

“Impact of Risks in Limiting E-Commerce: Evidence from Jordan”

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Introduction

Buying and selling are known from ancient times; the Silk Road from China to Middle East countries is an indicator of ancient trading. Many ruins all over the world also indicate this issue. Ancient Manufactory countries attacked other countries outside its borders to enlarge its trading and to insure the trading roads. Nowadays; the world became as a small town; where some issues in far countries get echo in other countries in few seconds. E-commerce is one of the issues that affected by globalization, and the revolution of IT in communication is the trading between producers of products or services, and their customers through local, national, and international countries. Trading or commerce nowadays has been developed in its size independently on roads, but on the way of communication between producers and the customers. E-commerce is “buying and selling of products and services by businesses and consumers through an electronic medium, without using any paper documents” (Sagir, 2016). It became possible in 1991 when the Internet was opened to commercial use. Since that date thousands of businesses have taken up residence at Web Sites (Baig , 2011) . Electronic commerce is a new marketing era, it has been spread all over the world, it developed other sorts of marketing as viral marketing, this widely expand all over the world is due to its characteristics as mentioned above.

Scope of Study

This study interests in business to consumer type of e-commerce (B2C) , where customers here are members in insurance sector in Jordan who transacted by internet. Insurance sector employees are taken as a population of this study to discard unfamiliarity factor, those employees used high technology in serving their customers. They deal with websites of e-commerce. Those employees may be the more e-commercial customers having awareness about risks accompanied with it.

Problem of Study

In spite of E-commerce advantages, its use in Jordan is very limited; where 5% of internet users do online transactions in Jordan. Due to that, the problem of this study can be stated as: “To explore the effect of risk resources accompanied with e-commerce that limiting E-commerce from the perspectives of Jordanian insurance company employees who experienced E-commerce.”

Objectives of Study

We try to achieve the following objectives: Identify risk resources factors accompanied with E-commerce transaction. Determining importance averages of e-commerce risk resources from used websites in limiting it in by the subjects of insurance companies’ employee. Examine the effect of demographic variables on importance averages of those factors in limiting E-commerce. Explore the relationship between predictor

variables (Perceived Ease of Use ,Perceived Usefulness, Perceived Risk with Product /Service, and Perceived service quality) and the criterion variable (E-commerce transaction).

Importance of Study

This study may add new findings to the literature in this subject, especially in exploring identifying, weighting, and ranking main factors of risks affecting e-commerce in Jordan from the point of view of insurance companies employees. Propose recommendations to avoid some sorts of risks facing e-commerce in Jordan. Determining the size of the E-commerce transactions in insurance sector in Jordan Examine the effect of gender, age and positions on E-commerce transactions in the insurance sector in Jordan. Determining the characteristics of the websites used in E-commerce transactions from point of view of Jordanian employees in insurance sector.

The remainder of this study is organized as follows: Section 2 reviews Literature. Section 3 provides the Methodology. Section 4 discusses the Results and the last section shows the conclusion and recommendations.

Related Literature and Studies

Al-Alak and Al-Saed (2006) determine whether consumer reactions to website influence their subsequent brand attitude, and assess whether these websites have an impact on consumers' attitudes toward Internet advertising itself. The study findings show that most of the respondents said that the website had a positive impact on the recall of brands seen on the Internet, leading to improving their views of the brand. Besides, it is revealed that consumers who feel that websites improve their perceptions of brands see more advantages in Internet advertising, but they perceive more disadvantages as well. Finally, consumers highly favored advertising in other media, such as TV and magazines.

David and Heart (2006) explore whether definitions of trust beliefs as conceptualized and verified in the U.S. apply in Palestine which differs markedly in individualism, of uncertainty avoidance, and power distance. The data, cross-validating the scale of trust and its antecedents in both cultures, generally support the proposition that trust beliefs apply across cultures, and may be a relatively unvarying aspect of e-commerce. However, as expected, the effects of predictability and familiarity on trust beliefs may differ across national cultures.

Baig et al. (2011) conduct a cross-cultural study aims to analyze the pattern of e-commerce adoption on consumer perspective and the factors that have greater influence in the adoption of e-commerce as a comparative study between Sweden and Pakistan. The found that: factors of trust on online sellers, national culture, infrastructure involved in the overall e-commerce activities and education level of consumers have significant impact on the adoption of e-commerce. the national culture whereby the propensity to trust on the online seller and risk taking are influenced to a great extent by different cultural orientation of consumers. Swedish culture appears to be more adaptive towards e-commerce than the Pakistani culture. Swedish customers exhibit more trust on suppliers' of online services and products. Insufficient infrastructure and low education level are also the main hurdles that refrain most of the consumers in Pakistan to make online purchases.

Jusoh and Ling (2012) conduct (product perception, customers' service and consumers 'risk) affect consumers' attitude towards online shopping. The results show that there was no significant difference in attitude towards online shopping among age group ($F = 1.020, p < 0.05$). The research finding showed that there was a significant difference in attitude towards online shopping among income group ($F = 0.556, p > 0.05$). There was no significant difference in attitude towards online shopping among occupation group ($F = 1.607, p < 0.05$).

Al Ghamdi et al. (2013) study the present standing of e-commerce in Saudi Arabia, as well as the challenges and strengths of Business to Customers (B2C) electronic commerce. This study aimed to review the literature identifying the factors influencing the adoption and diffusion of B2C e-commerce.

The study found that e-commerce in Saudi Arabia was lacking Governmental support as well as relevant involvement by both customers and retailers.

Akbar and Saad (2014) investigate Consumers' attitude towards online shopping. The study found that: Search engines had a moderate relationship to receptivity to a study aims to investigate factors influencing towered E-commerce purchases through online shopping. The study also investigate how socio-demographic (age, income and occupation), pattern of online buying (types of goods, e-commerce experience and hours use on internet) and purchase perception to online shopping($r = 0.344$), Online shopping malls had a moderation relationship to receptivity to online shopping($r = 0.239$), and Auction websites had a Strong relationship to receptivity to online shopping ($r = 0.508$).

What distinguishes this study from previous ones?

The previous studies interested in matching their community beliefs with other cross-cultural communities about e-commerce as done by David and Heart (2006) in occupied Palestine. Other studies done by Al-Alak *et al.* (2006) in Jordan, Jusoh and ling (2012), Akbar and Saad (2014), are interested on studding attitudes towered E-commerce as a source of threat from online purchasing behavior. Other studies as Al Ghamdi *et al.* (2013) study reviews the literature of identifying the factors influencing the adoption and diffusion of B2C e-commerce. Al-Bayati (2011) conducts a study, aims to clarify the impact of E-commerce on Supply chain management and E-marketplace usage in the companies that use B2B ecommerce in Amman city. This is the first study in Jordan that examines the impact of perceived risk resources coming from websites characteristics in limiting E-commerce transactions, This approach is a different approach in identifying the factors of risks from direct observations of customers when using E-commerce when they transact by E-commerce. In addition, this study examines the effect of risk sources on limiting E-commerce in Jordan.

Methodology of Study

Populating and sample of Study

The population is composed of all members who work in 25 insurance companies in Jordan in may/2016. The sample composed of the officials of five insurance companies (Arab insurance, middle east, Arab orient, Jordan French insurance, Arab assurance companies), which were selected randomly from the mentioned 25 insurance companies. The sample size was composed of 84 subjects (58 male, 26 female); this number reflects the retained valid questionnaires from the 220 questionnaires distributed by hand to the subjects.

Tool of Study

A questionnaire of 30 items on Likert scale of 5-levels applied on web characteristics part was developed to measure the factors lowering the e-commerce in Jordan trading according to the usage of the common used E-commerce webs (Amazon, eBay, Alibaba, and others). These items were collected from published documents of study tools in the same topic in University of Minnesota conducted by Lee.D, Park.J, Ahn.J, 2001. Multiple Linear Regression analysis procedures were conducted to test the hypothesis of the study (Pedhozur, 1982). T-test for independent samples to study the difference between two unrelated groups. One way ANOVA was used to study the difference between three or more unrelated groups (Pedhozur, 1982). SHEEFE procedure is used when ANOVAs shows significant differences between means, it is used to conduct multiple comparison of groups means in order to identify which any group mean is different significantly from any of the others (Gonzalez, 2013).

Variables Definition

- **Demographic variables**
Gender, Age, and Position
- **Dependent Variables**

E-commerce Transaction that includes: Amount of online purchasing (money in JD), Delay time in delivery (in days), Amount of money lost (in JD), Frequency of Attaining Different product (numbers), and Transaction loss.

Independent Variables; which are Web characteristics as sources of risk in dealing with E-commerce. It is the estimated scores of the sample subjects on the questionnaire items of: Perceived Ease of Use, Perceived Usefulness, Perceived Risk with Product/Service, Perceived Risk in the Context of Transaction, and Perceived service quality.

Model of Study

This study applies descriptive research design in exploring the factors of risk resources that limiting doing E-commerce transactions, and studying the effect of demographic variables (gender, age, position of the customer). It also applies the correlated designs in extracting the prediction coefficients between dependent variable (E-commerce transaction), and independent variables (Perceived Ease of Use ,Perceived Usefulness, Perceived Risk with Product /Service, and Perceived service quality). Therefore, the model can be formulated as :

E-commerce transaction = B0+ B1 * (PEU) + B2*(PU)+B3* (PRP) + B4* (SQ).
 Where B0=constant (intercept), B =regression coefficient of the independent variable.

Results and Discussion

Transaction in E-commerce

Table 4-1 shows that the total Amount of online purchasing paid by the sample individuals was 39,472JD, while the total number of transactions was 114 made by the sample subjects (84 subject) . From this evidence it could be concluded that every subject paid (39472/84) 470JD 500JD /year. This quantity is reasonable, where the GDP per Capita in Jordan is 5,174\$ (World Economic Outlook Databases, 2016). It seems from Table 4-1 also that the most website used in E-commerce by the sample members was the other websites (52 transactions), with an amount of 26,772JD paid for those transactions by the users of other websites. The lower web used in E-commerce by the sample numbers was Ali Baba website, where the number of transactions was 12 transactions, and the amount of purchasing payments for them was 3000 JD. Also it seems from the Table (4-1) there is 74 cases of delay, the total sum of delay was 624 days .the highest delay cases 38 was found in others website with total sum of delays 374 days, where the lowest transactions equal 6 done by Ali Baba website with total sum equals 46 days. It also shows that the total amount of money lost in email transactions (16 transactions) was 198 JD. The highest total sum of amount lost was 72 JD done by e-bay with 6 transactions by sample subjects, where the lowest was 22 JD happened with 2 cases in Ali Baba. The total cases Transaction loss was happened with 34 members in 22 transactions. The highest total sum of Transaction loss was 14 done by eBay with 8 transactions by sample member , where the lowest total sum was 2 happened with 2 cases in Amazon.

Table 4-1 : frequencies, sum of e-commerce transactions by websites.

Website	Amazon		eBay		Ali Baba		Others		Total	
	N	Sum	N	Sum	N	Sum	N	Sum	N	Sum
transaction finance	N	Sum	N	Sum	N	Sum	N	Sum	N	Sum
Amount of online purchasing (money in JD)	22	2680	28	7020	12	3000	52	26772	114	39472
Delay time in delivery (in days)	12	52	18	152	6	46	38	374	74	624
Amount of money lost (in JD)	2	60	6	72	2	22	6	44	16	198
Frequency of Attaining Different product(numbers)	6	12	6	24	2	100	18	54	32	190
Transaction loss	2	2	8	14	2	6	10	12	22	34

Table 4-2 shows Sum of Squares, Mean Squares and f-test of e-commerce transaction according to websites as source of variation .The distribution of the amounts in the table above(4-1) are not uniform, where it seems from Table 4-2 that the websites means were differ significantly (sig 0.05) on: “Frequency of Attaining Different product”, where F-test=3.06 and on” Amount of money lost”, where F= 10.62

Table4-2: Sum of Squares, Mean Squares and f-test of e-commerce transaction according to websites as source of variation

transaction finance	Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Amount of online purchasing (money in JD)	Between groups	2952941	3	984313.79	1.96	0.12
	Within groups	55259504	110	502359.13		
	total	58212445	113			
Frequency of transactions	Between groups	2089.435	3	696.48	3.06	0.03
	Within groups	25058	110	227.80		
	total	27147.44	113			
Amount of money lost (in JD)	Between groups	778.417	3	259.47	10.62	0.00
	Within groups	293.333	12	24.44		
	total	1071.75	15			

Table (4-3) shows Means, Std. Deviation of E-commerce transactions by gender groups, and Mean Difference with t-test value. It indicates that the difference in the mean of amount of online purchasing between males and females of the study sample was 47.88 (360.53-352.57), which is not significant at (p 0.05), where t-test value=0.33. It is clear that the difference in mean of frequency of transactions between males and females of the study sample was 0.93(7.88-6.94), which is significant at (p 0.05), where t-test value=0.29. According to the first hypothesis of the study which handled the effect of gender on E-commerce transactions , it is shown from Table 4-3 that there are no statistically significance differences at (p 0.05) of gender on any of E-commerce transaction components Amount of online purchasing (money in JD) and Frequency of transactions accordingly we accepted the null hypothesis H1;There are no significance differences at (0.05) of gender on the e-commerce transaction .

Table 4-3: Means, Std. Deviation of E-commerce transactions by gender groups, and Mean Difference with t-test value,

e-commerce Transaction	gender	N	Mean	Std. Deviation	t	df	p	Mean Difference
Amount of online purchasing (money in JD)	male	80	360.53	827.19	0.33	112	0.75	47.88
	female	34	312.65	352.57				
Frequency of transactions	male	80	7.88	17.27	0.29	112	0.77	0.93
	female	34	6.94	10.38				

Table (4-4) shows Sum of Squares, Mean Square, Degree of freedom (df) and F-test according to Age groups as a source of variation on e-commerce Transaction .According to the hypotheses talking about the effect of client age on E-commerce transactions components (Amount of online Purchasing, and Frequency of transactions); it was found that the means of E-commerce transactions were differ significantly at Amount of online Purchasing at ($p < 0.05$) and the Frequency of transactions done by members of the study . The age group means of Amount of online Purchasing are not equal, where F-test=8.99, which is significant at ($p < 0.05$). It is obvious that the age group means of Frequency of transactions are not equal also, where F-test=3.39, which is significant at ($p < 0.05$). Accordingly we reject the null hypothesis (There are no statistically significance differences at ($p < 0.05$) of age on the e-commerce transaction). This result disagree with what Jusoh and ling found in their study of no significant differences in attitude towards online shopping between age groups ($F = 1.020, p < 0.05$).

Table 4-4 Sum of Squares, Mean Square, Degree of freedom (df) and F-test according to Age groups as a source of variation on Transaction finance

e-commerce Transaction	group	N	Mean	SD	Var sorce	SS	df	MS	F	Sig.
Amount of online Purchasing (JD)	18-27	14	112.14	125.45	Between	8117053	2	4058526	8.99	0
	28-37	76	227.79	251.11	Within	50095392	111	451309.8		
	38-47	24	857.92	1401.7	Total	58212445	113			
Frequency of transactions	18-27	14	4.14	4.055	Between	1560.391	2	780.195	3.39	0.04
	28-37	76	6	10.331	Within	25587.05	111	230.514		
	38-47	24	14.67	27.481	Total	27147.44	113			

Table 4-5 shows the mean Differences between age groups (SHEEFE procedure) that the mean differences of” Amount of online Purchasing “ was occurred between 18-27 age group ,and 38-47 age group where the difference between their means was745.774JD, which is significant at level($p < 0.05$).It also shows that the mean differences of” Amount of online Purchasing “occurred between “28-37” age group, and “38-47” age group is not neglected, where the mean difference between them is 630.127JD , which is significant at level ($p < 0.05$).

Table4-5: Mean Differences between age groups (SHEEFE procedure)

e-commerce Transaction	(I) age	(J) age	Mean Difference (I-J)
Amount of online Purchasing (JD)	18-27	28-37	-115.65
		38-47	-745.77 *
Frequency of transactions	28-37	38-47	-630.13 *
	18-27	28-37	-1.86
		38-47	-10.52
	28-37	38-47	-8.67

*. The mean difference is significant at the 0.05 level.

Table 4-6 shows sum of Squares (SS), Mean Square (MS), Degree of freedom (df) and F-test according to Position groups as a source of variation on Transaction finance. Table 4-6 shows the means of position groups on the Amount of online Purchasing are equal, where F-test=2.75, which is not significant at ($p < 0.05$).From the Table (4-6), it is obvious that the position groups means of Frequency of transactions are not equal also, where F-test=3.06, which is significant at ($p < 0.05$). According to the hypotheses talking about the effect of client position on E-commerce transactions components (Amount of online Purchasing, and Frequency of transactions); it seems from table 4-6 that the Frequency of transactions means were differ significantly at significant level of ($p < 0.05$). Accordingly we rejected the null hypothesis (There are no statistically significance differences at ($p < 0.05$) of position on the e-commerce transaction). this result disagree with what Jusoh and ling found in their study of no significant difference in attitude towards online shopping among occupation group ($F = 1.020, p < 0.05$).

Table 4-6: Sum of Squares (SS), Mean Square (MS), Degree of freedom (df) and F-test according to Position groups as a source of variation on Transaction finance

e-commerce transaction		N	Mean	SD	sv	SS	df	MS	F	Sig.
Amount of online Purchasing (JD)	managers	8	587.5	873.72	Between Groups	2748875	2	1374437	2.75	0.07
	super visors	36	531.11	1145.84	Within Groups	55463570	111	499671.8		
	officials	70	223.6	245.75	Total	58212445	113			
	Total	114	346.25	717.74						
Frequency of transactions	managers	8	11.75	12.52	Between Groups	1419.18	2	709.592	3.06	0.05
	super visors	36	12.11	24.24	Within Groups	25728.26	111	231.786		
	officials	70	4.8	7.68	Total	27147.44	113			
	Total	114	7.6	15.5						

The Table 4-7 shows mean differences between position groups and shows that the mean differences of Frequency of transactions “occurred between supervisors position group, and officials position group is not neglected, where the mean difference between them was 7.31, which is significant at level (p 0.05).

Table4-7: Mean Differences between position groups (SHEEFE procedure)

Dependent Variable	(I) position	(J) position	Mean Difference (I-J)
Amount of online Purchasing (JD)	managers	super visors	56.39
		officials	363.90
	super visors	officials	307.51
Frequency of transactions	managers	super visors	-0.36
		officials	6.95
	super visors	officials	7.31*

Characteristics of Websites

According to the level of estimations done by the members of the sample about characteristics of the used websites in E-commerce, table 4-8 shows estimated means, Standard deviations of websites characteristics as factors of threats of risk. Table 4-8 shows also that Amazon website had earned the highest degrees of estimation in all dimensions of webs characteristics, where the means of “Perceived Ease of Use (dim 1)”, “Perceived Usefulness (dim2)”, “Perceived Risk with Products / services(dim3)”, “Perceived Risk in the Context of Transaction (dim4)”, and “Perceived Perceived service quality (dim5)” were 4.27, 4.29, 3.82, 4.29, and 4.18 respectively. These values are high ($3.82/5=0.78$) as shown in table2. The higher characteristic of Amazon website is “Perceived Usefulness (dim2)” and The “Perceived Risk in the Context of Transaction (dim4)”, where their means as shown in table 4-8 was 4.29, while the lowest characteristic of Amazon website is

the “Perceived Risk with Products / services (dim3)” , where its mean was 3.82, as shown in table 4-8. The higher perceived characteristic of eBay website is “Perceived Ease of Use (dim1)” with mean=3.93 as shown in table 4-8 , while the lowest characteristic of eBay website was the “Perceived Risk with Products / services(dim3)” , its mean was 3.35 as shown in table 4-8 . From the same table (4-8) it is shown that the higher characteristic of AliBaba website the dimension of “Perceived Ease of Use (dim1) “, where its means 3.93 . The lowest characteristic of Ali Baba website is the dimension of “Perceived Risk with Products / services (dim3)” , where its mean as shown in table 4-8 was 3.60 . The mentioned table (4-8) also indicates that the higher characteristic of “Other website” used in E-commerce was the dimension of “Perceived Ease of Use (dim1) “with mean= 3.76. The lowest characteristic of “Other website” dictated from table (4-8) is the dimension of “Perceived Risk in the Context of Transaction (dim4)” , where its mean was 3.32 . Returning to table 4-8 it is clear that the “Perceived Risk with Products / services” mean of Amazon website (3.82), and eBay website (3.60) are greater than Ali Baba website (3.35) and other websites (3.39). In the same manner it is shown from the same table 4-8, that the “Perceived Risk in the Context of Transaction” mean of Amazon website (4.29), and eBay website (3.89) are greater than Ali Baba website (3.52) and other websites (3.32). The means of Perceived service quality of websites for Amazon website (4.18), and eBay website (3.76) are greater than Ali Baba website (3.40) and other websites (3.61) while the sample members gave it the high estimations of characteristics as shown from table 4-8 , this result is opposing the universal trend of using Amazon in BC sort of E-commerce as shown in fig (1). On the other hand a thorough study must be done about the conflict between what is perceived or believed about characteristics of websites, and what is experienced according to high perceived estimation as in the case of Amazon web in E-commerce . In general all means were high, which means the members of the sample were confident and trustful with the websites they used.

Table 4-8: means, Standard deviations of websites characteristics as factors

website characteristics dimensions	Amazon		eBay		Ali Baba		Others		Total	
	Mean	Std. D	Mean	Std. D	Mean	Std. D	Mean	Std. D	Mean	Std. D
Perceived Ease of Use (dim1)	4.27	0.76	3.93	0.81	3.93	1.01	3.76	0.92	3.94	0.88
Perceived Usefulness (dim2)	4.29	0.86	3.77	0.96	3.85	1.13	3.74	0.85	3.88	0.94
Perceived Risk with Products / services(dim3)	3.82	1.06	3.60	0.78	3.35	1.04	3.39	0.98	3.53	0.97
Perceived Risk in the Context of Transaction (dim4)	4.29	0.88	3.89	0.95	3.52	1.13	3.32	1.28	3.71	1.15
Perceived service quality (dim5)	4.18	0.68	3.76	0.73	3.40	1.03	3.61	0.75	3.74	0.81

Table 4-9 shows that the distribution of the amounts in the table above(4-8) are not uniform, where it seems from Table 4-9 that the websites means were differ significantly at significant level (p 0.05) on: the dimension of “Perceived Risk in the Context of Transaction”, where F-test=5.44, and on” Perceived service quality” dimension, where F= 4.93 In addition to that the difference in means of all dimension estimated scores (total mean) also significant for where F=4.47

Table 4-9: Sum of Squares, Mean Square, Degree of freedom (df) and F-test according website as a source of variation on characteristics dimensions of websites. (ANOVA)

characteristics dimensions	variance source	Sum of Squares	df	Mean Square	F	Sig.
Perceived Ease of Use	between	4.96	3	1.65	2.18	0.09
	Within	103.17	136	0.76		
	total	108.13	139			
Perceived Usefulness	between	6.45	3	2.15	2.49	0.06
	Within	118.93	138	0.86		
	total	125.38	141			

Perceived Risk with Product /Service	between	4.23	3	1.41	1.53	0.21
	Within	123.44	134	0.92		
	total	127.67	137			
Perceived Risk in the Context of Transaction	between	19.75	3.	6.59	5.44	0.00
	Within	159.76	132	1.21		
	total	179.51	135.			
Perceived service quality	between	8.93	3	2.98	4.93	0.00
	Within	82.13	136.	0.60		
	total	91.06	139.			

Table 4-10 shows means, Std. Deviation of “characteristics dimensions” of websites by gender groups, and Mean Difference with t-test value. Female members of the study sample had given high estimations for two characteristics dimensions; “Perceived Ease of Use “, where the mean of female estimations was 4.22 and the male mean was 3.85 the difference between them was 0.37 . This difference is significant where t-test value was 2.52 which is significant at ($p < 0.05$). Table 4-10 it is indicated that female members of the study sample also had given high estimations for two characteristics dimensions ; “Perceived Usefulness “ ,where the mean of female estimations was 4.12 and the male mean was 3.81 the difference between them was 0.31 . This difference is significant where t-test value was 2.00 which is significant at ($p < 0.05$). According to the hypotheses talking about the effect of gender on perceiving the characteristics of the used websites in E-commerce as sources of risk when using E-commerce, it is obvious from table 4-10 that there were two dimensions have significant differences at ($p < 0.05$) due to gender variable, those dimensions are :

1- “perceived Ease of Use” where t- test value = -2.52 this result rejected the null hypothesis H4 : There are no statistically significance differences at ($p < 0.05$) of respondent gender on the scores of Perceived Ease of Use factor ,

2- “Perceived Usefulness” of the websites. There are statistically significance differences at ($p < 0.05$) of respondent gender where t-test value=-2.00 also this result rejected null hypothesis H5 :There are no statistically significance differences at ($p < 0.05$) of respondent gender on the scores of Perceived Usefulness factor. The evidence from results on Table (4-10) reinforce the acceptance of the following null hypotheses:

H6;There are no statistically significance differences at ($p < 0.05$) of respondent gender on the scores of Perceived Risk with Product /Service . were t-test value of Perceived Risk with Product /Service = -0.49

H7: There are no statistically significance differences at ($p < 0.05$) of respondent gender on the scores of Perceived Risk in the Context of Transaction=-0.54

H8;There are no statistically significance at ($p < 0.05$) of respondent gender on the scores of Perceived service quality “ were t-test value of service quality = -0.36

Table 4-10: Means, Std. Deviation of “characteristics dimensions” of websites by gender groups, and Mean Difference with t-test value.

characteristics dimensions		N	Mean	Std. Deviation	t	df	Sig	Mean Difference
Perceived Ease of Use	male	106	3.85	0.93	-2.52	77.26	0.01	-0.37
	female	34	4.22	0.67				
Perceived Usefulness	male	108	3.81	1.00	-2.00	78.10	0.05	-0.31
	female	34	4.12	0.71				
Perceived Risk with Product /Service	male	104	3.51	1.02	-0.49	136	0.63	-0.09
	female	34	3.60	0.78				
Perceived Risk in the Context of Transaction	male	102	3.68	1.19	-0.54	134	0.59	-0.12
	female	34	3.80	1.04				

Perceived service quality	male	106	3.73	0.86	-0.36	138	0.72	-0.06
	female	34	3.79	0.65				

Table 4-11 shows sum of Squares, Mean Square, Degree of freedom (df) and F-test according to Age groups as a source of variation on characteristics dimensions of websites. According to the hypothesis talking about the effect of age of the subject on estimating the characteristics of the used websites in E-commerce as a sources of risk when using E-commerce, It is obvious from table 4-11 that it is obvious from table 4-10 that there were three dimensions that statistically significance difference at (p 0.05) by Age variable, those dimensions were; “perceived Ease of Use”, and “Perceived Risk in the Context of Transaction” and “Perceived service quality”

of the websites. Table (4-11) shows that the Age groups means of “Perceived Ease of Use”, dimension are importantly differed, where F-test=4.49 which is significant at(p 0.05). this result rejected the null hypothesis H9 There are no statistically significance differences at (0.05) of respondent Age on the scores of Perceived Ease of Use factor . The Age groups means of” Perceived Risk in the Context of Transaction” dimension are also importantly differed, where F-test=13.29, which is significant at (p 0.05),as shown from table 4-11. Also this result rejected the null hypothesis H12: There are no statistically significance differences at (0.05) of respondent Age on the scores of Perceived Risk in the Context of Transaction. The Age groups means of “Perceived service quality” dimension also are importantly differed, where F-test=4.99 . And on “total “where F=7.871 Also this result rejected the null hypothesis H13: There are no statistically significance differences at (0.05) of respondent Age on the scores of Perceived service quality. The evidence from results on Table (4-11) reinforce the acceptance of the following null hypotheses:

H10: There are no statistically significance differences at (0.05) of respondent Age on the scores of Perceived Usefulness. Where F-test= 2.77

H11: There are no statistically significance differences at (0.05) of respondent Age on the scores of Perceived Risk with Product /Service. where F-test=0.74.

Table 4-11 : Sum of Squares, Mean Square, Degree of freedom (df) and F-test according to Age groups as a source of variation on characteristics dimensions of websites.

characteristics dimensions		N	Mean	SD	Var ,Source	SS	df	MS	F	Sig.
Perceived Ease of Use	18-27	14	3.71	0.88	Between	6.65	2	3.33	4.49	0.01
	28-37	92	4.09	0.78	Within	101.48	137			
	38-47	34	3.61	1.04	Total	108.13	139			
	Total	140	3.94	0.88						
Perceived Usefulness	18-27	14	3.67	1.12	Between	4.80	2	2.40	2.77	0.07
	28-37	90	4.02	0.88	Within	120.58	139			
	38-47	38	3.63	0.98	Total	125.38	141			
	Total	142	3.88	0.94						
Perceived Risk with Product /Service	18-27	14	3.29	1.16	Between	1.39	2	0.69	0.74	0.48
	28-37	88	3.60	0.81	Within	126.29	135			
	38-47	36	3.47	1.21	Total	127.67	137			
	Total	138	3.53	0.97						
Perceived Risk in the Context of Transaction	18-27	14	3.86	0.96	Between	29.90	2	14.95	13.29	0.00
	28-37	88	4.00	1.08	Within	149.61	133			
	38-47	34	2.90	1.06	Total	179.51	135			

	Total	136	3.71	1.15						
Perceived service quality	18-27	14	3.21	0.56	Between	6.19	2	3.09	4.99	0.01
	28-37	88	3.88	0.66	Within	84.87	137	0.62		
	38-47	38	3.62	1.07	Total	91.06	139			
	Total	140	3.74	0.81						

Table 4-12: Mean Differences between Age groups on characteristics dimensions of websites (SHEEFE procedure) as shown from table 4-11. It is also seen from table 4-12 that the significant mean differences on " Perceived Ease of Use "occurred between 28-37 age group ,and 38-47 age group (0.49) is significant at level (sig 0.05) The above table 4-12 shows also that the significant mean differences on" Perceived Risk in the Context of Transaction "dimension occurred between 18-27 age group, and 38-47 age (0.96) is significant , and also occurred between 28-37 age group, and 38-47 age group with (1.10) is significant at (p 0.05) .The above table 4-12 shows also that the significant mean differences on " Perceived service quality " dimension occurred between 18-27 age group, and 28-37 age group (0.67) is significant at (p 0.05) . the significant mean differences on "total "occurred between 28-37 age group, and 38-47 age group (0.51) is significant (p 0.05) as the above table (4-12) shows.

Table 4-12: Mean Differences between Age groups on characteristics dimensions of websites (SHEEFE procedure)

Dependent Variable	(I) age	(J) age	Mean Difference (I-J)
Perceived Ease of Use	18-27	28-37	-0.38
		38-47	0.11
	28-37	38-47	.49 *
Perceived Usefulness	18-27	28-37	-0.36
		38-47	0.04
	28-37	38-47	0.39
Perceived Risk with Product /Service	18-27	28-37	-0.31
		38-47	-0.18
	28-37	38-47	0.13
Perceived Risk in the Context of Transaction	18-27	28-37	-0.14
		38-47	.96 *
	28-37	38-47	1.10*
Perceived service quality	18-27	28-37	-.67 *
		38-47	-0.40
	28-37	38-47	0.26

* The mean difference is significant at (p 0.05) level .

Table 4-13 shows sum of squares, mean square, degree of freedom (df) and F-test according to position groups as a source of variation on characteristics dimensions of websites. according to the hypotheses talking about the differences between websites used in E-commerce on the characteristics dimensions due to the position of members; it seems from table 7 that the characteristics dimensions means were differ significantly at (p 0.05) on "Perceived Risk in the Context of Transaction" dimension, where F-test=4.21. This result rejected null hypothesis H17: There are no statistically significance differences at (0.05) of respondent position on the scores of Perceived Risk in the Context of Transaction
The evidence from results on Table (4-13) reinforce the acceptance of the following null hypotheses:
H14 :There are no statistically significance differences at (0.05) of respondent position on the scores of Perceived Ease of Use where F-test=1.50

H15: There are no statistically significant differences at (0.05) of respondent position on the scores of Perceived Usefulness where F-test=1

H16: There are no statistically significant differences at (0.05) of respondent position on the scores of Perceived Risk with Product /Service where F-test=1.76

H18: There are no statistically significant differences at (0.05) of respondent position on the scores of Perceived service quality F-test=1.03

Table 4-13 : Sum of Squares, Mean Square, Degree of freedom (df) and F-test according to position groups as a source of variation on characteristics dimensions of websites.

characteristics dimensions	Position	N	mean	SD	Source variation	SS	df	Mean Square	F	p
Perceived Ease of Use	managers	8	3.42	0.85	Between	2.311	2	1.156	1.50	0.23
	super visors	56	3.98	1.00	Within	105.81	137	0.772		
	officials	76	3.96	0.78	Total	108.13	139			
Perceived Usefulness	managers	12	3.83	1.11	Between	1.778	2	2	1	0.37
	super visors	54	4.02	1.05	Within	123.599	139	139		
	officials	76	3.79	0.83	Total	125.377	141	141		
Perceived Risk with Product /Service	managers	10	3.80	1.11	Between	3.236	2	2	1.76	0.18
	super visors	52	3.68	1.05	Within	124.437	135	135		
	officials	76	3.40	0.87	Total	127.673	137	137		
Perceived Risk in the Context of Transaction	managers	8	3.58	1.68	Between	10.681	2	2	4.21	0.02
	super visors	52	3.37	1.23	Within	168.832	133	133		
	officials	76	3.96	0.98	Total	179.513	135	135		
Perceived service quality	managers	12	3.46	0.79	Between	1.35	2	2	1.03	0.36
	super visors	52	3.83	1.02	Within	89.712	137	137		
	officials	76	3.73	0.63	Total	91.062	139	139		

Table 4-14 Mean Differences between position groups on characteristics dimensions of websites (SHEEFE procedure). To compare between means SHEEFE procedure results are summarized in table 4-14 From table 4-14 it is seen that the mean differences of "Perceived Risk in the Context of Transaction" occurred between "super visors" ,and "officials" position group, the difference was (-.58), which is significant at level(p 0.05)

Table 4-14 Mean Differences between position groups on characteristics dimensions of websites (SHEEFE procedure).

characteristics dimensions	(I) position	(J) position	Mean Difference (I-J)
Perceived Ease of Use	managers	super visors	-0.56
	managers	officials	-0.55
	super visors	super visors	0.56
Perceived Usefulness	managers	super visors	-0.19
		officials	0.04
	super visors	officials	0.24
Perceived Risk with Product /Service	managers	super visors	0.12
		officials	0.40
	super visors	officials	0.28
Perceived Risk in the Context of Transaction	managers	super visors	0.21
		officials	-0.37
	super visors	officials	-.58 *
Perceived service quality	managers	super visors	-0.37
		officials	-0.27
	super visors	officials	0.10

*. The mean difference is significant at the 0.05 level.

The relationship between web characteristics and e-commerce transaction

According to the hypotheses (H19), which handles the prediction effect of relationship between web characteristics as predictors and e-commerce transactional (purchasing Amount(PA), freq of Purchasing (FP), Delay delivery(DD), Lost of money(LM) , Frequency of different product(FDP), and Transaction loss(TL)) as criteria variables; tables 4-15 to 4-20 show the raw regression coefficients (B) and standardized regression coefficients (Beta) for prediction the “Transaction behaviors in E-commerce” as Criterion variables from the Perceived resources characteristics as risk resources from used websites in E-commerce as Predictive variables. It seems from table 4-15 that the B coefficient is significant only with the predictor variable “Perceived Risk with Product /Service” to predict the Purchasing Amount, where B=-195.95, and the value of t-test to test its significance is -2.79; which is significant at (p .05) .

The prediction equation from this table4-15 is; PA=1390.67- 195.95 * PRT.

The results here reject the null which states that there is no significant relationship at (0.05) between predictor variables (Perceived Ease of Use, Perceived Usefulness, Perceived Risk with Product /Service, and Perceived service quality) and the Frequency of Purchasing and the “Amount of Transaction” variable.

Table 4-15; B, Beta coefficients of Predictive variables on Purchasing Amount (PA)

	B	Std. Error	Beta	t	Sig.

(Constant)	1390.67	372.49		3.73	0
Perceived Ease of Use (PEU)	-63.17	103.28	-0.08	-0.61	0.54
Perceived Usefulness (PU)	-12.39	121.11	-0.02	-0.10	0.92
Perceived Risk with Product /Service(PRP)	-68.71	86.97	-0.09	-0.79	0.43
Perceived Risk in the Context of Transaction(PRT)	-195.95	70.25	-0.31	-2.79	0.01
Perceived service quality(PCQ)	63.80	154.16	0.06	0.41	0.68

Table 4-16 shows no significant B coefficient value for any predictor on Frequency of Purchasing (FP) variable, so it can be considered as constant. This result accept the null hypothesis (H-19); which states that there are no significant prediction of relationship at (0.05) between predictor variables (Perceived Ease of Use, Perceived Usefulness, Perceived Risk with Product /Service, and Perceived service quality) and the Frequency of Purchasing.

Table 4-16; B, Beta coefficients of Predictive variables on Frequency of Purchasing (FP)

	B	Std. Error	Beta	t	Sig.
(Constant)	-17.38	8.11		-2.14	0.03
Perceived Ease of Use (PEU)	1.29	2.25	0.07	0.57	0.57
Perceived Usefulness (PU)	3.58	2.64	0.20	1.36	0.18
Perceived Risk with Product /Service(PRP)	0.50	1.89	0.03	0.26	0.79
Perceived Risk in the Context of Transaction(PRT)	-2.28	1.53	-0.17	-1.49	0.14
Perceived service quality(PCQ)	3.39	3.36	0.16	1.01	0.32

Table 4-17 shows three significant B coefficients to predict Daly of Delivery (DD) at (.05) from the following predictor variables:

- Perceived Ease of Use (PEU), where B=5.11, with t-test=2.80 which is significant at(.05)
- Perceived Risk with Product /Service (PRP) where B=-3.94, with t-test=-2.51 which is significant at(.05).
- Perceived service quality(PCQ) where B=-5.02, with t-test-1.98 which is significant at(p .05).

The regression equation here is $DD=15.68+5.11*PEU-3.94*PRP-5.02*PCQ$.

This results seen in the equation above reject the null hypothesis (H-19); which states that there are no significant prediction of relationship at (0.05) between predictor variables (Perceived Ease of Use, Perceived Usefulness, Perceived Risk with Product /Service, and Perceived service quality) and the Frequency of Purchasing and the “Daly Time” variable.

Table 4-17; B, Beta coefficients of Predictive variables on Delay delivery (DD)

	B	Std. Error	Beta	t	Sig.
(Constant)	15.68	7.31		2.15	0.04
Perceived Ease of Use (PEU)	5.11	1.82	0.36	2.80	0.01
Perceived Usefulness (PU)	0.97	2.21	0.08	0.44	0.66
Perceived Risk with Product /Service(PRP)	-3.94	1.57	-0.32	-2.51	0.01

Perceived Risk in the Context of Transaction(PRT)	0.15	1.17	0.02	0.13	0.90
Perceived service quality(PCQ)	-5.02	2.54	-0.32	-1.98	0.05

Table 4-18 shows two significant B coefficients to predict Lost of Money (LM) at (.05) from the following predictor variables:

- Perceived Risk in the Context of Transaction(PRT), where B= -6.43, with t-test=-7.01, which is significant at(.05)
- Perceived service quality (PCQ), where B=5.59, with t-test=-2.51 which is significant at (.05).

Thus the regression equation here is $LM=4.26 -6.43* PRT+5.59* PCQ$.

This results seen in the equation above reject the null hypothesis (H-19); which states that there are no significant prediction of relationship at (0.05) between predictor variables (Perceived Ease of Use, Perceived Usefulness, Perceived Risk with Product /Service, and Perceived service quality) and the Frequency of Purchasing and the “loss of Money” variable.

Table 4-18; B, Beta coefficients of Predictive variables on loss of Money (LM)

	B	Std. Error	Beta	t	Sig.
(Constant)	4.26	5.77		0.74	0.48
Perceived Ease of Use (PEU)	-0.18	2.49	-0.02	-0.07	0.94
Perceived Usefulness (PU)	-0.53	1.76	-0.04	-0.30	0.77
Perceived Risk with Product /Service(PRP)	3.95	2.09	0.37	1.90	0.09
Perceived Risk in the Context of Transaction(PRT)	-6.43	0.92	-0.61	-7.01	0.00
Perceived service quality(PCQ)	5.59	1.81	0.44	3.09	0.01

Table 4-19 shows no significant B coefficient value for any predictor on Frequency of different product (FDP) variable, so it can be considered as constant.

This result accept the null hypothesis (H-19); which states that there are no significant relationship at (0.05) between predictor variables (Perceived Ease of Use, Perceived Usefulness, Perceived Risk with Product /Service, and Perceived service quality) and the “Frequency of Purchasing” variable.

Table 4-19; B, Beta coefficients of Predictive variables on Frequency of different product (FDP)

	B	Std. Error	Beta	t	Sig.
(Constant)	-34.09	14.76		-2.31	0.03
Perceived Ease of Use (PEU)	-1.87	4.36	-0.15	-0.43	0.67
Perceived Usefulness (PU)	2.10	6.91	0.13	0.30	0.76
Perceived Risk with Product /Service(PRP)	0.76	2.80	0.07	0.27	0.79
Perceived Risk in the Context of Transaction(PRT)	3.83	2.29	0.38	1.67	0.11
Perceived service quality(PCQ)	5.45	5.08	0.32	1.07	0.29

Table 4-20 shows four significant B coefficients to predict Transaction Lost (TL) at (.05) from the following predictor variables:

- Perceived Ease of Use (PEU), where B=1.66, with t-test=5.13 which is significant at (.05)
- Perceived Usefulness (PU), where B= -0.67, with t-test= -3.15 which is significant at (.05).
- Perceived Risk with Product /Service(PRP), where B= -0.53 with t-test= -2.12, ,which is significant at (.05).
- Perceived service quality (PCQ) where B=-1.60, with t-test =-4.21 which is significant at(p .05).

The regression equation here is $TL = 8.27 + 1.66 * PEU - 0.67 * PU - 0.53 * PRP - 1.60 * PCQ$

This results seen in the equation above reject the null hypothesis (H-19); which states that there are no significant prediction of relationship at (0.05) between predictor variables (Perceived Ease of Use, Perceived Usefulness, Perceived Risk with Product /Service, and Perceived service quality) and the Frequency of Purchasing and the “Transaction Lost” variable.

Table 4-20; B, Beta coefficients of Predictive variables on Transaction Lost (TL)

	B	Std. Error	Beta	t	Sig.
(Constant)	8.27	1.44		5.74	0.00
Perceived Ease of Use (PEU)	1.66	0.32	1.58	5.13	0.00
Perceived Usefulness (PU)	-0.67	0.21	-0.48	-3.15	0.01
Perceived Risk with Product /Service(PRP)	-0.53	0.25	-0.38	-2.12	0.05
Perceived Risk in the Context of Transaction(PRT)	-0.50	0.27	-0.40	-1.89	0.08
Perceived service quality(PCQ)	-1.60	0.38	-0.89	-4.21	0.00

Conclusion

Amazon website used by the sample members Was the lowest website in E-commerce while the sample members gave it the high estimations of characteristics, this result is opposing the universal trend of using Amazon in B2C sort of E-commerce . This foundation may be explained as Amazon may be less attractive than others, or the customers may don't know its facilities as the case of using intelligent mobiles by public. Males and females were equal in online purchasing on websites, but not equal on their estimations about website characteristics. Reject the null hypothesis of “there is no statistical significance difference of age on e-commerce transactions components. The three dimensions that were affected significantly at (p 0.05) by age variable, those dimensions are “perceived Ease of Use”, “Perceived Risk in the Context of Transaction.” and “perceived service quality “ of the websites but also acceptance of the following null hypotheses: There are no statistically significance differences at (0.05) of respondent age on the scores of Perceived Usefulness And on Perceived Risk with Product /Service. The older age (38-47 years) were more attracted toward purchasing with E-commerce greater than the lower age groups because the older age customers may experienced the benefits of E-commerce more than the lower age group customers. This result may propose studies discussing the benefits of E-commerce to the public rejected the null hypothesis (There are no significant differences at (0.05) of position on the importance scores of risk resources that limit the usage of e-commerce and rejected also the null hypothesis is There are no statistically significance differences at (0.05) of respondent position on the scores of Perceived Risk in the Context of Transaction but we accepted the null hypotheses were there are no statistically significance differences at (0.05) of respondent position on the scores of Perceived Ease of Use ,Perceived Usefulness , Perceived Risk with Product /Service , and on the scores of Perceived service quality . The lower positions do more email transactions than the higher positions because the subjects of lower positions are directly treat with organization customers transactions more than the higher position groups. Reject the null hypothesis “There is no significant prediction relationship at (0.05) between each of the predictor variables (Perceived Ease of

Use, Perceived Usefulness, and Perceived Risk with Product /Service, and Perceived service quality) and the criterion variable (e-commerce transaction) variables is expected according to the variance of perceptions of the sample subjects. The acceptance of the previous null hypothesis with loss of Money and Frequency of purchasing may be resulted from the small data collected about it.

Recommendations

According to the pervious discussion the following recommendation are proposed the enhance E-commerce in Jordan;

- 1) Jordan financial market should conduct programs about the characteristics of e-commerce websites and how to deal with them.
- 2) Jordan government establishes an organization to deal with e-commerce clients' awareness in a systematic and standardized way.
- 3) Future research must be done to study the relationship between what people belief and what they do in e-commerce process.
- 4) Establishing public organization to protect clients from risks (like hackers)
- 5) Developing legislation in Jordan to follow-up legally the issues of protection in the outside countries.
- 6) Using large samples with this domain of study in future.

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