<td>100</td>
</tr>
<tr>
<td>Increased profits</td>
<td>88</td>
</tr>
<tr>
<td>Increased financial control and planning</td>
<td>100</td>
</tr>
<tr>
<td>Stricter selection of customers and suppliers</td>
<td>90</td>
</tr>
<tr>
<td>Tighter planning of new products launching</td>
<td>95</td>
</tr>
<tr>
<td>Developed an outreach strategy in the international market</td>
<td>90</td>
</tr>
<tr>
<td>Greater application of marketing principles and marketing research</td>
<td>84</td>
</tr>
<tr>
<td>Increased quality control</td>
<td>91</td>
</tr>
<tr>
<td>A more modern logistics</td>
<td>95</td>
</tr>
<tr>
<td>Increased the number of meetings</td>
<td>79</td>
</tr>
<tr>
<td>Increased training and educational programs</td>
<td>95</td>
</tr>
</tbody>
</table>
Increased the rotation of managers | 63
---|---
Key managers leaving | 67
Reduction of the number of employees | 63
Increased use of information systems and information technology | 95

Source: (Perovic, 2015)

The aim of the research was related to 'survivors' acquisitions, bearing in mind the high share of failures among total number of international acquisitions. It was the focus to investigate primarily the strategic guidelines which have helped in development of the surveyed companies after the international acquisitions. The first five changes from the table above are strategic in nature, because they are focused on the long term. From these changes, most companies (95%) after acquisitions increased the spread of corporate culture, which is to amend the attitude of management and employees to the basic values that their company represents. Also, the dominant figure of 91% of the companies surveyed are focused on the core business, divesting the majority of those segments that have distracted prior management. Such a decision will leave a long-term positive effects on the company. There is a dominant participation of integration between the companies (87%).

On the other side, 83% of the surveyed companies increased openness in communication, which also has long-term positive effects for the company in a way that open communication between employees and managers encourage innovation and creativity, as the basis for business development. The role of the management hierarchy that reflects the important influence of managers on the final result of the company and its long-term development, increased in most companies in the participation of 71%. It is expected that this indicator in the future to increase its importance and bring value to other strategic changes presented in the table above.

Marketing changes, which were marked by greater application of marketing principles, marketing research, more stringent selection of customers and suppliers, planning and management of international engagement, and the introduction of new products, have a clear strategic orientation, because they determine the success of the target company after the acquisition, not only in the short and medium period. Most of the companies realized a marketing function much more serious than before the acquisition, and it was particularly evident that most companies confirmed this by adopting the principle of planning the introduction of new products (95% of companies). Slightly less, but still dominant share represents 90% of companies having the selection of customers, suppliers and international engagement, raised to a higher level. That is the essence of strategic changes in a different understanding of the importance of marketing, and building marketing organization of companies in a way that clearly shows that the marketing and sales personnel most be hold crucial for the long-term success of the company. It is through the CRM system (Customer Relationship Management), that marketing becomes essential guiding lever of any business.
As for the other changes, it is interesting that the same number of companies, 95%, introduced modern logistics and information systems and made HR investments in the implementation of various training programs, while 91% increased quality control.

In these changes there was a generally clear sequence. The company defined first focus on the core business, in line with competitive advantages and the criteria of future integration. Then it conducted defensive or offensive restructuring. Defensive restructuring, which is based on the rapid control of costs and downsizing, while offensive is based on the strategy of sales and marketing, characterized by the growth of investment in production, introduction of quality standards, information systems, and new trainings. Offensive restructuring involves significant changes in the management and relationships with employees, in accordance with the above table. In the spirit of offensive changes, comes to the employment growth, although initially after international acquisitions, reduction of the workforce occurred in many companies.

In the analysis of strategic changes following an international acquisition, three important aspects can be discussed:

1. Changes of existing functions,
2. The introduction of new functions, and
3. The presence of integration.

**Firstly**, certain pre-acquisition functions have changed, such as turnover in key managers, as happened in most of the companies surveyed. Marketing function in most firms changed. The relationship with employees was also changed, introducing greater openness in communication. Quality control is improved, and the number of staff training.

**Secondly**, many new functions have been introduced, which prior to the international acquisitions were not there, as modern logistics, new brand management function, new sales tools, new technologies, financial planning and control, use of modern information systems, the use of strategies for the selection of customers, suppliers and performance at international markets, and the new role of management hierarchies through modern corporate governance.

**Thirdly**, the integration was performed in most companies. Every type of integration is very specific for each target company.

**Analysis of financial changes**
International acquisition by itself is not the cause of positive or negative results. The changes it brings are the cause of these results. Now, let's follow the financial results, which were recorded upon acquisition at international examples of several different industries. We have analyzed the eventual profit growth by comparing the results that the target company had prior to the international acquisitions, and within a few years after the acquisition. Although the influence of international acquisitions may follow in relation to the performance of local companies which were not the subject of acquisitions, belonging to the same or similar branch of the economy, this paper did not focus on the comparison with these companies, but only to compare performance before and after international acquisitions for the same company. Among other things, a comparison with other local companies would have to include the assumption
that the target company, as a subject of international acquisitions, was likely to be on a higher degree of efficiency in comparison to those that did not attract international acquisitions, as well as the theory reasonably believes (Salis, 2005).

In this paper we analyzed different economic sectors (industries), in order to provide a greater degree of objectivity. Each industry is specific, so was the growth rate of profits among different industries. However, this work has the focus to show the extent to which there has been a change in the financial result of the target company after international acquisitions. For each industry it was calculated an average annual rate of $t$ using the following formula (Perovic, 2015):

$$Po \times (1+t)^n = Pn,$$

where:

- $Po$ is the weighted sum of net profit at the industry level in the year when international acquisitions occurred;
- $t$ is the average annual growth rate of profits;
- $n$ is the number of years of follow-up;
- $Pn$ is a weighted sum of net profit in the $n$ year after international acquisitions.

Using the above formula the following comparative table of the change of profit has been created.

**Table 3: Change in net profit after international acquisitions**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Average annual profit growth after international acquisitions occured</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food-industry confectionery</td>
<td>22%</td>
<td>The follow-up period of six years</td>
</tr>
<tr>
<td>Retail sales of petroleum products</td>
<td>-8%</td>
<td>International acquisitions of Russian origin into the largest Serbian company in this field; there has been a growth in revenue but falling profits due to high capital investment and restructuring costs; the follow-up period of five years</td>
</tr>
<tr>
<td>Oil processing</td>
<td>78%</td>
<td>The follow-up period of three years</td>
</tr>
<tr>
<td>Chemical industry</td>
<td>80%</td>
<td>The follow up period of four years</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>21%</td>
<td>The follow-up period of three years</td>
</tr>
</tbody>
</table>
The nature of an industry is defined by the strength of customers, suppliers, substitutes, competitors and barriers to entry (Porter, 2008). Therefore, the changes in the profit depend on specific characteristics of each branch of economy or industry. It is observed that most of the analyzed sectors have high growth rates of profit after international acquisitions. This is an indication that these industries were burdened with high costs and irrational management prior to the international acquisition, so it were many opportunities for change, which jointly led to rising profits.

Reccomendations
Based on the above research, is possible to define recommendations for the academic and professional public regarding post-acquisition management.

I Focusing on core business, since it provides a competitive advantage and cost efficiency through synergy with the acquirer. Also, focus implies the need of long-term estimates of future market positions of the target company.

II Fostering corporate culture because the main reason why international companies have developed corporate culture is the need to preserve the integrity and belief in the proven value, in order to minimize the risk of wrong decisions in repetitive situations. Transfer of corporate culture must respect the specific features of national culture of the country of origin of target companies, as well as micro-culture of the company itself.

III Increase the importance of the responsibility of management in final market and financial results, as key managers depend on the overall success or failure of the company.

IV Increase openness in communication, since open, clear, honest and timely communication between employees and managers, on the one side, increase innovation and creativity important for the long term development of the company, and on the other side, openness means a greater degree of understanding of management and their responsibility for the final results of the company.

V The primary instrument to increase profits after the acquisition was cost control, and therefore financial planning and controls should be introduced as the first new functional segment of post-acquisition organization.

VI Define strategy in foreign markets, because in most international acquisitions binding motives were foreign markets, not only the local market.

VII Marketing principles should be guiding leverage for the company's development and that was why the marketing changes were critical in most companies. In this regard, the importance and significance of changes that marketing and sales managers heavily contribute in the total
constellation value of a company was introduced, since most companies in the pre-acquisition phase were predominantly production oriented.

VIII Increase quality control, which applies not only to the introduction of mandatory standards (such as HACCP), but also to other relevant international standards for the protection of employees and the environment.

IX Introduce modern logistics, because the management of the physical flow of the company depends on the level of customer service, and thus their loyalty.

X Increase the number of training courses for employees, because after international acquisitions it was necessary, on the one hand, to transfer the knowledge and skills from the acquiring company, and on the other hand, increase of staff training was critical in order to meet the demands of the global economy. The trainings were also significant instrument of staff motivation.

XI Pre-acquisition key managers of target companies should be prepared to be most probably removed after the acquisition. The most 'secure' among these managers were those who build a good relationship with key customers. Also, it is the best to plan a structure of post-acquisition management prior to the acquisition closure.

All the above recommendations were identified in the business practices of the companies surveyed, but the order of the introduction of the recommendations in the post-acquisition management should be adapted to the type of industries, which the target company belongs.

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Critical Success Factors In New Product Development of Sports Equipment Industry in Iran

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University of Tehran

Abstract
The present study aimed to identify and prioritize the critical success factors of new product development in the sports equipment industry in the Islamic republic of Iran. Along with a comprehensive review of the literature on the subject, based on a conceptual model of Cooper and semi-structured questionnaire with 13 experts of sports industry who had more than 15 years of experience, six factors were identified. Then, a questionnaire was prepared to offer to 105 sports experts in the field of new product development in the sports industry. At the end, a total of 101 questionnaires were returned. After coding the collected data, they were analysed by SPSS software. Friedman test has identified the priorities of each question based on their average. The results show that all the six identified factors are known to have utility. Among these factors, Marketing is in the first place, product development team in the second, organizational factor capabilities in the third, commercializing in the fourth, production factor in the fifth, and technology factors would be in sixth place. The study also provides detailed results and findings as well as the conclusions of the discussions and comparisons. In addition, at the end of this study, some practical suggestions and recommendations on similar follow up research projects are mentioned.

Keywords: New Product Development; Critical Success Factors; Sports Industry.

Introduction
The third millennium has witnessed an increase in the complexity of business. Using modern technology has changed the era of sole communications to Meta-communication. Numerous changes triggered by technology have brought changes in sports markets as well. The beginning of innovative commodity which was not more than a dream a few decades ago has revealed the need to attitude change of in the function of sports organizations. Competition in mega market communication has endangered sports companies’ border security and leading them to contemplate on solutions. In the meantime, many experts believe that if companies want to survive, they should definitely adapt themselves to new technology and apply innovative ideas in order to gain more market share (Mohammadkazemi, Reza. 2014). Nowadays, it has been proved that due to the rapid evolution of technology and more complicated management processes, relying on only one factor in the success of research and development can be questioned. For that reason, unlike the traditional view that only one factor could guarantee successful research and development; However new entrepreneurial theories apply multifactorial look to dive to success in the research and development (Alam beigy, et all 2011 pp 107_108). Indeed, experts have three different attitudes regarding to capitalization. The first
group believes that development and investment in sports alone do not lead to economic development, but it can be achieved when this capital can be invested in a successful business with a comparative advantage. The second group supposes that applying marketing techniques and providing better services to customers can be a better idea. The last group introduces deep relationship with clients as the most influential way in this current century. However, what can be the same attitude and mutual point among many experts is applying sport marketing concepts and effort on customer’s need. Todays, different factors such as reviewing comments and professional ideas, the necessary draw to customer needs, innovation, marketing, speed and flexibility in services, quality and utilizing modern technology have been known comprehensively as an undeniable requirement for success (Mohammadkazemi, Reza. 2014).

Since sports have been presented both as an industry and a consumer product in this field, a study has shown that there have been some lacks and drawbacks in a professional way for developing new products in this course, illustrated by an introductory research through related websites of active sports business companies, the prepared information in related journals and informal interview with some sport marketing managers. In addition, what has been losing its significance in this regard has been the process of new product development, guidelines, methods, types of development processes the critical factors for success in the development of innovative products in this industry Therefore, researchers have attempted to take a step to prioritize the identified critical success factors in new product development in the sports industry with the help of experienced sports experts of some highly-achieved organizations in this industry, on the one hand, and with the use of models and available patterns in foreign books and professional theories, on the other. The whole has been to answer the main research question “what are critical success factors in new product development in the sports industry?”

**Litterateur review**

The recent industrial decade has found efficiency in production, effective control of costs, having an effective and efficient quality system as a reliable source of competitive advantage for companies; however, the trends have thoroughly changed.

Products lifetime is reduced and the rate of new product development surprisingly has paced doubled in less than five years, on the same row, customer-driven new product developments can be known as the essential key which separate successful businesses from the failed one (Kotler,1991,P.87)

New product development can be defined as new product development activities and policies of the various stages of growth to manufacture products for the market which might lead to partial or complete modifications and amendments of the product (Cooper, 1990, P.18). There is a general category of new product development, which is used for detection of the new product. This classification has been provided by the counselling centre of Boozalen and Hemilton respectively, as follows, (Booz et al, 1982)

- **Having novelty in the world:**
  Novelty is compared with existing products in the world. It means those inventive products such as Camera Pollard or the first laser printer.
• Being new to the company: Those products that company tries to produce them for the first time while, these are not new products to the market.

• Innovation as a result of developed product line: Those products are provided to the corporate market by expanding the product line.

• Innovation as a result of improved product: Those products which are improved and can introduce as a new product. In fact, we can say that almost all the products which are made today can be counted as a developed product.

• Reposition: Those products which are raised for new applications enter a new market. With these definitions and classification of new products, some factors such as a modification in the packaging or alternation of production method can be considered as innovative production, and such situations will not necessarily produce a new product. (Crawford, 2002).

Mu et all (2007) by reviewing the key factors in new product development from the viewpoint of sports mangers in 74 Chinese industries have announced that four essential factors like technology, marketing, managerial and commercialization are significant and vital factors in the process of successful decision making for new products.

Cooper has done a regular investigation on chemical producers on the influencing factors in the precipitous success of new products over the last 20 years on 100 products in 350 companies in Europe and North America, and he also compared successful and unsuccessful companies in production and new product developments. He has found that indicators of marketing factors have been the most important issues in the NPD process. (Cooper, 1994) Formerly, these indicators are listed as customers’ needs, production time, business profit, market share, economic Impact of the customer and value addition in them; managing technology with successful technology indicators can be named as values of technology, cost reduction; commercialization with indicators such as the Index of companies, competitive products, and efficiently of team performance.

In another research, the Impact of risk management strategy in new sports product performance has been conducted. Based on surveys on 117 sports manufacturing companies in China, results have indicated that the existing risk of technology, marketing, managerial and combining these three factors together have a positive effect on the development of new product development. (Mu et al., 2007)

In a research by Ozer and Chen (2006), a comparable sum of various research activities in the field of new product development has been done and the outcomes in Asian and non-Asian countries have been in the following tables.

Table 1: The result of research and development activities in Asian and non_Asian
<table>
<thead>
<tr>
<th>The results of studies in Asia</th>
<th>The results of studies in non_Asian</th>
<th>Support of senior management / organizational support</th>
</tr>
</thead>
<tbody>
<tr>
<td>This result has confirmed in Chinese manufacturing companies (Jeong et al., 2006).</td>
<td>Support of senior management / organizational is positively correlated with new product performance (Cooper, 1999; Menon et al., 1999; Ozer, 2005; Parry &amp; Song, 1993)</td>
<td>Support of senior management / organizational support</td>
</tr>
<tr>
<td>This result has confirmed in Chinese sports manufacturing companies (Jeong et al., 2006).</td>
<td>Technological expertise is positively correlated with new product performance (Cooper, 1999; Ozer, 2005).</td>
<td>Technological expertise</td>
</tr>
<tr>
<td>This result has confirmed in Korean high-tech companies (Jeong et al., 2006) Although it has not proven in Chinese companies (Song &amp; Noh, 2006)</td>
<td>Market trends / customers is positively correlated with new sports product performance (Calantone et al., 1996)</td>
<td>Marketing trends / customers</td>
</tr>
<tr>
<td>This result has confirmed in Korean companies (Song &amp; Noh, 2006).</td>
<td>Information sharing is called as an important factor in the development of new sports products (Sheremata, 2000)</td>
<td>Information sharing</td>
</tr>
<tr>
<td>This result has confirmed in Korean companies (Song &amp; Noh, 2006).</td>
<td>Applying cross-functional teams in new product development, is positively correlated with new product performance (Griffin, 1997)</td>
<td>Task interaction</td>
</tr>
</tbody>
</table>
Trends in entrepreneurship is positively correlated with new product performance (Drucker, 1985)

This result has confirmed in Chinese companies (Li et al., 2006)

Trends in entrepreneurship strategies

Accepting an innovative attitudes in new sports product development is positively correlated with new product success (Bowman & Gatignon, 1996)

This result has confirmed in 12 companies in china. (Beverland et al., 2006)

New product development strategies

U.S companies /23 months work to develop an innovative new product (Griffin, 1997)

There are different results in Asia. Some researchers have reported that different industries in Hong Kong companies work average 12/94 month to develop new products. (Ozer & Chen 2006)

Cycle time

The process of developing a new product high quality product is one of the key factor in the success of new product development (Griffin, 1997)

Different results have observed in Asia (Ozer & Chen, 2006)

New Product development process

In addition, many researches have been done by leaders and sports theorists on the critical factors correlated with the success of new product development which they are mentioned in the below table.

**Table 2:** It shows critical success factors for NPD, identified by previous researchers

<table>
<thead>
<tr>
<th>Research</th>
<th>Critical success factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nike (2011)</td>
<td>Marketing activities</td>
</tr>
<tr>
<td></td>
<td>Extensive research and developments</td>
</tr>
<tr>
<td>Authors</td>
<td>Key Points</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>pihl (2006)</td>
<td>Industrial and manufacturing facilities</td>
</tr>
<tr>
<td></td>
<td>wide distribution facilities</td>
</tr>
<tr>
<td></td>
<td>A wide range of related products</td>
</tr>
<tr>
<td></td>
<td>Labour Capabilities</td>
</tr>
<tr>
<td></td>
<td>Innovative activities</td>
</tr>
<tr>
<td></td>
<td>Having suitable staff</td>
</tr>
<tr>
<td></td>
<td>Having an effective management team</td>
</tr>
<tr>
<td></td>
<td>Having sufficient experience company which is conducive for innovation and</td>
</tr>
<tr>
<td></td>
<td>technological product</td>
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<tr>
<td></td>
<td>Establishing effective distribution network</td>
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<tr>
<td></td>
<td>Having ability to analyse and forecast economic trends, demographic and</td>
</tr>
<tr>
<td></td>
<td>macroeconomic</td>
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<tr>
<td></td>
<td>Knowing consumer priorities</td>
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<tr>
<td></td>
<td>Creating a good reputation and a good relationship with customer loyalty</td>
</tr>
<tr>
<td></td>
<td>through brand logo</td>
</tr>
<tr>
<td>Ciappei &amp; Simoni</td>
<td>Team developed approach</td>
</tr>
<tr>
<td>(2005)</td>
<td>Customer Orientation</td>
</tr>
<tr>
<td></td>
<td>Use of advanced information and communication technologies for new product</td>
</tr>
<tr>
<td></td>
<td>development</td>
</tr>
<tr>
<td>Lynn (1999)</td>
<td>Having a structured process for developing new products</td>
</tr>
<tr>
<td></td>
<td>Having a clear and shared vision of the team</td>
</tr>
<tr>
<td></td>
<td>Developing and producing within a reasonable time frame</td>
</tr>
<tr>
<td></td>
<td>Refining of the product after inception and having a long term perspective</td>
</tr>
<tr>
<td>Having optimal team skills</td>
<td></td>
</tr>
<tr>
<td>Understanding of dynamic sports marketing</td>
<td></td>
</tr>
<tr>
<td>Providing support to the senior management team and team’s vision</td>
<td></td>
</tr>
<tr>
<td>Applying learned lessons from the past projects</td>
<td></td>
</tr>
<tr>
<td>Ensuring good mood among the team</td>
<td></td>
</tr>
<tr>
<td>Keeping sport team and manufacture members with relevant experience</td>
<td></td>
</tr>
</tbody>
</table>

### Lester

**Senior management commitment**

(1998) *Organizational Culture*

| The functional teams |
| Focus on added value, appreciating of business team effort |
| Provided strategic and fundamental guidelines |
| shared a common understanding of process |
| Innovative expertise, skills and motivation |
| Creating good idea |
| Configuration of team’s events |
| A tactical plan as a part of the project / program |
| The possession of clear objectives and clear criteria |
| The shift of the external focus to the implementing of new product business |
| Perception of business team |
| Contact with managers |
| Detection of vision as a result of renewed determination |
| Long-term strategy focused on innovation |
Poolton & Barclay, (1998)  | Long-term commitment to major projects  
|---|---  
| | Flexibility and interested to change  
| | Risk acceptance by senior management and support innovation  
| | Support entrepreneurial culture  

Cooper (1999)  |  
|---|---  
| To make certain tasks for product detention and to justify projects  
| To Search for better and diverse sports products  
| To Definition of precipitous product, static and smart  
| To make a well-designed action, fully researched and implemented effectively  
| To make emergency decision in the process  
| To create professional and supportive teams with strong leadership  
| To apply an international orientation: international teams, global products  
| To provide education for new product management  
| To define an accepted standards of performance  
| To reduce the number of projects which are under process  
| To appoint process management  

**Methodology**  
According to a survey background research, materials and methods were designed with emphasis on exploratory aspects. Therefore, research findings can cover the factors which are related to the new field of research. In exploratory research, due to the fact that not much research has been done on this subject previously, the aim of this research is to get a better vision in order to determine the precise problem or a theory or a hypothesis for future research. Due to the nature of exploratory research, generally, qualitative research methods such as interviews or
centralized groups will be used. Therefore, at the stage of the data collection among different qualitative methods, semi-structured interviews were utilized.

As present research applies both qualitative and quantitative methods, the research population is classified into two categories; sports experts with more than 15 years’ experience for interviews and managers, and professionals with less than 15 years of experience to answer the closed ended questionnaire. All these people are engaged in the field of new product development in the sports industry in various companies. Moreover, it needs to be mentioned that a number of selected experts had several publications and project implementation in this area. 13 sports experts and 118 managers and experts participated in this survey.

In the qualitative method, snowball or chain is used as a sampling method. This method figures out that people who have been interviewed might refer you to those who might have potential information. (Bazargan 2008) This process continues till the data saturation will be reached. Data saturation means when the information that is collected with new interviews may not add new information to the data collected. (Mack et al., 2005)

In the quantitative study, due to the population distribution of the present research in Iran, and its extension on the one hand, researchers focus on the auditor-person to each and every member of the population in order to get more accurately on the other hand, collected data for the entire population was very time consuming and also the cost was not economical and effective. Thus, it has been tried by determining the exact sample size and also by selecting simple random sampling in order for the target population to be sampled.

A standard table which has been adjusted by (Cohen, 1969) and (krejcie & Morgan, 1970) was applied to determine the sample size of the population that the minimum sample size for this research is equal to 92. In this study, the researcher has considered all the above mentioned research methods, the second method provides a larger sample size as the base data has been selected, and finally, to ensure that sample size was determined in samples collected, 105 questionnaires were distributed among the participants. Eventually, 101 questionnaires were completed and returned. (Return rate = 96%)

In the current study, due to the subject, the purpose of study and also considering the research methods, the interview and questionnaire were the main data collection tools for examining research questions. To analyse most of the data questions and hypotheses through the data collected from the participants, Presence questionnaire have been utilized.

As mentioned earlier, firstly, library methods and its tools, site visits (due to lack of Persian resources), and literature reviews have been practiced to identify and extract those variables as factors influencing new product developments in the sports industry. Then, a semi-structured questionnaire for identifying the influencing factors on new product development along with the advent of these questions have been prepared. After that, communication with interviewees and necessary coordination with them, within approximately one hour, interview sessions were conducted, following, interviews were coded and factors were identified. As it was indicated before, totally 13 interviews have been done that with encoding method, data have been analysed and factors have been identified. After identifying the influencing factors on the
success of product development from the interviewees prospective, for quantitative analysis of the research hypotheses, a 5-choice questionnaire based on Likert has been designed, and later sending questionnaires to teachers and experts and considering revisions, a questionnaire with 32 questions, including six factors such as commercial technology, marketing, organizational capabilities, production and development team have developed.

**Methods for analyzing data from interviews and closed questionnaires**

After gathering data and necessary information, and based on the identified factors in the qualitative part, and using coded interviews, the quantitative data through questionnaires have been collected and finally data for quantitative analysis were entered into SPSS software. Then by classifying them, descriptive statistics related to data were calculated. Finally to confirm or reject the hypotheses, appropriately developed tests were used. For analysing general data which were collected from participants, mainly, descriptive statistics were used by Excel software. In this study, for prioritization and ranking of each variable, Friedman test has been used.

**Results and findings**

**Identified success factors in new product development**

The results of qualitative research, including coded interviews are in the following table.

**Table3: Coding Interview Table**

<table>
<thead>
<tr>
<th>Secondary coding</th>
<th>Primary coding</th>
<th>Code</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology factor</td>
<td>The availability of technology for sports product development</td>
<td>3, 4, 11, 13</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>The simplicity of using technology in sport</td>
<td>1, 2, 10, 12</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>The ability to reduce production costs due to the use of technology for sports product development</td>
<td>5·8·10·11·12·13</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>The possession of suitable staff for working with applied technology.</td>
<td>1·2·3·4</td>
<td>4</td>
</tr>
<tr>
<td>Commercialization factor</td>
<td>Apply other companies experience in the field of sports product commercialization</td>
<td>2,4,6,9,10,11,12,13</td>
<td>8</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>--------------------</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Apply appropriate strategies for product commercialization</td>
<td>1,2,3,4,5,10,12,13</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Apply appropriate time for sports product commercialization</td>
<td>3,4,9,12</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Apply other companies’ successful experience in sports product commercialization</td>
<td>1,2,4,5,6</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Consider the cost of sports product commercialization</td>
<td>2,3,4,5,6,7,8</td>
<td>7</td>
</tr>
<tr>
<td>Marketing factor</td>
<td>Having experienced sports marketing team when dealing with customers</td>
<td>2,3,5</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Using suitable promotional tools for product introduction</td>
<td>10,12,13</td>
<td>3</td>
</tr>
<tr>
<td>Consideration</td>
<td>Impact</td>
<td>Importance</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>--------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>Considering consumers taste and customer needs</td>
<td>6.8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Conducting market research on product appearance features (color, taste, flavor and size)</td>
<td>4.6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Suitable correspondence between new product and its price</td>
<td>2.3.4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Considering quality and packaging of sports product (information, material, shape and graphics)</td>
<td>1.2.3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Productivity factor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To manufacture sports production with lower cost</td>
<td>2.3.4.5.6.7.8.9</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>To manufacture sports production in less time</td>
<td>2.3.4.5.6.7.8.9</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>To be able to produce customized product development</td>
<td>2.3.4.5.6.7.8.9</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>To accurate modeling of the international sports goods in order to produce and distribute in</td>
<td>2.3.4.5.6.7.8.9</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Domestic market (bench market)</td>
<td>To produce more lasting life goods</td>
<td>2, 3, 4, 5, 6, 7, 8, 9</td>
<td>8</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>----------------------------------</td>
<td>------------------------</td>
<td>---</td>
</tr>
<tr>
<td>To have professional staff in production line</td>
<td>2, 3, 4, 5, 6, 7, 8, 9</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td><strong>Product development team factor</strong></td>
<td><strong>Appropriate experts in the team of sports product development</strong></td>
<td>1, 2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Technical expertise in product development team</strong></td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Required Facilities for product development teams</strong></td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Non used scientific capabilities and exclusively rely on academics and experienced development team</strong></td>
<td>9, 10</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Adequate experience among sports product development team</strong></td>
<td>1, 2</td>
<td>2</td>
</tr>
</tbody>
</table>
Organizational Capabilities factor

<table>
<thead>
<tr>
<th>Factors</th>
<th>Average Rate</th>
<th>Ranking Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>The reputation of sports brand production</td>
<td>8,9,10,11,12,13</td>
<td>6</td>
</tr>
<tr>
<td>The experience of sports team production</td>
<td>6,8</td>
<td>2</td>
</tr>
<tr>
<td>The suitable financial condition for sport</td>
<td>4,5</td>
<td>2</td>
</tr>
<tr>
<td>The use of experienced distributed system</td>
<td>5,6</td>
<td>2</td>
</tr>
<tr>
<td>The possession of proper equipment (E.g. flexible production lines)</td>
<td>5,6</td>
<td>2</td>
</tr>
<tr>
<td>The possession of advanced research and equipped unit</td>
<td>5,6,7</td>
<td>3</td>
</tr>
</tbody>
</table>

**Prioritize the identified success factors in new product development**

Based on the research findings, from 101 total sample, 66 participants with experience of 5 years or less, and 16 patients with an experience of 6 to 10 years, and 19 people have experience of 11 to 15 years. Total and breakdown Prioritizing identified factors have been shown in the below tables.

**Table4:** Prioritize identified factors in the success of new product development.

<table>
<thead>
<tr>
<th>Row</th>
<th>Factors</th>
<th>Average Rate</th>
<th>Ranking Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Technology factor</td>
<td>2.65</td>
<td>Sixth</td>
</tr>
<tr>
<td>2</td>
<td>Commercialization factor</td>
<td>3.28</td>
<td>Fourth</td>
</tr>
<tr>
<td>3</td>
<td>Marketing factor</td>
<td>4.7</td>
<td>First</td>
</tr>
</tbody>
</table>
4. **Productivity factor**
   - Average Rate: 2.94
   - Ranking Item: Fifth

5. **Product development team factor**
   - Average Rate: 3.87
   - Ranking Item: Second

6. **Organizational capabilities factor**
   - Average Rate: 3.57
   - Ranking Item: Third

- **Prioritize the items technologies factors**

  **Table 5**: prioritize the items of technologies.

<table>
<thead>
<tr>
<th>Row</th>
<th>Factor</th>
<th>Average Rate</th>
<th>Ranking Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The availability of technology for sports product development</td>
<td>3.37</td>
<td>First</td>
</tr>
<tr>
<td>2</td>
<td>The simplicity of using technology in sport</td>
<td>2.19</td>
<td>Third</td>
</tr>
<tr>
<td>3</td>
<td>The ability to reduce production costs due to the applied technology for sports product development</td>
<td>2.11</td>
<td>Fourth</td>
</tr>
<tr>
<td>4</td>
<td>The possession of professional staff for working with applied technology</td>
<td>2.33</td>
<td>Second</td>
</tr>
</tbody>
</table>

- **Prioritize the items of commercialization factors**

  **Table 6**: prioritize items of commercialization

<table>
<thead>
<tr>
<th>Row</th>
<th>Factors</th>
<th>Average Rate</th>
<th>Ranking Item</th>
</tr>
</thead>
</table>

559
1. **Apply companies experience in the field of sports product commercialization**

   - **2.98**
   - **Third**

2. **Apply appropriate strategies for product commercialization**

   - **2.96**
   - **Fourth**

3. **Apply appropriate time for sports product commercialization**

   - **3.24**
   - **Fifth**

4. **Apply other companies' successful experience in sports product commercialization**

   - **3.04**
   - **Second**

5. **Consider the cost of sports product commercialization**

   - **2.79**
   - **Fifth**

### Prioritization items of marketing factor

**Table 7:** prioritization items of marketing factor

<table>
<thead>
<tr>
<th>Row</th>
<th>Factors</th>
<th>Average Rate</th>
<th>Ranking Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Having experienced sports marketing team when dealing with customers</td>
<td>3.07</td>
<td>Sixth</td>
</tr>
<tr>
<td>2</td>
<td>Using suitable promotional tools for sports product introduction</td>
<td>3.82</td>
<td>Second</td>
</tr>
<tr>
<td>3</td>
<td>Considering Consumers taste and customer needs</td>
<td>3.22</td>
<td>Fourth</td>
</tr>
<tr>
<td>Row</td>
<td>Factors</td>
<td>Average Rate</td>
<td>Rankling Item</td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------------------------------------------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>4</td>
<td>Doing Market research on product appearance features (color, taste, flavor and size)</td>
<td>4.17</td>
<td>First</td>
</tr>
<tr>
<td>5</td>
<td>Having suitable correspondence between sports produced product and its price</td>
<td>3.13</td>
<td>Fifth</td>
</tr>
<tr>
<td>6</td>
<td>Considering quality and packaging of sports products (information, material, shape and graphics)</td>
<td>3.58</td>
<td>Third</td>
</tr>
</tbody>
</table>

- **Prioritize items of productivity factors**

**Table 8:** prioritize items of productivity

<table>
<thead>
<tr>
<th>Row</th>
<th>Factors</th>
<th>Average Rate</th>
<th>Rankling Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To manufacture sports production with lower cost</td>
<td>3.68</td>
<td>Second</td>
</tr>
<tr>
<td>2</td>
<td>To manufacture sports Production in less time</td>
<td>5.03</td>
<td>First</td>
</tr>
<tr>
<td>3</td>
<td>To be able a to produce customized product development</td>
<td>3.47</td>
<td>Fourth</td>
</tr>
<tr>
<td>4</td>
<td>To accurate modeling of the international sports goods in order to produce and distribute in the domestic market (bench marked)</td>
<td>3.34</td>
<td>Fifth</td>
</tr>
</tbody>
</table>
- **Prioritize items of product development team factors**

  **Table 9:** prioritize items of **product development team**

<table>
<thead>
<tr>
<th>Row</th>
<th>Factors</th>
<th>Average Rate</th>
<th>Ranking Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Appropriate experts in team of product development</td>
<td>3.16</td>
<td>Third</td>
</tr>
<tr>
<td>2</td>
<td>Technical expertise in product development team</td>
<td>3.26</td>
<td>Second</td>
</tr>
<tr>
<td>3</td>
<td>Required Facilities for product development teams</td>
<td>3.9</td>
<td>First</td>
</tr>
<tr>
<td>4</td>
<td>Non used of scientific capabilities and exclusively rely on academics and experienced development team</td>
<td>2.17</td>
<td>Fifth</td>
</tr>
<tr>
<td>5</td>
<td>Adequate experience among sports product development team</td>
<td>2.51</td>
<td>Fourth</td>
</tr>
</tbody>
</table>
Prioritize items of organizational capabilities factors

Table 10: prioritize items of organizational capabilities

<table>
<thead>
<tr>
<th>Raw</th>
<th>Factors</th>
<th>Average Rate</th>
<th>Ranking Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The reputation of sports brand production</td>
<td>3.49</td>
<td>Fourth</td>
</tr>
<tr>
<td>2</td>
<td>The experience of sports team production</td>
<td>4.18</td>
<td>First</td>
</tr>
<tr>
<td>3</td>
<td>The suitable financial condition for sport</td>
<td>3.74</td>
<td>Third</td>
</tr>
<tr>
<td>4</td>
<td>The use of experienced distributed system</td>
<td>2.62</td>
<td>Sixth</td>
</tr>
<tr>
<td>5</td>
<td>The possession of proper equipment (E.g. Flexible production lines)</td>
<td>2.89</td>
<td>Fifth</td>
</tr>
<tr>
<td>6</td>
<td>The possession of advanced research and equipped unit</td>
<td>4.08</td>
<td>Second</td>
</tr>
</tbody>
</table>

Discussions and findings

Review of relevant studies from various sources emphases on the point that in this regard, little research has been done, and about the critical success factor associating with new product development in the sports industry, no cases have been observed. But in the research sites and foreign sources of research similar studies have been done, and each of them is considered as a part of this study.

Compared with the previous study by Cooper (1999) marketing, commercialization and technology, design and manufacturing, human resources and development team factor were known as major factors for success., but organizational capabilities can be known as the most effective factor in Iranian market success that this factor extensively covers all matters relating to human resources, personnel management and development team play a great role as a
comprehensive factor in Iran. It seems that compared with previous research analysis by Mu et al (2007) that only announced four factors, such as technology, marketing, commercialization and management are as key factors. The scope and range of the critical factors are much broader than the past time, and despite the fact that Iran is a developing nation among other countries, and technology factor receives a lower rank comparable with other factors, again, there can be seen remarkable and competitive growth in successful organizations in Iran which are trying to enter advanced and up to date technology regarding to their financial power and their budget, and by further studies, exclude sports products from foreign countries.

On the other side, compared with the research by Pulten Barclay (1998) have indicated that the long-term strategy focused on innovation, the main long-term commitment to the project, and the interest of flexibility, risk acceptance by senior management and support innovation, support entrepreneurship culture are as key factors to being an effective new product development, in this research these factors are examined much broader, and each of these items listed under subcategories of the other factors. For instance, risk acceptance by senior management and support innovation can be placed at organizational capabilities and management development group.

Study results of Nike (2011), and Pihl research (2006) have noted that marketing factors, organizational skills, the production and commercialization are influencing factors on new product success which are consistent with this study. Also Syapy and Simon (2005), in the research on team product development factor have identified marketing, and technology as influencing factor to the success of new product. The notable point of Nike company (2011) and Pihl (2006) is that the technology is not identified as influencing factors on the success of new product, and in the study by Syapy and Simon (2005) it has also been mentioned as the last influencing factor.

As mentioned earlier, in other research by Lester and Lin (1999), in most cases such as top management commitment, organizational culture, inter-functional teams, they focused effort to add value to the business, providing strategic and fundamental guidelines to produce good ideas, having clear goals and standards, shifting to external focus, (mostly due to external conditions and issues outside the company) implementing the new product business, an understanding of the business, having a structured process for product development new, having a clear vision and a member of the team having the best team skills, ensuring good mood of the team, providing senior management support for the team, keeping the team members with relevant experience considered that this indicator are the results of some factors such as human resource management or product development team that in this study in more general factors as organizational capabilities are included, and it seems that factors such as marketing, commercialization, and technology have been less considered.

Although totally, all these factors have been utilized jointly in the most industries, but since each term studying theorists have addressed some factors more than the others, it was the highlights of the others and it has been identified as critical success factors. Consequently at the end as a brief summary of previous research which has been discussed and compared with other previous research, it can be expressed that all previous studies have been somewhat effective in
this study and each was component of this research and it tries to provide a complete and integrated view towards each of them.

Based on prioritizing critical success factors in new product development in the sports industry in the 6 factors, the results show that the availability of technologies used for product development, in the technology, the proportion of time for product commercialization, in commercialization, market research on physical characteristics of the product, in the marketing, production in less time, in the factors of production, product development teams and facilities for managing team developments and in managing product development teams, experience of the management team in organizational capabilities, have the highest priority in a company.

Therefore, it is recommended to the managers of manufacturing companies in the sports industry for development of new sports product, initially extensive research, especially on the features of sports product appearance should be done, and by providing required technology and facilities needed for product development team, in development new sports product bring prosperity.

References


Innovations Shaping MENA’s Future-Reflection and Synthesis of One Year Trends Monitoring Exercise by the Futures Studies Forum for Africa and the Middle East (FSF)

Julius Gatune
African Centre for Economic Transformation (ACET)

Nisreen Lahham
Futures Studies Forum for Africa and the Middle East (FSF)

Abstract
The aim of futures research is to help inform perceptions, alternatives and choices about the future. It assists us to understand alternatives or preferences for the future, probable developments and to articulate and work towards a desired future. To better understand the trends shaping the future of the Middle East and North Africa, the futures research methodology of environmental scanning was deployed. This basically involves scanning (searching) both published and unpublished literature to identify key trends. Then a deep dive (more detailed and directed search and analysis) on the identified trends through further reviews of materials (research papers, news items, blogs etc.) and interviews with experts in the area. Data is then analyzed and synthesized to produce trends monitoring reports and policy briefs. Over the course of one year, scanning was conducted (and supplemented with interviews) and trends synthesized to identify key trends and potential impact, as well as potential innovations being used to mitigate key challenges and take advantage of emerging opportunities. The four key themes/trends identified were: (i) Securing Wheat Availability for North Africa; (ii) The Future of Millennials in North Africa; (iii) Managing Water Scarcity in North Africa; and (iv) Future of North Africa’s Slums. While these trends were found to pose serious concern for the future of the region, there were many innovations and policy options identified that have potential to mitigate the impacts. Public private partnership were found to be a key way forward in further scaling the innovations identified. Therefore inclusive business approaches are key to a better future and policies to encourage such practices are needed. Our research also identified important innovations in the area of policy e.g. providing loans and subsidies to urban users so that they can retrofit home appliance to better conserve water. The key message is that the future of the region will depend on understanding key drivers of the future, catalyzing innovations to address future challenges and opportunities, and also mobilizing private sector in more cooperative public-private ventures. Trends and potential innovations identified provide both governments and development partners with points of leverage in shaping a better future for the region.

Introduction
The Arab Spring made it clear that the Middle East and North Africa (MENA) is moving to new trajectory that looks tumultuous given the many challenges spawned by the rapid changes occurring. However, the perturbations we see at the surface may not tell us much about the future of the region. What is needed is delving deeper to grasp what the underlying drivers are, the likely trajectory, and what they mean for the future.
This is not to say that we can predict the future if we only know the drivers, however we can paint scenarios of the future. More importantly we want to identify potential leverages that can help move to a better future. So part of the futures exercise is understanding how various stakeholders are addressing or taking advantage of challenges and opportunities being spawned. It also involves highlighting potential innovations, the scope for scaling them, and determining the missing innovations needed to direct the future to a more desirable trajectory. This is obviously the mandate of the policy makers (or leaders), where future studies are ultimately aimed at helping policy makers craft better policies to allow innovations to emerge, and to scale human response to challenges and opportunities.

Future methodology provides a window to understanding what is driving change and what leverage we have in shaping the future. This paper uses data gathered from one year of monitoring trends to start surfacing the key drivers and more importantly key innovations that are helping shape the future of the region. Section 2 gives a literature review of futures studies and their application, section 3 discusses the methodologies used, section 4 discusses the results and emerging insights and section 5 concludes.

Overview of Futures Studies and their Applications - A Literature Review

Futurology, Futuristics, Futurism, Strategic foresight and Futures Studies are all terms that are commonly used interchangeably to describe the science of studying the possible, probable and potential futures. The founding father of futures studies is known to many as Herbert George Wells in his 1901 book "Anticipations of the Reaction of Mechanical and Scientific Progress Upon Human Life and Thought: An Experiment in Prophecy", in which he predicted the way the world would be like in 2000.

It was not until the mid-sixties that futures studies developed into an academic discipline, with first generation futurists including Herman Kahn, Bertrand de Jouvenel, and Edward Cornish. According to many experts in the field, the term ‘futurology’ was first introduced by Ossip Flechtheim in his 1966 book "History and Futurology". The term was later adopted by many, although Finnish Pentti Malaska provided one of the strongest defense for the term, where he acknowledged that futurology describes "what futures knowledge is all about – not only epistemologically, i.e. how to acquire knowledge of the future with different techniques for this or that pragmatic purpose (as done in foresight), but especially ontologically, i.e. what the knowledge of the future may mean, in what sense it is possible (and impossible) to know the future, and in what sense futures knowledge can be accounted as a proper scientific field of inquiry parallel with the other scientific fields of knowledge (physics, chemistry, biology, sociology, psychology, anthropology, history, humanities, etc.)")\(^{12}\).

Foresight can be defined as a systematic, participatory process involving future intelligence gathering and medium-to-long-term vision-building, with the aim of informing present day decisions and mobilizing joint actions. It can hence actively contribute to improving anticipatory intelligence and an increased awareness of knowledge resources and strategic orientations of the actors that participated in the foresight activities\(^{13}\). A broad range of analytical & participatory methods can be employed in futures research, ranging from


desktop research, expert groups, stakeholder involvement to interactive brainstorming processes or broad participatory arrangements.

The importance of foresight stems from the significance of understanding that today’s decisions form and shape the societies of tomorrow, and hence looking into the possibility of different futures, provides opportunity of shaping our futures, since it can serve as a useful policy tool to address different societal challenges, and also to raise awareness and create consensus around promising ways to exploit the opportunities and diminish the risks associated with new developments.

Participative, transparent, forward-looking methods are needed when decision-makers are trying to find solutions for the above challenges. Foresight can make a unique strategic contribution to social actors’ forward thinking and develop adaptability and readiness for change. The process of foresight involves multiple actors with diversified backgrounds, where participants can include: policy actors, experts from science, companies, managers from SMEs, as well as large and multinational enterprises, citizens, as individuals or NGO-drivers.

Foresight facilitates collective intelligence by allowing the discussion of alternative options, bringing together different communities and stakeholders with their complementary knowledge and experience, and promote a common understanding of issues and sometimes shared visions about the future. It might even go so far as to establishing joint agendas for action. Foresight activities are an important vehicle in prompting broad social debates based upon expert inputs and mobilizing broad sections of all stakeholders to give collective thought on priorities and actions. Bringing together experts with people from different disciplinary and sectoral backgrounds makes it possible to impact policy-making and even change the perceptions and beliefs of the participants.

Methodology
A wide range of foresight methodologies can be used in futures research, these include scenario building, Delphi, futures wheel, technology road mapping, trend analysis, cross impact analysis and many others. However, due to the nature of our research, the futures research methodology of environmental scanning was deployed. This basically involves scanning (search) both published and unpublished literature to identify key trends. Then a deep dive (more detailed and directed search and analysis) on the identified trends through further reviews of materials (research papers, news items, blogs etc.) and interviews with experts in the area. The countries that were monitored and the key data sources are shown in Table (1) below.

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14 European Commission, Ibid.
There was a choice between two approaches; a directed scan versus a general scan. A directed scan focuses on a theme and goes deeply into the issue while a general scan approach collects a huge amount of data on a range of topics. Both approaches are important. Choosing one implies trade-offs. An in-depth approach allows one to deeply understand drivers and thus one can identify potential leverages to effect the future through policy or otherwise. However the in-depth approach can miss drivers that are not seen as important now but could become significant in the future, the so-called wildcards or weak signals. A breadth approach can catch many signals but not enough insights. In general a balance is needed and this is the approach that was adopted.

<table>
<thead>
<tr>
<th>Newsletter</th>
<th>Key data sources</th>
<th>Key informants interviewed (Yes/No)</th>
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<tbody>
<tr>
<td>2</td>
<td>The Future of Millennials in North Africa</td>
<td>High: Websites High: Research Papers and Journals High: International Reports (UN Program on Youth, UNESCO, UNDP) Low: Newspapers</td>
</tr>
<tr>
<td>4</td>
<td>Future of North Africa's Slums: &quot;Slums of Hope&quot; or &quot;Slums of Despair&quot;?</td>
<td>High: Research Papers High: International Reports (UN Habitat, WHO ) Medium: Websites Medium: Newspapers</td>
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Every quarter, initial scanning undertaken during the first two months was fairly general, and in the third month a deep dive was done on the trend that was seen as warranting deeper attention. The data was then analyzed and synthesized to produce trends monitoring bulletins. Bi-annually, roundtable discussions took place where experts were invited to discuss the emerging issues from the monitoring exercise and provide new insights. The details of two roundtables are shown in Table (2) below.

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<th>Roundtable</th>
<th>Representation</th>
<th>Regions</th>
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The objective of the scan was to identify key trends and potential impact and also potential innovations being used to mitigate key challenges and also take advantage of emerging opportunities. Key sources of information used included published and unpublished (grey literature) research, news items, blogs to identify broad themes. A more focused scanning was then used to do a deep dive on the main trends identified. Research was supplemented by interviews with experts to get deeper insights.

**Results and Insights (Synthesis):**

While there were many trends identified, the four key themes/trends identified as critical to the future of the region and thus warranting a deep dive were: (i) Securing Wheat Availability for North Africa; (ii) The Future of Millennials in North Africa; (iii) Managing Water Security in North Africa; and (iv) Future of North Africa’s Slums. These key issues are summarized below:
Securing Wheat Availability for North Africa

- Moving towards the cultivation of "new wheats" in North Africa, such as millets, sorghum and quinoa which can grow under dry and harsh conditions with minimal water. They are also a move towards healthier "wheat-free" products that are gaining momentum in the region.

- High wheat import dependency among NA countries and the high risk vulnerability lead to the emergence of new trends such as stockpiling to secure physical grain availability and to mitigate price volatility. The building of grain storages is still overcrowded by the government sector due to hidden costs, but there are signs that the private sector will start to take a bigger role in this area. Bringing private sector not only improves supply but also allows government and private sector resources to be leveraged through a Public Private Partnership (PPP).

- Trends to improve logistics that enhance grain transportation from global to local consumers in the region, with a country like Tunisia demonstrating logistic excellence that promote its potential as a future regional wheat import hub.

- North African countries have opted for a two pronged approach as they seek to use off shoring as a way to secure their food supply. They are investing in farm land in neighboring African countries and at the same time inviting investors to cultivate in their countries. Trends differed among countries, with Egypt opting for both investing in and receiving investment in land, Libya totally depending on offshore investments, Algeria reforming its and laws to allow private leasing of agricultural land, and Morocco launching agricultural lands for leasing to foreign countries.

- The abundance of land in Sub-Saharan Africa but its lack of expertise and technological utility provides huge potential for cooperation between "resource poor and expertise rich" countries of North Africa with "resource rich and expertise poor" countries of SSA in off shoring opportunities.

The Future of Millennials in North Africa

- The millennials use of social media plays a role in undermining the old order, where the facilitation of political organization and mobilization means that these youngsters will have a significant role in shaping political discourse in the years ahead.

- The potential of millennial use of the internet in a globalized world and risks for radicalization of this young youth by Islamists.

- The birth of a renewed spirit for social activism among millennials represent signs of the formation of a new society, with growing rates of volunteerism constituting a new significant social force.

- Growing desire among millennials to immigrate to countries with bigger economic prospects, which could mean more remittances, but also a drain of the region's social capital and innovative skills.
• The abundance of entrepreneurial talent and social enterprise among youth in NA indicates a boom in innovative initiatives to the countries' most pressing issues, and a means of creating employment for many of the young populations.

• There is a growing trend for the emergence of global and regional education and innovation hubs, which might reverse brain drain and attract back some of the region's brightest minds.

• Millennials with their tech savviness, their strong networking skills honed by social media and strong entrepreneurial bend are more likely to create their jobs in the future.

• The MENA millennials are slowly creating a new narrative in the region though music, theatre and literature. Music is increasingly being used to protest against autocratic practices in the region.

Managing Water Security in North Africa

• Key driving force behind increasing demand for water is the demographic trend of rapid population increase. While demand is rising, the supply of water is also being challenged by decreasing precipitation, and deteriorating water quality.

• Innovative technology has a strong role to play in the water and wastewater industry going forward by increasing water supply. This includes better management of water supply using analytics, recycling, and desalination. There is generally a lack of know-how and institutional “strength”, particularly in the area of integrated water resource management (IWRM), and this has limited the success of water resource management initiatives. Some actions can help improve the climate for reform such as promoting education about the multi-sectoral aspects of water management, with a particular focus on the region’s water challenges, and investing in data collection and tailoring of that data to the needs of policy makers in various sectors.

• Private financing has become a powerful driver in the increasing construction of desalination plants.

• Some of the innovative options available for the region include involving communities in adopting new strategies, which can increase the acceptance of new water systems, and increasing cooperation and integration with national, regional and international institutions to help develop innovations in irrigation methods employed in North African countries.

• Pricing water in NA might not only be publicly opposed but will also raise questions on the idea of tradability of water. The deteriorating water conditions in NA countries and current long term strategies of water resource management in the region all show a clear trend of NA countries to price their water resources (particularly irrigation water) in the near future, and possibly gradually on the long term. Improved water pricing is necessary to indicate rising water scarcity and its value, and is expected to force water towards high-value uses, encourage investment and improve water services.
Agricultural growth is the mainstay of most North African economies and many have a quest to achieve self-sufficiency in food. Engaging in virtual water trade will become a common practice for countries in the region. The prospects of a better utilization of water among the five NA countries if a fair virtual water trade is applied, is extremely promising. The only missing factor is a strong political will, as all other technical, social and economic factors are available.

Innovation technology labs and platforms are emerging in the region and have started addressing the challenge of water.

**Future of North Africa's Slums**

- Private responses to the growth of slum areas in NA countries for the rich has been a growing trend of moving out to super-elitist, new peri-urban purpose-built cities, and an increasing number of gated communities who have chosen to quarantine themselves of malfunctioning municipal services and infrastructure. These then become "islands of prosperity in a sea of despair".

- City planners are at a disconnect with the reality and trends in urban development, so urban informality continues unabated a clear message that the sterile Modernist city is being rejected by the urban dwellers as neither affordable nor the social habitat of choice.

- The debate is increasingly moving towards accepting the permanence of informality and looking for ways in which the marginalized can be involved in decisions affecting their lives and also seeking to improve their access to services.

- Politically, slums can be an important source of votes, therefore political manipulation of slum dwellers in NA is a problem expected to grow in the future. It is clear that slum vote is going to be heavily contested and with proper organization slum dwellers have the opportunity to have a powerful voice that can advocate their interests. This will require civil societies to put more emphasis on organizing slum dwellers and providing them with data and tools for them to engage effectively with the political forces and hold politicians accountable.

- Connectivity is key. Slum dwellers need to be connected to new opportunities and work places. Some innovations that have potential in NA include the establishment of online platforms to connect informal laborers with potential employers.

- Innovation in financing slum improvement programs is key to improving slum conditions in NA. The partnerships set up under these programmes undoubtedly help to re-energises the production of social housing, and structure the private sector.

- Slums attract the most ambitious and the most tenacious of the city's new entrants. Hence, slums team up with energy and enterprise. Despite the many challenges, many people make a living in these slums either as service providers for the formal city or as business operating to endogenously provide for the slums. Most slum dwellers in NA are in low-paying, informal jobs.
• Most of the urban slum areas represent economic clusters in a specific activity, or a range of related economic activities. Slum economies are comprised of slum-based businesses and workers and the complex network of economic actors and institutions that participate in and enable this economic activity. They play a critical role in fulfilling slum dwellers’ livelihood and consumption needs, while also making important contributions to the growing urban economies in developing countries. Slums are thus places of opportunities, and once there, fortunes of slum dwellers can be very diverse. Thus even though most slum dwellers work in the informal economy, it is not unusual for them to have incomes that exceed the earnings of formal sector employees.

• Beyond shelter, slums provide means to access jobs and also provide a network of relations that improve resilience of its members. Relocating slums to new satellite towns moves people to locations far away from where their service are needed and more importantly shreds significant social capital that slum dwellers have accumulated as they have created new relationships. The importance of networks, social cohesion and human intimacy should not be underestimated as vital elements of social capital that develop in slums, despite the squalor, extreme lack of privacy and non-existent services.

• Local government and other public-sector bodies should adopt a more supportive role towards the informal sector, either in their own direct work or when contracting to the private sector. While slum economies are already interfacing with the formal city economy through the many services and goods that are exchanged between them more formal arrangements can unleashes better synergies between the two.

• Informal slum economies need to be directly integrated into city planning priorities and become a widely acceptable vision for urban development. For this situation to crystallize, there needs to be a political change in the vision and orientation away from the non-inclusive pursuit of "world class cities" to the realization of the vast potential existing in the current areas. Also, allowing the private sector to lead slum engagement initiatives which puts pressure on urban planners to accommodate and support slum economies.

• Realizing change in the current situation will require effort from slum-based workers and businesses to organize themselves better in a manner that enables them to have a voice in municipal decision making. Shared and open data will be key in fostering cooperation and emerging slum data systems point to an important innovation in giving greater voice and accountability.

• The issue of gentrification was raised as a crucial issue in all slum upgrading and prevention programmes in NA.

• Do-it-yourself (DIY) approaches can tap into local communities’capacity to self-organize. Encouraging data ownership by communities and strengthening coping mechanisms and individual and household incentives align with community actions to implement holistic, sustainable community solutions. Using crowdsourcing and open data, especially mapping data, to inform community design activities can bridge these
gaps and empower households and local communities to integrate a wider set of resilience measures into daily lives, budgets, and decision making.

• There is a need to give voice and visibility necessary for women to report their experiences. Slums are inhabited and managed by women, who represent two thirds of the slum population. In general, it is women who face the daily management issues (water, sanitation, health centers) for the latter, all is far, everything is expensive, and everything is inaccessible.

• Opportunities that allow slum upgrading include, among other things, considering cities as engines of sustainable development, to test and promote leaders and strengthen democracy, to boost construction jobs, and ultimately to empower the poor. The poor inhabitants should be at the center of development, which means that governments must not only consult slum households, but empower them to be active agents of change in the formulation of policies, programs and implementation.

The two key drivers of themes is really demographic shift. Rapid population growth coupled with rapid urbanization. Rapid population growth has not only increased demand for food (and thus water) but more importantly also spawned a veritable segment of young people born between mid 1980’s and 2000 otherwise referred to as millennials who were starting to change the society in a very significant way with the “Arab Spring” being the calling card. Rapid urbanization has also meant increased demand for water and also rapid shift in diets that has seen wheat demand rise, and as result the region became more and more dependent on very volatile global commodities markets. At the same time lack of economic opportunities has seen the rise of mega-slums in the wake of urbanization and also rise of informal sector as people seek way to make end meet.

This is indeed a potent mix and the Arab Spring revolution that toppled the old order is a testimony to this. It was largely unemployed millennials living in city slums and “bread and freedom” were their rallying cry. This has also not been lost on forces competing to shape the region future and extreme have been quick to reach out and recruit from among this group. On the surface the confluence of these forces means chaos especially in the aftermath of a still born revolution as millennials were really too young to take care of the baby they gave birth to. While food insecurity continues to haunt and the region and Egypt has openly mused about bombing the dams Ethiopia is building upstream of the Nile.

However the future could be very different. Indeed our synthesis of the trends identified 4 mega trends that have potential to mitigate the impacts.

**Millennial preparing for the future leadership**

The millennials are using the zeal and energy that saw them topple the old order to change their society tapping into their innovative energies and sense of social justice. They are volunteering and are also developing social enterprises and in the process building critical skills in solving problem, leadership and also creating veritable networks that make them ready for leadership.

**Rethinking of concept of security**

There is a growing realization that food self-sufficiency is more that growing more food but thinking the issue in broader terms of infrastructure, water use, trade and regional cooperation. Trying to achieve self-sufficiency is not efficient and indeed unaffordable in the long run.
Countries like Morocco are now shifting toward growing and exporting high value food and that consume little water like olives and import low value food like grains. Virtual water trade what is what this is achieving.

It is also becoming apparent that perhaps a better way to increase security and food supply is countries in NA work together Sub Sahara Africa (SSA) to transfer irrigation know how and in turn get food from the irrigated land under a cooperation framework that guarantees food security for all.

For instance moving back to traditional grains of sorghum and millet can reduce reliance on wheat while promoting the growth of high value crops (fruits) and importing low value crops (grains) a sort of virtual trade in water can address the water challenges. Promoting social entrepreneurship and volunteerism business models are key to tapping the millennials energy and drive while rethinking planning where the informal and the formal live side by side can build more resilient cities.

**New Voices, New Space shaping The Society**

New voices led millennial rappers are emerging and challenging society. Rappers are speaking to social injustice, Women rappers are also challenging gender discrimination. Rappers are challenging extremists in a more powerful way that airstrikes can never. Rapper of the Nile is raising awareness on environment and use of Nile water.

New spaces are also being created to for new voices, In Morrocco L’abattoir is creating a space where culture is being created, Innovation hubs e.g. Tahrir2 in Egypt are springing everywhere proving space for innovative minds to create new solutions to new and even old age challenges. These are spawning technologies and re-framing challenges in new ways that are more promising,

- The search for water desalination technologies is now being combined with research on renewable energies.
- A diffuser technology invented in Tunisia is 40% more efficient than drip technology.

Of utmost important the cyberspace is creating a new place which the ground zero for the battle for the heart and minds of the millennials. New global Uma is being created here as the diaspora reconnected with the homeland creating new cultures, new voices and new networks.

**The emergence of the innovative government**

As governments struggle with steering the region in this tumultuous period the government is being re-worked with increasingly bold initiative.

- Innovative Public Private Partnership are emerging. The Morocco government has now the first in the work Public Private Partnership (PPP) where it allocates slum families a serviced pilot and encouraging two adjacent families to pair with a developer and develop a four storey house so that each family gets a house for free and the developer keep the two stories. Essentially unlocking private capital to provide free house.

- An appreciation of data driven policy making starting to be seen e.g. the building of a National water Information System so that all stakeholders that impact on water policy are on the same page and thus water policy is coordinated and coherent and thus effective (Minister of Finance more likely to push for needed financial reform if he/she can assess the efficiency of public spending on water)
• Data mining and analytics being deployed to improve efficiency of water system in Morocco.

Conclusion
Public private partnership was found to represent a key way forward in further scaling the innovations identified. Therefore, inclusive business approaches are key to a better future and policies to encourage such practices are needed. Our research also identified important innovations in the area of policy e.g. providing loans and subsidies to urban users so that they can retrofit home appliance to better conserve water. The key message is that the future of the region will depend on understanding key drivers of the future and catalyzing innovations to address future challenges and opportunities and also mobilizing private sector in more cooperative public-private ventures.
حقوق المبتكر؛ وفقاً لقانون حماية حقوق المؤلف الإماراتي

عمر محمود الكسواني
الجامعة الأمريكية في الإمارات

مقدمة عامة

على مدار أكثر من تسع سنوات تواتر رجال أمارة دبي المبدعة دائماً باعتماد مؤتمر سنوي يعقد خصيصاً لمناقشة الأبداعات العربية، وذلك حرصاً منها بالطبع على دفع عجلة الإبتكار وصولاً إلى اقتصاد مستدام.

ولأننا بصدد الحديث عن الإبتكار، في ينبغي العلم بأن الإبتكار يعتبر حجر الأساس لتتمتع المبتكر بحقوقه التي قررها له القانون الخاص بتنظيم شؤونه وبيان حقوقه وهو القانون الاتحادي رقم 7 لسنة 2002 والمعدل بموجب القانون الاتحادي رقم 32 لسنة 2006 بشأن حقوق المؤلف والحقوق المجاورة. وبالتالي فإن بيان ما لهذا المبتكر وما عليه وفقاً لأحكام القانون المذكور يعتبر حاجة ماسة تبرر لنا التقدم بهذه الورقة لإمانة هذا المؤتمر لعل وعسى أن ينفعنا الله وينفعكم بما ورد فيها من معلومات.

ويعتبر الإبتكار هو معيار الحماية المقررة للمؤلف حيث لا يحمي المشرع الإماراتي سوى المصنفات المبتكرة وفقاً للمادة الأولى من قانون حقوق المؤلف الإماراتي التي توافق المادة 2/5 من اتفاقية بيرن لحماية المصنفات الأدبية والفنية، كما توافق المادة 1 من الاتفاقية العربية لحماية حقوق المؤلف، والإبتكار يعني الطابع الإبداعي الذي يسبغ على المصنف نوع من الأصالة بحيث يمكن للملصق معرفة أن هذا المصنف للشخص الفلاني أو للمؤلف الفلاني بمجرد قراءة أو الإطلاع على فحوى هذا المصنف.

وشيء شبيه المعايير الإبداعية في إطار حماية حقوق المؤلف وحماية الملكية الفكرية، وإذا كان الابتكار مثاراً لحماية المصنفات الأدبية والفنية، فإن الجداء هو شرط حماية مفردات الملكية الصناعية والتجارية كالعلامات التجارية، والاختراقات والأصناف النباتية وغيرها، وهذا يعني أن حماية حق المؤلف الفاعل بحق المصنفين الخاصين بمفردات الملكية الفكرية لا تستفيد منها إلا المفردات الجديدة معنى أنها لا يكفي أن تكون مبتكرة بل يجب أن تكون جديدة.

ويتميز الابتكار عن الجداء في أن الابتكار أوعز مفهوماً من الجداء بمعنى أن كل جديد مبتكر إلا أنه العكس ليس بالضرورة أن يكون صحيحاً، ويتطابق ما قدم على المصنفات الأدبية والفنية نجد أن قانون حماية حقوق المؤلف والحقوق المجاورة الإماراتي رقم 7 لسنة 2002 يحمي المصنفات طلماً كانت مبتكرة بصرف النظر عن مدى جدتها من عده، وبالتالي فلا وإن مصفح المبتكر هو الذي يتمتع بالمادة القانونية بينما لا يتمتع بهذه الحماية مؤلف المصنف الجديد.
وتقسم المصنفات تبعًا لمعيار الابتكار إلى قسمين: مصنفات مطلقة الابتكار أو ما اصطلح على تسميته بمقسمات الأصلية أو مصنفات الابتكار الأولي، ومصنفات نسبة الابتكار أو ما اصطلح على تسميته بالمصنفات المشتقة أو مصنفات الإبداع الثانية. ونحاول في هذه الورقة التعرف الحقوق التي يتمتع بها المبتكر والذي يسمى وفقًاً لقانون حماية حقوق المؤلف والحقوق المجاورة الإماراتي بـ "المؤلف"، وذلك على النحو التالي


تمهيد وتقسيم

تشمل حقوق الملكية الأدبية والفنية، مجموعة الأفكار والأراء وأنتاج العقل والذهن والفن، وجميع الصور الأخرى للابداع الفكري أو العقلي، حيث درج الفقه على تسميته "حق المؤلف" والحقوق المجاورة، وقد صدر أول تشريع لحق المؤلف في إنجلترا سنة 1710 وذالك عبر تفتيش (الملك أن) والذي اعترف لأول مرة بوجود حق استثماري لمؤلف الكتب كما سمح لهم أيضاً بكون لهم وحدهم إمكانية الترخيص بطباعة مصنفاته.

وفي عام 1791 أصدر رجال الثورة الفرنسية أول قانون فرنسي لحماية حق المؤلف بعد أن كان هذا الحق مقصوراً على من يأنف لملك ذلك من الكاتب، حيث جاء في المادة الأولى من هذا القانون ما ترجمته " لا يمكن تمثيل مؤلفات المؤلفين الأحياء على أي مسرح عام، في كل إنجلترا فرنسا بدون الرضا المكتوب من المؤلفين، وإلا تعرض المخالف إلى مصادرة الناتج الكلي لأجلات التمثيل ".

وعلى الرغم مما تقدم، إلا أن ذلك لا يعني أن العرب والمسلمين لم يعرفوا هذه الحقوق بل على العكس، فالعرب عرفوا بتأكيد حق المؤلف وأفردوا لهذا الحق الحماية اللازمة، حيث كانوا في الجاهلية وعلى الرغم من عدم وجود وسائل إتصال أو نشر، إلا أن المؤلفات الأدبية كانت تنشر بسرعة على لسان كل فرد بينما كانت المناقشات الموسمية بين المؤلفين في الأسواق، تمثل إجراءات إبداع في وقتنا الراهن، والمعنى بحماية هذه المصنفات هو المجتمع كله، فلا يسمح لشخص بسرقة عمل شخص آخر.

ومع أن الإسلام قد استقبلت تحت طائلة حركة التأليف والإبداع، والدبلوماسيين، الذي ازدهرت تحت طائلة حركة التأليف والإبداع في مختلف المجالات، ظهر حق المؤلف واضحا وجلبا، حيث كانت الدولة الإسلامية تتعامل مع المؤلفين من خلال عدة طرق، منها أن تقوم بتكليف بعض العلماء والمؤلفين بالكتابة بموضوع معين تحدده هي، فتنتقل إليها كافة الحقوق ويصيب دور المؤلف واقفا عند حد التأليف فقط. وهو ما يعني أن الدولة قامت بهذا بشراء الحقوق المادية للمؤلف وهو ما يماثل ما تقوم به بعض المؤسسات الحالية تجاه بعض المؤلفين والمصنفات.

ومنها أيضا أن تتفق الدولة الإسلامية على نوع آخر من التعاون مع المؤلفين، لإنتاج وحماية إبداع الفكري، حيث تقوم هنا بشراء كافة الإعدادات والأعمال الفنية المنتجة وتقوم هي بعد ذلك بتخصيصها للانتفاع العام بعد الالتزام بعدم المساس بالحقوق الخاصة للمؤلفين.

والأدلة القارية على معرفة الإسلام والعرب لحق المؤلف، يبرز من خلال اهتمام الدولة الإسلامية بالأثران والتأليف الموسيقي، حيث وجد عرفوا أن الحكيم الإسلامي الأندلسي بعض التأليف الموسيقي المزخرفة بالجمل الأدبية بالحماية الكاملة، ولعب دورهم فيها في المرحلة التنويرية وليس بعد إعلانها ونشرها، مما يجعل تلك الحماية العربية الإسلامية للأثران مطابقة. إن لم ترد لنا تنص على أحكام الحماية المقررة لها في عصرنا الحاضر.
ولم تتوقف معرفة الإسلام والعرب عند هذا الحد، إذ يفيدنا تاريخنا الإسلامي الناصع بأن الإسلام عرف حق المؤلف بكافة جوانبه ابتداء من الإبداع الفكري وانتهاء بإقرار الحماية اللازمة له مروراً بإجماع الفقهاء على جواز أخذ المؤلف عوضاً عن إنتاجه الفكري وتحريم السرقات الأدبية واتخاذ النصوص والحرص على الأمانة العلمية.

وعلى الصعيد العربي، يمكننا التأكيد على أن الدول العربية لم تعرف حق المؤلف (كrecht خاص) إلا متأخرة، إذا قارناها بالدول الغربية ويرجع ذلك إلى الظروف السياسية والاقتصادية والاجتماعية التي كانت سائدة أثناء الحكم العثماني للدول العربية، حيث كان أول قانون يتعلق بالحماية اللازمة لحق المؤلف هو قانون التأليف العثماني سنة 1910 والذي مازال ساري المفعول حتى الآن في بعض الدول العربية !!.


ووفقًا لقانون الإماراتي محل الدراسة المثلى يتمتع المبتكر (المؤلف) بحق المؤلف وحماية حق المؤلف وحقوقه الأخرى، وقد يكون هذا الحق ذو طبيعة مزدوجة، حيث أنه مظهران : مظهر أدبي ومظهر مادي، على التفصيل التالي:

الفصل الأول
المظهر الأدبي لحق المؤلف

يتمثل هذا المظهر في الحقوق التي تهدف لحماية الشق الأدبي من مصالح المؤلف والتي تتمثل في الحقوق التالية، حق تقرير إتاحة المصنف للجمهور لأول، حق احترام المؤلف ومصنفه، وحق السحب أو الندم، لأن هذه الحقوق الأدبية تجمعها قاسم مشترك من الخصائص التي تتمتع بها، سنقوم باستعراض هذه الخصائص قبل التصدي لكل واحد من هذه الحقوق.

الخصائص المشتركة لحقوق الأدبية:

1- تميز هذه الحقوق وفقًا للمادة 5 من القانون الإماراتي بأنها:

- متعلقة وقصيدة بخصائص المؤلف، والحقوق التصويرية بالشخصية هي مجموعة من الحقوق المعنوية التي ترجع من حيث طباعتها إلى شخصية الإنسان، مثل حقه في سلامة جسمه وحياته وحريته، وهي موضوعات وطنية من التصرفات دون سواها فيستطع صاحبها أن يجري عليها ما يشاء من التصرفات التي تلائم مع طباعتها، فإنه يتمتع بها ويتشعبها.

وبورد عنها دون أن يكون له التنازل عنها مقابل أو بدون مقابل.

15. انظر الفكر السنيوري، المرجع السابق، ص 279 وما بعده وطلبه في ذلك فالاسم والقب الشخصي والجنسية.
16. د. صاحب عبيد الفتلاوي، مدخل إلى دراسة القانون، الجزء الأول، دار وائل للنشر، الطبعة الأولى، عام 2011، ص 280.
17. د. حسام لطفي، مدخل لدراسة القانون، القاهرة، طبعة 6، 2008، بدون ذكر لدار النشر، ص 424.
ولقد عبرت المذكرة الإيضاحية للقانون المصري لحماية حق المؤلف عن ارتباط الحق الأدبي للمؤلف بشخصيته وتعلقه والتصاقها بها أجمل وابلغ تعبير إذ قالت " أن المصدر سواء كان مؤلفاً أدبياً أو فنياً هو ثمر تقدير الإنسان وميهمته وحيدة شخصيته بل هو مظهر من مظاهر هذه الشخصية ذاتها يعبر عنها ويصفح عن كرامتها ويكشف عن فضائلها أو نقاوتها ، فحق المؤلف في هذه الناحية متعلق أشد الانصال بشخصيته ".

ويعد الفضل في ابراز مدى ارتباط حق المؤلف الأدبي بشخصية صاحبه وارتباطه بها واعتباره من الحقوق القصيرة شخصيته إلى القضاء الفرنسي، حيث أصدرت محكمة السين الفرنسية عام 1927م حكماً جاء فيه " أن الفنان الذي يلقي في أحد صناديق المهملات في الطريق العام بعض لوحاته بعد أن مزقها وشطبه بالمداد، يظل متمتعاً بهالحق الأدبي على أجزاء لوحاته التي ألقاها في صندوق المهملات ، فإذا جمعها أحد المارة في هذا الأخير على هذه اللوحات إلا الملكية المادية .. وعلى ذلك لا يحق له أن يتصح ما بهذه اللوحات من لفظ أو إن يجمع أجزاءها ويعبر عنها في مكان عام ، لأنه يكون ذلك مستجباً على الحق الأدبي للرسام... وأن يكون ذلك مستجباً على الحق الأدبي لرسام”. 18

وبالتالي تعتبر هذه الحقوق ابدية19 بمعنى أن الحق الأدبي للمؤلف يبقى طول حياته كما يظل أيضاً بعد مماته ، وهو بالنسبة حق دائم لا يبرد عليه التأقيت خلافاً للحقوق المالية محل الاستغلال الذي يتقيد بمدة محددة هي حياة المؤلف وعدد من السنوات بعد وفاته تم تحديدها بمدة 50 سنة في مجلل المصنفات.

وحتى بعد وفاة المؤلف فإن الحق الأدبي للمؤلف يبقى كأساس قانوني لحماية المصنفات الفكرية باسم الصالح العام ودخوله في عداد الأماكن العامة ، ويلي كذلك إلى ان يدخل هذا المعنى في غياب النسيان.

وحتى بعد وفاة المؤلف فإن حقه الادبي لا يموت بل يتوالد بعد وفاته وترته وخلفته ومن بعده ، وهذا يعني أن الحق الأدبي للممؤلف يبقى أبد الدهر ولا يفنى أو يموت أو يندثر ذلك رغم أن الموضوع المانع لوجد من يبادي هذا الحق حتى بعد وفاة صاحبه سواء ورثته وخلفته أو الدولة إذا انعدمت ورثة المؤلف وخلفاته.

وعلى الرغم من وجود اجماع تشريعي على أن حق المؤلف الأدبي هو حق مؤبد ودائم ولا يحتمل بطبيعته التأقيت إلا أن بعض التشريعات 20 أخذت منجيًا أو فرضت أنه هذا الحق هو حق موقف وان يتبقي منه مثله في ذلك حق المؤلف المالي ، وأن كل هذين الحقين يستطيع المرور مدة 70 عاماً على وفاة المؤلف.

غير قابلة للتتنازل عنها21 ونضالت لحجز عليها ، فالحق الأدبي للمؤلف كونه من الحقوق القصيرة شخصيته كحق الأبوة والنسب والبنوة لا يتزوج من قابلة للتصرف بالتنازل عنها للحجز عليه وهذا ما أكدته جانب كبير

أحترم هذا الحكم منشور لدى، د. نواف كنعان، حق المؤلف، دار الثقافة للنشر والتوزيع، ط 1985، ص 85، انظر هذا الحكم منشور لدى، د. نواف كنعان، حق المؤلف، دار الثقافة للنشر والتوزيع، ط 1985، ص 85

18. انظر طالب الأسنان 6 نوفمبر 1967، من قانون حق المؤلف الأدبي الفرنسية، ص 89، والهامل رقم 3، 18. انظر هذا الحكم منشور لدى ، د. نواف كنعان، حق المؤلف، دار الثقافة للنشر والتوزيع، ط 1985، ص 85

19. هذا هو موقف الشرع الإسباني أخطر المتأدونين 11 من قانون حق المؤلف الأدبي لعام 1965، انظر في تفاصيل الموقف الإسباني، د. نواف كنعان، المرجع السابق، ص 89، والهامل رقم 3.

20. وعلى الرغم من ذلك اجازت المحكمة الإدارية العليا في مصر في حكم ماهر في تاريخ 5/1876 ان يلزم العقد الإداري بذات تتنازل

21. بموجبه الموقف عن حقه في الاعتراف على تلفيق المؤلف حيث أن هذا الشرط استثنائي واضح لمساساً بحق الأدبي بسبب عدم شك
من الفقه والقضاء حيث حظرت أي تنازل عن هذا الحق لمخالفة هذا الحق الأساسية كونه من الحقوق الشخصية غير القابل للتصرف به أو التنازل عنها للغير ابتداءاً. 

ووباسطمعنى أكد التوجه الفقهي والقضائي المقارن أن الحق الأدبي للمؤلف قرر بطلان أي تصرف بموجب اتفاقية بيرن في الحق الأدبي للمؤلف باعتباره حقاً من الحقوق اللصيقة بالشخصية، لكونه يعبر عن قريحة الشخصية، وبالتالي فإن من يبيع مصنفاً له يكون كمن يبيع جزءاً من شخصيته وهو أمر غير جائز.

وفقاً للمشرع الإمارتي وملتمله في ذلك مثل المشرع الأردني والسعودي فقد أخذ ما اتفق عليه جميع القوى والقضاء وقرر حظر الحقوق المالية للمؤلف فقرر بطلان أي تصرف بالمادة 15 من القانون الإمارتي عن الحقوق المالية للمؤلف حيث قرر أنه يجوز تنازل المؤلف عن حقوقه الفنية مستقبلاً في الحقوق الحقوقية في مكانه بعد فاته، إلا أن التحديث الفنى أن الحقوق المالية للمؤلف كأنه حق لا يؤثر على حقوقه الأخرى، وبالتالي يقع بطلان أي تصرف متبناً بالدائنين الفنى أو في أكثر من 5 مصنفات مستقبلية، وعليه لا يوجد مثل هذا التحديث بالنسبة للمشرع الإمارتي وللتنظيم المصري.

يضاف إلى ذلك أن الحقوق الفنية للمؤلف، في بعض القضايا، حيث حيث أن الحق الأدبي يعتبر باطلياً، وحيث أن الحقوق المالية للمؤلف لا يتم بيع مادياً قبل البيع للحجز فأنه بالتالي لا يجوز الحجز على هذا الحق، بما أنه لا يوجد مثل هذا التحديث بالنسبة للمشرع الإمارتي ولا بالنسبة للتنظيم المصري.

وقد قرر القانون الإمارتي لحماية حق المؤلف صراحة على عدم جواز الحجز على حق المؤلف في المادة 14 والتي أشارت إليه أنه يجوز الحجز على الحقوق المالية للمؤلفين على مصنفاتهم المنشورة، حيث أن النص يتحدث عن الحقوق المالية فأنه يفهم منه بمفهوم المطالبة، إلا أن النص يحظر الحجز على الحقوق المالية فأنه يفهم منه أن الحق الأدبي للمؤلف لا يجوز تصرف فيه. كما لا يجوز أيضاً الحجز على المصنفات التي يموت صاحباها قبل نشرها، ولا يتم بصفة قاطعة أنه استهدف تشرير فواتها.

وبالنسبة للاستثكارة، يجوز حيازة نسخ الكتاب باعتبارها منقولات مادية يجوز حيازتها، أما الحق الأدبي فلا يمكن أن يكون محلاً للحيازة ولا يجوز إعمال قاعدة الحيازة في المنقول. собачча يا، ليس في ذلك مخالفات، كلما قدمته تشريرها في ذلك. لأي الحق. 24.

22. انظر: "الكامل الذي يحظر تشريره، ص 51.
23. انظر: "الكامل الذي يحظر تشريره، ص 51.
24. انظر: "الكامل الذي يحظر تشريره، ص 51.

وفي تسير مرفق التعليم لما ينطوي عليه من اسقاط حق المؤلف من حقوقه، فأنه ينطوي عليه من حقوقه، ولا يجوز ابتداءاً ولا يكون جائزًا.

وبالنسبة للاستثكارة، يجوز حيازة نسخ الكتاب باعتبارها منقولات مادية يجوز حيازتها، أما الحق الأدبي فلا يمكن أن يكون محلاً للحيازة ولا يجوز إعمال قاعدة الحيازة في المنقول. собачча يا، ليس في ذلك مخالفات، كلما قدمته تشريرها في ذلك. لأي الحق. 24.

22. انظر: "الكامل الذي يحظر تشريره، ص 51.
23. انظر: "الكامل الذي يحظر تشريره، ص 51.
24. انظر: "الكامل الذي يحظر تشريره، ص 51.
لا يسقط بالتقادم ولا ترد عليها الحيازة، حيث أن الحق الأدبي حق أبدي كما رأينا لا ينتهي ولا يسقط بالتقادم كما لا يكسب بحيازته ثروة طال امتلك هذه الحيازة، وممّا ذلك الحق الأدبي لا يرد عليه التقادم المستقبلي الذي قد يؤدي إلى إنهاء الحق إذا لم يستعمله صاحبه خلال مدة معينة يحددها القانون، كما لا يرد عليه التقادم المسبّب للحقوق حتى لو حازه شخص وأستمر في حيازته المدة التي يحددها القانون.

وبناء على ما قيل فإنهما لا يمكن إجبار المؤلف على استعمال حق الأدبي في وقت معين فيه أن يتمتع عن هذا الاستعمال الفترة التي يراها دون أن يؤدي ذلك إلى إمكانية سقوط حق الأدبي بحكم مرور الزمن على عدم الاستعمال كما هو الشأن في بعض الحقوق الأخرى التي تسقط إذا لم تتعدّل للقرة الزمنية المحددة في القانون.

وبنفس الوقت لو أن شخصًا حاز بحسن نية وبصورة منتظمة وموافقة لأحكام القانون معنى حيازة هادئة وواضحة ومستمرة للمصنف فانه لا يستطيع اكتساب الحق الأدبي على هذا المصنف مما طالت مدة حيازته له، بل إن هذا الحق يبقى لمؤلفه.

كما انها حقوق تقديرية بمعنى أنها تخضع لتقدير مالكها ومع ذلك فالقضاء له في بعض الحالات الحق في التدخل للحد من تعصف مالكها في استعمالها.

2- مظاهر الحقوق الأدبية

أ- حق إتاحة المصنف للجمهور، أو ما يعرف بحق تقرير النشر أو الإتاحة لأول مرة أو حق الكشف عن المصنف لأول مرة، وبموجب هذا الحق يكون للمؤلف وحده تحديد اللحظة التي يتيح فيها مصنفه إلى الجمهور، وفقًا للقانون الإماراتي تم تناول هذا الحق في المادة الخامسة فقرة 1 من القانون، وكانوا أمنيًا أن المشرع الإماراتي عند تناوله لهذا الحق قد استخدم الإصطلاح الحديث للفهم الذي هو مصطلح "الاتاحة" وذلك للتعبير عن قرار المؤلف في تمكن الجمهور من الإطلاع على مصنفه، حيث أن هذا الإصطلاح يشمل جميع أشكال النشر سواء التقليدية منها أو الحديثة كالنشر أو الإتاحة عبر شبكة المعلومات "الإنترنت".

ويحترم الحق في إتاحة المصنف ونشره من أهم الحقوق الأدبية التي يتمتع بها المؤلف إذ يعتبر - بحجة من أهم الامتيازات التي يتنعم بها المؤلف دون غيره والتي توقف عليها ما إن يرى المصنف النور والحياة، واحترام حقوق خزان المؤلف وأدراج مكتبه.

وقدر الإناقة أو النشر هو حق المؤلف الأصيل في إعلان عن مولد ما تلقّت عنه قرينته الذاتية من مصنفات فكرية أدبية أو فنية أو علمية، وخروجها من ظلمات نفسه إلى ضياء الدنيا وتعريف الجمهور به.

وقدر الإناقة المصنف كحق أدبي خاص للمؤلف له العديد من المظاهر والصور، فمن ناحية أخرى، يُمثل هذا الحق في قدرة المؤلف على تقرير فيما إذا كان مصنفه قابلاً للإتاحة من عدمه على اعتبار أن المصنف هو ناتج
القريحة الذهنية للمؤلف والذي يبقى إلا أن يشاء المؤلف وحده حبيس نفس المؤلف إلى أن يرى المؤلف أن مصنفه قد أصبح قابلاً للنشر والتاحة فيقرر عندئذ طرحه في متناول الجمهور.

ومن ناحية ثانية، نجد أن حق التاحة المقرر للمؤلف لوحة، يمنح هذا الأخير مكانته تحديد شكل وطريقة هذه التاحة، وفقاً لما يراه محققاً لفجوات المصنف، وأهدافه الخاصة دون تدخل أو إجبار من أحد، فله أن يتجه للمؤهول على شكل قصيدة شعرية وله أن يتجه على شكل مقطوعة موسيقية مغنية، وله أن يختار عرضه على شريشات المسرح أو غير أثير الإذاعة أو قنوات التلفزيون، وغيرها من وسائل وطرق الأتاحة والنشر، ويتربى على هذه المكانت نتائج في غاية الأهمية وهي أن المصنف لا يعتبر متاحاً أو منشوراً إلا إذا تمت إتاحته ونشره وفقاً للطريقة والوسيلة والشكل الذي اختاره المؤلف لمسنعه.

ومن ناحية ثالثة، تربى على حق التاحة المقررة حصرياً للمؤلف، حق هذا الأخير في اختيار وتحديد الوقت المناسب لهذه الإتاحة، ومن هنا غالبنا ما نسمع أن فنان معين قد اختار موسم معين لطرح البومه الغنائي، كما نسمع أن فنان آخر أثر عدد مرات البومه بسبب ظروف معينة، وبالتالي فإن هذه الأمور تعتبر من المكانت التي يتمتع بها المؤلف دون غيره والتي لا تخضع إلا لقراره فقط دون تدخل أو إجبار من أحد.

ومن الصعوبات التي تكتنف حق التاحة أو النشر للمصنف، مشكلة تقرير التاحة أو النشر، حال حياة المؤلف أو بعد مماته، إذ قد يتضمن البعض ماذا أو ماذا يختار المؤلف دون أن يتم نشر أو تاحة مصنفه هل يملك غيره تقرير هذا النشر أو تلك التاحة عملاً بأن هذا الحق هم من الحقوق الحصرية للمؤلف؟

وفي معرض الاجابة على التساؤل السابق لا بد من التفريق بين حالتين: الأولى تقرير تاحة المصنف حلال حياة المؤلف، والثانية تقرير تاحة المصنف بعد وفاة المؤلف، على النحو التالي:

**الحالة الأولى: حق إتاحة المصنف حلال حياة المؤلف**

في تحقيق م nguyện هذه الحالة واحتكامها تطابقاً للصورة المادة 7 من القانون الإمارتي، فقرر أن الحق في الإتاحة كغيره من الحقوق الأدبية الأخرى المقررة للمؤلف من الحقوق الحصرية بالمصنف، فله أن يقرر أثناء حياته وبملء إرادته المنفردة إتاحة مصنفه دون ضغط أو إجبار أو إكراه من أحد.

والأساس القانوني لهذه الحالة نراه في إن حق تقرير إتاحة المصنف يعتبر من قبل حقوق الأدبية الثابتة للمؤلف بل يعتبر هذه الحقوق على الإطلاق، وأطلاعنا أن حقوق الأدبية للمؤلف تعتبر من قبل الحقوق الشخصية بشخصيته، فإن مودى هذه الحقوق عدم جواز إجبار أو إكراه أو حتى الاتفاق مع المؤلف على تقرير إتاحة مصنفه على اعتبار أن هذا الحق يعتبر من الحقوق المرتبطة بالنظام العام وبالتالي فإن مخالفته أو الاتفاق على عكسه يعد باطلًا ولا قانوني يتربى عليه.

ومن الناحية العملية فإن هذه الحالة لا تثير أية مشكلة يهم تلك المتعلقة بالاتفاق المؤلف هو مع صاحب دار نشر أو متجر في لنشر واتاحة مصنفه للجمهور، وبعد هذا الاتفاق لا يلتزم المؤلف سواء بحسن نية أو سوء نية عن تسليم
المصنف للناشر أو المنتج، فين يستطيع الناشر أو المنتج هذا إجبار المؤلف على تقرير نشر وغلافه مصنفه أم أن هذا الحق
الأصيل يبقى مع ذلك للمؤلف دون إجبار عليه من أحد؟

حتى نستطيع الإجابة على السؤال السابق لبد من التفريق بين فرضين : الأول أن يمتنع المؤلف عن تقرير نشر
مصنفه بحسن نية، والثاني أن يمتنع المؤلف عن ممارسة حقه في تقرير إتاحة المصنف بسوء نية.

الاعتمان عن تقرير إتاحة المصنف بحسن نية : وهذه الحالة تحدث إذا عجز المؤلف عن إتمام المصنف، أو انه
اتماعه ولكنه يمتنع لأسباب خاصة عن تسليم المصنف للناشر أو المنتج، وفي هذه الحالة يرى الاختيار غالب من
الفقه القانوني أن بإمكان المؤلف الامتناع عن تسليم المصنف للناشر أو المنتج حتى بعد الانتهاء منه لأسباب
خاصة به يقدرها نفسه دون أن يكون لأي سوء النية الناشر أو التنازل أو حتى القاضي إجباره على تسليم مصنفه.

والمعنى الكامل الشامل للمصنف التنازل أو المنتج لا يتنازل عن إتاحة المصنف على إتاحة المصنف للناشر أو المنتج
إلا أن ذلك لا يتنازل مع اعتبار هذا الامتناع بمثابة
خطأ تعاقدي وإذا أثبت الأطراف الآخر أن هذا الخطأ حدث ضرر، فإنه يحق للطرف قادر على هذا
الخطر هذا الضرر؛ يستطيع هذا الطرف (الناشر أو المنتج) مطالبة المؤلف في مثل هذه الحالة بالتعويض
المستحق.

الاعتمان عن تقرير إتاحة المصنف بسوء نية : وهذه الحالة تحدث إذا استطاع الناشر أو المنتج إثبات أن سبب
المؤلف الامتناع عن تسليمه للمصنف محل التعاقد هو، وجود إتفاق آخر بين المؤلف وناشر أو منتج آخر يمنع في
المصنف بمزايا وحقوق أكثر تفضيلاً من مزايا وحقوقه في الاتفاق الأول، وهنا يرجع أحد أ∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂∂partialtext

الحالة الثانية: حق إتاحة المصنف بعد وفاة المؤلف

إذا مات المؤلف دون ممارسة الحق في إتاحة مصنفه فإنه فقًا لأحكام القانون الإمارتي لحماية حق المؤلف، فلن يكون حق إتاحة المصنف بعد وفاة مؤلفه يمكن للملك مكتبه أن ينقل بكل مكتباته وثوابته أن وجدوا وإن لم يوجدوا بإلقاء الدولة التي تعتبر هذا ورثة من لا ورث له.

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25 السهيري، مرجع سابق، ص 409 وما بعدها.
26 د. حمدي عبد الرحمن، فكرة الحق، دار الفكر العربي، القاهرة، طبعة عام 1979، ص 134 وما بعدها.
ولكل من هاتين الحالتين شروط لا بد من توفرها حتى يستطيع ورثة المؤلف من ممارسة الحق إتاحة المصنف،
وإلى تتمكن الدولة عند إعداد ورثة المؤلف المتوفي من ممارسة الحق في إتاحة المصنف للجمهور وذلك على النحو التالي:

شروط ممارسة الورثة لحق إتاحة المصنف:

1. إذا مات المؤلف عن ورثة شرعيين له، فإن الحق في الإتاحة وغيره من الحقوق الأدبية تنتقل إليهم من بعده، ويأخذ
حكماً هذا المصنف كلاً من الموصى لهم وشركائه في إنجاز المصنف، ويشترط لصحة ممارسة الورثة ورثة المؤلف بعد وفاته المصنف ما يلي:

- أن يكون المؤلف قد مات قبل نشر مصنفه.
- أن لا تكون هناك وصية تتضمن رغبة المؤلف في عدم نشر مصنفه أو تحديد موعد لهذا النشر فعمداً.

شروط ممارسة الدولة لحق إتاحة المصنف

بداية لا بد من توضيح أن ممارسة الدولة لحق إتاحة المصنف تكون في حالة انعدام ورثة المؤلف الذي يتوفى ممارسة حقه في إتاحة المصنف، وكذلك في انتفاضة الورثة سواء بحسن نية (عدم مقدرتهم المالية على النشر) أو بسوء نية (تغريدهم)
عن إتاحة مصنف موته، ففي هاتين الحالتين فإن الحق في إتاحة المصنف لدولة الإمارات التي تعتبر في هذه الحالة الوريثة الشرعية لموته هذا المصنف والتي لها حريةًا على الصالح العام، وإذكاء الثقافة ونشرها القيام بإتاحة المصنف الذي يتوفى عنه مؤلفه قبل إتاحة، ولكن وفقًا لشروط التالية:

- تغلب الصالح العام وجعله السبب الرئيسي لقيام الدولة ممثلة بوزارة الثقافة بممارسة هذا الحق نك بوجود الهدف
من هذه الإثاثة الثقافية والتزام الابداعات الفكرية على طلب الفكير والعلم، أو كما نقول المذكورة الإضافية
للقانون المصري لحماية حق المؤلف في هذا الشأن "إن ترك المؤلفات القيمة مقدورة على شرفة الغير منشورة حرماناً لطلاب
الثقافة من خيرها وفائدها".

- أن لا يكون المؤلف الذي وافته المنية قبل إتاحة مصنفه قد رد صفة هذه الإثاثة أو النشر.

- إن تم الطلبه من ورثة المؤلف في إتاحة المصنف، وتحديد مدة زمنية له ممارسة هذا
الحق، وأن تم هذه المدة دون فيم الورثة بذلك.

- تعويض خلفاء المؤلف وورثته تعويضاً عادلاً عن الحق في إتاحة المصنف للجمهور.

2- حقوق احترام المؤلف والمصنف

وقد عبر القانون الإماراتي عن هذا الحق في المادة 5/3، حيث جاء في هذه المادة ما يشير إلى وجب أن
يناسب المصنف إلى مؤلفه ومنع تغيير الكلمات التعديل المصنف يعليم تغييره وفقاً لوجهة نظره، وغيرها أو تعديلاً، ونلاحظ هنا أننا
جميعاً بين أكثر من حق في حقوق الأدبية المقررة للمؤلف على المصنف، وحق المؤلف في
الدفاع عن مصنفه من أي تعديل أو تحريف، ولذل هذا الجمع بطيعة الحال حكماً نراها تكمن في إن لا إفتكاك بين احترام المصنف

27 تقابل المادة 6 مكرر من الاتفاقية بين لجنة الملكية الأدبية والفنية مع اختلاف تسمية هذا الحق في الاتفاقية بينن حيث تسميه هذه الاتفاقية حق
المصنف في إتاحة مصنفه، وقد أطلق اللغة الفرنسية هذه التسمية.
، واحترام المؤلف، فالصنف ما هو إلا تمثيل عن شخصية المؤلف، ولذا نرى أن الحق في أن ينسب المصنف إلى المؤلف.

بعنيه، يعني هذا الأخير حق ارتباط أبي 28 في حين ينتصره يتجه له الحق في دفع أي اعتداء أو تقدير يقع عليه.

ويقصد بهذا الحق وجود أن يكتب اسم المؤلف 28 على كل نسخة من نسخ المصنف المنتشر سواء تم هذا النشر بنفسه أو بواسطة الغير، ولما يتعلق نقح اسم المؤلف متخبئاً باختلاف نوع المصنف، فإذا كان عملاً مكتوباً أو مطبوعاً كالكتاب والمحاضرات ودواوين الشعر ف يكون ذلك اسم المصنف من خلال كتابته على غلاف هذا العمل بشكل باري وظاهر، وإذا كان عملاً في عمليهكله أو مثال منحوت أو رسومات تخطيطية فيكون من خلال كتابته طبعه أو حفره أو توقيعه على متن هذا العمل، وإذا كان عملاً متاح بطريقة الأداء العلني له ف يكون ذكر اسم المصنف عليه من خلال الإعلان عنه قبل العرض العلني له أو إذاعةه على الجمهور.

هكذا وحده أن يذكر اسم المصنف في كل عنوان عن المصنف دون أن يلتزم المؤلف بالإتفاق على ذلك مع الناشر أو المعنوي أو مروا روز هذا المصنف، كونه من الحقوق الإبداعية الشخصية للمصنف والتي لا تحتاج إلى الاتفاق عليها حتى عندما يتم الاتفاق بين المؤلف والناشر أو العدل على تحمير هذا المصنف من لون أديب أو فني إلى لون آخر من الألوان الفن الأدب.

وفي حالة وجود أكثر من مؤلف للمصنف فإن الحق في نسبة المصنف يثبت لهم جميعاً بحيث يتوجب ذكر جميع أسماء المؤلفين دون تمييز أو تجاهل أحد منهم، كونهم جميعاً أصحاب حق الأبوة على هذا المصنف الذي لم يرى النور إلا من خلال أشراكهم وتعاونهم على تحقيقه واعترافه، وفي حالة تجاهل أي منهم يكون من حقه المطالبة بالتعويض.

وهكذا كلا المصنف هو اختيار مؤلف المصنف اسماً مستعاراً له أو اختيار نفسي اسم مختصر أو خاصاً أو ترك المصنف بلا اسم، وفي هذه الحالات ينبغي احترام اختيار المصنف ونشره بالصورة والطريقة التي اختارها المصنف، وبالتالي نشره تحت الاسم المستعار أو المختصر أو نشره بلا اسم بالمرة.

لقد حاول استاذنا الدكتور حسام لطفي، في مؤلفه، عقد مقارنة رائعة بين مظاهر حق الأبوة التقليدية ومظاهر Abucaً على المصنف على مصنفه لتؤكد على صحة التسمية الفرنسية لحق المؤلف في نسبة المؤلف إليه بحق الأبوة، حيث يذكر سيادته في مؤلفه المذكور في اعلاه:

과학، الفقه، طبعة عام 2000 ص 7 ورائع رقم 63، أني يمكنني تغطية حقوق الأب على أنثى الفاعل بحوق المصنف على مصنفه، فيلم الأب تحديد لحظة خروج ابنه من المكان (حق في النشر)، كما يمكن حقوق ابنه من مكان إذا كان المؤلف الذي خرج عليه غير لأنه كان من الأشياء الفنية في المعهد أو الفن. 29

وكتبة الأسم هنا تكون بذكر اسم المؤلف باسم عائليه وقافة الأدبي أو العلمي وذكر مؤهلاته العلمية والجامعية وكذلك نشر الأسماء للضعفاء وشهرين في هذا التأثير الأدبي، ويجب أن يذكر المؤلف نفسه على سبيل المثال، كلام السنهوري، المرجع السابق، ص 415 ود. عبد المنعم فرج الصيدي، حق المؤلف في القانون المصري، محاضرات مطبوعة، عام 1967 معهد الدراسات العربية ص 44 ونافذ كنعان، المصنف السابق، ص 104 ونافذ رقم 2.

جدير بالذكر أن العديد من البرامج الإذاعية والتلفزيونية حالياً تقوم على فكرة أداء بعض الأغاني لمطربين وفنانين في شكل سببي، ولذا نجد على منتجي مثل هذه البرامج وقبل نشر هذه الأغاني ذكر اسم المؤلف لها وأسند كلامكناها وعلمناها قبل العرض العلني لها كل ذلك تحت طاقة المسؤولية.

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كما يقصد بحق المؤلف في نسبة المصنف اليه ، دفع أي اعتداء على المؤلف سواء اكان هذا الاعتداء على شكل تحوير أو اقتباس أو تحريف أو غير ذلك ، وهذا يعني أنه وحتى عندما يتم الاتفاق مع المؤلف على تحوير أو تحريف أو اقتباس مصنفه ، أو تغيير لونه الفني من نص مكتوب مثلاً إلى مسرحية أو فكرة إذاعية بنيقة من حق المؤلف أن يذكر اسمه ونسبة المصنف إليه حتى بعد التحوير أو التغيير .

وحتى في إطار ترجمة المصنف وما قد يتعرض له من تحوير أو حذف أو تغيير ، فإن القانون الإماراتي لا يقر هذا التحوير أو التغيير حتى ولو كان في إطار عملية ترجمة للمصنف إلا على سبيل الاستثناء وحال توفر الشروط التالية :

1- أن يشار صراحة إلى موضع الحذف أو التغيير .
2- أن تتضمن هذه الترجمة المحوربة عن سمعة المؤلف أو مكانته الأدبية أو الفنيه .

كما يقصد به أيضاً حق المؤلف في دفع أي اعتداء على اسمه سواء الحقيقي أو المستعار أو المختلق سواء كان هذا الاعتداء على شكل تحوير اسم المؤلف ، أو على شكل تمثيل شخص آخر وإدعائه رمزياً بأنه مملوكة المصنف مثلاً.

ومع ذلك يلزم الجميع باحترام نسبة المصنف إليه ، كما يلزم الجميع باحترام هذا الحق في جميع الحالات سواء تم نشر المصنف بحالته التي انتهاها المؤلف أو تم إبداعه بعد إجراء تحوير أو تحريف أو تعديل أو اقتباس له .

ولقد احترم القضاء المصري هذا الحق وارسأ دعائمه من خلال قضية مهمة أخذت شهرة كبيرة وهي قضية مسرحية (شاهد ما شافش حاجه ) والتي تتعلق وقائعها في مؤلفين تقدم إلى هيئة الإذاعة المصرية بـ "سكتش مكتوب" لمسرة إذاعية تحت عنوان "حكاية الأرنب سفروت " التي تتحدث عن شخص بناء على برنامج الأطفال ايهم بخيل جاويته ولكنه وبعد إجراءات التحقيق تم إعلان براءته من هذه الاتهام ، وسجود رضيعه ونسبة أو آخر ثم إلغاء كفرة هذا الـ "سكتش " حيث ملهم به أحد المنتجين الفنيين الذي قال على الفور بتنفيذهم على ختام المسح تحت عنوان "مسرحية شاهد ما شافش حاجة " بعد أن حصلوا بالطبع على ترخيص بذلك من أصحاب هذا الـ "سكتش " الذين تأملوا كثيراً وحلموا بالشهرة ، والأن تنافسوا على هذه المسرحية وإن الاسم الوحيد المعلن عنه هو اسم الفنان " عادل إمام " فالمهارة التي أثار حفيظتهم وقاموا بها مخالفة الشركة المنتجة لملالتهم بالتعويض عن الفضول الذي لحق بهما من وراء هذا التجلاء ، فكان لهم ما أرادوا فعلكتهم لهم المحكمة حيث التقنت للفضول وكباد الشركة المنتجة من أن المدينين لم يبقوا عندما قاما بتأريخ الشركة (المدعى عليها ) ولم يشرطو عليها وضع أسهمهم على الاعلانات ووسائل الدعاية الخاصة بهذه المسرحية ، فكان رد المحكمة بليغاً وقوياً حيث

انظر في تفاصيل هذين الصورتين من صور الاعتداء على المصنف ، نواف كنعان ، المرجع السابق ، ص 108 و109.

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أشارت إلى أن الحق في نسبة المصنف إلى مؤلفه هو حق غير قابل للتنازل عنه وواجبه الاحترام ولو لم يتفق على احترامه 34.

3. حق السحب أو الندم

وفقًا لما جاء في التشريعات والقوانين المقارنة، فإن هذه الحقوق تتعلق بالحقوق الأدبية، ويتمثل ذلك في التخلص من النشر بأي طريقة، سواء عبر التنازل أو التبرع أو الإزالة. ويظل الفاعل الأصلي هو المؤلف، حيث يحق له التخلص من المشاركة في النشر أو الترويج للنشر. وهذا يعني أن الفاعل الأصلي هو المؤلف، حيث يحق له التخلص من المشاركة في النشر أو الترويج للنشر.

وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما جار في التشريعات والقوانين المقارنة. فانه يجوز للمؤلف في حالة ظهور أسباب جدية وخطيرة وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما هو ثابت في التشريعات المتصلة بهذا الموضوع، يجب أن تتناول هذه الحقوق من خلال توافر الأسباب الجدية وخطيرة، وفقاً لما هو ثابت في التشريعات المتصل
دون تعديل سبباً في التأثير السلبي على سمعة واعتبار المؤلف، وهي تحتاج إلى تدخل قضائي لقبولها وإقرارها، كما تحتاج إلى تعويض المتضرر منها إذا كان ذلك سبيل أو مبرر.

التعديل من قبل الغير: فهو ذلك التعديل الذي قد يتم من قبل الناشر أو المنتج أو المترجم أو من آلت إليه حقوق النشر بموجب عقد أو ترخيص له ذلك من قبل المؤلف، ووفقًا لقواعد العمل العامة فإن مثل هذه الاستثناءات غير ممكنة من حيث الفصل 37 من قانون المؤلف الذي ي diálogo غيره، ولكنه يتم قبل ذلك التعديل على الأصل بعد التعديل.

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بقاء هذا المصنف متاحاً للجمهور قد يؤدي إلى المساس بسمعته أو اعتباره الاجتماعي أو مركزه الاجتماعي أو أنه لم يعد متطابقاً مع معتقداته، فيعد إلى سحبه من التداول ممراً عن ندمه على ما ورد في مصنفه.

وممارسة الحق في الندم شروط لا بد من توفرها حتى لا يكون المصنف نبضه يثير مراعاة، ثم بعد فتحه وقيناً بشاء، حينئذًا، نود أن يثبت بعض من الشروط في استعمال هذا الحق.

أما هذه الشروط فهي:

1. إيجاد أسباب طارئة بعد نشر المصنف وقاهرة تدعو لسحب المصنف من التداول: وعلى الرغم من التشريعات المختلفة التي تقرر هذا الحق لم تحدد على وجه صريح هذه الأسباب إلا أنها تعتقد أن هذه الأسباب يجب أن تكون خطيرة وقاهرة تبرر سحب المصنف من التداول، كأن يكون المصنف تم نشره بناء على نظرية علمية معينة ثم تثبت العلم فشل هذه النظرية وبالتالي لا يكون لهذا المصنف أي معنى من البقاء في التداول، فيقوم المؤلف بسحبه احتراماً لنفسه وسمعته، احتراماً للعلم، احتراماً وتقديرًا للأعمال المهمتين.

2. أن يكون المصنف مطروحاً للتداول ومتاحاً للجمهور وقت السحب أو الندم: وهنا نفرق بين معنى السحب أو الندم ومعنى المصنف، فالعدل يعني حق المؤلف في الالتفات عن موضوع نشر المصنف قبل طرحه للتداول، بينما يعني السحب أو الندم حق المؤلف في العدل عن المصنف بعد نشره وتاحاته للجمهور وإعلانه عليه مدة فيزد. وقد يبدو أن هذا الشرط لا يثير أي مشكلة فيما يتعلق بسحب المصنفات من التداول، إذ قد يعتقد البعض بناءً على الأمر في منتهي اليسر والسهولة، حيث كما تم طرح المصنف للتداول يتم سحبه، إلا أن الأمر ليس كذلك خصوصاً في نوعية معينة من المصنفات التي يصعب فيها تحديد ما هو السحب، وكيف أن يكون السحب من إعداد صفة التداول، وذلك لأن أيلم المصنف إلى نشاط واحد دون أن يكون متداولًا لا يبرر سحبه من المشترك، لأن القانون لا يعترف بحق السحب إلا إذا كان المصنف متداولًا بين أكثر من شخص. ويدق الأمر بالنسبة لهذا الشرط في تحديد معنى التداول في بعض المصنفات. بينما يرى البعض الآخر، في ذلك الشرط في تحديد المعنى التداول، ويدق أنه إذا كان المصنف تمثالًا أو صورة فنية مثلًا، فإن حق الفنان في الطلب عليه من المشتري ويرد إليه الثمن الذي تقفاه منه.

3. تعويض أصحاب الحقوق المرتبة لهم على المصنف تعويضاً عادلاً: إذا ارتبطت المصنف بأي شخص أو مجموعة لجهد في التحقيق بحقه. إلا أنه يراد أن يسبرح هذا المصنف من التداول بناء على الإسباب السابقة، فإنه يكون ملزمًا بموجب كل من ذلك إليه حقوق الانتفاع من المصنف بتعويضه التعويض المطلوز في المصنف بناءً على الأدلة والتحديث والمواطن الذي يجعله من وراء عملية السحب هذه، أنه يقوم بوقي طلب خسائره بالموضوع المحتوي، وبałem، نظر د. سهيل الفتلاوي، حقوق المؤلف المعنوية في القانون العراقي، دراسة مقارنة، دار الحرية للطباعة، بغداد طب. عام 1978، ص. 145 وما بعده.

الننشر السهوري، المرجع السابق، ص. 220.
المالية التي تكبدها الناشر في سبيل الإعلان والدعاية عن المصنف ومقدار الكسب الذي ضاع عليه ، ويقوم بدفعها للناشر على سبيل التعويض عن هذا السحب .

ولقد تناول القانون الإماراتي الحق في التغيير في التدابير كما تناول أيضاً الحق في التغيير في الندم ، في متن المادة 5 / 4 ، والتي تنص على " يتمتع المؤلف بحقه العام بحقوق أدبية غير قابلة للتقليل أو التنازل عن المصنف وتشمل هذه الحقوق ما يلي : 4 - الحق في سحب مصنفه من التداول إذا طرأت أسباب جدية تبرر ذلك ، ويباشر هذا الحق عن طريق المحكمة المختصة ، مع الزامه بأن يدفع تعويضاً عادلاً مقدماً إلى من آلت إليه حقوق الاستغلال المالية وذلك في الأجل الذي تحدد المحكمة وقبل تنفيذ الحكم بالسحب ، وإلا زال كل أثر لحكم . 

وفقاً لهذه المادة لا بد من التفريق بين حالتين:

الأولى: إذا تصرف المؤلف بمصنفه للغير ، وهنا لا بد من الاتفاق معه إذا ما أراد سحبه من التداول أو تعديله ، وفي حالة عدم الاتفاق يتم التزام المؤلف بتعويض من آلت إليه حقوق الاستغلال المالية للمصنف على أن يكون هذا التعويض عادلاً وفقاً لما تقرر لجنة المختصة بالنظر في المخالفات الناتجة عن القانون الإماراتي لحماية حق المؤلف .

الثانية: إذا لم يكن المؤلف قد تصرف بمصنفه للغير ، وهنا يكون للمؤلف مطلق الحرية في سحب مصنفه من التداول دون قيود أو محددات .

والملاحظ على موقف المشرع الإماراتي في هذا الصدد أنه:
- لم يربط حق المؤلف في تعديل مصنفه ولا حتى بموجب من التداول بوفرة شروط أو ظروف قاهرة تبرر له ممارسة كلا الحقوق ، حيث جاءت المادة 5 من القانون الإماراتي خاصة من بيان أو تحديد لشروط ممارسة هذين الحقوق خلافاً لما تقرر له أولاً مرفقاً لموقف التشريعات الأخرى والعديد من التشريعات الجغرافية، حيث جاءت النص المادة 5 عاماً وتمتد بالتالي.

ووفقاً للقواعد العامة يجري النص المطلق على إطلاقه طالما لم يرد ما يقيده .

أن التزام المؤلف وفقاً للقانون الإماراتي بتعويض المذكور له باستغلال المصنف يكون سواء قام بسحب مصنفه من التداول للتعديل أو للندم في جميع الأحوال ، سواء كان متضمناً على هذا التعديل أو السحب مع المرخص له باستغلال المصنف أم لم يفق.

ويعتبر هذا الاستثناء بالمميزات التالية:

3. مظاهر الحقوق المالية

وتتمثل هذه المظاهر والاستثناء ، حيث تسمح الحقوق المالية للمؤلف باستئثاره لحق استغلال مصنفه كيفما يشاء ، وقابل أن ينير ما هو مضمون هذه الاستثناء ، لا بد من بيان مميزاته .

أولاً: مميزات الاستثناء المنفي للمؤلف على مصنفه

ويتضح هذا الاستثناء بالمميزات التالية:

1- أنه استثناء قابل للتقليل عليه: يعني أن المؤلف يمكنه التصرف فيه للغير سواء كان ذلك بمقابل نسبي أو جزافي أو كان بدون مقابل ، كل ما هناك ووجب أن يكون هذا التصرف مكتوب ، حيث تنص المادة 9 من القانون الإماراتي على
إمكانية التصرف للغير بالحقوق المالية الخاصة

بالمؤلف شريطة أن يكون هذا التصرف مكتوباً، بمعنى أن الكتابة هنا ليست شرطاً للإثبات فقط بل هي شرط للاعتراف أيضاً، وشريطة أن يحدد في اتفاق نقل الحق المالي من المؤلف للمكتوب ويكوب صراحة نوع الحق محل الانتقال وكذلك مدة ومكان الاستغلال والعرض منه.

ووفقاً للاحكام القانون الإماراتي يكون التنازل عن استحقاقه المالي على مصنفه إما بطريق الإرث الشرعي أي لورثته بموجب أحكام الميراث أو العقيدة، واما بطريق التصرف القانوني كعقد النشر أو عقد التوزيع أو عقد الأداء العلني.

وقد استثنيت المشرع الإماراتي من الحقوق القابلة للتنازل أو الانتقال لورثة المؤلف بعد وفاته الا الحق في التحويل أو السحب على اعتبار أنها من قبيل الحقوق التصرفية الشخصية للمؤلف التي لا يجب التنازل عنها بالمرة وفقاً لما سبق لنا بيانه.

ومعنى هذا اشتراط المشرع الإماراتي على الورثة عندما يؤول إليهم حقوق مورثهم على مصنفه بضرورة التقيد بالوصية التي يكون المؤلف قد تركها والالتزام ببعض مصطلحات مثل أو حدود لهذا التصرف.

وعلاوةً على ذلك يضمن المشرع الإمارتي على الورثة عند التنازل عن حقوقهم على مصنف المؤلف أيضاً إجراءات واتخاذ مقترحات كافية للإثبات.

ومعنى هذا اشتراط المشرع الإماراتي على ورثة المؤلف أيضاً إجراءات واتخاذ بكافة العقود التي أبرمها مورثهم في حياته المتعلقة بالمصنف وكل ما فيها من حقوق والتزامات.

ويقرر المشرع الإمارتي في هذا السياق حكماً يتعلق في الحالة التي يكون فيها المصنف عملاً فردياً وتوفر صاحبه أو عمله مؤشر تواتر أحد المؤلفين له، ولم يكن هناك وارث للمؤلف المنفرد أو للمؤلف المشترك في تحقيق المصنف، فإن نصيبه يؤول إلى من يحققه وفقاً لأحكام الشريعة الإسلامية.

وجملةً فعلاً اعتبرت المشرع الإمارتي عندما نظم الحالة التي قد يظهر فيها أو يتبين فيها بعد التنازل عن حق الاستغلال للمصنف من قبل المؤلف أن الاتفاق على هذا التنازل جاء ماجوها بحق المؤلف أو أنه كان مقبولًا ثم أصبح مجحفًا لظروف مطرات بعد التعاقد والاتفاق، ولهذا يكون للمؤلف أو خلفه أن يلجأ إلى المحكمة المختصة بطلب إلغاء الاتفاق في قيمة الانتقال عليه مع مراعاة حقوق المتنازل ومعهم الاشتراك به، وبالتالي ترى أن الشروط الإمارتي رفع من سقف الحماية المقررة للمصنف خصوصاً ذلك المصنف أو المبتكر الجديد والذي غالبًا ما يتعرض في أول حياته الأدبية أو الفنية للاحتجاج أو على الأقل لا يقدر نفسه جيداً بالنسبة لقيمة العائد من استغلال مصنفه.

وقد استثناي القانون الإمارتي بموجب مايلي في حالة المصنف في حالة أنه استمر في حياة المؤلف وخمسين سنة بعد وفاته، إلا أن هذا الأصل ترد عليه الاستثناءات التالية:

أ. حالات تخفيف فيها مدة الاستغلال: يقرر القانون الإمارتي احتساب مدة الاستغلال القانونية للمصنفات اعتباراً من تاريخ نشرها أو انتشالها حتى ولو كانت محتلة أو ممثورة تحت اسم مستعار أو بدون اسم بالمرة وكذلك المصنفات الجماعية التي يكون المؤلف فيها شخصة اعتباراً إذا لم يكون المؤلف فيها شخصًا طبيعةً لطبيقاً القاعدة العامة في احتساب مدة الاستغلال.

واضعفي بعض الاعتبار أن المصنف نفسه وهو مصنف متفرغ أو مصنف مشترك أو مصنف مجتمعي.

2. أنه استثناي موقت: يعني أن الحماية النظامية للحق المالي للمصنف تستمر في لدعته معينة فقط و هي كأصل عام محدد بعدة حياة المصنف وخمسين سنة بعد وفاته، إلا أن هذا الأصل ترد عليه الاستثناءات التالية:

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بعد أن قضى هذا المدة يؤول المصنف إلى الملك العام أو ما يعرف بالدومن العام وهو ما يعني إن استغلل ذلك المصنف بمجرد حجة إلى إذن خليفه من خليف المؤلف، وفاضل رقم 121، المجلد الأول، للدوري العلمي، مرجع سابق، ص 595.
ويتم هذا احتساب مدة الحماية طبقاً للقواعد العامة إذا أضحى المؤلف صاحب الأسم المستعار أو المجهول عن حقيقته، كما تطبق القواعد العامة على المصنفات الجماعية التي يكون مؤلفها شخصياً من حيث تلبية الحاجة من احتساب المدة من تاريخ النشر أو الإذاعة، إذا اتبع المؤلف قاعدة النشر بعد إلغائها أو إعاقتها.

وطبقاً لقانون الإماراتي أيضاً يتم احتساب مدة الحماية من تاريخ أول نشر أو إذاعة للمصنف بغض النظر عن إعادة النشر أو الإذاعة إذا ادخل المؤلف تعديلات جوهرية على الصنف بحيث يمكن اعتباره مصنفاً جديداً، وفي حالة أن كان المصنف يتكون من عدة إجزاء من عدة مجلدات متناورة أو على قطع فإن كل جزء أو مجلد يعد مصنفاً مستقلًا عند احتساب مدة الحماية.

ويقرر القانون الإماراتي كقاعدة عامة مدة حماية واحدة لجميع المصنفات وهي مدة حياة المؤلف وهى مناسبة.

ب - حالات تمتد فيها مدة الحماية: وهي حالة واحدة تمثل فيها علاج مصنف، وهو منظم عام يطبق على كل من المصنفات السمعية والمصنفات البصرية والمصنفات السمعية البصرية، والإعلام، وكذلك المصنفات الجماعية، ومصنفات الجامعات، ومصنفات الحاسب الآلي، ومنتجات التسجيلات السمعية والمعروضة، وعلى الرغم من وجود هذا الأصل العام إلا أن القانون الإماراتي يقرر لبعض المصنفات مدة على النحو التالي:

1. - مصنفات الفنون التطبيقية والمصنفات الحاضرة، يحدد لها القانون مدة 25 سنة من تاريخ أول نشر أو إتاحة بغض النظر عن إعادة النشر أو الإذاعة. (المادة 20/5).

2. - مصنفات الإذاعة يقرر لها النظام مدة 20 سنة من تاريخ أول إذاعة. (المادة 20/9). إتاحة بعض النظرة عن إعادة النشر أو الإذاعة.

3. - أنه استثناء قابل للحجز عليه: حيث يجوز نظامياً أن يتم إيقاع الحجز على نسخ المصنف المشتركة خلال حياة المؤلف أو بعد وفاته، بحيث يكون الحق المالي للمؤلف على المصنفات المشتركة والمنافحة للذات ووها محااً للحجز.

أما المصنفات غير المشتركة فلا يجوز الحجز عليها، وعند توقيع المؤلف قبل نشرها فلا يجوز الحجز عليها كذلك إلا إذا اتبعت بالدليل القطعي أن المصنف المشتركة كان يجري بشكل معتقل هذا المصنف ملكاً للجميع.

4. - أنه استثناء تقديري: يعني أن الحق المالي للمصنف يرجع للمؤلف، ويكفي النص في نظام إلا إذا أضحى المؤلف، وهو متعلق بالمصنفات المشتركة خلال حياة المؤلف أو بعد وفاته، بحيث يكون الحق المالي للمؤلف على المصنفات المشتركة والمنافحة للذات وهذا محااً للحجز.

5. - استثناء جائز أن يكون محااً للحجز على المصنف، وهو جائز للمؤلف، وهو متعلق بالمصنفات المشتركة خلال حياة المؤلف أو بعد وفاته، بحيث يكون الحق المالي للمؤلف على المصنفات المشتركة والمنافحة للذات.

6. - إذا لم توفر نسخ من المصنف المشتركة بلغة الأصلية في الدولة من قبل صاحب الحقوق، فإن الوضع يختلف بشكل كبير من حيث أن يكون للمؤلف حق إيجابي لإستغلال المصنف.

هذه المادة تمتلك المادة 3/4 من الاتفاقية بيرن والاتفاقية العربية لحماية حقوق المؤلف واحكام قانون تونس النموذجي.
بـ إذا نفدت جميع الطبعات للمصنف الأصلي أو ترجمته إلى اللغة العربية دون أن يقومصاحب الحق بتوفير المصنف بعد الطلب منه.

جـ إذا لم تنشر ترجمة لهذا المصنف بواسطة صاحب حق الترجمة أو تصريح منه، على أن يكون الغرض الاستفادة من هذه الترجمة في المناهج التعليمية.

دـ إذا امتهن ورثة المؤلف الإماراتي أو من يخلفه عن ممارسة الحقوق التي انتقلت له، وذلك خلال سنة من تاريخ الطلب، إذا لم يكن لديهم عذر مقبول.

ثانياً: مضمون الاستئثار المالي للمؤلف على مصنفه

بمنح القانون الإماراتي لحماية حق المصنف حقوقاً مالية للمؤلف على مصنفه، يتضمن بما يلي:

- طبع المصنف ونشره على شكل مقروء أو تسجيله على أشرطة مسموعة أو مرئية أو أسطونات مدمجة، أو ذاكرة الالكترونية، أو غير ذلك من وسائل النشر.
- ترجمة المصنف إلى لغات أخرى، أو اقتباسه أو تحويره أو إعادة توزيع المادة المسموعة أو المرئية.
- نقل المصنف إلى الجمهور بأي وسيلة ممكّنة، مثل العرض أو التمثيل أو البث الإذاعي أو غير شبكات المعلومات.
- جميع أشكال الاستغلال المادي للمصنف بوجه عام بما في ذلك التأجير التجاري المسموح به.

ووفقًا لما تقدم نجد أن المشرع الإماراتي قد وسع من نطاق الحقوق المالية للمؤلف الواردة على مصنفه، من خلال منحه الحق في الطباعة والنشر، والحق في الترجمة والتحوير والاقتباس، والحق في نقل مصنفه إلى الجمهور بأي وسيلة ممكّنة وهو ما يعرف بحق الأداء العلني، وأخيراً الحق في استغلال مصنفه تجارياً كتأجيره.

عليماً بأن المشرع الإماراتي سمح في منح تراخيص الزامية في مجال حق المؤلف في حالة عدم تمكن المصنف وصاحب الحق الأصيل في استغلال مصنفه من القيام بهذا الاستغلال، إلا ان هذه التراخيص الزامية وعلى الرغم من أن المشرع الإماراتي قد سمح بها إلا أنه ربطها بالعديد من الضوابط.
قراءة القوائم المالية وفق معايير المحاسبة الدولية

بوكصيصة سهيلة خيرة
المدرسة التحضيرية للعلوم الاقتصادية و التجارية و علوم التسيير - الجزائر

المالك

تسعى المعلومات المحاسبية بموجب المعايير المحاسبية الدولية للاستجابة إلى قضايا عديدة. مثل: "ما هي القيمة الحقيقية لأصول الشركة؟" (لم يكن بالإمكان الإجابة على هذا الأشكل في ظل تطبيق مبدأ التكلفة التاريخية ) و"ما هي الوضعية الحقيقية لخزينة الشركة ؟" (تقدم جدول تدفقات الخزينة إجابة على هذا الأشكل) أو "ما هي الثروة الحقيقية للمساهمين ؟" (جدول تغيرات عناصر رؤوس الأموال يمنح إجابة على ذلك).

المعايير المحاسبية الدولية تسمح بالإجابة على هذا النوع من الإشكالات من ناحية, و من ناحية أخرى, تمكن المحللين الماليين من التكلم بلغة مشتركة و بذلك تسهيل التحليل المالي و المقارنة بين الشركات.

هدف من معايير المحاسبة الدولية كذلك هو الانتقال من رؤية قانونية للشركة إلى رؤية اقتصادية. و تقديم تقارير مالية عالية الجودة و مفهومة و مقبولة عالميا و جعلها أكثر شفافية.

و لتحقيق هذه الشفافية, قرر مجلس معايير المحاسبة الدولية الحد من الخيارات المحاسبية, حتى يمكن إنتاج معلومات موثوق بها تستند إلى أسس ثابتة تضمن إلى حد أبعد إمكانية إجراء مقارنات بين الشركات المماثلة و كذلك إعلام المستثمرين المحتملين لمستخدماتهم في اختيار قرارات بخصوص مدى جدوى الاستثمار في المشروع. يتم بذلك الانتقال من منطق المحاسبة إلى منطق المعلومات المالية (أو التقارير المالية).

أصبحت إذن المعلومات المنشورة أكثر عددا و القوائم المالية الواجب الإفصاح عنها يجب أن تتضمن:

- قائمة المركز المالي (الميزانية)
- قائمة الدخل (جدول حسابات النتائج)
- قائمة التدفقات النقدية (جدول تدفقات الخزينة)
- قائمة حقوق المساهمين (جدول تغيرات عناصر رؤوس الأموال)

إشكالية البحث

يمكننا أن نتساءل عن إذا ما كانت المرجعية الدولية تسمح بتقديم قوائم مالية شفافة تعكس صورة صادقة للحالة المالية للمنشأ.

خصوصا مع زيادة المعلومات الواجب تقديمها و نظرا ل:

- تحديد الخيارات المحاسبية
- إدخال مفهوم القيمة العادلة التي من المفترض أن تقرب القيم المحاسبية إلى القيم الحقيقية أو السوقية.

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أهداف البحث

يهدف هذا البحث بصورة أساسية إلى:
1- التعرف على مفهوم وطبيعة وأهداف المعلومات المحاسبية المقدمة وفق المعايير المحاسبية الدولية.
2- التعرف على أهداف ومستخدمي القوائم المالية الواجب الإفصاح عنها حسب المعايير المحاسبية الدولية.
3- تحديد أهم المعلومات المحاسبية المنشورة في القوائم المالية.
4- التعرف على شكل ومضمون القوائم المالية.

منهج البحث

يعتمد البحث على استعمال النهج الوصفي التحليلي الذي يعتمد على جمع تحليل وتفسير المعلومات المتوفرة في بعض المراجع والمصادر المتعلقة بمعايير المحاسبة الدولية وتحليل عناصر القوائم المالية واستخلاص النتائج المتعلقة بجودة التقارير المالية المعدة وفق معايير المحاسبة الدولية.

خطة البحث

من أجل تحقيق أهداف البحث فقد تم تقسيم البحث إلى ثلاثة مناقشات:
المبحث الأول: خصائص المعلومات المحاسبية.
المبحث الثاني: مستخدمي القوائم المالية وأهدافها.
المبحث الثالث: عرض القوائم المالية وفق معايير المحاسبة الدولية.
المبحث الثالث: الإفصاح وقياس المحاسبي.

الكلمات الدليلية: القوائم المالية، التقارير المالية، قائمة المركز المالي، قائمة الدخل، معايير المحاسبة الدولية

مقدمة

كثرت الشركات متعددة الجنسيات والاستثمارات الأجنبية وتزايد تأثير العولمة على الاقتصاديات المحلية مما أدى إلى تزايد الحاجة إلى التنسيق بين المعايير المحاسبية المعمول بها على المستوى المحلي والمعايير الدولية.

إن وجود معايير محاسبية خاصة بكل دولة قد ساهم كثيرا في عرقلة حركة رأس المال بين الدول وهذا ما أدى إلى الحاجة لرجعية محاسبية دولية مشتركة.


ومن جهة أخرى، فقد تبين كذلك أن جودة التقارير المالية لا تعتمد على المرجعية الدولية فقط ولكن أيضا على كيفية تفسيرها وتطبيقها. و بعبارة أخرى على العوامل الاقتصادية، القانونية، والسياسية في البلدان التي يتم فيها إعداد التقارير المالية.

تلعب هذه القوائم المالية دورا هاما و جوهريا باعتبارها مركز اقتصادي يهتم للمعلومات و التقارير المالية، و لهذا الغرض، فإنها التي تعتبر من خلال هذا البحث نموذج قياس للقيمة المالية الواجب الإفصاح عنها وفق المعايير المحاسبية الدولية. و قبل التطرق إلى ذلك يفترض أولا تحديد مفهوم جودة التقارير المالية.

المبحث الأول: خصائص المعلومات المحاسبية

تعتبر المعلومات المحاسبية المخرجات الرئيسية للنظام المحاسبي، حيث أن البيانات التي يتم تجميعها و من ثم إخراجها في القوائم المالية تمثل الإبلاغ المالي لجميع العمليات التي قامت بها المؤسسة خلال فترة زمنية معينة.

يمكن تعريف المعلومات المحاسبية ككل المعلومات الكمية و غير الكمية التي تتضمن الأحداث الاقتصادية التي يتم ملاحظتها وتخزينها بواسطة نظام المعلومات المحاسبية في القوائم المالية المقدمة للجهات الخارجية، و في خطط التشغيل، و التقارير المستخدمة.

داخليا (الحيوي، 2003). الهدف العام من المعلومات المحاسبية هو توفير المعلومات المفيدة للمسائل، و المقرضين، و المودعين، و المحتملين لغرض اتخاذ قراراتهم بصفتهم مصدرا ثروة بالنسبة للمؤسسة. هذه القرارات تمثل في الشراء، البيع.

الاحتياط باستثمارات أو بيعها الحصول على قرض أو تسديد...

تختلف نوعية المعلومات المحاسبية بتبنيهدف من إنتاجها، و ذلك نوع القوائم المراد اتخاذها سواء كان ذلك داخليا أو خارجيا. تتمثل المعلومات الأدارية المرتبطة لإدارة أي مشروع اقتصادي، كما تأثر بصورة وصل وتنسيق بين المؤسسات و فروعها، و تعتبر وسيلة اتصال بين المؤسسة و مستخدمي المعلومات عند اتخاذ القرارات. إذ أن جودة أي قرار يتم إتخاذها يعتمد على جودة المعلومات المحاسبية المقدمة من خلال التقارير المالية.

إن المعلومات المحاسبية الجيدة هي تلك المعلومات الأكثر فائدة و صلاحية في مجال ترشيد القرارات. و في هذا السياق، قامت لجنة معايير المحاسبة الدولية بتوضيح الخصائص التي تتناسب بها المعلومات المحاسبية المفيدة يعني العناصر الرئيسية التي تحدد جودة المعلومات المحاسبية، وصنفتها اللجنة إلى:

- الخصائص النوعية الرئيسية

تحدد الخصائص النوعية للمعلومات المحاسبية الصفات الواجب توفرها في المعلومات المحاسبية المقدمة في القوائم المالية حتى تكون ذات جودة و مفيدة لمستخدميها، و تمثل في المعلومات، و الموثوقية، و الإصلاحية.

الملازمة: تعني البيانات إذا كانت لها تأثير على القرارات الاقتصادية المتخذة من طرف مستخدميها، المعلومات المحاسبية (Obert).

الملازمة هي معالجة بإمكانها التأثير على اتخاذ القرارات في حالة ما إذا كانت لديها قيمة تنبؤية، أو قيمة مؤكدة، أو الاثنين معا.
و تعتبر الملائمة أهم الصفات الواجب توفرها في المعلومات المحاسبية و عرفتها لجنة المعايير المحاسبية بأنها "المعلومات التي يجب أن تكون ملائمة لحاجات صناع القرارات. و تمتلك المعلومات خصائص الملائمة عندما تؤثر على القرارات الاقتصادية للمستخدمين، بمساعدهم في تقييم الأحداث الماضية والحاضرة والمستقبلية أو عندما تؤكد أو تصحيح تقييماتهم الماضية (المعايير المحاسبية الدولية الصادرة عن لجنة المعايير الدولية، 2011، صفحة 45). معنى آخر أن تكون المعلومات ذات علامة بالموضوع أو المشكلة المراد اتخاذ قرار بشأنها.

الموثوقية (الاعتمادية أو التمثيل الصادق): يتيقن المخططة موثوقية فيها يجب أن تمت بصدق العمليات و غيرها من الأحداث التي تمت الدالة على أنها موثوقة (الإطار الفكري لإعداد و عرض البيانات المالية 1989، صفحة 13). المعلومات الموثوقة خالية من الأخطاء المادية و التحيز و يمكن أن تساعدها مستخدمها و أصحاب القرارات يكون لها تأثير على صدق الأحداث الاقتصادية. و تساهم العوامل التالية في الموثوقية (جريوننج 2006):

- العرض الصادق
- تغلب المضمون الاقتصادي على الشكل القانوني
- الحضن (الحيطة و الحدر)
- الاكتتمال
-生产和steadiness

الخصائص النوعية الثانوية

الإطار الفكري لإعداد و عرض البيانات المالية يحدد خصائص ثانوية للمعلومات المحاسبية، وهي:

1- قابلية الفهم: يجب أن تكون المعلومات سهلة الفهم من طرف المستخدمين، لذلك يجب أن تكون المعلومات المحاسبية بسيطة و تغليب المضمون الاقتصادي على الشكل القانوني و تحفظ (الحيطة و الحدر) و الاكتتمال.

2- الامتنانية النسبية: تعتبر المعلومات هامة نسبيا إذا كان لحذفها أو تحريفها تأثير على القرارات الاقتصادية التي يتخذها المستخدمون اعتناصا على البيانات المالية (الإطار الفكري لإعداد و عرض البيانات المالية 1989).

4- التحقق من المعلومات: يجب أن تكون المعلومات المحاسبية في الوقت المناسب و أن تكون تدفق كافية و تأكد من أن تكون المعلومات صورية و ملائمة. ولا يمكن التقرير عن حدث إلا عند وقوعه و أن ذلك يؤثر سلبا على القالمة في المعلومات و الإمكانية الاعتماد عليها. و يعني أن تتجاوز منفعة المعلومات كثافة، توفرها و توفرها.

5- الملاحة بين الخصائص النوعية: يجب تحقيق توازن مناسبا بين الخصائص النوعية للمعلومات من أجل تحقيق أهداف القوانين المالية و جعلها كافية و ملائمة لاستخدامها.
تمثل مجموعة التقارير والقرارات المالية مخرجات النظام المحاسبي للمعلومات في أي وحدة اقتصادية وتتمثل خلاصة لكل ما قامت به المنشأة من عمليات تجارية صناعية وأخرى. تعتبر التقارير المالية من أهم مصادر المعلومات وتوجه إلى فئات متعددة من مستخدمي البيانات المالية سواء كانت داخل المنشأة أو خارجها لمساعدتهم في اتخاذ قرارات عديدة.

المبحث الثاني: مستخدمي القوائم المالية وأهدافها

1- مستخدمي القوائم المالية:
هناك أطراف عديدة تهتم بالقوائم المالية والمعلومات المحاسبية التي تقدمها هذه التقارير سواء داخل المنشأة أو خارجها، وذلك لغرض اتخاذ قرارات اقتصادية متنوعة. وقد حدد الإطار الفكري لإعداد وعرض البيانات المالية عددًا من الفئات المستخدمة للبيانات المحاسبية وطبيعة المعلومات التي تحتاجها كل فئة على النحو التالي:

ا- المستثمرين الحاليين أو المتوقعين: يحتاج المستثمرون إلى المعلومات المحاسبية لاتخاذ قرارات بشأن مدى جدية الاستثمار في المنشأة أو قرارات أخرى تخص الاحتفاظ بالاستثمار أو بيعه.

ب- المالك أو المساهمون: تعتبر هذه الفئة أهم مستخدم للبيانات المالية بحيث تمكنهم من معرفة مدى نجاح مشروعهم وقردته على تحقيق الأرباح وتتمكنهم كذلك من قياس كفاءة إدارته.

ج- العاملين: يهتم العاملين بالعلومات المتعلقة بربحية المنشأة واحتياجها والاستمرار والامكانيات外科 البيانات التي تحتاجها كل فئة تستند عليها تولدهم وتأميم مستقبلهم.

د- المقرضين: يهتم المقرضون بقدرة المنشأة على تسديد قروضها بالفوائد المستحقة في الأجل المحدد.

ه- الموردوん الدائنين التجاريين الآخرين: تحتاج هذه الفئة إلى المعلومات المحاسبية لاتخاذ قرارات بشأن المشتريات أو السماح بها أو ما إذا كان من الضروري تغيير إدارة المنشأة.

و- العملاء: يهتم العملاء بشراء المنتجات والخدمات من المنشأة وفقاً للمعايير المتاحة.

ز- الجهات الحكومية: تحتاج الجهات الحكومية إلى المعلومات المحاسبية لتحديد سياساتها الضريبية والتحديض الضريبي وانشئتها الضريبية وتكفي من الداخل القومي ومدى مساهمة المنشأة في النمو الاقتصادي.

ر- الجمهور العام: يهتم الجمهور بفرص العمل التي توفرها المنشأة وانشئتها ومساهمة المنشأة في الخدمة العامة.

2- أهداف القوائم المالية:
القوائم المالية هي عبارة عن تقارير مالية محاسبية تحتوي على مجموعة من البيانات المالية التي تغطي فترة زمنية معينة. وقد ورد في الإطار الفكري الذي أعدته لجنة معايير المحاسبة الدولية للإعداد القوائم المالية أن القوائم المالية تهدف إلى:

- توفير معلومات حول المركز المالي للمشئه واحتياجاتها واحتياجاتها وأمّهوم.
- توفير معلومات حول المركز المالي للمشئه واحتياجاتها وأمّهوم.
- توفير معلومات عن قيم كفاءة الإدارة وانشئتها أما يستند المستثمرون إلى قيم كفاءة الإدارة وانشئتها أو الخطي عنها أو ما إذا كان من الضروري تغيير الإدارة.
- إعطاء صورة دقيقة وموضوعية فيما يتعلق بإمكانيات المنشأة والاحتياجات وانشئتها وأمّهوم.
- وقد تنص المعايير المحاسبية الدولية رقم 1 "عرض البيانات المالية" على عدة اقتراحات يجب تطبيقها منها في إعداد القوائم المالية. (الpiggy: القاضي وحمداة 2008)
- يجب أن تعرض القوائم المالية المركز المالي والأمّهوم المالية والانتقادات النقدية للمشئه بما يحقق الهدف في الغرض.
- الإفصاح في حالة إذا كانت القوائم المالية تنظم مع ما تقرر من معايير المحاسبة الدولية وتطبيق كل معيار يطبق عليها.
الإفصاح عن أي مخالفة لمتطلبات معايير المحاسبة الدولية و عرض الأثر المالي.

اختيار و تطبيق السياسات المحاسبية بما ينسجم مع متطلبات معايير المحاسبة الدولية.

يجب عرض كل بند مادي بشكل منفصل في القوائم المالية و تجميع البنود غير المادية مع المبالغ ذات الطبيعة أو الوظيفة المشابهة.

الإفصاح عن المعلومات المقارنة.

تحديد كل مكونات القوائم المالية بشكل واضح و صحيح بما فيها اسم المنتشأ. الصفة القانونية للمنتج. تاريخ القائمة.

المبحث الثالث: عرض القوائم المالية وفق المعايير المحاسبية الدولية

لقد حدد المعيار المحاسبي الدولي رقم 1 "عرض البيانات المالية" مكونات التقارير المالية كما يلي:

۱- قائمة المركز المالي (الميزانية): تعبر الميزانية عن أهم القوائم المالية التي ينتجها نظام المعلومات المحاسبي نظراً لأهمية البيانات المالية التي تحتوي قائمة المركز المالي أو الميزانية هي عبارة عن تقرير عن الحالة المالية للمنشأة في تاريخ معين. فهي تبين قائمة المركز المالي الوضعية المالية للمنشأة في تاريخ معين. وتتضمن ملخصاً لموجودات المنتشأ والمطالبات (التزاماتها) وحقوق الملكية.

۲- قائمة التغيرات في حقوق المساهمين (جدول تغيرات عناصر رأس المال الأموال): تعبر عن تغييرات حقوق المساهمين ومتطلبات المنتشأ.

۳- قائمة التدفقات النقدية (جدول تدفقات الخزينة): تعبر عن تدفقات المنتشأ.

۴- قائمة الدخل (جدول حسابات النتائج): تعبر عن النتائج المالية للمنشأة.

۵- قائمة المركز المالي الميزانية (ال平方米ية): تعبر عن الهيكل المالي للمنشأة ووضعها في تاريخ معين.

إضافة إلى ذلك يمكن إعداد مجموعات من الكشوفات التوضيحية تم من خلالها إعطاء توضيحات و تفسير للمعلومات المتضمنة في التقارير والقوائم المالية. يفترض عامة بوجوب إعداد التقارير المالية سنوياً، و إذا ماتغير هذا الأفتراض و أصبحت القوائم المالية تعدادها على أساس مخالف فان على المؤسسة الإفصاح عن أسباب ذلك التغيير.

1- قائمة المركز المالي الميزانية: تعبر الميزانية عن أهم القوائم المالية التي ينتجها نظام المعلومات المحاسبي نظراً لأهمية البيانات المالية التي تحتويها قائمة المركز المالي. الميزانية هي عبارة عن تقرير عن الحالة المالية للمنشأة في تاريخ معين. فهي تبين قائمة المركز المالي الوضعية المالية للمنشأة في تاريخ معين. وتتضمن ملخصاً لموجودات المنتشأ والمطالبات (التزاماتها) وحقوق الملكية.

أ- الموارد: هي موارد خاضعة لسيطرة المنتشأ نتيجة أحدات ماضية و يتوقع أن تدفقاتها الاقتصادية المستقبلية على المنتشأ.

ب- المطالبات: هي التزامات المنتشأ تجب أن يتطلب على الوفاء بها تدفقات خارجية من موارد المنتشأ. تتطلب تنفيذ تشريعاً اقتصادياً.

ج- حقوق الملكية: عبارة عن المبالغ الممكنة من موجودات المنتشأ بعد استيصال كافة مطالباتها.

و يمكن معرفة أهداف قائمة المركز المالي من خلال الأهداف التي تحفيز المستخدمين. و المتمثل في تصوير المركز المالي واقتصادي للمنشأة في حالة مناسبة. و منها بيان صافي لحقوق أصحاب الشروط من مساهمين و مستثمرين و غيرهم. و توفير معلومات عن موارد المنتشأ و التزاماتها التجاري المودعين والمقرضين و الدائنين. كما أنها تساهم في توفير معلومات تستخدم كأساس للاستثمار. (الكسيبي 2003).
كما تساهم الميزانية في توفير معلومات حول سيولة المنشأة و قدرتها على الوفاء بالالتزاماتها في الأجل القصير و الطويل و توفر معلومات تساعد في تقييم كفاءة الإدارة في استخدام الموارد المتاحة (الخلايلية 2004) و تتكون الميزانية من جوانبين. يمثل الجانب الأول أصول المنشأة (الموجودات) و يمثل الجانب الثاني خصوم المنشأة (المطالبات).

حسب المعيار المحاسبي الدولي رقم 1 المعايير التي يجب أن تعرض في الميزانية هي:

أ. الأصول الثابتة:

- الاستثمارات العقارية.
- الأصول غير ملموس.
- الأصول المالية (عدا العناصر المذكورة في البند د ح)
- الاستثمارات التي يتم المحاسبة عنها بتطبيق طريقة حقوق الملكية.
- الأصول البيولوجية (بالنسبة للمنشآت ذات النشاط الفلاحي).
- المخزون.
- العملاء و الدفائوت الأخرى.

ب. الأصول المتداولة:

- النقدية وما يعادلها.
- الديون الدائنة و غيرها.
- الديون للوقوعات (المخصصة).
- الأصول المالية (عدا المبالغ الموضحة).

- الديون المستحقة.
- الديون المؤجلة.
- رأس المال المصدر و الاحتياطات.

تقدم الميزانية حسب ما نص عليه المعيار المحاسبي الدولي رقم 1 وفق الشكل التالي:

<table>
<thead>
<tr>
<th>الأصول (الالتزامات و حقوق الملكية)</th>
<th>الحقوق غير متدولة</th>
</tr>
</thead>
<tbody>
<tr>
<td>حقوق الملكية</td>
<td>أصول متدولة</td>
</tr>
<tr>
<td>رأس المال</td>
<td>استثمارات ملموسه</td>
</tr>
<tr>
<td>الاحتكارات</td>
<td>استثمارات غير ملموسه</td>
</tr>
<tr>
<td>الأرباح</td>
<td>أصول ملموسه</td>
</tr>
<tr>
<td>خصوم غير متدولة</td>
<td>المخزون</td>
</tr>
<tr>
<td>قروض طويلة الأجل</td>
<td>العملاء و دم أخرى</td>
</tr>
<tr>
<td>مورونات طويلة الأجل</td>
<td>النقد</td>
</tr>
<tr>
<td>خصوم متدولة</td>
<td>المورونات والدائنون أخرى</td>
</tr>
<tr>
<td>مورونات قصيرة الأجل</td>
<td>قروض قصيرة الأجل</td>
</tr>
<tr>
<td>إجمالى الأصول</td>
<td>مورونات قصيرة الأجل</td>
</tr>
</tbody>
</table>

مفهوم الأصول: هي المفروضات الاقتصادية المحتملة التي تتحك فيها منشأة مغنية أو تحصل عليها نتيجة لمعاملات أو أحداث سابقة و يجب أن تتتوفر الخصائص التالية حتى يوصف البند على أنه أصل:

- يجب أن يوفر الأصل منفعة اقتصادية مستقبلية محتملة و تمكن من توفير تدفقات نقدية صافية في المستقبل.
أن تكون المنشأة قادرة على الحصول على المنافع من الأصل, وتمنع أو تقيد فرصة حصول المنشآت الأخرى على تلك المنافع.

- يكون الحدث الذي وفر للمنشأة الحق في الحصول على المنافع من الأصل قد حدث فعلا.

مفهوم الخصوم:
- الخصوم هي تضحيات مستقبلية محتملة بمنافع اقتصادية ناشئة عن الالتزامات الحالية للمنشأة المعينة بنقل أو تحويل أصول أو توفير خدمات للأصول الأخرى في المستقبل نتيجة لمعاملات أو أحداث. و ذلك يوصف البند بأنه الالتزام يجب تفويض الشروط التالية:

- يتم التزام النشاط بتسوية الالتزام الحالي عبر التحويل المستقبلي لأصل ما عند الطلب أو عند حدث حديث معين أو في تاريخ معين.
- لا يمكن تفادي الالتزام.
- وقوع الحدث الملزم للمنشأة.

- يتم عرض عناصر الأصول والخصوم في الميزانية على أساس السيولة (مداولة وغير مداولة).

الأصول المداولة: هي الأصول النقدية, و شبة النقدية, و الأصول المحتملة بها بغض النظر عن التحويل, البيع, الاستهلاك خلال دورة الاستغلال العادية للمؤسسة, أو الأصول المحتملة بها التي سيتم تداولها خلال 12 شهرًا ماليًا. وبقية الأصول الأخرى تعتبر غير مداولة (IAS1.57).

- يستخدم هذا التعريف للأصول المداولة أنه إذا كان أصل معين سيتحول إلى قيمة نقدية أو يستخدم في تسديد الالتزام مداولة خلال فترة سنة أو دورة استغلال قائمة كصرف مداولة.

الخصوم المداولة: هي التزامات التي يتطلب تسديدها خلال دورة الاستغلال العادية للمؤسسة, أو المستحقة خلال 12 شهرًا, أو تلك التي يتطلب مدفوعها استخدام الأصول المداولة, أو تلك التي لا تمثل المؤسسة الحق في تأجيل تسديدها إلى ما بعد 12 شهر (IAS1.60).

الالتزامات المستحقة السداد في السنة المالية تعتبر التزامات أو خصوم غير مداولة, وهي التي يتم تسديدها عن طريق إصدار دين آخر طويل الأجل مثل أو يتم تسديد الدين من الأصول غير مداولة.

- قائمة الدخل: هي جدول يحتوي على كافة الإيرادات والإنفاق. ينشأ الإيرادات من الأعمال التجارية، ويشار إليها بـ "الإيرادات". تعبر عن قيمة النشاط الاقتصادي. بينما الإنفاق يمثل التكاليف التي تتحملها المنشأة للاستمرار في النشاط الاقتصادي.

- الإيرادات: هي كل ما تحصل عليه المنشأة مقابل بيع بضائع أو تقديم خدمات أو أنشطة أخرى. سواء كانتstackpathية تجارية للمنشأة أو للاستثمار في القيمة المحتفظ بها أو لمتابعة الالتزامات المالية.

المصروفات: هي جميع الكلفات التي تتحملها المنشأة مقابل الحصول على مواد أو خدمات. تتضمن المصروفات على الأنشطة التجارية للمؤسسة مثل كافة المكاتبات الأخرى، الرسوم والضرائب. كما تنشأ كذلك من الالتزامات الأخرى، مثل الالتزامات المالية، الخسائر والكوارث... و تعتبر المصروفات انخفاضا في المنافع الاقتصادية.

- تعتبر قائمة الدخل ذات أهمية لدى مستخدمي التقارير المالية لكونها تساعدهم على التنبؤ بمقدار التدفقات النقدية المستقبلية للمنشأة وتوقعاتها. و بعد رؤى الربح الوارد في قائمة الدخل أكثر الأرقام المحاسبية أهمية لمستخدمي التقارير المالية (الخليجية 2004).
و لقد نص المعيار المحاسبي الدولي رقم 1 على البنود التي يجب أن تعبر كحد أدنى في قائمة الدخل، و تتمثل في:

أ. الإيرادات الانتقائية العادية.

ب. المصروفات المالية.

ج. حصة الأرباح أو الخسائر في الشركات التابعة أو الشركات الشقيقة والمشاريع المشتركة التي تمتد محاسبتها عن طريق حقوق الملكية.

د. مصاريف الإستراتيجية على الأرباح.

ه. مبلغ وحيد يتضمن إج 클래스ات الموارد المتوقعة.

و. النتائج الصافية (الربح أو الخسارة).

يمكن إعداد قائمة الدخل طبقاً لإحدى المفاهيم للربح المحاسبي و هما:

أ - مفهوم الربح من العمليات التجارية أو النظام التشغيلي: وفقاً لهذا المفهوم يتم إعداد قائمة الدخل لتحديد أرباح النظام التجاري، وتحسب مقابلة الإيرادات والمصروفات التجارية والمك.Trade
d. مكانة الأرباح أو الخسائر في الشركات التابعة أو الشركات الشقيقة والمشاريع المشتركة التي تمتد محاسبتها عن طريق حقوق الملكية.

ب - مفهوم الربح الشامل: على أثر هذا المفهوم يحدث الربح الناتج عن جميع العمليات والأنشطة التجارية وغير التجارية و الأرباح الذين تؤثر على حقوق الملكية، وتم الحصول على نتيجة الصافية (الربح أو الخسارة).

و نظرًا لأهمية المفاهيم قامت لجنة المعايير المحاسبية الدولية بتحديد قائمة الدخل على أساس الجمع بين المفاهيمما و ذلك فإن قائمة الدخل تحديد الربح الناتج عن جميع الأنشطة التي تقوم بها المنظمة التجارية و غير التجارية. حسب ما نص عليه المعيار الدولي رقم 1، يجب أن تصنف المصروفات إما حسب طبيعتها (الموارد الأولية، مصروفات الملاك، الاختلافات،...) أو حسب استخدامها (مصروفات البيع، مصروفات الإنتاج، الإدارة...). عند إعداد قائمة الدخل في التلقيحات، إذا اعتمدت المؤسسة على تصنيف المصروفات حسب الوظيفة فإن التوجيح الإضافي حول طبيعة تلك المصروفات.

3- قائمة التدفقات النقدية: تشكل قائمة التدفقات النقدية إحدى التقارير المالية الرئيسية التي ينتجها النظام المحاسبي وهي عبارة عن كشف المبالغ و المبلغات الخاصة بالمنشأة خلال فترة زمنية معينة (القائمة). نص المعيار المحاسبي الدولي رقم 7 على إضافة البنود بعرض قائمة التدفقات النقدية، وتحسب مبالغ الانتقالات النقدية في القائمة، و ذلك بناء على التدفقات النقدية خلال فترة معينة إلى تدفقات ناتجة عن الأنشطة التشغيلية والاستثمارية والتمويلية. وقد عرف المعيار المصطلحات التالية (IAS 7) :

- النقدية: ويقصد بها النقدية بالخزينة والودائع تحت الطلب.
- النقدية المعدلة: وتتكون من الاستثمارات قصيرة الأجل والتي يمكن تحويلها إلى مصارف محدد ومعرفة النقدية والتي لا تتعوض لدرجة عالية من المخاطر من حيث التغير في قيمتها.
- التدفقات النقدية: وتمثل في التدفقات الداخلية والخارجية من النقدية وما يعادلها.
- الأنشطة التشغيلية: عبارة عن الأنشطة الرئيسية المولدة لإيرادات المنشأة والأنشطة الأخرى التي لا تعتبر أنشطة استثمارية أو تمويلية.
- الأنشطة الاستثمارية: إيرادات الأنشطة المتعلقة بالحصول على أو التخلص من الموجودات طويلة الأجل بالإضافة إلى الاستثمارات الأخرى التي لا تعتبر نقدية معدلة.
- الأنشطة التمويلية: عبارة عن الأنشطة التي ينتج عنها تغييرات في حجم ومكونات حقوق الملكية وقرض المصرفية خاصة بالمنشأة.
- الهدف من قائمة التدفقات النقدية هو مساعدة مستخدمي التقارير المالية من مستثمرين و موظفين وغيرهم في المجالات التالية(الشريزي 1990):
التنبؤ بالتدفقات النقدية المستقبلية.
• التقييم الارتدادي للتدفقات النقدية الحالية (التاريخية).
• تقييم قدرة المنشأة على إجراء توزيعات للأرباح و مقابلة متطلبات الاستثمار و التوسع.
• تحديد مصادر الاختلاف بين صافي الدخل و صافي التدفقات النقدية.

حدد نفس المعيار طريقيين لإعداد قائمة التدفقات النقدية. على المنشأة اختيار إحداهما. و هما: (القاضي و حمدان2008)

1- الطريقة المباشرة: و تقوم هذه الطريقة على عرض الأنواع الرئيسية لإجمالي المقتوبات النقدية و إجمالي المدفوعات النقدية موزعة وفقا للأنشطة التشغيلية و الاستثمارية و التمويلية.

2- الطريقة غير المباشرة: و تتطلّب هذه الطريقة من رقم صافي الربح (أو الخسارة) حيث تقوم بتعديله بآثار العمليات ذات الطبيعة غير النقدية و بأيّة مبالغ معقولة و مستحقة عن مقتوبات أو مدفوعات النقدية تشغيلية في الماضي أو المستقبل و كذلك بنود الدخل أو المصروفات المتعلقة بالتدفقات النقدية الاستثمارية أو التمويلية.

- قائمة التغيرات في حقوق المساهمين: تشمل قائمة التغيّرات في حقوق المساهمين أو الملكية معلومات عن الزيادة أو النقص في الثروة أو بناءً على التغيّرات في حقوق الملكية الخاصة بالمساهمين.

يشمل الحد الأدنى من المعلومات التي يجب الإفصاح عنها في قائمة حقوق الملكية (أو المساهمين) على ما يلي:
• ربح أو خسارة الفترة
• الأسهم المقيدة
• الأسهم العادية (بالقيمة الإضافية)
• الاحتياطي القانوني (رأس المالي الإضافي).

كل عنصر من عناصر الدخل أو المصروف الذي له علاقة بحقوق الملكية.

• من أجل كل عنصر من حقوق الملكية يجب توضيح آثار التغييرات في السياسات المحاسبية و تصحيح الأخطاء.

يمكن أن تتضمن قائمة حقوق الملكية على المعلومات التالية سواء في صلب القائمة أو تدرج في الهوامش أو الملاحق:
• معدلات رأس المال مع الملاك و توزيعات الأرباح لهم.
• تسويات أرباح الاستثمار المتراكمة في بداية و نهاية السنة.
• تسويات الخسائر المعدلة لكل فئة من حقوق الملكية، علاوة الأسهم و أي احتياطي في بداية و نهاية السنة.

- تتمثل مصادر التغييرات في حقوق المساهمين في تلك العمليات و الأحداث و الصفقات التي ينتج عنها حركة في حقوق الملكية و تمثل في:

• زيادة في رأس المال.
• توزيع الأرباح على أصحاب حقوق الملكية.
• الاستثمارات بواسطة الملاك.
• تغييرات في الإيرادات و المصروفات و في الأرباح و الخسائر.

- التقارير الملحقة: يلزم المعيار المحاسبي الدولي رقم 1 المنشأة على الإفصاح عن المعلومات التالية:
معلومات حول السياسات المحاسبية التي استخدمت في إعداد التقارير المالية حتى لو لم يتم تداولها في المعايير الدولية لإعداد التقارير المالية IFRS. 
أسس القياس المستخدمة في إعداد القوائم المالية.
توضيح المعلومات الإضافية التي لم تظهر في القوائم المالية، وهي من شأنها أن تساهم في شرح وتفسير مضمونها.

تعرض هذه المعلومات المكملة في تقارير إضافية متعددة:
قائمة السياسات المتبعة واليضامات المتممة للقوائم المالية الأساسية: لا يوجد نموذج محدد لهذه القائمة، وتعرض المنشأة في هذه القائمة السياسات المحاسبية المتبعة والإيضات المتممة للقوائم المالية والبيانات التي لم يتم عرضها في القوائم المالية.
تقرير مدقق الحسابات: يعتبر هذا التقرير هاما بالنسبة للمستخدمين حيث يستخدمون البيانات المالية المتشابهة للاختيار ترتيبًا في مدى دقة المعلومات الواردة في القوائم المالية، و مدى مصداقيتها في تحليل البيانات التي قامت بها المنشأة خلال فترة زمنية معينة.
تقرير مجلس الإدارة: يتضمن تقرير مجلس الإدارة معلومات عن الشركة وأهدافها وكيفية استخدام المعلومات عن الأنشطة التشغيلية والتمويلية بالإضافة إلى معلومات عن الأداء المستقبلي للمنشأة. ويحتوي هذا التقرير غالبًا على معلومات مالية وغير مالية تساعد المستخدمين في اتخاذ القرارات.

كما يجب أن تشمل الإفصاحات المعلومات التالية:
• مقر المنشأة.
• الشكل القانوني للمنشأة.
• جنسية المنشأة.
• وصف لطبيعة نشاط المنشأة.
• اسم المنشأة.
• معلومات خاصة بمدة حياة المنشأة.

المبحث الثالث: الإفصاح و القياس المحاسبي.
1- الإفصاح: تعتبر البيانات التي تحتويها القوائم المالية ذات أهمية بالغة لتعدد أغراضها وتمثل مدخلات للعديد من المستخدمين عند اتخاذ القرارات الاقتصادية، لذلك يجب أن تتوفر فيها المصداقية والملائمة والقابلية لتتم مقارنة مع القوائم المالية للمنشأة الأخرى. ويتم ذلك من خلال الالتزام بمعايير العرض والإفصاح.

يقصد بالإفصاح عبارة عن معلومات تنقلها من مصدرها إلى مستخدمها و يعرف الإفصاح المحاسبي بأنه عرض ونشر للبيانات والبيانات المحاسبية و نقلها إلى مستخدميها لتساعدهم على اتخاذ قراراتهم بسرية أن تظهر المعلومات في القوائم والتقدير المحاسبية بصورة كاملة ومحسوبة وملائمة ودون لبس أو تضليل. وهدف من ذلك هو إعطاء صورة واضحة وحوقيقية عن المنشأة بحيث يستطيع مستخدم هذه المعلومات الاعتماد عليها في اتخاذ القرارات السليمة.

يمكن تصنيف أنواع الإفصاح من حيث الأهداف كما يلي (أحمد فؤاد مكية وآخرون2007):
الإفصاح الكامل: يشير إلى مدى شمولية التقارير المالية و أهمية تغطيتها لأي معلومات ذات أثر محسوس على القارئ، و أهمية هذه النوع من أهمية الفواتير المالية كمصدر أساسي يعتمد عليه في اتخاذ القرارات، ولا يقتصر الإفصاح على الحقائق حتى نهاية الفترة المحاسبية بل يمتد إلى بعض الوقائع اللاحقة لتواريخ الفواتير المالية التي تؤثر بشكل جوحي على مستخدمي تلك الفواتير.

الإفصاح العادل: ينطوي الإفصاح العادل على ضمان عدم ترجيح مصلحة فئة معينة على مصلحة الفئات الأخرى.

الإفصاح الكافي: يشمل الحد الأدنى الواجب توفيره من المعلومات المحاسبية في الفواتير المالية، ويمكن ملاحظة أن فهم الحد الأدنى غير محدد بشكل دقيق، إذ يختلف حسب الاحتياجات و المصالح بالدرجة الأولى كونه يؤثر تأثيرا مباشرا في اتخاذ القرار فضلا عن أنه يتبع للخبرة التي يتم فيها تطبيقه.

الإفصاح الملائم: هو الإفصاح الذي يراعي حاجة مستخدمي البيانات و طبيعة الظروف و ظروف التشجيع الاستثنائية. إذا كانت المعلومات المالية التي تكون ذات قيمة و منفعة بالنسبة لقرارات المستثمرين والدائنين و تتناسب مع نشاط الشركة وظروفها الداخلية.

الإفصاح التثقيفي (الإعلامي): يعني الإفصاح عن معلومات إضافية أكثر ملاءمة لاتخاذ القرارات مثل الإفصاح عن التنبؤات المالية و الإفصاح عن السياسات المتبعة في توزيع الأرباح و الإفصاح عن الأمور الأخرى.

الإفصاح الوقائي: يعني الإفصاح عن المعلومات المحاسبية دون تضليل لحماية مستخدميها و خاصة المستثمرين، ويطلب الكشف عن الأمور الآتية (الجبروي 2012):

- السياسة المحاسبية.
- التغيير في السياسة المحاسبية.
- تصبح الأخلاقيات في الفواتير المالية.
- الكسب المحتمل.
- الامكانيات المالية.
- الإثباتات المالية.
- الأحداث الداخلية.

يتم الإفصاح عن طريق الفواتير المالية، المذكّرات التي تتضمن معلومات لا توفر في الفواتير المالية مثل طرق تقييم المخزون و طريقة الائتمان المحاسبية، التقارير و الجداول الملحقة، تقرير المراجعة المحاسبية، تقرير المراجعة المحاسبية الخاصة، تقرير الطلاب المحاسبة و المحاسبة الداخلية، و تقرير المراجعة الخارجي الذي يعتبر وسيلة لتحقيق من مدى تطبيق المبادئ المحاسبية و مدى كفاءة نظام الرقابة الداخلي.

تقدم الفواتير المالية حسب ما نص عليه المعيار المحاسيبي الدولي رقم 1، بعدالة الموقف المالي، الأداء المالي و التقدم التقني للمنتج و ينطبع العرض المالي الأمانة في العرض لأثار العمليات المالية و الأحداث الأخرى، و الظروف التي يتم فحصها في تحليل الجبروية، و الطرق، و الإبداع، و المصروفات، و الإطار الذي يحكم ذلك، و ينطبق معايير التقارير المالية الدولية IFRS 2006، حسب ما نص عليه المعيار المحاسيبي الدولي رقم 1، بعدالة الموقف المالي، الأداء المالي و التقدم التقني للمنتج و ينطبع العرض المالي الأمانة في العرض لأثار العمليات المالية و الأحداث الأخرى، و الظروف التي يتم في تحليل الجبروية، و الطرق، و الإبداع، و المصروفات، و الإطار الذي يحكم ذلك، و ينطبق معايير التقارير المالية الدولية IFRS 2006.
يعتبر الأساس التكاليف التاريخية هو الأساس الأكثر شيوعاً وتطبيقاً لتقييم عنصر القوائم المالية. وعادة ما يتم دمج هذا الأساس مع أسس القياس الأخرى مثلاً القيمة السوقية أو القيمة النقديه البديلة أيهما أقل. وتمكن إظهار القيمة السوقية لنفس الأصول في الائتمان المالي والневائي (الإطار الفكري لإعداد وعرض البيانات المالية).

الخاتمة
إن أهمية التقارير المالية تبدو واضحة وآكية نظراً لتعدد الأطراف التي تعتمد على البيانات المحاسبية سواء كانت تلك الأطراف داخل المناشة مثل الإدارة، الموظفين، والمالك أو أطراف خارجية وتشمل المستثمرون المشتركون، المقرضون، الموردون وغيرهم. وتمثل القوائم المالية المصدر الوحيد للمعلومات التي يحتاج إليها مستخدمي البيانات المالية لاتخاذ قراراتهم. لهذا الغرض يجب أن تكون المعلومات المصدر عنها في القوائم المالية ذات جودة عالية وخلفية من اللبس والتشويض.

إن لإعداد القوائم المالية وفق المعايير الدولية لإعداد التقارير المالية أثر إيجابية متعادلة من أهمها:

- تلبية كافة أو أغلبية احتياجات المستخدمين من معلومات مالية.
- المساعدة في تحسين جودة التقارير المالية مما تتمتع به هذه المعلومات من خصائص.
- تخفيض الاختلافات بين التقارير المقدمة في الدول المختلفة ون بذلك تدعيم قابلية المعلومات للمقارنة.
- تقديم صورة حقيقية وشفافة للموضعية المالية للمنشأة. وؤثر هذه العوامل إيجابياً على قرارات وتواريخ المستثمرين.

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بالإنجليزية
تطوير إدارة المراجعة الداخلية في جهاز وزارة التعليم على ضوء مفهوم المحاسبية الإدارية

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مستخلص الدراسة

هدفت هذه الدراسة إلى معرفة واقع تطبيق إدارة المراجعة الداخلية بوزارة التعليم لمفهوم المحاسبية الإدارية، والكشف عن المعوقات التي تواجهها، وتعرف على المقترحات الراهنة لإدارة المراجعة الداخلية بجهاز وزارة التعليم على ضوء المحاسبية الإدارية، ومن ثم إعداد تصور مقتطع لتطوير المراجعة الداخلية بجهاز وزارة التعليم على ضوء المحاسبية الإدارية.

وتحقيق أهداف الدراسة استخدمت الباحثة المنهج الوصفي، وتكون مجتمع الدراسة وعينتها من القيادات والمراجعين الداخليين بجهاز وزارة التعليم لمفهوم المحاسبية الإدارية، DocumentID: 10818465

1. أظهرت النتائج أن الدرجة العامة لاستجابة أفراد العينة في مجال مهام الإدارة العامة للمراجعة الداخلية بوزارة التعليم جاء بدرجة (موافق)، وبمتوسط حسابي عام بلغ (3.79)، وفي مجال تطبيق الإجراءات العملية للمراجعة الداخلية في وزارة التعليم على ضوء المحاسبية الإدارية جاء بدرجة (موافق)، وبمتوسط حسابي عام بلغ (3.83).

2. جاءت الدرجة العامة لاستجابة أفراد العينة في مجال المعوقات المتعلقة بإدارة المراجعة الداخلية بوزارة التعليم جاء بدرجة (موافق)، وبمتوسط حسابي عام بلغ (3.71)، وفي مجال المعوقات المتعلقة بالإدارات التي تخضع للمراجعة بوزارة التعليم جاء بدرجة (موافق)، وبمتوسط حسابي عام بلغ (3.47).

3. أظهرت النتائج أن الدرجة العامة لاستجابة أفراد العينة في مجال إدارة المراجعة الداخلية جاء بدرجة (موافق بشدة)، وبمتوسط حسابي عام بلغ (4.58)، وفي مجال الإدارات التي تخضع للمراجعة الداخلية جاء بدرجة (موافق بشدة)، وبمتوسط حسابي عام بلغ (4.6).

وفي ضوء هذه النتائج تم تقديم تصور مقتطع لتطوير نظام المراجعة الداخلية في جهاز وزارة التعليم على ضوء مفهوم المحاسبية الإدارية، وأوصت الدراسة بعدم من التوصيات من أهمها الالتزام بنود اللائحة الموحدة لوحدات المراجعة الداخلية في الأجهزة الحكومية والمؤسسات العامة، وتعزيز استقلالية الإدارة العامة للمراجعة الداخلية مالياً وتنظيمياً، ومعها بالكوارد الوبائية المؤهلة، وتوفر الأدلة التنظيمية والإدارية لإدارات العموم بالوزارة وإدارة المراجعة الداخلية توضيح اختصاصات ومهمات المسؤوليات لجميع العاملين بالوزارة، وتهيئة مناخ تقبل لعمليات المراجعة الداخلية لدى مسؤولي جهاز الوزارة لتعزيز ثقافة المراجعة والمحاسبية كجزء من العملية الإدارية.

الكلمات الدليلية: المراجعة الداخلية، المحاسبية الإدارية، المسؤولية، الرقابة، الشفافية.
أولاً: المدخل إلى الدراسة

المقدمة

أشارت خطة التنمية التاسعة (2010-2014) إلى أن تحدي تطوير نوعية التعليم بشكل أبرز التحديات وأكثرها تحدياً وأهمية، لضمان مخرجات تعليمية يمكن أن تساهم بفاعلية في التنمية، كما أكدت الخطط على تعزيز ثقافة الجودة وتحسين الأداء لإحداث تلك التغييرات الإيجابية، ويأتيهدف العام الحادي عشر من هذه الخطط، لتأكيد على مبدأ الشفافية والمحاسبة، حيث ينص على: "واصلة الإصلاح الاجتماعي والاقتصادي والمؤسساتي ومبادئ الديمقراطية، وال maxSize (وزارة الاقتصاد والتخطيط، 2010).

كذلك أولت وزارة التعليم اهتماماً كبيراً بتطوير نظام وطني للمحاسبة، حيث نصت السياسة الثالثة من الهدف العاشر من الأهداف العامة لل استراتيجية الوطنية لتطوير التعليم حتى العام 1444 هـ، وسياسات تحقيقها على ذلك: "تطوير نظام وطني للمحاسبة وإدارة الجودة، ويدعم التحسين المستمر في الأداء. (شركة تطوير التعليم القابضة، 1434 هـ).

ودعماً لجهود رفع الكفاءة الإدارية في الأجهزة الحكومية، صدر قرار مجلس الوزراء رقم (921) وتاريخ 6/4/1428 هـ بإنشاء وحدة لمراجعة الداخلية، في كل جهاز من الأجهزة الحكومية والمؤسسات العامة، تتولى تقييم أنظمة الرقابة الداخلية، والتأكد من مدى الالتزام بالأوامر والتعليمات والإجراءات المالية. (وزارة الاقتصاد والتخطيط، مرجع سابق).

وهجاء هذه الدراسةهدف تطوير إدارة المراجعة الداخلية بجهاز وزارة التعليم على ضوء مفهوم المحاسبية الإدارية، من خلال التعرف على واقع تطبيق إدارة المحاسبية الداخلي، وكشف عن المعوقات التي تواجهها، من أجل مواجهة التوجه العالمي المعاصر نحو قيام المحاسبة الشفاف.

مشكلة الدراسة


ما يجعل الحاجة ملحة لدراسة واقع استخدام إدارة المراجعة الداخلية لوزارة التعليم لمفهوم المحاسبة، حيث تواجهها، وزارة التعليم مشكلة تنظيمية تتمثل في جوانب التدريب والتعليمية والتدريبية، وتفادي، وتنافس نظم المراجعة الداخلية، من خلال تطبيق استراتيجية المحاسبة، وتحديد نظام المحاسبة في هذه الظاهرة لتحقيق الأهداف المرجوة، ونظراً لما أشارت إليه نتائج الدراسات السابقة، لتحديد نظام المراجعة الداخلية،
تجي الدراسة الراهنة لتجيب عن السؤال التالي: ما سبل تطوير إدارة المراجعة الداخلية في جهاز وزارة التعليم على ضوء مفهوم المحاسبية الإدارية؟

أهمية الدراسة

تكتب هذه الدراسة أهميتها العلمية والتطبيقية في تناولها واقع المحاسبية الإدارية في إدارة المراجعة الداخلية بجهاز وزارة التعليم بالمملكة العربية السعودية، وأهمية تطبيقها لتطوير أداء إدارة المراجعة الداخلية بالوزارة؛ حيث تعد من الدراسات القلائل التي تناولت المراجعة الداخلية بالمملكة في القطاع الحكومي، فغالبية الدراسات التي تناولت المراجعة الداخلية بالملكية ركزت على القطاع الخاص، كما أن الدراسات التي أجريت على المحاسبية في التعاون في المملكة العربية السعودية لم تدقق أن تناولت بالبحث واقع المحاسبية على مستوى جهاز الوزارة، أو في إدارة المراجعة الداخلية بالوزارة كجهة رقابية، وإنما تركز البحث فيها على مستوى المدرسة، وإدارات التعليم، وبدع نتائج الدراسة والتصور الذي ستقترحه لتطوير إدارة المراجعة الداخلية بجهاز الوزارة على ضوء المحاسبية الإدارية اسهام الدراسة الراهن.

أسئلة الدراسة

1. ما واقع تطبيق إدارة المراجعة الداخلية بوزارة التعليم لمفهوم المحاسبية الإدارية؟
2. ما المعرفات التي تواجه إدارة المراجعة الداخلية بجهاز الوزارة في تطبيق المحاسبية الإدارية؟
3. ما المفرقات التي تواجه إدارة المراجعة الداخلية بجهاز وزارة التعليم على ضوء المحاسبية الإدارية؟
4. ما التصور المقترح لتطوير إدارة المراجعة الداخلية بجهاز وزارة التعليم على ضوء المحاسبية الإدارية؟

حدود الدراسة

تم تطبيق الدراسة في قطاعي البنين والبنات بجهاز الوزارة للفصل الدراسي الأول للعام الدراسي 2014/2015م، وتكون مجتمع الدراسة من القيادات بالجهاز ومن المراجعين الداخليين في الإدارة العامة للمراجعة الداخلية.

مصطلحات الدراسة

- المراجعة الداخلية (Internal auditing): عرفها مجمع المراجعين الداخليين الأمريكي "IIA"، (2013) بأنها: نشاط مستقل وموضوعي، يقدم تأكيدات وخدمات استشارية بهدف إضافة قيمة للمؤسسة وتحسين عملياتها، ويساعد هذا النشاط في تحقيق أهداف المؤسسة من خلال اتباع أساليب منهجية فعالة للمراجعة الداخلية، وإدارة المخاطر والرقابة، كما عرفت الهيئة السعودية للمحاسبين القانونيين المراجعة الداخلية، والمراجعة الداخلية في الدراسة الحالية تعني: عملية إدارية تتم من خلال إدارة مستقلة يهمة إدارات الوزارة، وتعتبر جزءاً من القيادة والرقابة، وتعتبر جزءاً من القيادة والرقابة، وتعتبر جزءاً من القيادة والرقابة، وتعتبر جزءاً من القيادة والرقابة.


ثانياً: أدبيات الدراسة

الجزء الأول: الإطار النظري

المحور الأول: المراجعة الداخلية ومعاييرها

1- أهداف المراجعة الداخلية

تمثل الرقابة الداخلية عنصراً مهماً في نظام حوكمة المنظمة والقدرة على إدارة المخاطر، وتعد الأساس الذي يدعم تحقيق أهداف المراجعة الداخلية وتوفير قدرة المنظمة على تحقيق أهدافها وتحقيق الأهداف والخطط والسياسات والإجراءات، ويمكن للمراجعين الداخليين القيام بتقديم نظم الرقابة عن طريق تحديد مدى ملاءمتها للأنشطة (السعودية للمحاسبين القانونيين، 2013).

حيث يمكن للمراجعين الداخليين تزويد المديرين والرؤساء في المنظمة بتقييم موضوعي للمعلومات التي من شأنها تطوير وتحقيق الأهداف والخطط والسياسات والإجراءات، ويمكن للمراجعين الداخليين القيام بتقييم نظام الرقابة عن طريق تحديد مدى ملاءمتها للأنشطة (لطفي، 2011).

Internal Auditing Standards

2- معايير المراجعة الداخلية

قام مجمع المراجعين الداخليين الأمريكي ("International Standards for the Professional Practice of Internal Auditing Standards") بحصر المعايير الدولية للمراجعة الداخلية بوثيقة: "LICAA (The Institute of Internal Auditors, 2012)", وتتمثل الغرض من هذه المعايير في تحديد المبادئ الأساسية والإطار المرجعي لأداء وتطوير المراجعة الداخلية، وإرساء الأسس لتقييم أداء المراجعة الداخلية، وتقتصر هذه المعايير على قسمين؛ المجموعة الأولى تتمثل في معايير الصفات، حيث تحدد الخصائص التي يجب توفرها في الهياكل والأفراد الذين يمارسون المراجعة الداخلية، والمجموعة الثانية تتمثل في معايير الأداء، وتتناول طبيعة المراجعة الداخلية وتضحى معايير الجودة لقياس أداء الخدمات المقدمة.

3- الجهود السعودية في المراجعة الداخلية

يمكن تلخيص جهود السعودية في مجال الرقابة والمراجعة الداخلية من جانبين:

أ- الرقابة الخارجية للوزارات والمؤسسات الحكومية، وتتضمن:

- ديوان المراجعة العامة: ومشمول برقابته جميع الوزارات والإدارات الحكومية وفرعها.
- هيئة الرقابة والتحقيق: ويخضع أفرادها جميع الموظفين المدنيين الحكوميين، والمؤسسات العامة، وبهيئة الوطنية لمكافحة الفساد: وتشمل مهامها كافة القطاعات الحكومية.
- الهيئة السعودية للمحاسبين القانونيين (SOCPA): وهي الهيئة المهنية تهدف إلى التوصل للمبادئ المحاسبية والمراجعة في المملكة.
- الجمعية السعودية للمراجعين الداخليين: تهدف إلى تطوير مهنة المراجعة الداخلية في المملكة من خلال توفير معايير المراجعة الداخلية.

ب- الرقابة الداخلية، وتتضمن:

- إنشاء وحدات المراجعة الداخلية في الأجهزة الحكومية:
- حيث تعتبر الوحدة إدارية مستقلة تهدف إلى فحص وتقييم أداء الإدارات الداخلية والقيام بالأنشطة المالية والتشغيلية وتقييم الأداء والتأكد من استخدام الموارد، كما تساعد الجهات على تحقيق أهدافها من خلال مقارنة ما تم إنجازه من أهداف مع ما هو مقرر ومخطط له.
- اللائحة الموحدة لوحدات المراجعة الداخلية:

616
وتعد اللائحة الإطار المرجعي الرئيسي للمهام والمسؤوليات الرقابية للوحدات، وقد تضمنت اللائحة (23) مادة، تناولت كل ما يخص تنظيم وحدات المراجعة الداخلية في القطاع الحكومي والمؤسسات العامة. (ديوان رئاسة مجلس الوزراء، 1428 هـ).

4- المراجعة الداخلية في وزارة التعليم بالمملكة العربية السعودية

أ- الهيكل التنظيمي لوزارة التعليم

يوضح الهيكل التنظيمي المعتمد لوزارة التعليم ارتبط إدارة المراجعة الداخلية بوزير مباشرة من اللائحة الموحدة لوحدات المراجعة الداخلية: "تتولى كل جهة إنشاء وحدة للمراجعة الداخلية في المقر الرئيس يرتبط مديرها بالمسنود الأول في الجهة". (وزارة التعليم، 2013)

ب- الإدارة العامة للمراجعة الداخلية بوزارة التعليم

اعتمدت الهيكل التنظيمي والدليل التنظيمي لإدارة المراجعة الداخلية بقرار وزاري رقم 317408190/42 وتاريخ 9/7/1431 هـ، ويوضح الشكل (1) الهيكل التنظيمي لإدارة المراجعة الداخلية الوارد في القرار. (وزارة التعليم، مرجع سابق)

شكل رقم (1): الهيكل التنظيمي لإدارة المراجعة الداخلية

المحور الثاني: المحاسبية في النظم التربوية

**Administrative Accountability**

ركزت بعض الاتجاهات في تعريف المحاسبية على ربطها بالمسؤولية والسلطة، في تحقيق المؤسسة أو المنظمة أو الفرد الأهداف المرجوة والوصول للنتائج محددة والمساءلة عن تلك النتائج، حيث عرفها الاتحاد الدولي للمحاسبين Federation of Accountants (IFAC, 2001) بأنها عملية يتم بموجبها محاسبة هيئات القطاع العام والأفراد داخلها، عن مسؤولية قراراتهم وأفعالهم في ظل وجود فهم واضح لتلك المسؤوليات، وتشمل الإشراف على الأمور العامة وجميع جوانب الأداء، ويكشف ليثوود (2005) أنه المحاسبية هي إتقان المسئولين بتقديم التقارير والتوثيحات والتقرير وإعداد التحليلات العلمية عن العمليات وكيفية استخدام صلاحياتهم وصرف واجباتهم، ويوحي ديف (Dive, 2009)، وجراي (Gray, 2005) المحاسبية باستعراضها من الأعلى ومن الأسفل في الهيكل التنظيمي للمؤسسة وغيرها بأنها تحدث عندما يكون أحد الأفراد مسؤولا عن عمل ما أمام فرد آخر.

2- معايير المحاسبية
يورد أورتيز وآخرون (2004) في تقريرهم عن السلطة والمساءلة الصادر عن وحدة التفتيش بالأمم المتحدة ثمانية معايير لنظام محاسبة ناجح وهي:

1. وضع إطار قانوني واضح لنظام المحاسبة، يتفق مع النظام المعتمد للإدارة المستندة إلى النتائج.
2. نظم المحاسبة الموضوعية نحو الأداء تحل محل النظم التقليدية المستندة إلى الأتمت.
3. المحاسبة تطبق على جميع المستويات، من أعلاها إلى أدنائها.
4. الالتزام الثابت بالقيادة.
5. المحاسبة تستخدم أيضاً لتطبيق الكفاءات الإدارية المتجلية في تحقيق هذه النتائج.
6. وجود نظام تدقيق وثاقق قوي.
7. وجود نظام إشراف قوي.
8. وجود نظام لإقامة العدل يتم بالشفافية والسرعة والاستقلال والإنصاف.

3. المحاسبية التربوية: Educational Accountability


وخلص الباحثة إلى أن المحاسبية التربوية تؤكد على قياس نتائج العملية التعليمية في النظام التعليمي، لتحقيق الأهداف المحطبة لها والتي تم الاتفاق عليها بين المسؤول ومسئولي النظام التعليمي، وتتضمن تحديد الأهداف والمهام لتحقيقها، ومن ثم محاكاة وقياس نتائجها.

الجزء الثاني: الدراسات السابقة


وقد أظهرت الدراسة أن متوسطات موافقة العملاء على قياس نتائج العملية التعليمية في وحدات المراجعة الداخلية، وتم دراستها بواسطة مجموعتين من المدراء، وتم دراسة مجموعتين من المراجعين، وتمت دراسة مجموعتين من المراجعين، وتمت دراسة مجموعتين من المراجعين، وتمت دراسة مجموعتين من المراجعين.


تمكنت دراسة السبيسي (2009)، التي هدفت إلى تحديد الاتجاهات الحديثة في المراجعة الداخلية، وتعزز المعايير، وتوصلت دراستها إلى أن قلة عدد المراجعين الداخليين وعدم التأهيل الكافى لهم يؤدي إلى صعوبة في إعداد المراجعين الداخليين.  


تمكنت دراسة السبيسي (2009)، التي هدفت إلى تحديد الاتجاهات الحديثة في المراجعة الداخلية، وتعزز المعايير، وتوصلت دراستها إلى أن قلة عدد المراجعين الداخليين وعدم التأهيل الكافى لهم يؤدي إلى صعوبة في إعداد المراجعين الداخليين.  


تمكنت دراسة السبيسي (2009)، التي هدفت إلى تحديد الاتجاهات الحديثة في المراجعة الداخلية، وتعزز المعايير، وتوصلت دراستها إلى أن قلة عدد المراجعين الداخليين وعدم التأهيل الكافى لهم يؤدي إلى صعوبة في إعداد المراجعين الداخليين.  

عن الدراسات السابقة بانفرادها بالتركيز على مفهوم المحاسبية في إدارة المراجعة الداخلية ومجالها بخصوص الدراسة في جهاز وزارة التعليم، سعياً منها لتطوير الأداء في هذه الإدارة.

ثالثاً: الإجراءات المنهجية للدراسة

1/ المنهج ومجتمع الدراسة وعينتها: استخدمت الباحثة المنهج الوصفي، حيث تكون مجتمع الدراسة وعينتها من جميع الفئادات (وكلاء/ مديري عموم/ مديري إدارات)، وجمع المراجعين الداخليين في الإدارة العامة للمراجعة الداخلية، في جهاز وزارة التعليم في قطاعي البنين/ البنات، وتم استخدام الاستبانة كأداة للدراسة، ويوصف الجدول رقم (1) العدد الموزع للعينة في القطاعين (بنين/ بنات)، والعدد المفقود، والعدد النهائي الذي تم استرجاعه والذي تمت عليه عملية التحليل، كما يوضح الجدولين (2، 3) توزيع أفراد العينة وفق متغيري التخصص الدقيق وسنوات الخدمة:

جدول (1): بوضوح نتائج توزيع الاستبانات

<table>
<thead>
<tr>
<th>الفئة</th>
<th>العدد الموزع في قطاع البنين</th>
<th>العدد الموزع في قطاع البنات</th>
<th>العدد المفقود</th>
<th>عدد المجموع</th>
</tr>
</thead>
<tbody>
<tr>
<td>الكلاء</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>مدير العموم</td>
<td>42</td>
<td>11</td>
<td>15</td>
<td>47</td>
</tr>
<tr>
<td>مدير الإدارات</td>
<td>13</td>
<td>20</td>
<td>-</td>
<td>33</td>
</tr>
<tr>
<td>المراجعين الداخليين</td>
<td>16</td>
<td>-</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>المجموع</td>
<td>74</td>
<td>36</td>
<td>9</td>
<td>99</td>
</tr>
</tbody>
</table>

المجموع الكلي لمجتمع وعينة الدراسة = 99

جدول (2): بوضوح توزيع أفراد العينة وفق متغير (التخصص الدقيق للمراجع الداخلي)

<table>
<thead>
<tr>
<th>التخصص الدقيق للمراجع الداخلي</th>
<th>التكرار</th>
<th>النسبة</th>
</tr>
</thead>
<tbody>
<tr>
<td>قانون</td>
<td>1</td>
<td>6.25%</td>
</tr>
<tr>
<td>علوم إدارية</td>
<td>1</td>
<td>6.25%</td>
</tr>
<tr>
<td>رياضيات</td>
<td>1</td>
<td>6.25%</td>
</tr>
<tr>
<td>إدارة أعمال قسم محاسبة</td>
<td>5</td>
<td>31.25%</td>
</tr>
<tr>
<td>إدارة عامة+ دبلوم تربية</td>
<td>1</td>
<td>6.25%</td>
</tr>
<tr>
<td>علم اجتماع</td>
<td>2</td>
<td>12.5%</td>
</tr>
<tr>
<td>تعلم عامة</td>
<td>1</td>
<td>6.25%</td>
</tr>
<tr>
<td>حاسب أي</td>
<td>2</td>
<td>12.5%</td>
</tr>
<tr>
<td>دبلوم حاسب أي</td>
<td>1</td>
<td>6.25%</td>
</tr>
<tr>
<td>دبلوم أعمال مكتبية</td>
<td>1</td>
<td>6.25%</td>
</tr>
<tr>
<td>المجموع</td>
<td>16</td>
<td>100%</td>
</tr>
</tbody>
</table>
جدول (3): يوضح توزيع أفراد العينة وفق متغير (سنوات الخدمة في المراجعة الداخلية)

<table>
<thead>
<tr>
<th>النسبة التكرار</th>
<th>سنوات الخدمة في المراجعة الداخلية</th>
</tr>
</thead>
<tbody>
<tr>
<td>أقل من سنة إلى</td>
<td>اقل من سنة إلى 3 سنوات</td>
</tr>
<tr>
<td>25%</td>
<td>4</td>
</tr>
<tr>
<td>31.25%</td>
<td>من 4 سنوات إلى 6 سنوات</td>
</tr>
<tr>
<td>18.75%</td>
<td>من 7 سنوات فأكثر</td>
</tr>
<tr>
<td>%75</td>
<td>مجموع</td>
</tr>
<tr>
<td>%25</td>
<td>لم يذكر</td>
</tr>
<tr>
<td>%100</td>
<td>المجموع</td>
</tr>
</tbody>
</table>

أساليب المعالجة الإحصائية

تم استخدام عدد من الأساليب الإحصائية والتي تمت في التكرارات والنسب المئوية لوصف خصائص أفراد العينة، والمتوسط الحسابي والانحرافات المعيارية، ومعال ارتباط "بيرسون" لقياس صدق الفحص، ومعامل ثبات "ألفا كرونباخ" لقياس ثبات الاستبانة، واختبار (t-test) واختبار (ANOVA).

رابعاً: نتائج الدراسة ومناقشتها

السؤال الأول: ما واقع تطبيق إدارة المراجعة الداخلية بوزارة التعليم لمفهوم المحاسبية الإدارية؟

جدول رقم (4): يوضح المتوسطات والانحرافات المعيارية لأراء عينة الدراسة حول مهام الإدارة العامة للمراجعة الداخلية

<table>
<thead>
<tr>
<th>الرتبة</th>
<th>العبارة</th>
<th>المتوسط الحسابي</th>
<th>الانحراف المعياري</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ترتبط إدارة المراجعة الداخلية بالإدارة العليا في الهيكل التنظيمي.</td>
<td>4.62</td>
<td>0.68</td>
</tr>
<tr>
<td>2</td>
<td>تقوم إدارة العليا بإصدار تعليمات شاملة تسهم في تفعيل إدارة المراجعة الداخلية.</td>
<td>3.96</td>
<td>1.01</td>
</tr>
<tr>
<td>3</td>
<td>تقوم إدارة المراجعة الداخلية بالتأكد من التزام الجهة التي يتم مراجعتها.</td>
<td>3.91</td>
<td>0.98</td>
</tr>
<tr>
<td>4</td>
<td>تقوم مدى فاعلية العمليات الإدارية للجهة التي يتم مراجعتها.</td>
<td>3.84</td>
<td>0.98</td>
</tr>
<tr>
<td>5</td>
<td>تقوم مدى كفاءة الخطة التنظيمية للجهة التي يتم مراجعتها. من حيث وضح المسؤوليات.</td>
<td>3.81</td>
<td>1.04</td>
</tr>
<tr>
<td>6</td>
<td>تقوم مدى فاعلية العمليات المالية للجهة التي يتم مراجعتها.</td>
<td>3.73</td>
<td>1.06</td>
</tr>
<tr>
<td>7</td>
<td>تتوفر أدلة تنظيمية واضحة للمراجعة الداخلية بالوزارة.</td>
<td>3.5</td>
<td>1.2</td>
</tr>
</tbody>
</table>

عدد عينة الدراسة = 74 (ن = 74)
تزود إدارة المراجعة الداخلية بالوزارة جميع المستويات الإدارية بالوزارة بالمعلومات الكافية التي تساعدها على تعزيز الرقابة الفعالة.

1. يوجد في الوزارة توصيف وظيفي واضح للمهام التي يمارسها المراجعون الداخليون.

2. يوجد في الوزارة توصيف وظيفي واضح للمهام التي يمارسها المراجعون الداخليون.

3. يوجد في الوزارة توصيف وظيفي واضح للمهام التي يمارسها المراجعون الداخليون.

4. يوجد في الوزارة توصيف وظيفي واضح للمهام التي يمارسها المراجعون الداخليون.

5. يوجد في الوزارة توصيف وظيفي واضح للمهام التي يمارسها المراجعون الداخليون.

6. يوجد في الوزارة توصيف وظيفي واضح للمهام التي يمارسها المراجعون الداخليون.

7. يوجد في الوزارة توصيف وظيفي واضح للمهام التي يمارسها المراجعون الداخليون.

8. يوجد في الوزارة توصيف وظيفي واضح للمهام التي يمارسها المراجعون الداخليون.

9. يوجد في الوزارة توصيف وظيفي واضح للمهام التي يمارسها المراجعون الداخليون.

10. يوجد في الوزارة توصيف وظيفي واضح للمهام التي يمارسها المراجعون الداخليون.

11. يوجد في الوزارة توصيف وظيفي واضح للمهام التي يمارسها المراجعون الداخليون.

12. يوجد في الوزارة توصيف وظيفي واضح للمهام التي يمارسها المراجعون الداخليون.

13. يوجد في الوزارة توصيف وظيفي واضح للمهام التي يمارسها المراجعون الداخليون.

---

جدول (6): يوضح المتوسطات والانحرافات المعيارية لزيادة عمولة الإجراءات المعملية للمراجعة الداخلية في جهاز وزارة التعليم

<table>
<thead>
<tr>
<th>الرتبة</th>
<th>المعياري</th>
<th>الانحراف المعياري</th>
<th>العبارات</th>
<th>رقم العبارة</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.87</td>
<td>4.07</td>
<td>4.07</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>0.9</td>
<td>4.07</td>
<td>4.07</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>1.01</td>
<td>4.01</td>
<td>4.01</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>0.93</td>
<td>3.99</td>
<td>3.99</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>1.04</td>
<td>3.85</td>
<td>3.85</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>1.05</td>
<td>3.8</td>
<td>3.8</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>0.98</td>
<td>3.8</td>
<td>3.8</td>
<td>13</td>
</tr>
<tr>
<td>8</td>
<td>1.09</td>
<td>3.78</td>
<td>3.78</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>3.77</td>
<td>3.77</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>1.16</td>
<td>3.7</td>
<td>3.7</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>1.11</td>
<td>3.69</td>
<td>3.69</td>
<td>12</td>
</tr>
<tr>
<td>12</td>
<td>0.96</td>
<td>3.65</td>
<td>3.65</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>1.09</td>
<td>3.63</td>
<td>3.63</td>
<td>7</td>
</tr>
</tbody>
</table>

متوسط المتوسط والانحرافات المعيارية

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>متوسط</td>
<td>3.832</td>
</tr>
<tr>
<td>الانحراف المعياري</td>
<td>1.015</td>
</tr>
</tbody>
</table>

عدد قيام أعمال المراجعة الداخلية، الأمر الذي قد يؤثر سلباً على كفاءة تقارير المراجعة الداخلية.


السؤال الثاني: ما المعوقات التي تواجه إدارة المراجعة الداخلية بجهاز وزارة التعليم في تطبيق المبادئ الإدارية ؟

جدول (6): يوضح المتوسطات والانحرافات المعيارية لإجابة عن الدراسة حول المعوقات التي تواجه إدارة المراجعة الداخلية

<table>
<thead>
<tr>
<th>رقم العبارة</th>
<th>العبارة</th>
<th>المتوسط الحسابي</th>
<th>الانحراف المعياري</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>تعاني إدارة المراجعة الداخلية من قلة عدد المراجعين الداخليين المتخصصين.</td>
<td>3.99</td>
<td>0.96</td>
</tr>
<tr>
<td>6</td>
<td>عدم ملاءمة المؤهل العلمي للمراجعين الداخليين مع المهام الموكلة لهم.</td>
<td>3.97</td>
<td>1.02</td>
</tr>
<tr>
<td>7</td>
<td>عدم ملاءمة خبرة المراجعين الداخليين مع المهام الموكلة لهم.</td>
<td>3.85</td>
<td>1.02</td>
</tr>
<tr>
<td>8</td>
<td>فله الدورات التدريبية المتخصصة التي يحصل عليها المراجعون الداخليين.</td>
<td>3.82</td>
<td>0.88</td>
</tr>
<tr>
<td>9</td>
<td>عدم كفاية الصلاحية المنوطة لإدارة المراجعة الداخلية.</td>
<td>3.65</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>عدم وجود أداة تنظيمية تتضمن وصفاً دقيقاً للمهام الوظيفية للمراجعين الداخليين.</td>
<td>3.58</td>
<td>1.19</td>
</tr>
<tr>
<td>11</td>
<td>وجود ضغوط من الإدارات الأخرى بالوزارة على المراجعين الداخليين.</td>
<td>3.57</td>
<td>1.01</td>
</tr>
<tr>
<td>12</td>
<td>عدم وجود معايير إدارية تساعد على القيام بالمراجعة الداخلية.</td>
<td>3.5</td>
<td>1.21</td>
</tr>
<tr>
<td>13</td>
<td>عدم وجود معايير إدارية يوضح للعمل في إدارة المراجعة الداخلية.</td>
<td>3.47</td>
<td>1.23</td>
</tr>
<tr>
<td>14</td>
<td>متوسط المتوسط والانحراف للمحور</td>
<td>3.71</td>
<td>1.058</td>
</tr>
</tbody>
</table>


جدول (7): يوضح المتوسطات والانحرافات المعيارية لأراء عينة الدراسة حول المعوقات المتعلقة بالإدارات التي تختار للمراجعة بالوزارة

<table>
<thead>
<tr>
<th>الرتبة</th>
<th>الانحراف المعياري</th>
<th>المتوسط الحسابي</th>
<th>العبارة</th>
<th>رقم العبارة</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.94</td>
<td>3.77</td>
<td>الأزدواجية في اختصاصات بعض الإدارات بالوزارة.</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>1.16</td>
<td>3.62</td>
<td>عدم وجود وصف وظيفي محدد للمسميات الوظيفية المختلفة في الإدارات.</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>1.02</td>
<td>3.59</td>
<td>تفتقر تقارير أداء الإدارات المختلفة بجهة الوزارة للموضوعية.</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>1.1</td>
<td>3.58</td>
<td>عدم وجود دليل إجرائي لعمل الإدارات التي تم مراجعتها.</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>1.09</td>
<td>3.42</td>
<td>عدم تنفيذ الإدارات التي تم مراجعتها لتوصيات تقارير إداره المراجعة الداخلية.</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>1.13</td>
<td>3.15</td>
<td>أهداف الإدارة - التي تتحمس للمراجعة - غير واضحة لدى مسؤوليها.</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>1.15</td>
<td>3.15</td>
<td>عدم تعاون الإدارات التي تتحمس للمراجعة مع المراجع الداخلي.</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>1.08</td>
<td>3.47</td>
<td>متوسط المتوسط والانحراف للمحور</td>
<td></td>
</tr>
</tbody>
</table>

جدول (8): يوضح المتوسطات والانحرافات لآراء عينة الدراسة حول المعوقات المتعلقة بالإدارة العليا بوزارة التربية (مكتب الوزير)

<table>
<thead>
<tr>
<th>الرتبة</th>
<th>العبارة المعيارية</th>
<th>المتوسط الحسابي</th>
<th>الانحراف القياسي</th>
<th>رقم العبارة</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>عدم تتناسب المسؤوليات مع الدرجة أو المسمى الوظيفي.</td>
<td>0.92</td>
<td>3.89</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>عدم توفير سياست واسعة للتعامل مع الفساد الإداري وال_splits_long</td>
<td></td>
<td>3.8</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>قد بعض الأدوات لوزارة و وعدم ملائمتها للظروف والأوضاع الحالية.</td>
<td>1.04</td>
<td>3.77</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>عدم وجود التنظيمي لوزارة التحليل.</td>
<td>1.11</td>
<td>3.7</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>صعوبة تفعيل الرقابة بسبب ضخمه جهاز الوزارة.</td>
<td>1.16</td>
<td>3.62</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>قلة دعم الإدارة العليا لenerimaّة إجراءات الإدارة الداخلية.</td>
<td>1.04</td>
<td>3.47</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>ضعف مناشدة الإدارة العليا لتنفيذ إجراءات الإدارة الداخلية.</td>
<td>0.98</td>
<td>3.32</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>عدم تفهم دور إدارة الإدارة الداخلية من قبل الإدارة العليا بالوزارة.</td>
<td>0.92</td>
<td>3.11</td>
<td>1</td>
</tr>
</tbody>
</table>

متوسط المتوسط والانحراف للمحور (ن = 74)

التفسير: يتضح من نتائج الجدول (8) أن أعلى متوسط في هذا المجال في العبارة رقم (7) التي تتعلق بالعبارة رقم (8)، وتتفق النتيجة مع دراسة ساكالوندا (Sakalunda,1999) و السبيعي (2010) التي توصلت إلى أن مستوى حدة المعوقات في تطبيق المساءلة في القطاعات الحكومية من وجهة نظر مجتمع دراسته كان مرتفعاً جداً.

وجاء أقل متوسط لعبارة في هذا المجال العبارة رقم (1) والعبارة رقم (2) وتتفق مع هذه النتيجة دراسة البابطين (2012) حيث حصل هذين البعدين في دراسته على رأي التعلم على درجة متوسط، وساكالوندا (Sakalunda,1999) في التأثير الزمني في إنجاز توصيات الإدارة الداخلية (و تحفيز) التي توصلت إلى أن الإدارة العليا في بعض الأحيان قد تمثل عائقاً أمام عمل الإدارة الداخلية. تأتي النتائج التوجهات الشخصية والسياسية التي تنتهجها الإدارة العليا.

السؤال الثالث: ما المقترحات التطويرية للمراجعة الداخلية بجهاز وزارة التربية على ضوء المحاسبة الإدارية؟

جدول (9): يوضح المتوسطات والانحرافات المعيارية لآراء عينة الدراسة حول المقترحات التطويرية لإدارة المراجعة الداخلية بجهاز وزارة التعليم على ضوء المحاسبة الإدارية

<table>
<thead>
<tr>
<th>الرتبة</th>
<th>العبارة المعيارية</th>
<th>المتوسط الحسابي</th>
<th>الانحراف القياسي</th>
<th>رقم العبارة</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>إعداد الكوادر المؤهلة من حملة الشهادات المهنية في إدارة المراجعة الداخلية.</td>
<td>0.75</td>
<td>4.65</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>إنشاء فاصلة معلومات وبيانات عن الإدارات المختلفة بجهاز الوزارة لتحديد مستوى الإدارات.</td>
<td>0.67</td>
<td>4.65</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>إيجاد أدلة تنظيمية توضح اختصاصات إدارة المراجعة الداخلية و نطاق صلاحياتها.</td>
<td>0.8</td>
<td>4.57</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>تشجيع مناخ تقبل عمليات المراجعة لدى جميع مسؤولي جهاز الوزارة.</td>
<td>0.7</td>
<td>4.57</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>اعتماد معايير علمية لعمليات المراجعة الداخلية تساعد في إجاءات الإدارة الداخلية.</td>
<td>0.83</td>
<td>4.54</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>إعداد دليل إشرائي واضح لإجراءات العمل في إدارة المراجعة الداخلية.</td>
<td>0.81</td>
<td>4.53</td>
<td>2</td>
</tr>
</tbody>
</table>

625
يتحدد من نتائج الجدول رقم (9) أن أعلى متوسط في هذا المحور العبارة رقم (9) تليها العبارة رقم (5)، ويفتر مع هذه النتيجة دراسة كل من الباحثين (2012) والمهالي (2011)، والتي بينت نتائج دراستها أن وحدات المراجعة الداخلية محل دراستها لم توفر التدريب المناسب للموظفين، كما أوضحت دراستها أن عدم توفر الموظفين المؤهلين أو قلةهم قد أثر على أعمال وحدات المراجعة الداخلية.

وكان أقل متوسط لعبارة في هذا المجال العبارة رقم (2) والعبارة رقم (3) ويفتر مع هذه النتيجة دراسة السهلي (2011) في أن الجهات الحكومية التي شملتها دراستها لم تتم بأعداد أدلة السياسات والإجراءات للمراجعة الداخلية ولا ميثاق المراجعة الداخلية، إلا أنها استعانت بالدليل الإرشادي لوحدات المراجعة الداخلية الذي أعد ديوان الرقابة العامة (2012).

جدول (10): المتوسطات والانحرافات المعيارية لآراء عينة الدراسة حول المقترحات التطويرية المتعلقة بالإدارات التي تخضع للمراجعة الداخلية

<table>
<thead>
<tr>
<th>الرتبة</th>
<th>العبارة المعيارية</th>
<th>المتوسط الحسابي</th>
<th>الانحراف المعياري</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>استخدام التقنية الحديثة في تنظيم سجلات العمل وتوثيقها بدقة</td>
<td>4.74</td>
<td>0.5</td>
</tr>
<tr>
<td>2</td>
<td>التعاون مع المراجع الداخلية وتقديم كافة المعلومات التي يحتاجها</td>
<td>4.68</td>
<td>0.62</td>
</tr>
<tr>
<td>3</td>
<td>إيجاد إجراءات التوثيق الرسمية في حالة محاكاة الموظفين المقصرين في أداء المسؤوليات</td>
<td>4.65</td>
<td>0.58</td>
</tr>
<tr>
<td>4</td>
<td>إيجاد أهداف واضحة للاستراتيجيات التي تتم مراجعتها</td>
<td>4.64</td>
<td>0.71</td>
</tr>
<tr>
<td>5</td>
<td>إيجاد توصيف دقيق للمهام والواجبات لكل موظف</td>
<td>4.61</td>
<td>0.77</td>
</tr>
<tr>
<td>6</td>
<td>توفير معايير آداء تتعلق بالعمليات المحاسبية، ويقوم عليها عملية التنظيم</td>
<td>4.59</td>
<td>0.62</td>
</tr>
<tr>
<td>7</td>
<td>وضع خطط العمل والمراجعات التأكيدية في الإدارة</td>
<td>4.57</td>
<td>0.7</td>
</tr>
<tr>
<td>8</td>
<td>ربط مهام الموظفين بالمواzewات المتوقعة منه في الإدارة</td>
<td>4.54</td>
<td>0.73</td>
</tr>
<tr>
<td>9</td>
<td>توظيف الصلحات للموظفين وفقاً لما تتضمن عليه اللوائح التنظيمية</td>
<td>4.53</td>
<td>0.74</td>
</tr>
<tr>
<td>10</td>
<td>المعايير في توزيع أعمال وبرامج الإدارة الداخلية والخارجية</td>
<td>4.51</td>
<td>0.67</td>
</tr>
<tr>
<td>11</td>
<td>إيجاد نظام واضح خاص بتقارير النتائج التربوية</td>
<td>4.49</td>
<td>0.73</td>
</tr>
</tbody>
</table>

متوسط المتوسط والانحراف للمحور

<table>
<thead>
<tr>
<th>العبارات</th>
<th>المتوسط</th>
<th>الانحراف</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>4.60</td>
<td>0.67</td>
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</tbody>
</table>

يتضح من نتائج الجدول رقم (9) أن أعلى متوسط في هذا المحور العبارة رقم (9) تليها العبارة رقم (5)، وتعزى نتيجة العبارة رقم (9) أهمية تطوير الأدوات الثقافية للمساهمة في تطوير الدراسات، فيما يتعلق بالعبارة رقم (11) تتفق هذه النتيجة مع دراسة السهلي (2011) والعفيفي (2007) التي أكدت على أن الضغف في توفر المعلومات والتوصيل الجيد لهذا يؤثر في كفاءة نظام المراجعة الداخلية، ويؤدي إلى تخفيض الاعتماد عليه.


جدول (11): المتوسطات والانحرافات المعيارية لآراء مجتمع الدراسة حول المقترحات التطويرية المتعلقة بالإدارة العليا بوزارة التعليم (كتب الوزير)
<table>
<thead>
<tr>
<th>الرقم</th>
<th>العبارة</th>
<th>المتوسط</th>
<th>الانحراف المعياري</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>إيجاد تسلسل إداري يوضح خطوط السلطة والمسؤولية والصلاحيات</td>
<td>4.68</td>
<td>0.58</td>
</tr>
<tr>
<td>2</td>
<td>قيام الإدارة العليا بوضع وصف وظيفي بحدود الوظائف التي تتطلبها مختلف الوظائف والتغيرات</td>
<td>4.68</td>
<td>0.53</td>
</tr>
<tr>
<td>3</td>
<td>وضع نظام خليفة واضح يلائم حجم وطبيعة أعمال الوزارة</td>
<td>4.62</td>
<td>0.59</td>
</tr>
<tr>
<td>4</td>
<td>إيجاد هيكل تنظيمي واضح يلائم حجم وطبيعة أعمال الوزارة</td>
<td>4.61</td>
<td>0.66</td>
</tr>
<tr>
<td>5</td>
<td>تنفيذ الإدارة العليا لمنهج المحاسبة (المساءلة) الملائمة لعمل الوزارة</td>
<td>4.61</td>
<td>0.66</td>
</tr>
<tr>
<td>6</td>
<td>إعداد وظيفة المراجعة الداخلية من حيث كفاءة الموظفين</td>
<td>4.57</td>
<td>0.7</td>
</tr>
<tr>
<td>7</td>
<td>ضمان استقلالية المراجع الداخلي</td>
<td>4.54</td>
<td>0.8</td>
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<tr>
<td>8</td>
<td>تقييم وظيفة المراجعة الداخلية من حيث كفاءة الموظفين</td>
<td>4.53</td>
<td>0.8</td>
</tr>
<tr>
<td>9</td>
<td>تفتيش مدى استجابة الإدارات، التي خضعت للمراجعة، إلى تقارير المراجعة الداخلية</td>
<td>4.45</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>متوسط المتوسط والانحراف المعياري للمحور</td>
<td>4.588</td>
<td>0.68</td>
</tr>
</tbody>
</table>


خامساً: التصور المقترح، التوصيات، البحوث المستقبلية المقترحة

1) التصور المقترح لتطوير نظام المراجعة الداخلية في جهاز وزارة التعليم على ضوء مفهوم المحاسبة الإدارية.

أهداف التصور المقترح:
- تحديد الإجراءات الملائمة لتطوير نظام المراجعة الداخلية بوزارة التعليم في ضوء المحاسبة الإدارية.
- الاستمرار الأمثل للموارد البشرية والمالية المتاحة، لتحقيق النتائج المرجوة من الإدارة العامة للمراجعة الداخلية بوزارة
- تحسين منسوبي الإدارة العامة للمراجعة الداخلية (معنويًا وماديًا).
- نشر ثقافة المراجعة الداخلية ومحاسبة في وزارة التعليم.

المنشطات الأساسية التي تبني عليها التصور المقترح لتطوير نظام المراجعة الداخلية بجهة وزارة التعليم على ضوء المحاسبة الإدارية:
- ما هدفت إليه خطة التنمية التاسعة (2010م - 2014م) حيث أиндقت الأساس الاستراتيجي للخطة على رفع الكفاءة، وتحسين الآداء، والعمل على ترسيخ مبدأ الوعي الشفاف والمحاسبة.

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إن جائت الاستراتيجية الوطنية لحماية النزاهة ومكافحة الفساد (1428 هـ)، وإنشاء الهيئة الوطنية لمكافحة الفساد بهدف حماية النزاهة وتعزيز مبدأ النزاهة المحاسبية داخل المؤسسات والأجهزة الحكومية.

استراتيجية تطوير التعليم (1434 هـ) نصت في السياسة الثالثة من الأهداف العامة للأهداف العامة للإستراتيجية الوطنية لتطوير التعليم حتى العام 1444 هـ على تطوير نظام وطني للمحاسبية يعتمد إلى النتائج ويدعم التحسن المستمر في الاداء.

قرار مجلس الوزراء رقم (921) وتاريخ 6/4/1428 هـ بإنشاء وحدة للمراجعة الداخلية في كل جهاز من الأجهزة الحكومية والمؤسسات العامة.

الاتجاهات العالمية المعاصرة التي تناول تطبيق المراجعة الداخلية والمحاسبية في القطاع الحكومي بشكل عام وفي التعليم بشكل خاص، من أجل رفع كفاءة العمل.

- محاور التصور المقترح:

1. الالتزام التام من الإدارة العليا بالوزارة (المحاسبية) كمنهج يدعم المراجعة الداخلية.
2. تسلسل خطوط السلطة والمسؤولية في توزيع الصلاحيات وتقبل المحاسبية.
3. إنشاء وتعليم قاعدة معلوماتية في الوزارة، لقوم نظام فاعل من التواصل بين الإدارات بجهة الوزارة.
4. التنمية المهنية المستمرة للكوادر العامة في المراجعة الداخلية بالوزارة.
5. نشر ثقافة المراجعة والمحاسبة بين مستفي الوزارة.

- آليات تفعيل محاور التصور المقترح:

تتعدد إجراءات تفعيل محاور التصور المقترح بالجهات ذات العلاقة في جهاز وزارة التعليم وفقًا لهيكل التنظيمي للوزارة، وهي كالتالي:

أ- الإدارة العليا في جهاز وزارة التعليم (مكتب الوزير):

وتتعدد مسئولياتها بالآتي:

1. وضع خطة استراتيجية للمراجعة الداخلية بالوزارة قائمة على بنود اللائحة الموحدة وبروية واضحة.
2. وضع منهج ومعايير للمحاسبية الإدارية ملائم للعمل بالوزارة، وجعله جزءًا من العملية الإدارية على مختلف المستويات التنظيمية.
3. إعداد تسلسل إداري يوضح خطوط السلطة والمسؤولية والصلاحيات.
4. تحميل الاستقلالية للإدارة العامة للمراجعة الداخلية في جهاز الوزارة (ماليًا وتنظيميًا).
5. دعم الإدارة العامة للمراجعة الداخلية بالعدد الكافي والكافي من الكوادر البشرية.
6. إصدار الإدارة العليا جمع الإدارات بالتعاون مع تقارير المراجعة الداخلية.
7. وضع نظام للحوافز والترقيات ملائم في الوزارة.
8. وضع نظام معلوماتي تبنى شبكة داخلية بين وكالات وإدارات العموم والإدارة العامة للمراجعة الداخلية.

ب- الإدارة العامة للمراجعة الداخلية

وتتعدد مسئولياتها بالآتي:

1. تحديد أهداف الإدارة العامة للمراجعة الداخلية بدقة، والإعلان عنها لجميع متدفقي جهاز الوزارة.
2. توفير آلة تنظيمية إدارية للمراجعة الداخلية بالوزارة، توضع اختصاصات إدارة المراجعة الداخلية ومهامها ونطاق صلاحياتها.
3. تنفيذ عملية المراجعة وفق معايير علمية واضحة ومحددة.
نشر ثقافة المراجعة والمحاسبية وتوعية مناخ تقبل لعمليات المراجعة لدى جميع مسؤولي جهاز الوزارة.

- الإدارات بجهات وزارة التعليم (التي يتم مراجعتها)

وتحدد مسؤولياتها في الآتي:

- تحديد الأهداف العامة للإدارة بمشاركة جميع مسؤوليها، وربط مهامهم بتحقيق هذه الأهداف.
- توفير الأدلة التنظيمية والإدارية لعمل الإدارة، وتوفير الخطط التشغيلية لكل إداري/ قسم بالوزارة.
- قيام عمل وإجراءات باستخدام التقنية الحديثة.
- متابعة تنفيذ توصيات الإدارة العامة للمراجعة الداخلية.
- حيث جميع العاملين على التعاون الجيد والفاعل مع المراجعين الداخليين.

4/ التوصيات

في ضوء أهداف الدراسة ونتائجها، تقدم الباحثة عدة من التوصيات:

1. الالتزام باللائحة الموحدة لوحدات المراجعة الداخلية في الأجهزة الحكومية والمؤسسات العامة.
2. دعم الإدارة العليا للإدارة العامة للمراجعة الداخلية بالكوادر البشرية المؤهلة.
3. الاهتمام بالتأهيل والتدريب المستمر للمراجعين الداخليين.
4. توفير أدلة تنظيمية وإجرائية واضحة للمراجعة الداخلية إدارة العموم.
5. تطوير أنظمة ملائمة للحوافز في الوزارة، وتوفير سياسات واضحة للتعامل مع الفساد الإداري والمحالي.
6. تطوير نظام للمعلومات والاتصال بين إدارات العموم والإدارة العامة للمراجعة الداخلية.
7. إجراء المزيد من البحوث والدراسات في مجال المراجعة الداخلية والمحاسبية بهدف تعزيزها.

5/ البحوث المستقبلية المقترحة

1. دراسة واقع المراجعة الداخلية والمحاسبية في الأجهزة والمؤسسات الحكومية في السعودية.
2. دراسة أثر تطبيق المحاسبية على فعالية وتقويم الأداء في الأجهزة والمؤسسات الحكومية.
3. دراسة أثر المحاسبية في الحد من الفساد الإداري والمحالي.
4. دراسة أثر المحاسبية في الحد من الفساد الإداري والمحالي.
5. إجراء دراسات مقارنة مع الدول المتقدمة في مجال المراجعة الداخلية والمحاسبية.

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Knowledge Management Capabilities and its impact on Organizational Creativity in SME’s

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Abstract
This study aimed to investigate the impact of Knowledge Management Capabilities (KMC) on Organizational creativity (Process and Technological creativity) in Information Technology (IT) Small and Medium Enterprises (SME’s). An adapted questioner where prepared in order to collect data from 40 SME’s out of 207 SME’s working in this industry and members of Information and Communications Technology Association (INTAJ). Regression, t-test and correlation test were used to analyze the filled data of 210 valid questioner which filled by top, middle, and lower levels of management. The results showed that there is a positive impact of overall KMC dimensions (Acquisition, Creation, Storing, Sharing, Application, and Protection) on process creativity and technological creativity.

Keywords: Knowledge Management Capabilities, Organizational creativity, Process creativity, Technological creativity, Small and Medium Enterprises SME’s, Jordan.

Introduction
Many Scholars identified the importance of Knowledge Management (KM) for the organizations and its positive impact on organizations’ performance. KM means how to discover, develop, utilize, deliver, and absorb knowledge inside and outside the organization through appropriate management process to meet current and future needs (Quintas et.al., 1997).

Researchers identified and noticed the importance of Small and Medium size Enterprises (SME’s) in different countries, this type of enterprises has important role in increasing production and absorb large numbers of the workforce in addition to its’ importance of increasing the revenue, income, creativity and technological progress. According to the World Bank (WB), (2014) reports the share of Small and Medium Enterprises (SME’s) in many countries could reach 75% of economic activity. Which shows the importance of SME’s for the economic structure.

Like the developed countries which relies on the SME’s, the researchers found that the SME’s enterprises in Jordan represents (97%) of total of Jordanian companies (the Department of Statistics DOS, 2011-2006) and the contribution of SME’s in the national economy is more than 50% of GDP, as well as they employ more than 60% of Jordanian workforce and create
up to 70% of new jobs (SME agenda, 2011, the Department of Statistics DOS, 2011.2010). It is a challenge for the Jordanian SME’s to compete globally in order to survive and to keep huge size of workforce in these companies.

The Orbiter of the global changes in the markets evolutions and due to the changes of tastes of consumers made the most important elements of business continuity which includes adaptability of the companies in the light of these changes and flexibility in responding to the new customer requirements and their needs, therefore, we found that SME’s have a better chances of survival and growth of structures with large companies, where it is characterized by high flexibility and ability to respond to changes more quickly than large companies and this is a feature of these companies facing this new situation in the business world, so the importance of creativity appears to delight the user needs and to fulfill their expectations.

Information Technology (IT) sector (surveyed sector) is too important sector for Jordan because of the huge investment volume with more than (3.6) billion USD, (2.5) billion US dollars as foreign investment, and this sector employs more than 11000 workers spread over more (207) companies. The exports of the IT sector around (635) million US dollars to more than 30 countries (Information and Communications Technology Association INTAJ, 2013).

For the last three years the sector and the SME’s working in this sector faced many difficulties and there is decreases of sales volume and many of the these companies phased out and closed also severe competition at the regional and global levels (INTAJ, 2013), it turns out that there is a decrease in the number of companies operating in the sector and that the volume of returns is witnessing a decrease in the Jordanian market, where information technology sales witnessed a decline in the years 2009, 2010 and 2011 and 2012 and amounted to -6.81%, -22.7%, -4.2% and -37.5% respectively (INTAJ, 2012). For all of that the Jordanian IT SME’s which depends on its KMC should go further steps in creativity and innovation in order to compete and to enter new international markets.

**Theoretical background**

**Knowledge Management Capability KMC**

Knowledge Management (KM) concept cannot be limited in a single definition or from one point of view. Liu (2011) sees that KM aims to create, absorb information and knowledge through processes among the employees to enhance organizations’ competitiveness. While Nonaka and Takeuchi (1995) focused on the faith and true belief which works to increase individual’s or Firm’s performance and effectiveness.

As for KMC it could be defined as it is a collection of procedures and strategies of the organization shows the organization's ability to acquire and apply and protect and acquisition of knowledge, also dissemination and storage this knowledge to enable the organization to take advantage of this knowledge in order to create new value to contribute to the improvement of the organization's performance and enhance their creativity (Zahra & George, 2002).

KMC deals with the organizational knowledge for creation and generate greater value for business, as well as the production of unique products to achieve competitive advantage
for business. The knowledge management include optimal implementation of the processes required to manage the organization effectively as it organized and systematic process of dealing with re-construction of knowledge of the organization in order to expand the knowledge gained to contribute effectively to the success of the organization and the consolidation of market value (Wiig, 1997).

In this manner Freeze & Kulkarni (2007) clarified that knowledge management capabilities is the ability to start work in the activities derived from the knowledge, which arise from many sources, experience, and knowledge workers who are responsible for utilization of processes and techniques provided by the institutions to reflect the effectiveness of using organizational knowledge management assets.

KMC dimensions

By reviewing the KMC literature and the researchers contribution to define the KMC dimensions as knowledge creation, storing, dissemination and application Alavi & Leidner (2001), also KMC dimensions contains knowledge convert, acquire, application and Knowledge protection Gold et al. (2001). Also KMC classified as knowledge discovery, knowledge capturing, knowledge sharing and finally knowledge application (Becerra-Fernandez, Gonzales, Sabherwal, 2004).

In this study the KMC dimensions contains:

1. **Knowledge acquisition**: It is the process by which to search for knowledge and acquiring this knowledge to be one of the organization's assets and also are trying to get and extract new knowledge from the knowledge that already exist through cooperation among individuals and partners in the organization so it is clear that it is the organization's ability to extract information and ideas from the external and internal environment (Liao & Wu, 2009).

2. **Knowledge Creation**: it is the process by which workers exploring new knowledge or build on existing knowledge and focused knowledge generation process Control starting to expand the knowledge being generated by individuals and then fleshed out at the community level through dialogue, conversation, and share in the experience, or Community of Practice it originates from within the organization itself (Massa & Testa, 2009).

3. **Knowledge Storing**: it is the process of building the memory of the organization where, through the storage and retrieval of knowledge retention and the perpetuation of this knowledge this knowledge are stored either by using paper documents and references or saved electronically (Zeiadat, 2008)

4. **Knowledge Sharing**: it is the participatory process of knowledge among members of the organization where that will lead to a participatory find seize new knowledge and therefore use the old knowledge and new knowledge, it include the exchange of experiences, practices and ideas
among workers who need this knowledge in a timely manner (Dalkir, 2005).

5. **Knowledge application**: it is the ability to retrieve and use of knowledge to support the decisions and actions, problem solving and automating routine business and provide measures to facilitate business (Rastogi, 2000). This could be done by implementing solutions to do such work.

6. **Knowledge protection**: In general Knowledge protection can be defined as the ability to develop the necessary mechanisms to protect and save the knowledge and to secure knowledge from inappropriate use or illegal or protect them from theft or loss (Gold, Malhotra & Segars, 2001).

**Organizational creativity**

In this study the researchers studied the organizational creativity into dimensions, process creativity and technological creativity.

*Process creativity*: it means reviewing and rearranging production methods that result in new ways to make existing products on the market. It is expected from these new methods of production higher profits, although this expectation may not be achieved (Troilo, 2004).

*Technological creativity*: is a key component of the components of creativity in organizations. And technological creativity can be the methods of production, which aims to improve productivity to reduce the cost of production methods. And also it can be a technological creativity linked to the same product in terms of work changes in the specifications and characteristics of the product in order to meet the wishes of customers (Okel, 1994). The importance of technological creativity has been declared that whenever there was cooperation between the suppliers of IT products, the greater the creativity which is the goal for companies in order to support the company's competitive advantage (Minguela-Rata et al., 2014).

**Research Model and Hypotheses**

According previous studies ((Plessis, 2007), (Lio & Tsai, 2007), (Jenny & Maria, 2013)) the study proposed the study model which consists of two kinds of variables: an independent variable, which is Knowledge management capability construct, and dependent variable which is Organizational creativity (Process and Technological creativity). As mentioned above the KMC will consist Knowledge acquisition, knowledge creation, knowledge storing, knowledge sharing, knowledge application and knowledge protection.
The Model

The Proposed model in figure 1 as follows.

![Proposed Conceptual Framework](image)

**Hypotheses**

According the arguments presented in this part the following hypotheses constructed:

- **H1o.** There is no statistically significant impact of knowledge management capabilities at \( (\alpha \leq 0.05) \) of on Process creativity

- **H2o.** There is no statistically significant impact of knowledge management capabilities at \( (\alpha \leq 0.05) \) of on Technological creativity

**Methodology**

*Population and sampling:* The study population includes the managerial levels in SMEs of Information Technology sector of Jordan. The criterion used for size defines SMEs as firms that fulfil the criteria of the Amman chamber of Industry and Trade and industry ministry: firms that employ fewer than 250 workers as below classification, Firms that met the previous requirements were 207 firms. The data were gathered during November 2014. The number of firms selected were 45 firms, and we distributed 300 copy of study questionnaire to the top management, middle management and lower management levels in these firms. We receive 210 valid questionnaire from 35 firms; 12 were medium firms and 23 small firms.

*Instrument study:* A questionnaire were prepared by researchers in order to collect the study data from random selected firms. For KMC was measured using adapted scale from previous studies (Maponya, 2004; Choi et al., 2008; Earl, 2003; Hsin-Jung Hsieh, 2007) and for organizational creativity Gatignon & Xuereb (1997), Calantone, Cavusgil, & Zhao (2002). The researchers used a Likert scale from 1 to 5, where 1 represents Strongly Disagree and 5 strongly agree.
Validity and reliability of data

Validity: the scale were sent to the experienced academic staff from the Dep. of business administration in Jordanian universities for their suggestions and researchers made some modifications according the panel suggestions and comments in order to verify the instrument’s validity and objectives of the study.

Reliability: by using Cronbach alpha coefficient to measure the reliability of the collected data. The scale’s reliability was good, the Alpha Cronbach obtained was 0.928 for the scale of KM capabilities and 0.865 for the scale process creativity and 0.837 for the scale technological creativity (the recommended acceptable minimum is 0.7, according to Hair et al., 2004, Sekaran & Bougie, 2010), confirming the scale’s internal consistency.

Data Analysis and Results

Researchers used multiple regression and stepwise analysis were used to assess the effect of Knowledge management capabilities on process creativity and technological creativity in Jordanian IT SME’s.

Analysis of first hypothesis

H1o. There is no statistically significant impact of knowledge management capabilities at (α ≤ 0.05) on Process creativity

In below table 1 the summary of results.

Table 1: Summary of Stepwise regression for the relation between KMC and Process creativity

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>R²</th>
<th>f</th>
<th>Sig f</th>
<th>b</th>
<th>Standardized β</th>
<th>t</th>
<th>Sig(t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Sharing</td>
<td>0.672</td>
<td>0.452</td>
<td>42.19</td>
<td>0.000*</td>
<td>0.658</td>
<td>0.226</td>
<td>3.05</td>
<td>0.003*</td>
</tr>
<tr>
<td>Knowledge Protection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.284</td>
<td>4.90</td>
<td>0.000*</td>
</tr>
<tr>
<td>Knowledge Creation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.201</td>
<td>2.95</td>
<td>0.003*</td>
</tr>
<tr>
<td>Knowledge Application</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.167</td>
<td>2.46</td>
<td>0.015*</td>
</tr>
<tr>
<td>Knowledge Acquisition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.117</td>
<td>1.54</td>
<td>0.125</td>
</tr>
<tr>
<td>Knowledge Storing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.038</td>
<td>0.50</td>
<td>0.612</td>
</tr>
</tbody>
</table>
The study found that: there is positive statistically significant relationship between KMC dimensions (Knowledge Sharing, Knowledge Protection, Knowledge Creation, Knowledge Application) and process creativity in Jordanian IT SME’s. This result is consistent with previous studies in terms of the impact and direction. Pinar & Kor (2010) found that knowledge application has a positive impact of KMC on process creativity. Also the study consistent with Jenny & Maria (2013) found that KMC have positive impact on process creativity in Spanish IT SME’s and with Su-Chao & Ming-Shing, (2008) which found there is a positive impact of organization KMC and process creativity.

**Analysis of the second hypothesis**

*H2o. There is no statistically significant impact of knowledge management capabilities at (α ≤ 0.05) on Technological creativity*

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>R²</th>
<th>f</th>
<th>Sigf</th>
<th>b</th>
<th>Standardized β</th>
<th>t</th>
<th>Sig(t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Sharing</td>
<td>0.675</td>
<td>0.455</td>
<td>42.78</td>
<td>0.000*</td>
<td>0.430</td>
<td>0.249</td>
<td>3.28</td>
<td>0.001*</td>
</tr>
<tr>
<td>Knowledge Protection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.226</td>
<td>3.37</td>
<td>0.001*</td>
</tr>
<tr>
<td>Knowledge Application</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.170</td>
<td>2.93</td>
<td>0.004*</td>
</tr>
<tr>
<td>Knowledge Acquisition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.205</td>
<td>2.88</td>
<td>0.004*</td>
</tr>
<tr>
<td>Knowledge Creation</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>0.125</td>
<td>1.73</td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td>0.113</td>
<td>1.51</td>
<td>0.132</td>
</tr>
</tbody>
</table>

According to the tests results as shown below in Table 2 the study found that: there is a positive impact of KMC (Knowledge Sharing, Knowledge Protection, Knowledge Application, and Knowledge Acquisition) and technological creativity in Jordanian IT SME’s. This result is consistent with previous studies in terms of the impact and direction like Tanriverdi, (2005) study which found that organization with mature KMC supports and improves the creativity. Also it consistent with Lin, (2013) study that found that organization can build on the acquired knowledge and improve it through experience in order to improve the Technological creativity in order to accomplish the organizations’ goals and objectives. Also this study consistent with...
Pinar & Kor, (2010) study that found that Knowledge Acquisition and knowledge Application have positive impact on technological creativity.

Conclusion
The main purpose of this study is to examine the effect of knowledge management capabilities on organizational creativity (process creativity and technological creativity) in Jordanian IT SME’s, by analyzing data of the collected 210 questionnaire from 40 Jordanian IT SME’ the empirical study results revealed that there is a positive impact of KMC on the process creativity and technological creativity in Jordanian IT SME’s. These findings are consistent with the previous studies that have shown that there is a significant effect of knowledge management on the process creativity and technological creativity. For future studies the researchers recommends to make such study in different SME’s working in other industries than the IT sector, and to study the impact of KMC on the big size companies.

References


