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Analysis of E-service Quality through Online Shopping

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ABSTRACT

This study investigates the factors that influence the e-service quality through online shopping. E-service quality is the difference between customers' expectations for service performance priorities the service encounters and their expectations about service performance prior to the service offering. Due to the recent growth in e-service quality in the field of e-commerce, the importance of monitoring and measuring e-service quality has provided value to the virtual world. Perceived risk has been studied in marketing for over 40 years and appears to be an appropriate construct to understand consumer adoption of e-commerce payment systems. The internet's impact upon the Malaysian market is significant and this has made it convenient for consumers to purchase products/services from the vendor and to go through the product information over the internet. The findings indicate the analysis of e-service quality through online shopping.

Key words: E-service quality, online shopping, dimension, risk

INTRODUCTION

The rapid growth of e-commerce has a great impact on the way businesses are performed. The features of the global electronic market lead to unique opportunities for companies to attract a larger population of customers. Generally, companies find it challenging to reach their customers in a global scale but with e-tailing they have more opportunity to do so and this is why competition among online retailers is currently becoming more and more fierce (Yang *et al.*, 2003).

Communication and information technology developments play important roles in online markets to reach a large population of target markets in different geographic locations and specifically in hard to reach areas (Khalifa and Limayem, 2003). Businesses are increasingly trying to obtain competitive advantages through e-commerce for customer interaction (Lee and Lin, 2005). Consequently, it is of interest for practitioners and academics in the field of online shopping and other fields to conduct an analysis of customer evaluations of online shopping (Wu, 2003).

Owing to the Internet and Internet-based technologies development, online customers are increasingly acquiring unconstrained access to information required and they are being offered a veritable array of product and service choices in competitive prices (Park and Kim, 2003). This is the reason why some customer purchases are generally based on online appearance pictures, quality information, images and video clips of the product as opposed to physical and actual

experience (Lohse and Spiller, 1998). With the increasing competition in e-commerce, it becomes imperative for online retailers to examine and study customer's attitude toward online shopping (Zhou *et al.*, 2007). Furthermore, if marketers know how online customers make their decisions, they can adjust their marketing plan to make it successful in attracting and retaining customers. Also, designers of websites who find it a challenge to design websites that can effectively increase sales can learn something from such a study (Khalifa and Limayem, 2003). All the above reasons make e-retailer studies very important.

Despite the many studies that have been dedicated to online shopping attitude in different parts of the world, there is still lack of studies on online shopping attitude in certain countries and cultures. This is attributed to the early stage of Internet development in some developing countries (Aljifri *et al.*, 2003). Osman *et al.* (2010) stated that, "Further studies should explore other factors that influence attitude towards online purchasing". As a result, some researchers claimed that little information is known regarding customers' attitude towards e-shopping and the factors impacting their attitude in developing countries (Haque *et al.*, 2006).

In the context of Malaysia, Kwek *et al.* (2010) stated that due to the novelty of web-shopping in Malaysia, information regarding consumer attitude towards online shopping and the factors impacting customer online purchase intention in the online shopping environment is lacking. This makes it imperative to identify the determinants of consumer attitude toward online shopping in the context of Malaysia.

Rajkumar (2010) opined that online shopping may have taken a significant hold in Western countries and is showing further growth but compared to Malaysia, the latter it is still lagging behind. Although online shopping is evidenced to have high potential in Malaysia, there is still lack of understanding on the subject matter and its effect on consumer marketing is still unknown (Chua *et al.*, 2006).

In a similar line of contention, Leong and Lee (2009) stated that only 30% of Malaysian internet users shops online. This percentage is relatively minimal compared to developed countries in Pacific Region area, indicating that Malaysians are still hesitant to use online shopping. This shows that consumers are inclined to the idea of expanding their shopping behavior over the internet. Despite the fact that almost all internet users involved in the survey stated their inclination to shop online, only a small number of them actually bought online owing to some barriers (Paynter and Lim, 2001).

Harn *et al.* (2006) identified and examined the main areas of concern and issues currently facing Malaysian online shopping users and their effect on future online business. Their findings revealed that users of online shopping viewed privacy as a risk in disclosing information online to retailers as their primary challenge. They also found that trust in online retailers was another major concern among Malaysians in internet shopping. Additionally, their findings indicated that most non-users of online shopping in Malaysia is still not confident in purchasing goods and services over the internet. Hassan and Kasiran (2008) stated that the issue of trust seems to be one of the factors why Malaysians do not shop online, most Malaysian consumers are not confident with e-commerce transactions because of trust. In addition, security, authentication, fraud and risk of loss were other challenges facing online companies. In qualitative study conducted by Kamarulzaman (2011) to compare between consumer perception of e-shopping in the United Kingdom and Malaysia, he found that for Malaysian shoppers, "Issues that are important for consumers are delivery, website features, information privacy and the rights to refund and exchange", suggesting that the most important concern regarding Malaysian online shoppers is factors related to e-service quality provided by e-store. Similar finding was reported

by Harn *et al.* (2006), where they revealed that some of the highlighted concerns were associated with e-service quality such as custom checks on goods and the effectiveness of consumer protection.

In the context of Saudi Arabia, the survey conducted by the Arab Advisors Group concerning internet users in the country showed significant e-commerce adoption in the affluent and booming economy in 2007. The survey revealed that 48.36% of Saudi internet users reported purchasing products/services online over the year prior to the study. On the basis of the survey findings, the group estimated that e-commerce users in Saudi Arabia were over 3.5 million consumers constituting 14.26% of the population (Arab Advisors Group, 2008). But another report by Arab Advisors Group showed that the number of internet users in Saudi Arabia who reported purchasing products and services online was lower in 2010 than that in 2007, where in 2010 the estimate figure was 3.1 million Internet users (which is lower than online shopper on 2007 by 0.4 million) who reported to purchase products and services online. In 2010, these online shopping users spent an estimated USD three billion on shopping for different products and paying for services through e-commerce transactions (Arab Advisors Group, 2011).

Like Malaysia, lack of trust seems to be one of the hindering factors of e-commerce development in Saudi Arabia (Aladwani, 2003). Alrawi and Sabry (2009) carried out a study to examine e-commerce status in Gulf countries specifically in Saudi Arabia, Oman, UAE, Kuwait, Qatar and Bahrain. They contended that issues affecting e-commerce growth in these countries encapsulate confidence in online transactions, e-commerce awareness laws, trust and security issues, websites usability and interactivity and assurance level (Alrawi and Sabry, 2009).

To date, some of the researchers that attempted to conduct an assessment of the Saudi e-commerce include Al-Otaibi and Al-Zahrani (2003), who analyzed the practices and characteristics of Saudi e-commerce websites in an attempt to measure Saudi organizations tendencies towards e-commerce. Despite their significance, these studies failed to offer a quality model from the perspective of online users (Al-Safadi and Garcia, 2012).

Alqahtani *et al.* (2012) reviewed the literature on e-commerce and identified two perspectives, consumer perspective and system perspective that hindered Saudi consumers from adopting e-commerce. AlGhamdi *et al.* (2013) noted that there are only a few studies dedicated to online shopping in Saudi Arabia and identified business, consumers, government and environmental factors as hindering e-commerce adoption. But they noted that majority of these studies focused on environmental factors (Fig. 1) and recommended that the areas requiring examination include Saudi customers and retailers.

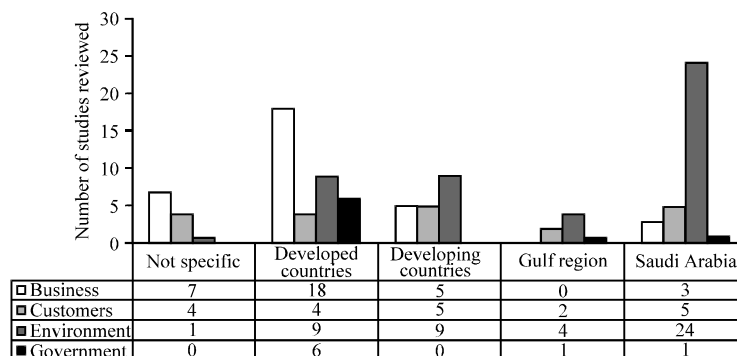


Fig. 1: Factors influencing adoption and diffusion of B2C e-commerce, Source: AlGhamdi *et al.* (2013)

AlGhamdi *et al.* (2012) examined the perceptions of both consumers and vendors regarding online shopping in Saudi Arabia. They revealed that majority of consumers hesitated to use credit cards owing to the risk, lack of trust and cultural aversion of conducting transactions associated with interest rates. However, top enablers from retailers' viewpoint were trustworthy and secure online payment options. In addition, MasterCard (2012) revealed that 42% of shoppers in the Kingdom of Saudi Arabia still did not feel secure while shopping online. Aladwani (2003) conducted a study in Arab countries (United Arab Emirates, Egypt and Saudi Arabia) and revealed that issues related to trust were significant determinants of diffusion of e-commerce in the Arab countries.

Based on a study conducted in Saudi Arabia regarding Saudi internet users by El-Tayeb *et al.* (2007), the most important barrier for Internet shopping in the Kingdom of Saudi Arabia was related to trust even though 97% of the respondents indicated that Internet shopping would make their life easier. The study also showed that majority of online transactions inside the Kingdom were done with foreign companies outside Saudi Arabia because of issues related to trust.

The study results indicated that trust, among other factors, significantly affected online banking adoption. This is supported by AlGhamdi *et al.* (2012) when he revealed that the most crucial barrier to online shopping in Saudi Arabia was related to trust in online shopping (Fig. 2). On the same note, Alqahtani *et al.* (2012) also found that 40% of Saudi respondents indicated that trust, among other issues, was a crucial aspect in e-commerce adoption in Saudi Arabia.

A qualitative study by AlGhamdi *et al.* (2012) made use of information taken from a series of interviews with 16 Saudi retailers to list factors inhibiting or discouraging retailers from online

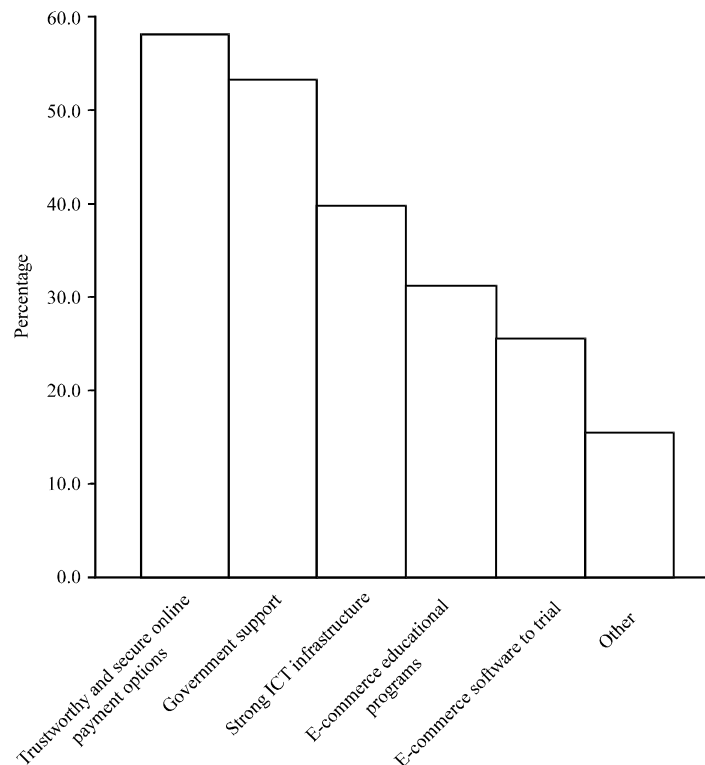


Fig. 2: Factors facilitating adoption of online retailing by Saudi vendors, Source: AlGhamdi *et al.* (2012)

retail adoption in Saudi Arabia. These included setup cost, delivery issues, lack of online payment options for trust building, lack of trust in online sales and Saudi people's habit/culture toward online purchase. This study also listed incentives that had the potential to encourage retailers to employ the online channel which include trustworthy and secure online payment options and the provision of e-commerce trial software.

Alqahtani *et al.* (2012) listed the top influential factors on the e-commerce success in Saudi Arabia from the perspective of the consumer (Fig. 3). The list included efficient delivery, e-commerce online presence, effective warranty agreements, a trial of tangible product experience and installing high quality security systems with strong encryption algorithms for the prevention of hacking and fraud. These factors were discussed by the authors are part of e-service quality construct which requires enhancement to attract Saudi consumers to purchase online.

Consistent with the above study, Al-Safadi and Garcia (2012) identified the factors determining end-user acceptance of e-commerce in the context of Saudi Arabia on the basis of the various users' shopping behaviors and requirements from one culture to another, their work proposed a quality evaluation model to measure the B2C systems quality from the perspective of Saudi users. They surveyed e-commerce experts and end users in order to identify and rank the quality factors of B2C systems. These factors include searching and retrieving, navigation and browsing, order management, online feedback and help features, interface and aesthetic features, miscellaneous features, information accuracy and relevance and accessibility. These factors were associated with e-service quality as they were identified as service quality attributes of the same (Surjadaja *et al.*, 2003).

Moreover, the factors influencing the e-service adoption and usage in Saudi Arabia were determined by Al-Ghaith *et al.* (2010) by empirically testing factors against data collected from 651 participants with the help of survey questionnaires. The most significant factors include e-service quality, security of e-service websites, trust and loyalty of e-consumer, quality of the internet, complexity, privacy, compatibility and relative advantage.

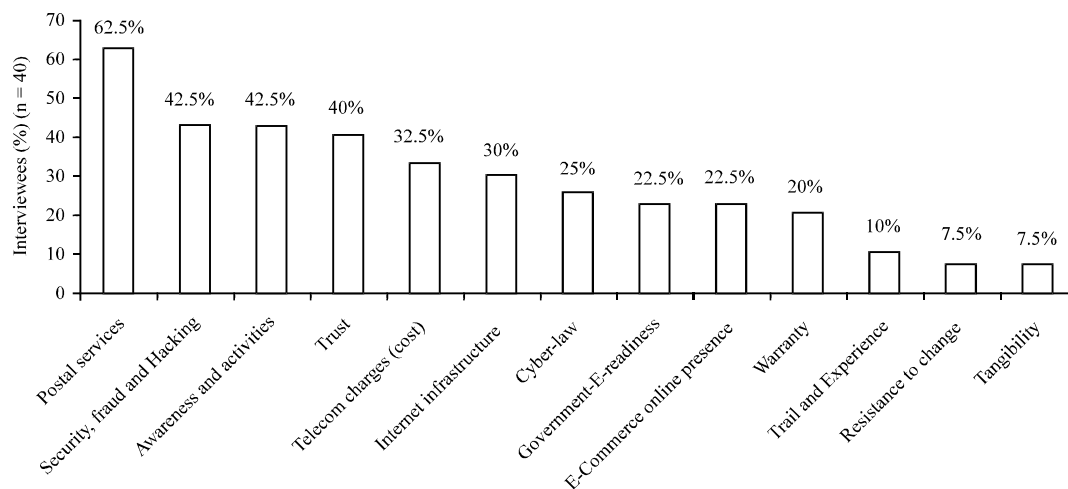


Fig. 3: Most influential factors in the success of e-commerce from consumer feedback, Source: Alqahtani *et al.* (2012)

E-SERVICE QUALITY

Definition of e-service quality: A growing body of scholarly work has begun to explore e-service quality and consumer relationship primarily focusing on online shopping. The concept of e-service quality is derived from the service quality construct. Still there are no acceptable models and definitions of electronic service quality and its measurement (Seth *et al.*, 2005). But expectations regarding e-service quality are not as well formed as those made for traditional service quality (Zeithaml *et al.*, 2002). Parasuraman *et al.* (1988) defined service quality as the overall evaluation of a specific service firm that results from comparing that firm's performance with the customer's general expectations of how firms in that industry should perform.

According to Asubonteng *et al.* (1996), e-service quality is the difference between customers' expectations for service performance priorities the service encounter and their perceptions of the service received while Bitner *et al.* (1990) defined it as the consumers' overall impression of the relative inferiority/superiority of the organization and its services. These definitions vary from person to person but their essence is similar (Khalil, 2011). Ojo (2010) stated that the definition of service quality differs only in their wording but they generally relate to the determination of whether perceived service delivery leads to the meeting, exceeding, or failure to satisfy customer expectations.

Service quality may be defined as the difference between customers' perceptions of the service received and their expectations about service performance prior to the service offering (Asubonteng *et al.*, 1996). If service performance does not meet expectations, people will think that the service quality low. However, when performance goes over expectations, the perception of the service quality is higher (Connolly, 2007). Therefore, customers' expectations are crucial in evaluating service quality. In addition, Asubonteng *et al.* (1996) found that when service quality increases, intentions to use the service or product and satisfaction increase.

Most practitioners as well as researchers use web service quality and e-service quality synonymously. For instance, Zeithaml (2002) defined e-service quality as the level to which a website uses effective and efficient shopping, purchasing and delivery of goods and services while Zhang and Prybutok (2005) utilized the same concept to describe quality of website service. Similarly, Santos (2003) defined e-service quality as consumer overall opinions and evaluation regarding the excellent e-service delivery in online market while Collier and Bienstock (2006) provided a description of e-service quality as the user's perceptions of the result of the service delivery as well as their perceptions of service recover in case of service failures.

Dimensions of e-service quality: Due to the recent growth in e-service quality in the field of e-commerce, the importance of monitoring and measuring e-service quality has provided value to the virtual world. In addition, e-service quality has turn out to be a significant topic in the field of business research. Onset, a clear difference is revealed between traditional service quality and e-service quality as stated by Lee and Lin (2005):

- The absence of sales man in e-services wherein there is no actual business communications between customers and sales representatives like in the traditional service
- The obvious absence of traditional tangible factors as the interaction is conducted in the virtual environment involving some intangible factors. The effective environment involves some real factors
- The self-service of customers in e-service wherein customers generally serve themselves on their own in the purchasing interaction and they control the process of business

There has been ongoing development in the knowledge dealing with quality dimensions of e-service quality (Kim *et al.*, 2006). Most of these studies combined elements of the dimensions of traditional service quality with the dimensions of web-based service quality. According to Gounaris *et al.* (2005), the e-service quality perception is impacted by varying predictors and several studies have attempted to provide a description of e-service quality in the past years and majority of them have tackled dimensions present in different aspects of customer's interaction in e-shopping. In the present study, some of the important literatures that have succeeded in developing and validating measurement criteria for perceived e-service quality are discussed and the most suitable scale is chosen.

E-service quality measurement in online shopping has been receiving increasing attention currently and as a result, many studies have tried to highlight major dimensions of e-service quality linked with online environment. These studies were conducted in different contexts such as e-service, online travel agency, online banking, online retailing, web portal, online public library and online shopping (Table 1). The Table 1 summarizes the studies that identified e-service quality dimensions.

Table 1: Summary of studies on E-Service quality dimensions

References	Dimensions	Context
Zeithaml <i>et al.</i> (2000)	Contact, compensation, responsiveness, privacy, fulfillment, reliability and efficiency	Online retailing
Yoo and Douthu (2001)	Security, processing speed, aesthetic design and ease of use	Online retailing
Cox and Dale (2001)	Availability, understanding, credibility, accessibility, communication and website appearance	Online retailing
Yang (2001)	Information, security and website design	Online retailing
Wolfenbarger and Gilly (2003)	Customer service, security, reliability and website design	Online shopping sites
Zeithaml <i>et al.</i> (2002)	Delivery, responsiveness, security, reliability and communication	E-service
Madu and Madu (2002)	Empathy, assurance, reputation, web store police, service differentiation and customization, responsiveness, trust, security and system integrity, serviceability, reliability, aesthetics, structure, features and performance	E-service
Loiacono <i>et al.</i> (2002)	Substitutability, business process, integrated communication, innovativeness, flow, intuitiveness, website design, response time, trust, interactivity and information	Online retailing
Yang and Jun (2002)	Customization, accessibility, responsiveness, reliability, security and website design	Online retailing
Surjadaja <i>et al.</i> (2003)	Customization, delivery, reliability, information, responsiveness, interaction and security	E-service
Santos (2003)	Customer support, incentive, security, communication, reliability, efficiency, content, structure, linkage, appearance, ease of use	E-service
Yang <i>et al.</i> (2003)	Aesthetics, security, collaboration, personalization, courtesy, competence, access, communication, convenience, reliability, eases of use, credibility and responsiveness	Online retailing
Yang <i>et al.</i> (2004)	Portfolio, product, security, eases of use, competence, responsiveness and reliability	Online shopping sites
Gounaris <i>et al.</i> (2005)	Reputation, responsiveness, trust, information and website design.	Online retailing
Parasuraman <i>et al.</i> (2005)	Contact, compensation, responsiveness, privacy, fulfillment, availability and efficiency	E-service
Lee and Lin (2005)	Personalization, trust, responsiveness, reliability and website design	Online retailing
Sohn and Tadisina (2008)	Functionality, website content, communication, customized, ease of use, reliability, speed of delivery and trust	Online finance

The number of e-service quality studies is increasing and they show varying dimensions of e-service quality. A scale known as SITEQUAL, utilized to measure website quality, is proposed by Yoo and Donthu (2001). It is primarily based on four factors, namely, aesthetic design, processing speed, ease of use and security. Cox and Dale (2001) stated that traditional dimensions of service quality including courtesy, cleanliness, comfort and competence are not compatible for online service quality while dimensions like availability, appearance, credibility, communication, understanding, accessibility are important for the online environment.

WebQual is a scale proposed by Loiacono *et al.* (2002) to evaluate website quality. It comprises 12 dimensions, namely, visual appeal, innovativeness, relative advantage, online completeness, emotional appeal, trust, response time, tailored communications, ease of understanding, intuitive operations, consistent image and informational fit-to-task. The same scale name was developed by Barnes and Vidgen (2002) to measure website quality on the basis of usability, service interaction quality and information quality. In addition, Madu and Madu (2002) proposed 15 dimensions of online service quality: Aesthetics, reliability, performance, system integrity, features, structure, responsiveness, serviceability, security and trust, customization service differentiation, assurance, reputation, web store police and empathy. In sum, there are many e-service quality dimensions that are purported to have positive effects on online user's perceived quality (Lee and Lin, 2005).

Along similar lines, Wolfinbarger and Gilly (2003) created a 14-item scale consisting of four factors, namely, reliability/fulfillment (related to accurate orders, on-time delivery and accurate product representation), website design (including some attributes related to product selection, design and personalization), customer service (willingness to help, prompt answers to inquiries and willingness to solve problems) and security/privacy (trust and safety). According to Wolfinbarger and Gilly's scale, the security/privacy and reliability/fulfillment dimensions indicate strong validity. However, website design and customer service dimensions are less internally consistent and distinct.

Rowley (2006) reported that pioneering study in e-service is still in their beginning and more work is required to extract an exact explanation and measure of e-service quality. He attempted to provide a summary of the service quality dimensions from 29 sources dedicated to e-service quality between 1996 and 2006. These dimensions are listed on the basis of frequency of appearance such as site features comprising design, intuitiveness, ease of use, ease of navigation site aesthetics, appearance, visual appeal, structure, interaction, sensation and ease of ordering (25 sources), security (24), responsiveness (15), reliability (13), accessibility (13), information (10), communication (8), personalization (7), delivery (7), customer support (5) and others (18).

In sum, several authors have provided suggestions of measures of website evaluation but most of them do not provide an extensive evaluation of the service quality perception of websites. The following are some examples of such measures developed:

- WebEqual is a tool to measure the quality of the website interface. It targets the website interface as opposed to providing particular service quality measures from the viewpoint of the customer (Loiacono *et al.*, 2002)
- Site Qual proposed by Yoo and Donthu (2001) surveys the dimensions linked with the evaluation of website service
- WebQual2 proposed by Barnes and Vidgen (2002) provides a transaction related evaluation as opposed to a detailed evaluation of the service quality offered by the website
- The e-TailQ Scale is proposed by Wolfinbarger and Gilly (2003). However, this scale was judged with some reservations expressed by other authors (Parasuraman *et al.*, 2005)

The most common measure of traditional service quality SERVQUAL was developed by Parasuraman *et al.* (1985) which has received considerable attention. Yang (2001) argued that the primary value of SERVQUAL lies on its powerful benchmarking, diagnostic and perspective tools. However, the SERVQUAL scale does not best fit the online services and hence many studies have tried to enlarge its conceptualization to the e-commerce context. Although SERVQUAL's five dimensions were developed based on traditional market services, several authors have used the same dimensions in the online environment (Obi, 2009). Zeithaml (2002) supported this approach by stating that some dimensions of SERVQUAL scale are fit to be used in the online environment with the addition of some technical dimensions. Based on Lee and Lin (2005) study, basic dimensions impacted service quality in online shopping through modifications and these dimensions contained website design, reliability, responsiveness, trust and personalization. Such practice was also evident in some research. For instance, Zeithaml (2000) modified the SERVQUAL scale in his study of the e-service environment and he proceeded to identify 11 dimensions namely ease of navigation, access, flexibility, efficiency, reliability, security/privacy, customization/personalization, responsiveness, site aesthetics, assurance/trust and price knowledge.

Zeithaml *et al.* (2000) revealed many website features are based on the perceptual level and separated them into 11 dimensions of e-service quality. These dimensions are described below:

- Reliability-the correct technical functioning of the website and its accurate service offers (delivering of promised stocks, delivering of ordered stock, available items in stock, product information and billing)
- Responsiveness-the timely response and the recourse for help in case of issues or inquiries
- Access-the ability to access the site in a timely manner and to reach the company when necessary
- Flexibility-the varying choices of payment, shipment, buying, searching and return of items
- Ease of navigation-the site functions that help consumers find what they are searching for with ease. In other words, it refers to the system functionality and the user-friendly features
- Efficiency-the simple and easy to use feature of the site, its proper structure and the requirement of minimum information to be entered into by consumers
- Assurance/trust-the customer's confidence in handling the site and the reputation of the site's services and products and its clear and truthful information
- Security/privacy-the extent to which the customer is convinced of the site's safety from intrusion and protection of personal information
- Price knowledge-the level to which the customer determines the total price, shipping price and the relative prices when shopping
- Site aesthetics-site appearance
- Customization/personalization-the easy tailoring of the site to individual customer's preferences, histories and method of shopping

Zeithaml *et al.* (2001) model of service quality for e-retailing consists of seven e-service quality features including efficiency, fulfillment, reliability, privacy, responsiveness, compensation and contact. When compared to the rest of the proposed models, e-SERVQUAL is superior as it is based on the SERVQUAL approach which has been utilized in the measurement of service quality in many contexts. Although e-servqual has been repeatedly criticized, it is a tool that is commonly utilized for collecting appraisals by users of the services they received. Furthermore, owing to its suitability to varying sectors to evaluate the quality of service provided, it has become invaluable.

Based on the extensive analysis and synthesis of the literatures relating to e-service quality, Zeithaml *et al.* (2001) categorized the criteria of e-servqual perceptions into: (a) Ease of use or usability, (b) Information availability and content, (c) Graphic style, (d) Privacy/security and (e) Reliability/fulfillment. Many researches have been conducted to examine the different elements of these five criteria. While some have been proposed as being critical, others have been found to be significant empirically. Both availability and information depth were uncovered to be significant as users are able to control the order, content and duration of product-relevant information, integrate and recall and hence improve the information use (Ariely, 2000). Meanwhile, ease of use is also significant as Internet-based transactions should not be difficult that they intimidate most consumers. Privacy (personal information protection) and security (protection of users from financial loss and the risk of fraud) have also been uncovered objectively to have an important impact upon attitude toward use of online services.

Parasuraman *et al.* (2005) defined e-service quality and proposed a new method for its measurement which is E-S-QUAL. The measurement consists of four dimensions with 22 items. These dimensions are fulfillment, efficiency, privacy and system availability. Accompanying this main scale is a subscale referred to as E-RecS-Qual, formulated for customers facing issues while using online services. This subscale comprises three dimensions of responsiveness, compensation and contract and has 11 items. Two scales have undergone reliability and validity tests and shown good psychometric characteristics. Later, Parasuraman *et al.* (2005) tested it in online shopping contexts. The efficiency dimension is concerned with the ease of speed and access and utilization of the site. It is referred to as the capability of the customers to use the site, find their products of choice and all the associated information with minimal effort. Meanwhile the system availability dimension relates to the technical function of the site and is related to the technical functioning and the level to which the site is available and functioning properly. The dimension of fulfillment shows the level to which the site promises item convenience and order delivery. It also refers to how correct the services promised are, like having products in stock and timely delivery of products. The privacy dimension deals with the level to which the site is safe and protects customer information and the extent to which the customer is convinced that his/her information is not shared and is secure. In e-commerce, it was revealed that efficiency and fulfillment are the two dimensions that have the greatest effect on the perceived service quality followed by system availability and privacy.

E-S-QUAL is commonly used in online service quality study. Kim *et al.* (2006) made use of it to measure online e-service quality measure to determine the main factors contributing to clients' satisfaction. The E-S-QUAL may be utilized along with E-RecS-QUAL scale which measures the quality of recovery service offered by the site. The E-RecS-QUAL scale has the dimensions of responsiveness, compensation and contact to deal with customer issues or inquiries (Mekovec *et al.*, 2007). This method is the basis of the e-services quality evaluation approaches (Cernea *et al.*, 2009).

RISK IN ONLINE SHOPPING

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's 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) 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).

Jacoby and Kaplan (1972) based their items on previous study by Bettman and Cunningham and successfully used single items to measure each handled risk facet. An item indicative of the format used is "What are the chances [or likelihood] that you stand to lose money if you try an unfamiliar brand of (either because it won't work at all, or because it costs more than it should to keep in good shape)? 1 = low chance of losing money, 9 = high chance of losing money".

Cox (1967) attributed perceived risk in purchasing decisions to the following factors: (1) The uncertainty of the consumers to their buying goals, (2) The uncertainty of the consumers regarding the product category or brand that best matches their goals of buying and (3) The perception of the consumers of the possible negative outcome of purchasing the product which fails to satisfy their goals of buying.

Being a relatively new way of purchase, consumers naturally feel risk when dealing with the Internet and they consider e-commerce riskier than bricks and mortar commerce. In one of the efforts to classify perceived risks of online purchasing, Tan (1999) revealed that perceived risk was greater when purchasing products via the web than when purchasing products in-store. Consumers also have a choice of whether to go for traditional shopping or online shopping on the basis of their perceptions of which service or product is purchased from one or another. Services are more related with online shopping mode while tangible products are more related with traditional stores (Rajamma *et al.*, 2007). Huang *et al.* (2004) found that online shoppers possessed lower perceived risk than their non-shopper counterparts did.

Risk definitions and dimensions: Perceived risk has been studied in marketing for over 40 years and appears to be an appropriate construct to understand consumer adoption of e-commerce payment systems. Bauer (1960) proposed the perceived risk concept to the marketing literature following his conceptualization of consumer behavior as risk taking. Bauer (1960) reported that, "Consumer behavior involves risk in the sense that any action of a consumer will produce consequences which he cannot anticipate with anything approximating certainty and some of which are likely to be unpleasant". Based on Taylor (1974) proposition, since the result of the consumption choice may only be revealed in the future, the consumer is faced with uncertainty.

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).

In the context of online shopping, Chellappa *et al.* (2005) defined perceived risk as “the uncertainty that customers experience when they cannot predict the outcome of their purchase decisions”. Also Hassan *et al.* (2006) defined perceived risk in online shopping as “the expectations of any loss or any negative consequences as a result of online shopping”. Because the Internet is described as a global and a virtual channel of selling and buying product and services, the seller cannot be felt in a physical sense and this creates an uncertainty perception in online transactions and therefore, perceived risk is important in online purchasing. Based on Jarvenpaa *et al.* (1999), there is no assurance that the consumer will obtain the goods that he/she sees in the Internet. In case of technical problems in the process of transaction, the seller is not the one to bear the cost.

Pavlou (2003) defined perceived risk 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 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).

Online risk studies: 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.

Kim and Lim (2001) investigated effects of perceived risk on purchasing decision in online shopping. The author also examined various strategies to reduce perceived risk. The results indicated that perceived risk in online shopping was greater than the perceived risk in-store shopping. In addition, positive online shopping experience reduced consumers' perceived risk. Kim also found that higher perceived risk negatively affected online purchasing intentions. The results also indicated that relationships between perceived risk and purchasing intentions that existed in mail-order shopping and in-store shopping existed in online shopping.

Chang (2003) study examined the mediating role of perceived risk that affects the link between trust and purchasing intentions. The findings showed that perceived risk completely mediated the impact of trust and partially mediated the impact of risk inclination on purchasing intentions.

Park and Stoel (2005) studied the effects of online product consumers' mood, presentation and purchase intentions on perceived risk. The results indicated that purchase intentions and perceived risk were negatively related. Regarding the impacts of online product presentation on perceived risk, utilization of product rotation on a web page reduced perceived risk. The findings revealed that perceived risk mediated the relationship between mood and purchase intention and showed a negative relation between positive mood and perceived risk.

ONLINE SHOPPING IN MALAYSIA AND SAUDI ARABIA

Maddox and Gong (2005) stated that the Internet market level has shown a dramatic increase in the Asian region. Currently, there is a notable trend of consumers turning to the Internet for most of their shopping needs which has led to countless business opportunities. Nevertheless, online retailing in Malaysia is still in its early development stages and it has not reached its full potential as yet (Chua *et al.*, 2006).

The Internet's impact upon the Malaysian market is significant and this has made it convenient for consumers to purchase products/services from the vendor and to go through the product information over the Internet (Ling *et al.*, 2012). The Malaysian government has exerted efforts to provide the society with an electronic environment, specifically when in terms of Internet commerce. On the basis of the study conducted, Malaysia is reported to have the highest percentage (82%) of online shoppers among the nine Asian Pacific countries who makes use of the Internet to purchase products and services related to travel (Ling *et al.*, 2012).

The online shopping statistic reported by IDC Malaysia revealed Internet users to be 17.5 million (Ong, 2010). With regards to the year 2011 and 2012, Internet users were approximated at 18.3, 18.9 million, respectively (Ibrahim *et al.*, 2013). According to the study, approximately 50% of Internet users in Malaysia are e-consumers in 2010 and the percentage is expected to increase to 55% by 2012 (IDC Malaysia, 2011). A more recent report stated that the number of Malaysian citizens who conducted online shopping increased by 12% in 2011 compared to the previous year. Moreover, Malaysia is expected to grow expediently with regards to online shopping from RM842 million in 2011 to over RM1.9 billion in 2016 (Morgan, 2011).

Furthermore, PayPal survey for 2010 involving 400 customers using online payment services revealed that Malaysians spends RM1.8 billion to purchase goods and services online (Nazrin, 2011). Moreover, Malaysian economic report (2012/2013) has reviled that eBay.com.my found that the majority of the 500,000 Malaysians registered on the online auction and shopping site are primarily consumers. Based on the International Data Corporation (IDC) Malaysia, the sales revenue produced by the Malaysian e-commerce registered positive with regards to year-to-year growth, with \$105 billion and \$144 billion in 2010 and 2011, respectively (IDC Malaysia, 2011). However, a report from the Economist Intelligence Unit (2006) stated that companies with online operations are finding it challenging to survive in the country. In 2005, only less than 5% of the businesses in Malaysia were B2C businesses. With the greater Internet usage, possible business opportunities have surfaced in the country. This positively indicates the increasing number of Malaysian online retailers.

In a similar context, Saudi Arabia placed 52nd place in e-readiness in the latest global e-readiness ranking report which conducted an assessment of 70 countries' ICT infrastructure and

the governments, business and people's ability to use ICT (Economist Intelligence Unit, 2010). Moreover, Saudi Arabia is a ripe marketplace for e-commerce activities in the Middle Eastern area. On 2013 Saudi Arabia has the greatest number of Internet users among Arab countries in the Middle East (Internet World Stats, 2010).

The 2007 extensive study conducted by the Saudi Communication and Information Technology Commission (CITC) was dedicated to the evaluation of the present situation of the Internet and the different aspects that involve the Internet usage in the country including e-commerce awareness and activities. In the context of business commercial organizations, only 9% of Saudi commercial organizations, mainly medium and large companies, are involved in the implementation of e-commerce. Also, only 4 out of 10 private companies have developed their own websites-a percentage that takes on higher proportion for the larger oil, gas and manufacturing firms. In addition, 43% of respondents to the survey are aware of e-commerce but only 6% bought/sold products online and this is mainly confined to airline tickets and hotel bookings (CITC., 2007).

In another research, Sait *et al.* (2007) referred to the Saudi government's attempts and achievement in keeping abreast of advanced technological developments and their adoption. They stated that the effort is going on as the Kingdom of Saudi Arabia tries to further establish Internet access, explores opportunities for Internet in education, government and commerce. The Saudi government has long been interested in employing e-commerce systems to promote national and regional businesses, particularly through the structuring a legal framework for online transactions. Owing to the Kingdom's regional influence, this decision is likely to affect business flow and commerce systems in the area of the Middle East.

It is evident that transactions of e-commerce are increasing in the Middle East and the Gulf States with 19.5 million Internet users. Online transactions in Saudi Arabia increased by 100% from \$278 million in 2002 to \$556 million by 2005 (Al Riyadh, 2006 as cited in Al-Maghrabi and Dennis (2010). Additionally, for the first quarter of year 2009, consumers from Saudi Arabia showed extreme consumption and spending rates in the Middle East and Africa as reported by MasterCard (2009). Also MasterCard revealed that 46% of shoppers in the Kingdom of Saudi Arabia used the Internet for online shopping MasterCard (2012). According to Anonymous (2013) Internet use and confidence in online shopping is increasing in Saudi Arabia. Even with these facts surrounding the Saudi Arabian online retail market, empirical research dedicated to e-commerce in common and Internet shopping in the country is few and far between.

An extensive survey and study conducted by the Arab Advisors Group (2008) for Internet users in Saudi Arabia on the widespread use of online found that users of e-commerce in Saudi Arabia constituted more than 3.5 million users or 14.26% of the population with a value of USD3.28 billion. The study showed that the steady growth in the number of Internet users and the growing population base was excellent for a big e-commerce market in Saudi Arabia, indicating significant opportunities for e-commerce growth. Also another survey conducted by the Arab Advisors Group (2011) for Internet users in Saudi Arabia demonstrated that 19% of Internet users used Internet to purchase goods and services online.

Sait *et al.* (2007) study revealed that Saudi Arabian people preferred e-commerce because of its convenience. For e-shoppers in the country, varying features were considered. They include low price, easy order placement and payment procedures, variety of selection, information quality, customer service and after-sale support (Sait *et al.*, 2007). Al-Maghrabi and Dennis (2010) conducted a study on online purchasing continuance intention in the Kingdom of Saudi Arabia among female consumers. They found that subjective norms, usefulness and perceived enjoyment

were determinants of online purchasing continuance. Moreover; results revealed that consumers who were comfortable with the Internet as a shopping channel were more likely to shop online.

It is important to conduct a cross-cultural comparative study on the differences in attitude toward online shopping between Malaysia and Saudi Arabia. There are many reasons for choosing these countries. Firstly, Malaysia and Saudi Arabia are culturally distinct from each other. Malaysia has a typical eastern culture whereas Saudi Arabia has a typical Arabic culture. Both cultures are geographically distant and have little influence on each other and based on Hofstede (2001) study, the cultural dimensions are disparate between these countries. Based on Hofstede's country score, Malaysia was ranked number one in terms of power distance (Hofstede, 2001). In addition; this study is expected to contribute to the expansion of knowledge in the field which is going to help many other developing countries. Secondly, Malaysia and Saudi Arabia are economically different as well. Even though the two countries are considered to be developing nations, they are at totally different developmental stages and the Saudi and Malaysian markets are growing rapidly. Thirdly, the two countries are chosen because they differ significantly in Internet penetration. Malaysia had 17,723,000 Internet users or 60.7% of the total population while Saudi Arabia had 13,000,000 users or 49% of the total population. Also, most studies on online shopping have emanated from the West. Such studies may not apply well to other countries which have different beliefs and cultures (Chong *et al.*, 2003) such as Malaysia and Saudi Arabia. In addition, Adam *et al.* (2002) conclude that there is a shortage of writings on issues regarding Internet on other parts of the world.

CONCLUSION

The primary 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 analyzed the impact of culture on the service quality consumer expectations in both Malaysia and Saudi Arabia. In addition to comparing cultural values, the 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.

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