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Moderating Impact of Risk on the Relationship Between e-Service Quality and Trust

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Abstract: This study investigated the moderating impact of risk on the relationship between e-Service quality and trust. Perceived risk is considered as the customer's subjective belief regarding the probable negative consequence of their purchase decisions. The risk perceptions of consumers vary from one consumer to another according to factors such as the product category, person and the shopping situation. The aim of the study is to determine the moderating impact of risk on the relationship between e-Service quality and trust toward online shopping. A quantitative research design was adopted to collect data. Multiple regression analysis method was used to conduct this study. The findings of the study will contribute to both theory and practice. The results of this study have important contributions and implications for practitioners and policy-makers. This study contributed to the field of e-Service quality on consumers' trust and attitude relationship with online shopping in the context of developing countries. It is contended that the examination of the moderating effects is more significant than the examination of a direct relationship which is quite obvious.

Key words: Risk, e-Service quality, attitude, trust, online shopping

INTRODUCTION

Perceived risk is defined as the uncertainty consumer's face when they cannot predict the outcome of their decisions to purchase (Schiffman *et al*., 2007). Perceived risk is considered as the customer's subjective belief regarding the probable negative consequence of their purchase decisions. The risk perceptions of consumers vary from one consumer to another according to factors such as the product category, person and the shopping situation. Perceived risk is also revealed to affect the consumer's likelihood of buying new services or products.

Perceived risk has proven to be an important construct in many consumer behavior research projects. While it was very popular in the 1960 and 1970's in recent decades research into this construct has waned. However, with increased interest in researching the new e-Commerce market space where buyers and sellers are usually faceless and distant, renewed interest into the perceived risk construct should emerge.

The first measurement of perceived risk was developed by Cunningham (1967) and was based on Cox and Rich (1964)'s two components (uncertainty and danger). Cunningham used two 3 point scales multiplied together to come up with an ordinal scaling of a group of product classes. The two general models of perceived risk involve either the two components of uncertainty and consequences (Cox) or probability of loss and importance of loss (Peter and Tarpey, 1975). The importance of loss has been viewed as a proxy for negative utility (Peter and Ryan, 1976).

Perceived risk has been defined as "an influence on choice decisions and may be defined as the expectation of losses associated with purchase and acts as an inhibitor to purchase behavior" (Peter and Ryan, 1976). On the other hand, Bauer (1960) defined perceived risk as a combination of uncertainty plus seriousness of outcome involved-associated with each category of product. Perceived risk is also defined as an uncertainty function relating to the outcome of the decision (Jacoby and Kaplan, 1972).

Perceived risk is as the distant and impersonal nature of the online environment and the implicit uncertainty of using a global open infrastructure for transactions have rendered risk an inevitable element of e-Commerce. It is complicated to measure it as an objective fact. Hence, most literature emphasizes the concept of individually perceived risk and defined it as consumers' subjective belief in which a loss was caused by the outcome they

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pursued (Pavlou and Gefen, 2004). In a study done by Forsythe and Shi (2003), they indicated that perceived risk of online shopping mainly came from the loss that consumers expected to have in the process of an electronic transaction. Generally, consumers thought that the perceived risk was caused by the perception that the internet was not a secure territory or the degree of negative influence possibly resulted from a result (Grazioli and Jarvenpaa, 2000).

Purchasing is considered a risky business specifically in the online purchasing environment. Following the background of perceived risk in the literature of consumer behavior, many studies have tried to define the perceived risk concept and how it affects consumer behavior. Several research works claim that perceived risk in electronic commerce has a significant impact on attitude towards online shopping (Shih, 2004), intention to shop through the internet (Pavlou, 2003) and internet purchasing behavior (Bodmer, 2009).

The main issues of online purchasing are privacy of personal information and safety of online payments (Cunningham *et al*., 2005). Privacy problem has been shown to have a negative relation with online shopping behavior and it denies customers from shopping online (Doolin *et al*., 2005). But lower degrees of privacy risk do not necessarily translate to a great inclination to shop online (Amoroso and Hunsinger, 2009) as this also has something to do with lack of social interaction in online shopping experience (Doolin *et al*., 2005) and the lack of opportunity to inspect and see the products both of these aspects makes the shopper vulnerable to fraud compared to a physical merchant in a store. Customers also revealed their wariness over return of products and delivery they had purchased via the internet (Jarvenpaa and Todd, 1997). Another risk is phishing where customers are fraudulently made to think they are interacting with an honest dealer when in actuality, they are being fooled to providing their private information to a corrupt party.

Theory of Reasoned Action (TRA): Theory of Reasoned Action (Fig. 1) provides an explanation of the psychological process of the conscious human behavior and it attempts to clarify determinants of behavior

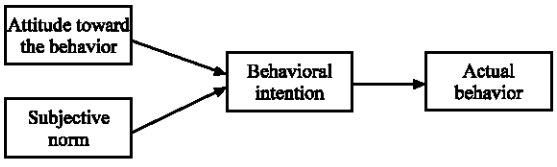

Fig. 1: Theory of Reasoned Action (Davis *et al*., 1989)

(Ajzen and Fishbein, 1980). Based on this theory, the intention behind an individual's behavior affect the actual performance of the behavior and attitudes towards the subjective norms in which behavioral intention is the measurement of the extent of people's inclination to exert effort or their plan to exert effort for the performance of behavior (Ajzen, 1991). An individual's behavioral intention generally has a positive effect on the intended behavior performance. The attitude of an individual towards behavior consists of the evaluation of his/her beliefs while his/her subjective norms are reflected through the normative beliefs concerning the behavior's feasibility evaluated by the referent people and the individual's inclination to follow the beliefs. Moreover, Theory of Reasoned Action postulates that external factors such as the characteristics of the individual indirectly affect his/her behavior through the impact of both attitudes and subjective norms.

Theory of Reasoned Action (TRA) proposed by Ajzen and Fishbein (1980) is a commonly employed theory in marketing studies. It advocates that a person's behavior is reflected through his/her intentions which can be predicted from his/her attitudes concerning the behavior and subjective norms. Based on the line of predictions, the attitudes of an individual may be predicted through his/her beliefs concerning the outcome of the behavior. Theory of reasoned action is a broad theory and it does not pinpoint particular beliefs that may be important in specific situations. It is utilized for the prediction of different behaviors including finance, marketing, health, etc. Therefore, theory of resound action is suitable to be used in the context of online shopping studies via a specific web vendor. Based on the discussion above, researcher used theory of reasoned action as a base theory for the present study.

MATERIALS AND METHODS

Attitude measurement instrument: There are different attitude models; each one of them describes one or the other component of attitude. Not a single model can be the right model or the absolute model for all research works as each model has its own strengths and weaknesses. They do not provide answers but insights although these models can assist in describing attitudes so that marketers are in a convenient position to clarify and provide predictions regarding the target customers' attitudes and eventually their purchase behavior.

Attitude has been described as a construct that is complex and multi-dimensional that consists of cognitive, affective and conative elements (McGuire, 1969). On the

basis of this point of view, it is evident that a single evaluative score is insufficient to present the complexity of the attitude construct. Behavior inconsistencies are ready justification for observed attitude; it has been argued that the acquired attitude measures only conducted an assessment of one of the three elements namely cognitive, affective and behavioral (Ostrom, 1969).

In this study, items were adapted from Sun *et al.* (2011) who measured attitude toward varying online security measures. Table 1 shows the dimensions and reliability of the attitude as stated by Sun *et al.* (2011) while Table 2 shows attitude dimensions and items used by Sun *et al.* (2011) originally proposed instrument to encapsulate the three attitudes dimensions to various concepts comprising 14 semantic differential items, each with its pair of bi-polar adjectives. Attitude measurement is carried out with the help of a seven-point scale, requesting the respondent to rate the possibility of each outcome (Ajzen and Fishbein, 1980). Respondents are requested to pick the place indicating the nearest suitable adjective. For scoring purposes, a numerical score is assigned to each position on the rating scale. Traditionally, score ranges such as 1, 2, 3, 4, 5, 6, 7 or –3, –2, –1, 0, +1, +2, +3 are used in this study scale ranges from -3 to +3 has been used. The average score is computed for every respondent to measure the overall attitude toward the object. This process is chosen as it produces reliable and valid attitude estimation (Smith and Swinyard, 1983).

Risk perception measurement instrument: Perceived risk is considered to be similar to uncertainty and a negative consequence resulting from the general risk towards online purchasing. Mayer *et al.* (1995) defined risk perception as the belief of an individual regarding the possibility of gains or losses associated with goods and services purchased online. Many studies applied this definition to online purchases context (Kim and Kim, 2005).

In this study, perceived risk was gauged in light of perceived risk towards online purchasing that affect decision making. A three-item scale suggested by Jarvenpaa *et al.* (1999) with reliability shown in Table 3 was adopted which was originally employed in off-line context by Sitkin and Weingart (1995) after omitting one item since it not applicable to online shopping context (Everard and Galletta, 2006). Table 4 shows the items used by Jarvenpaa *et al.* (1999). Risk items asked students to characterize the decision to buy at the e-Store. This scale was also used by Bodmar (2009) and Everard and Galletta (2006). Responses were scored along a seven-point semantic differentials scale where -3 indicated that respondents disagreed strongly with the statement and +3 indicated that they agreed strongly with it. The semantic differential was chosen as it was reported to be the most common scaling device in measuring consumer perceived risk (Dickson and Albaum, 1977) and the overall meaning of the concept (Mindak, 1961). This method can be applied to any area of content (Dickson and Albaum, 1977).

Instrument reliability and validity: The research instrument's reliability and validity are imperative when carrying out any research. According to Edwards and Talbot (1994), the validity information has its basis on the level to which the method chosen collect information the

Table 1: Attitude measurements

Construct	Researchers	Dimensions	Coefficient alpha	No. of items
Attitude	Sun *et al.* (2011)	Behavioral	0.826	2
		Affective	0.826	6
		Cognitive	0.923	6

Table 2: Items in attitude measurements

Attitudes	Description
Behavioral	
I am ___ to shop online	Inclined----------Disinclined
I am ___ to shop online	Eager----------Hesitant
Affective	
I feel ___ toward online shopping	Like----------Dislike
I feel like ___ toward online shopping	Accepting----------Rejecting
I feel ___ while using online shopping	Relaxed----------Tensed
I feel ___ while using online shopping	Excited----------Bored
I feel ___ with the online shopping security	Content----------Annoyed
I feel ___ with the online shopping security	Happy----------Sad
Cognitive	
I believe that online shopping is____	Useful----------Useless
I believe that online shopping is____	Perfect----------Imperfect
I believe that it is ___ to shop online	Easy----------Difficult
I believe that it is ___ to shop online	Safe----------Unsafe
I believe that adopting online shopping is____	Wise----------Foolish
I believe that adopting online shopping is	Beneficial----------Harmful

way it was originally expected. Validity refers to the degree to which a study is not controlled by any interference, ambiguity, control or variable manipulation (Sarantakos, 1997). The instrument's reliability is defined as the level to which the instrument produces the same outcome every time the trial is repeated (Carmines and Zeller, 1979).

The reliability and validity of the instruments are ensured through various ways. Among these ways is the development of suitable data collection and analysis methods. A pilot study entails the involvement of a small number of individuals and the aim behind it is to develop, adapt and ensure that the selected methods are feasible. In this research, the pilot study comprised 32 postgraduate students of Qassim University. The quality of the instruments and the questionnaire translation were ensured in light of the questions' precision, content and suitability. According to Fraenkel and Wallen (2003), the quality of the instrument utilized in any study is imperative as the data acquired through them are used to draw conclusions. When researcher knows of any potential errors through a pilot study, a solution can be employed instead of wasting any resources by conducting data collection characterized by lack of reliability and validity.

A pilot study was conducted to confirm the reliability of the measurement. The result of the reliability analysis is depicted in Table 5. Table 5 lists the Cronbach's alpha value for every dimension under study. The values of attitude, trust, risk, electronic service quality and culture came out to be 0.865, 0.815, 0.797, 0.938 and 0.782, respectively implying that all variables showed reliability and were suitable for further analysis.

As stated above, validity test ensures that the instrument measures what it is meant to measure. In the present study, validity tests were conducted in the form of face validity. For face validity, the questionnaire was checked by an expert in the marketing field to confirm the items' ability to measure the variables.

Overall, researcher was successful in restructuring the questionnaire and devising better ways to connect with the target population. Testing the research instrument before hand pinpointed the weaknesses of the instrument and resolved the problems of respondents being unaware of the instructions written on the questionnaire. According to Bechhofer and Paterson (2000), an effective research design is one that provides the researcher confidence in the authenticity of the conclusion obtained from the data. To achieve this, a great deal of control is required. This invaluable consideration is highlighted through the adoption of an extensive sampling method ensuring full representation of demographics. The present study employed a comprehensive sample to counteract the lack of in-depth knowledge concerning the study population.

Table 3: Perceived risk measurements

Construct	Researchers	Dimensions	Alpha	No. of items
Perceived risk	Sitkin and Weingart (1995)	Uni-dimensional	0.75	3

Table 4: Perceived risk items

Items	Scale
How would you characterize the decision of whether to buy a product from the web retailer?	Significant risk ---------- Significant opportunity
How would you characterize the decision of whether to buy a product from the web retailer?	High potential for loss -------- High potential for gain
How would you characterize the decision of whether to buy a product from the web retailer?	Very negative situation ------- Very positive situation

Table 5: Cronbach's alpha values for each dimension result from pilot test

Constructs	Instrument	Dimensions	Original alpha	Alpha (pilot test)	No. of items
Attitude	Sun *et al.* (2011)	Behavioral	0.826	0.837	2
		Affective	0.826	0.811	6
		Cognitive	0.923	0.727	6
Culture	Yoo *et al.* (2011)	Power distance	0.910	0.534	5
		Uncertainty avoidance	0.880	0.841	5
		Individualism	0.850	0.828	6
		Long-term orientation	0.790	0.888	6
		Masculinity	0.840	0.709	4
Perceived risk	Sitkin and Weingart (1995)	Unidimensional	0.750	0.815	3
e-Service quality	Parasuraman *et al.* (2005)	Efficiency	0.940	0.852	8
(E-S-QUAL scale)		System availability	0.830	0.608	4
e-Service quality		Fulfillment	0.890	0.713	7
(E-RecS-QUAL scale)		Privacy	0.830	0.874	3
		Responsiveness	0.880	0.890	5
		Compensation	0.770	0.796	3
		Contact	0.810	0.903	3
Trust	Harris and Goode (2004)	Unidimensional	0.814	0.797	3

RESULTS AND DISCUSSION

Normality: Normality is the most fundamental assumption in multivariate analysis (Hair *et al*., 2010). It measures whether differences revealed between the obtained and predicted scores of dependent variables (Stewart, 1981). The study sample was taken from the population, it is crucial to compare the sample normal distribution to one of the basic social science measurements, namely, the normal distribution of the population. The normal density function is described as a bell-shaped distribution that is symmetric to the values surrounding the mean.

In the present study, the entire variables were tested for normality where the values of Skewness and Kurtosis were examined to test the scores of normality. Table 6 shows that the overall the values of Skewness and Kurtosis were within the critical value. Hence, the possibility of issues surrounding non-normal distribution appeared to be insignificant.

Reliability of measures: Reliability refers to whether or not the measurement scale is characterized by consistency and stability. A research instrument's reliability is defined as the concerns to the degree to which the instrument produces the same results in repeated cases (Carmines and Zeller, 1979). It presents the level to which the respondent answers the same or similar questions consistently every time (Cronbach, 1951). It is the function that a researcher should consider as a fundamental requirement prior to proceeding with the data analysis and interpretation. Reliability is confirmed as a necessary target that is considered as a validity criterion (Crocker and Algina, 1986).

Two measures are used to evaluate reliability namely Cronbach's alpha (α) and item to total correlation. Cronbach's alpha, named after Cronbach (1951) is described as a measure that provides an idea as to the internal consistency by presenting the way items are used to measure some constructs of interest by examining the proportion of times variance compared to common known figures. Cronbach's alpha is considered high if the correlation between particular items increases. Items having low correlation values should be eliminated under particular conditions as they might lessen the total relationship value within a single set of items in other words, low correlation value items are invalid to use.

In the present study, the reliability of the instruments used was examined using Cronbach's alpha. Generally, the measurement scales showed good performance with Cronbach's alpha values higher than 0.7 for all measurement constructs. However, most of the measurement scales in this study showed excellent performance with Cronbach's alpha values >0.9 (Harris and Davison, 1999) (Table 7).

Factor analysis of risk on online shopping: The risk items were exposed to exploratory factor analysis. The analysis of the data set of responses suggested a one-factor solution. The one-factor solution explained 88% of the variance. The procedures of principal component and Varimax rotation were utilized to determine the orthogonal factor dimensions. The factor extraction used the latent criterion of 1.0 while the item inclusion used factor loadings of 0.40 (Hair *et al*., 1992).

The factor's composite reliability of each construct was studied to examine the indicator's internal consistency which measured the underlying factors

Table 6: Normality test results

Test	N	Mean	SD	Skewness	Kurtosis
Attitude	414	4.78	1.35	-0.500	-0.70
Risk	414	4.72	1.54	-0.500	-0.75
Trust	414	3.50	1.36	0.270	-0.66
E^2	414	3.52	1.43	0.500	-0.60
Culture	414	3.47	1.09	0.005	-0.24

Table 7: Reliability for study's variables

Constructs	Instrument	Dimensions	Original alpha	Alpha (pilot test)	Alpha (main sample)	No. of items
Attitude	Sun *et al*. (2011)	Behavioral	0.826	0.837	0.821	2
		Affective	0.826	0.811	0.928	6
		Cognitive	0.923	0.727	0.947	6
Culture	Yoo *et al*. (2011)	Power distance	0.910	0.534	0.836	5
		Uncertainty avoidance	0.880	0.841	0.984	5
		Individualism	0.850	0.828	0.914	6
		Long-term orientation	0.790	0.888	0.858	6
		Masculinity	0.840	0.709	0.749	4
Perceived Risk	Sitkin and Weingart (1995)	Unidimensional	0.750	0.815	0.928	3
e-Service quality	Parasuraman *et al*. (2005)	Efficiency	0.940	0.852	0.972	8
(E-S-QUAL Scale)		System availability	0.830	0.608	0.886	4
e-Service quality		Fulfillment	0.890	0.713	0.941	7
(E-RecS-QUAL Scale)		Privacy	0.830	0.874	0.941	3
		Responsiveness	0.880	0.890	0.904	5
		Compensation	0.770	0.796	0.796	3
		Contact	0.810	0.903	0.897	3
Trust	Harris and Goode (2004)	Unidimensional	0.814	0.797	0.907	3

(Fornell and Larcker, 1981). Netemeyer *et al.* (2003) suggested that a factor is reliable when its composite reliability is higher than 0.60. The Cronbach's alpha for risk was very good at 0.934. The statements' reliability is deemed to be good and can hence produce the same results even through repetitive tests. The Cronbach's alpha coefficients of risk are presented in Table 8.

Testing of hypothesis: When the association between two variables depends on a third one, moderation occurs. In this case, the third variable is considered as a moderator variable. Baron and Kenny (1986) described a moderator as a qualitative or quantitative variable that affects the direction or the relationship strength between independent and dependent variable. In other words, the relationship between the two types of variables differs based on the moderator's level.

Hierarchical regression or moderator regression analysis was utilized for testing the moderating effect of perceived risk on the e-Service quality trust relationship. This type of analysis has been suggested by many researchers as the appropriate and commonly used technique in identifying moderating effects. Also, Hartmann and Moers (1999) and Irwin and McClelland (2001) recommended hierarchical regression with two regressions: one with the main effects only while the other with the main effect and interaction effect. The statistical significance of the additional variance and the interaction term confirm the significant interaction (Hartmann and Moers, 1999).

Direct relationship between electronic service quality and trust in online shopping: The first stage of employing hierarchical regression was to examine the moderating impact of perceived risk which involved the evaluation of the direct effect of service quality on trust. Electronic service quality was the independent variable while trust in internet shopping was the dependent variable (Fig. 2).

For direct effect, the significant result showed that consumer's perception of e-Service quality directly impacted trust in online shopping (Table 9) with the power level strong at R^2 change of 0.690 ($p = 0.000$).

Moderating effect of risk perception on the relationship between electronic service quality and trust in online shopping: Through the employment of hierarchical multiple regression, the perceived risk's moderating effect on the e-Service quality-trust in online shopping relationship can be tested as recommended by Nunally and Bernstein (1994). This analysis was employed in two steps: first, control variable was included with the independent variable and second, control variable, independent variable and interaction between these two variables were included (Fig. 3).

Table 10 reveals that under consumer e-Service quality in internet shopping, perceived risk was

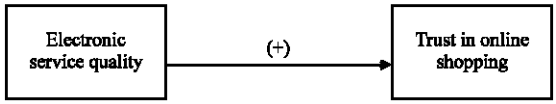

Fig. 2: Direct effect of electronic service quality on trust in online shopping

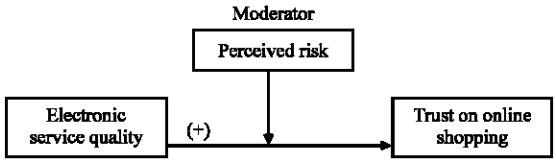

Fig. 3: Conceptual model: moderating effect of perceived risk

Table 8: Factor analysis of risk in online shopping

Factors	Factor loading	Eigen value	Variance explained	Alpha
Dimension one		2.654	88.480	0.934
How would you characterize the decision of whether to buy a product from the web retailer?	0.956			
How would you characterize the decision of whether to buy a product from the web retailer?	0.935			
How would you characterize the decision of whether to buy a product from the web retailer?	0.932			

Table 9: Result of testing of hypothesis three

					Change statistics		
Regression path	R	R^2	Adjusted R^2	Std. error of the estimate	R^2 change	F change	Sig. F change
Service quality→trust	0.690	0.476	0.475	0.96187	0.476	374.415	0.000

Table 10: Result of testing of hypothesis three

Regression path	R	R^2	Adjusted R^2	Std. error of the estimate	R^2 change	Sig. F change
Service quality→trust	0.690	0.476	0.475	0.96187	0.476	0.000
E^2, risk→trust	0.703	0.495	0.492	0.94564	0.495	0.000
E^2, risk and INTR-Z→trust	0.712	0.506	0.503	0.93597	0.506	0.002

significant (p = 0.000) in explaining the dependent variable variance. Trust in online shopping and the unstandardized coefficients of e-Service quality and perceived risk were 0.621and 0.119, respectively with R^2 of 0.495.

Finally, the interaction between consumer electronic service quality and perceived risk of consumers was also significant (p = 0.002) in explaining the increased at 0.506. Since, the regression coefficient of interaction term was significant, it shows that risk modified electronic service quality-trust relation. The result showed that t consumers' perceived risk directly moderated e-Service quality-trust in online shopping relationship. The relation was considered a pure moderator because of pure moderator interacted with predictor variables without significantly predicting the relationships and having a negligible correlation with the criterion variable (Sharma *et al*., 1981).

With regard to the relationship between e-Service quality and trust at different levels of risk, researcher found that this relationship is constant in case of stable low risk; however, the relation is changed when e-Service quality increased. The relation between e-Service quality and trust was affected by level of perceived risk when e-Service quality increased. People with low risk perception needed lower level of e-Service quality to trust e-Vendor on the other hand, people with high-risk perception needed higher level of e-Service quality to trust e-Vendor. According to online consumptions, consumers having high-risk perceptions are inclined to distrust online vendor while consumers with low risk perception are easier to trust online vendor. Figure 3 shows the interaction effect between e-Service quality and consumer trust with the presence of consumer's risk perception.

Moderating effect of risk: A moderating variable is deemed to modify the relationship form/strength between a predictor and criterion variable (Sharma *et al*., 1981). It is contended that the examination of the moderating effects is more significant than the examination of a direct relationship which is quite obvious. Researchers broadly agree on the significant role that the concept of perceived risk plays in influencing consumer behavior (Boksberger *et al*., 2007). Perceived risk has been studied for several decades in other fields but was first applied to online exchanges by Jarvenpaa *et al*. (1999).

The present study analyzed the moderating effect of perceived risk upon the influence of e-Service quality on trust. Researcher found that the relationship between e-Service quality and trust changed based on the different levels of perceived risk. People with low risk perception needed lower level of e-Service quality to trust e-Vendor on the other hand, people with high-risk perception needed higher level of e-service quality to trust e-Vendor. This finding is logical since e-Service quality perception is a trust builder while perceived risk affects e-Service quality-trust relation. A customer with high-risk perception tends to have high perception of service quality. e-Service quality should strongly influence trust for individuals with a higher perceived risk associated with online purchase in comparison to those with a lower perceived risk. In other words, the effect of service quality perception on trust is lower for consumers having high-risk perception while the effect is higher for those with low risk perception.

Many e-Commerce studies focused on the role perceived risk has in an online context, particularly in its relationship with trust. Previous research found that perceived risk and trust were highly correlated (Dinev and Hart, 2006). In general, literature is rife with studies dedicated to examining the relationship between trust and perceived risk (Belanger and Carter, 2008). For example, Zhou (2012) found that trust minimized perceived risk and in comparison to the effect of perceived risk, trust had more significant effect on usage intention. Tiangsoongnern (2007) found that perceived risk was adversely associated with trust in online purchasing. On the other hand, Pavlou (2003) and Al-Adawi *et al*. (2005) found that in the absence of risk where actions could be taken with complete certainty, trust was not required. According to Hosmer (1995), trust is primarily required in situations rife with uncertainty as trust effectively translates to assuming risks and becoming susceptible to trusted parties' actions.

Other studies have looked at trust as an antecedent to perceived risk and consumer trust could be defined as a function of risk level present in a situation (Corbitt *et al*., 2003). Lui and Jamieson (2003) explained the trust and risk perceptions role in online shopping adoption. They found that an increase in consumer trust was associated with a reduction in perceived risk in online purchasing. Jarvenpaa *et al*. (2000) revealed that high consumer trust minimized perceived risks related with online shopping and produced positive attitudes towards it. Sitkin and Pablo (1992) found that perceived risk mediated trust impact on intention and behavior. However, others did not find any relationship between perceived risk and trust; it appears that people have specific degrees of trust in e-Commerce despite their perception of considerable risk and hence, they can participate in e-Commerce even when they perceive risk to exist (Hoffman *et al*., 1999).

CONCLUSION

The literature review concerns consumer attitude toward online shopping upon the internet, along with consumer e-Service quality, trust and risk. Cultural issues of service quality perceptions were also discussed. The theoretical framework of the present study was developed in in this study with the inclusion of research propositions.

This study is concluded by the present study that provided an overview of the study implications in light of theory and practice. The attitude toward online shopping model that emphasizes the relationships between e-Service quality, culture, trust and risk was presented in this final study.

The aim of the study was to examine the factors that affect attitude of consumers towards internet shopping in Malaysia and Saudi Arabia and how they affect purchase attitude. It also aimed to investigate the moderating impact of risk on the e-Service quality-consumers' trust relationship in Malaysia and Saudi Arabia.

The findings revealed that service quality was relatively significant in its impact on consumer trust in online shopping, proving the proposed positive direct impact of perceived service quality upon customer trust. However, perceived risk was revealed to be linked with consumer trust towards online shopping, contrary to the proposed hypothesis. According to the results, trust in online retailer was positively associated with the attitude of consumers to online shopping. Therefore, marketers and managers should take into close consideration the requirements of trust development in online retailing. Finally, trust based on e-Service quality is considered as the most suitable environment for developing favorable consumer attitude towards online shopping.

This study also contributed to the field of service quality expectations relationship with online shopping in the context of developing countries. It also examined the impact of culture on the service quality consumer expectations in both Malaysia and Saudi Arabia. In addition to comparing cultural values, researcher confirmed the need for cultural adaptation through E-S-QUAL. The findings indicated that in order to design strategies for effective service delivery and customer service expectation, the cultural background of consumers should be understood.

This study may be different from prior works owing to its expanded scope but not unlike any study, it also has limitations that have to be kept in mind when interpreting and generalizing the results. This study was cross-sectional in design further assessment of the argument about utilizing a longitudinal study is suggested for future studies to examine the model in various time periods.

On the basis of the increasing e-Commerce development in online shopping, various areas have appeared. Despite the validation of majority of the hypothesized relationships, the proposed model produced a relatively high degree of multiple determination coefficients. The resulting R^2 value showed a need to determine additional variables to enhance the ability of the model to predict potential customer attitude toward online shopping. Future, replications of this research should also include other consumer markets that may provide a deeper understanding of consumer's online purchase intentions in terms of different consumer segments and demographics. These tactics will increase the generalizability of the results. This study is the pioneering study that examined consumers' risk as a moderator in the analysis of e-Service quality-trust relationship in internet shopping. Despite the fact that the present study managed to reveal a moderating effect of risk on consumer's purchase attitude, more empirical support is required. An in-depth examination in this area and other risk related factors are suggested to achieve a more extensive understanding of consumers' risk-trust relationship in an online shopping context.

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