

# Factors Affecting Consumers' Trust Towards E-Commerce: Evidence from Jordanian Students' Perspective

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## Abstract

E-commerce has grown widely as a new mode of trading goods and service to every work and aspect of the society due to the rapid growth of the use of internet. However, consumers are still sensitive towards the trust of e-commerce. This study examines the factors that are affecting consumers' trust towards e-commerce, with evidence from students in Jordanian university. Using the sample of 150 university students in Jordan through questionnaires, the findings indicate that there is significant effect of consumer behaviour as well as privacy and security on consumers' trust. This study recommends that more extensive culture awareness programs should be provided by both public and private sectors in order to provide Jordanian population with needed information about e-commerce and its benefits; and also pay more attention to the security issues and communicate their actions toward ensuring secured services to their consumers.

**Keywords:** e-commerce, consumers, trust, behaviors, security, privacy

## 1. Introduction

According to Pavlou (2003), the viewpoint of electronic commerce relies on both consumers accepting internet technologies as a means of viable transaction and recognizing web retailers as merchants that are reliable. Many consumers also view e-commerce as representing a trip beyond the unidentified into the enigmatic (Elwalda et al., 2016; Esmaili et al., 2015; Shi, 2014) and many scholars have argued that trust is a prerequisite for successful commerce because consumers are hesitant to make purchases unless they trust the seller (Gefen, 2002; Jarvenpaa et al., 1999; Kim et al., 2005; Urban et al., 2000). In many decades ago, purchasing goods and services involved knowing the seller very well. During those periods, before making a purchase, the buyer has the opportunity to evaluate the seller and thoroughly inspect the goods very well. This is because the seller is a well-known to the buyer and has good reputation through personal experience or word of mouth from trusted friends. However, in today's world, the growing urban populations, the arrival of new set of people into old societies, as well as the geographical movement and widespread of job turnover has endangered the basis of trust and shifted it from individual knowledge to institutional knowledge (Kim et al., 2008; Zucker, 1986; McKnight & Chervany, 2002). Trust is now deemed very essential to commercial and interpersonal relationships (Fulmer & Gelfand, 2012; Rowan, 2013) since it is vital wherever interdependence, uncertainty, or risk exist (Islamoglu et al., 2012; Schoorman et al., 2007). In this regard, Mayer et al (1995: p.712) define trust as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trust or, irrespective of the ability to monitor or control that other party". High level of trust meets and stimulates the high expectations of consumers towards satisfaction of transactions, and also eliminates interdependences, perceived risks, and uncertainties in most e-commerce (McKnight & Chervany, 2001; Pavlou, 2003; Chen & Chang, 2012). Moreover, higher level of consumers' trusts also increase the level consumers' purchase intentions, and it make it easier for firms to retain their customers (Jarvenpaa et al., 2000; Gefen & Straub, 2004; Kim & Park, 2013).

In addition, proof indicates that the reliabilities of firms, website technology, and internet security and policy are the main issues why their is low online purchase (Gefen, 2000). Therefore, for e-commerce to succeed in any given market, it really depends on the consumers trust (McKnight & Chervany, 2001; Balasubramanian et al., 2003; Grabner-Krauter & Kaluscha, 2003; Koufaris & Hampton-Sosa, 2004; Chow & Shi, 2014). Also, trust is important in order to retain a long-term relationship with consumers (Reichheld & Scheffer, 2000; Gefen et al., 2003; Elwalda et al., 2016). In this view, this study examines the factors that are affecting the consumers trust towards e-commerce among students in university.

## 2. Literature Review

In order to explore the trust issue in e-commerce transactions, scholars mostly take traditional trust theory as basement, propose trust model in e-commerce transactions based on assumptions, and then conduct theoretical exploration and empirical analysis.

The study of Mayer et al. (1995) is based on the proposition of the trust three-dimensional model applicable in the traditional environment, which include integrity, ability and benevolence. This model is tested by Gefen and Straub (2004) in internet environment through examining 250 MBA students in the United States.

The results show that the general trust feeling of the customer to internet transactions is from the trust to sellers 'integrity, ability and benevolence that influence purchasing decisions. As ability is the assessment that the trusted party knows its job and that this knowledge reduces the uncertainty that is involved in the trusting party obtaining its expected outcomes from the relationship by virtue of reducing the possible range of undesirable behaviors relating to inadequate ability that the trusted party may show; benevolence refers to the belief that the trusted party actually cares about the trusting party, is willing to assist and support, and with consideration toward the customer; integrity is the trusted party's honesty and keeping of promises to trust party.

Two factors of institution-based trust were proposed by McKnight et al. (1986) which is based on the research of Zucker (1986). These include structural assurances and situational normality. Structural assurance is regarded as the belief that there is possibility of success since contextual conditions such as promises, guarantees, contracts, and regulations are available. Meanwhile, situation normality is regarded as the belief that there is possibility of success since there is normal situation. Numerous studies have afterward applied his method of classification in analyzing the structure of institutional trust.

Trust in the B2C environment was conducted by Tan and Sutherland (2004). They developed a multi-dimensional model theory of trust under online environment that regarded consumer trust as a three dimensional model, which include institutional (Internet environment dimension), dispositional (consumer's dimension), and interpersonal (seller's dimension). The findings indicate that the three dimensions combined and interacted together in influencing purchasing decisions. Other scholars later supported their proposed theoretical framework

The study of Kim and Prabhakar (2002) concentrate on Internet banking. Their own believe is that structural assurances, word-of-mouth (WOM) referrals, and propensity-to-trust are significant factors in establishing the primary trust in internet banking. After applying multiple logistic regression analysis in examining their hypothesis, the findings indicate that the three factors influence consumers' trust.

The antecedents of trust in e-commerce in two expert groups 'views (practitioners and academia) was examined by Kim et al. (2005). Six major factors influencing-commerce trust were introduced, which include consumer behavioral, information content, institutional, transaction, technology and product. These dimensions can further be decomposed to form an online trust theoretical framework that will cover consumers' online transactions at various phases.

Generally, studies on trust issues in e-commerce can be summarized into three main views. The first view molds trust in e-commerce into trust in integrity, trust in ability, and trust in benevolence and so on. The second view is that thee-trust is based on three dimensions, which include institutional trust, interpersonal trust and personal disposition to trust. While the third view is that trust can be divided into trusting intention and trusting beliefs.

### 3. Methodology

This study utilizes the historical and descriptive approach while discussing all aspects of e-trust. The population of the study is the university students in Greater Amman area. A sample of 150 students consisting of male and female was chosen from the population. A questionnaire was distributed to all the respondents which contains the dependent variable (e-trust) and the two independent variables (consumer behavior and privacy & security). Likert scale was used to answer the questionnaire items, therefore, the values were as follows: Strongly Agree (5) point, agree (4) points, neutral (3) points, disagree (2) points, and strongly disagree (1) point. The method of distributing the questionnaire was through the university library personal that helped in given the questionnaire to students who happen to come to the library to fill.

#### Hypothesis

H<sub>01</sub>- There is no statistically significant ( $\alpha < 0.05$ ) effect of consumer behavior on e- trust.

H<sub>02</sub>-There is no statistically significant ( $\alpha < 0.05$ ) effect of privacy and security on e- trust.

### 4. Data Analysis and Findings

#### Instrument Reliability

To insure the reliability of the questionnaire, study variables coefficient was measured, thus Cronbach-Alpha values of study variables were between (86%), which is acceptable value, that it higher than the accepted value (60%) (Sekaran, 2002). Table 1 below shows the study instrument reliability for every variable in the instrument:

Table 1: Instrument Reliability

Field	Alpha
All questionnaire items	86%

The researcher initially distributed 175 questionnaires to the respondents, but received 150 questionnaires in return.

#### Sample Characteristics

Frequencies and percentages of the study sample distribution according to demographic variables were measured and table 2 below shows the results:

Table 2: Distribution of Demographic Variables

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	100	75%
Female	50	25%
<b>Total</b>	<b>150</b>	<b>100%</b>
<b>Age</b>	<b>Frequency</b>	<b>Percentage</b>
Less than 25 years	75	50%
25-35 years	45	30%
36-50 years	30	20%
<b>Total</b>	<b>150</b>	<b>100%</b>
<b>Educational Qualification</b>	<b>Frequency</b>	<b>Percentage</b>
Secondary School and less	5	0.3%
Diploma	30	20%
Bachelor	100	75%
Higher Education	15	1%
<b>Total</b>	<b>150</b>	<b>100%</b>

Table 2 shows that the highest number of the study sample has an educational qualification of (bachelor) with a percentage of 75%, and the lowest number of the study sample has an educational qualification of secondary school and less with a percentage of 0.3%. It is noticed from this table, that this result is related to the results of age, thus most of the study sample has educational qualification of bachelor, and because of their ages, they can easily reach the necessary technological knowledge about using the internet and the methods of searching about a specific service or product.

#### Descriptive Statistics

Means and standard deviations of the response of the questionnaire items were calculated, and the results are shown in table 3 below.

Table 3: Means and Standard Deviations of the Respondents Answers to e- Trust

<b>No.</b>	<b>Item</b>	<b>Means</b>	<b>Standard Deviation</b>	<b>Rank</b>
1.	The company communicates with me by e-mail and personnel-group conversation.	4.45	0.73	3
2.	The company produces the goods and e-services that meet my needs and desires and satisfy my sense.	3.37	1.29	5
3.	The company provides consumer care service after selling or buying through the internet.	3.98	0.96	4
4.	The company exchanges the data and information through internet continuously and provides the needed facilities to achieve this.	4.30	0.79	6
5.	The company uses e-advertising for the new products.	4.59	0.59	2
6.	The company seeks to control the level of consumers' satisfaction about the provided e-products.	4.63	0.58	1
<b>Total Mean</b>		4.27	0.78	-

From table 3 above, it shows that item 6 which states that: "The company seeks to control the level of consumers' satisfaction about the provided e-products" with a mean of 4.63 and standard deviation of 0.58 took the first rank. This result can be explained by sales of the new service and products increased by advertise. On the other hand, item (3), which states: "The Company analyzes and studies my needs and desires to satisfy it better than the competitors", came at the last rank, with a mean of (3.37) and standard deviation of (1.29). This result means that the consumers do not observe any attention from the company to their needs and desires.

Table 4: Means and Standard Deviations of the Respondents Answers to consumer behavior

No.	Item	Means	Standard Deviation	Rank
7.	The company keeps on achieving the discrimination through e-Commerce of it products.	3.01	0.53	6
8.	The company analyzes and studies my needs and desires to satisfy it better than the competitors.	4.31	0.99	2
9.	The company tries to gain new consumers through its different commerce activities.	4.08	0.98	3
10.	The company aims to increase the selling of the products by different commerce activities.	4.90	0.54	1
11.	The company communicates with me by e-mail and personnel-group conversation.	3.59	0.72	5
12.	The company provides consumer care service after selling or buying through the internet.	3.63	0.52	4
<b>Total Mean</b>		4.15	0.76	-

From table 4 above, it shows that item 10 which states that: "The company aims to increase the selling of the products by different commerce activities", with a mean of 4.90 and standard deviation of 0.54 has the highest rank. On the other hand, item 4 which states that: "The company keeps on achieving the discrimination through e-Commerce of it products.", has the lowest rank, with a mean of 3.01 and standard deviation of 0.53. This result means that the consumers do not observe any attention for consumer behavior.

Table 5: Means and Standard Deviations of the Respondents Answers to privacy and security

No.	Item	Means	Standard Deviation	Rank
13.	It is difficult to find effective solutions to the secrecy and privacy of personnel information.	4.15	0.93	3
14.	The secrecy and privacy of the exchanged information between the company and consumers is considered as a vital issue in success of e-marketing.	4.13	0.50	4
15.	Financial data of the company or consumers my by used in constitute or theft.	4.50	0.68	2
16.	The company makes great efforts to support the security of financial and commercial dealings at the internet.	4.66	0.84	1
<b>Total Mean</b>		4.15	0.76	-

From table 5 above, it indicates that item 16, which states that: "The Company makes great efforts to support the security of financial and commercial dealings at the internet", with a mean of 4.66 and standard deviation of 0.84 has the highest rank. On the other hand, item 14, which states that: "The secrecy and privacy of the exchanged information between the company and consumers is considered as a vital issue in success of e-marketing", came at the last rank, with a mean of 4.13 and standard deviation of 0.50.

### Testing Hypotheses

#### Hypotheses 1

H<sub>01</sub>- There is no statistically significant ( $\alpha < 0.05$ ) effects of consumer behavior on e- trust.

Table 6: simple regression test results for effect of consumer behavior on e-trust

Variable	R <sup>2</sup>	T- value	Sig
consumer behavior	.146	5.034	0.000**

\*\* Statistically Significance < (0.05)

From table 6 above, the results of the regression test show that R<sup>2</sup>=.146 which means that the consumer's behavior explained 14.6% of variance in e-commerce trust. In this regards, since t- value is 5.034 and P<0.05, we therefore reject the null hypotheses and accept the alternative that "There is statistically significant ( $\alpha < 0.05$ ) effects of consumer behavior and e- trust".

#### Hypotheses 2

H<sub>02</sub>-There is no statistically significant ( $\alpha < 0.05$ ) effects of privacy and security on e- trust.

Table 7: simple regression test results for effect of privacy and security on e-trust

Variable	R <sup>2</sup>	T- value	Sig
privacy and security	.244	6.910	0.000

\*\* Statistically Significance < (0.05)

From the table 7 above, the results of regression test depict that  $R^2=.244$  which means that the privacy and security explained 24.4% of variance in e-commerce trust. In this vain, since t- value is 6.910, and  $P<0.05$  we therefore reject the null hypotheses and accept the alternative that " There is statistically significant ( $\alpha<0.05$ ) effects of privacy and security with e- trust ".

## Conclusion

This study aimed at examining the extent of the trust of the online by Jordanian consumer perspective. In order to achieve the study's objective, questionnaire was used as the main tool for data collection. The population of the study is university students in Jordan and 150 of them were randomly chosen for the study sample. The result of the regression test shows that there is statistically significant effect of consumer behavior on e-trust. The result of the regression test also indicates that there is statistically significant effect of privacy and security on e-trust.

E-trust is the extent of consumer feeling with security and safety in their online transactions. Most of e-commerce is conducted between business, however when it comes to consumer, Jordanians in particular, they treat e – commerce as relatively new in Jordan, and the culture of conducting transactions online still not in Jordan yet. Although, most Jordanians have access to internet and they know a great deal about e-commerce but Jordanians are not accustomed yet to buy and sell through machines. They like to smell the coffee before buying it, and touch clothing before wearing it, and like to bargain with sales people face to face, and love to shop around and chat with shop keepers before talking their final purchasing decision.

At the same time a substantial number of Jordanians have bank accounts and credit cards, but most of them find it hard to give their credit card number over the phone or by e – mail for a purchasing of item from an online company which they know little about. This finding is consistent with the study of Al Smadi (2002) which he conducted in the city of Irbid, as well as other studies such as Esmaeili et al. (2015), Elwalda et al. (2016) and Shi (2014). Some ministries in Jordan are active in electronic procurements through the use of e-catalogue and e-contract with online vendors. However, when it comes to ordinary consumers the situation is different, Jordanians are passive towards e-commerce due to the low level of trust they have in online businesses.

In regard to the second question” what are the elements and factors affecting e-trust? Results revealed that there is a set of elements and factors that affect the progress and prevalence of e -trust among Jordanians some of these include, the culture of e – commerce has not prevailed yet in Jordan. Another factor that affects e – trust is that, to conduct business or purchasing online is a very risky business due to hackers and e – pirates who are watching diligently for e – mails or e – messages that carry bank account number or credit card number.

This study recommends more extensive culture awareness programs must be established and run by both public and private sectors in order to provide Jordanian population with needed information about e-commerce and its benefits, and these companies must give more attention to the security issues; also, they must communicate their actions toward ensuring secured services to their consumers. Finally, the study also recommends both public and private sector must launch a comprehensive e-commerce strategy toward expanding Jordanian business to reach the international commerce.

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