How do Chinese and Saudi Customers Perceive Online Service Quality? A Comparative Study

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This study has two main objectives. The first one aims to examine the service quality of websites offering services using E-S-QUAL (Online Service Quality) and E-RecS-QUAL (Online Recovery of Service Quality) models in two markets: China and Saudi Arabia (KSA). The second one is to compare the online service quality of websites offering services in China with that of KSA in order to identify cultural variations. For the purpose of this study, a survey was conducted in China and KSA. A total of 550 customers who were using online services like websites, portals to carry out online purchases, are identified in both countries and are asked to fill the questionnaires.

Keywords: Service Quality Factors, Perceived Online Service Quality, Online Customer Satisfaction, E-S-QUAL, E-RecS-QUAL

JEL Classification: O1, M3, Z00

I. Introduction

The internet and web-based technologies have a strong impact on today's business and the business organizations which have their operations primarily online are increasing their market share rapidly (Kamhawi and Gunasekaran, 2009; Ye *et al*., 2012; Parthasarathy, 2012; Khan 2013b; Khan and Faisal, 2015). This shift in the market place is also encouraging conventionally-operated companies to adopt the internet for their operations. As a result, the internet is an important channel for selling and buying products/services online. According to Chen and Hitt (2000), the competitors utilize three main types of strategies in the businesses to compete. These strategies include: geographical differentiations, service quality, and modest cost of switching over to other service providers. The role of geographical location is reduced to a bare minimum due to online services which are now being made available to the customers at a convenient location. Among these three strategies, the service quality is vital for the companies to compete in the market.

During this digital dawn, the e-service quality has also become an essential strategy for the companies to persuade new customers and to retain the current customers (Sar and Garg, 2012; Liu and Yang, 2012; Khan, 2013a). Companies not only realize the importance and quality of online portals and services for their business, but also face problems in understanding the perception of quality from the view of customers (Awan *et al*., 2012; Khan, 2012; Hirmukhe, 2013). A wider evidence of the demerits because of not having adequate service quality through

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the electronic business is available in the market (Ahmad, 2002; Lennon and Harris, 2002; Khan *et al.,* 2013; Shatat and Udin, 2013). Research in this angle of service delivery by online means indicates how the service quality and service recovery can contribute to customer's perceptions of overall quality (Sirdeshmukh *et al.,* 2002; Cronin Jr. *et al.,* 2000; Chen and Chen, 2014).

This study focuses on how customers perceive service quality in different sectors of China and Saudi Arabia. Saudi Arabia is rich in oil and natural gas products across the Gulf region. China is one of the largest leading producers in the Far East. Their significance in their respective regions makes them favorites for their selection in the current study.

II. Literature Review

The challenges in adopting internet-based services necessitate the service providers to analyze the attributes contributing to the evaluation of quality service by the consumers. Parasuraman *et al.* (1988) have shown that the perceived quality is the global judgment or attribute evaluated by the customer related to the superiority of a service among other alternatives. Thus, customers are of the opinion that "Online Service Quality" is a crucial factor for the success of internet-based services (Yang *et al.,* 2004; Hirmukhe, 2013). It was found that the service quality brings about a greater degree of perceived satisfaction resulting in its adoption (Zhang and Prybutok, 2005). Since organizations are totally dependent on the internet for providing services over online portals and hence websites act as a pivotal media for communication (Merwe and Bekker, 2003; El Halabi *et al.,* 2014; Hassan *et al.,* 2016; Khan and Ahmed, 2013), online service quality becomes even more crucial.

Across all ages, various researchers have studied the characteristics which have contributed very significantly in assessing the quality of services. (Papaioannou *et al.,* 2013; Agrawal *et al.,* 2012; Gronroos, 1983). Table 1 provides a summary of the literature on identification of factors related to service quality (face-to-face and on-line). Parasuraman *et al.* (1988) have identified five attributes constituting the global measurement device of service quality, SERVQUAL. As per Zeithemal *et al.* (2002) SERVQUAL is inadequate to calibrate the service quality for online dependent organizations. Cai and Jun (2003) identified that 'SERVQUAL' is mainly based on customer-employee interactions and hence cannot comprehend on interaction between consumers and online portals.

Table 1: Summary of the Literature

S. No.	Factor	Supported by	Relevance
F1	The relationships between service quality, consumer satisfaction, and purchase intentions are studied and service quality measured	Cronin Jr. *et al.* (2000)	Concluded that it is possible to measure the performance-based service quality
F2	Study on effects of quality satisfaction on consumers' behavior intentions	Cronin Jr. *et al.* (2000)	The study confirmed that service quality, service value, and satisfaction may all be directly related to behavioral intentions

Table 1: Summary of the Literature: Continues

| S. No.	Factor	Supported by	Relevance
F3	Research on model for measuring Service Quality	Parasuraman *et al.* (1988), Hirmukhe (2013)	Developed SERVQUAL model
F4	Framework for understanding the behavior of service providers to convert customer trust to loyalty	Sirdeshmukh *et al.* (2002)	Evidence of asymmetric relationship between trustworthiness dimensions and consumer trust
F5	Perception of service quality among both internet purchasers and non-purchasers	Yang and Jun (2002)	Identification of five dimensions of internet purchasers: reliability, ease of use, personalization, security, and credibility
F6	Key dimensions of Online Service Quality	Cai and Jun (2003)	Two groups of internet users were identified: online buyers and information searchers
F7	A possible Online Service Quality Model	Zeithemal *et al.* (2002)	Recommended an Online Service Quality model
F8	Systematic scale development for measuring Online Service Quality	Parasuraman *et al.* (2005)	Developed a service quality and recovery service scale which is also utilized in the current study
F9	Relationship between Online Service Quality and perceived satisfaction	Zhang and Prybutok (2005)	It was concluded that Service Quality brings a greater degree of perceived satisfaction which leads to its adoption
F10	Quality of Online Service in Banking Sector of Saudi Arabia	Sohail and Shaikh (2008)	Identification of three factors including efficiency and security, fulfillment, and responsiveness as factors of Service Quality among Saudis also utilized in the current study

A. Perceived Online Service Quality Measurement

Yang and Jun (2002) reported five quality components which are used extensively by service providers: reliability, ease of use, personalization, security and credibility. This conclusion is based on the sample obtained from online users and conventional users. Cai and Jun (2003) identified two groups of users, the online buyers and the information searchers. The study also pointed out that website design/content, trustworthiness; prompt/reliable service and communication are the main dimensions of online service quality.

Additional research was conducted in order to provide insights about the criteria that are relevant for evaluating online service quality resulting in the E-S-QUAL – a multiple parameter

scale to measure service quality. This is developed by Parasuraman *et al.* (2005). E-RecS-QUAL is a subscale of E-S-QUAL focused on service issues. The focus is on the consumers who are not much at ease with online services. The reliability and validity tests showed that E-RecS-QUAL and E-S-QUAL demonstrated fairly adequately psychometric attributes.

Parasuraman *et al.* (2005) developed an E-S-QUAL systematic scale with four dimensions. They used these models to evaluate websites of various major online organizations. They empirically tested that the model is fit to data through structural equation modeling. The goodness of fit statistics also validated the model structure. The E-S-QUAL model also has an e-recovery quality scale called E-RecS-QUAL as a subscale for problem resolution. The E-RecS-QUAL has dimensions of responsiveness, compensations and contact, which are shown in Figure 1.

Figure 1: Path diagram for E-S-QUAL and E-RecS-QUAL
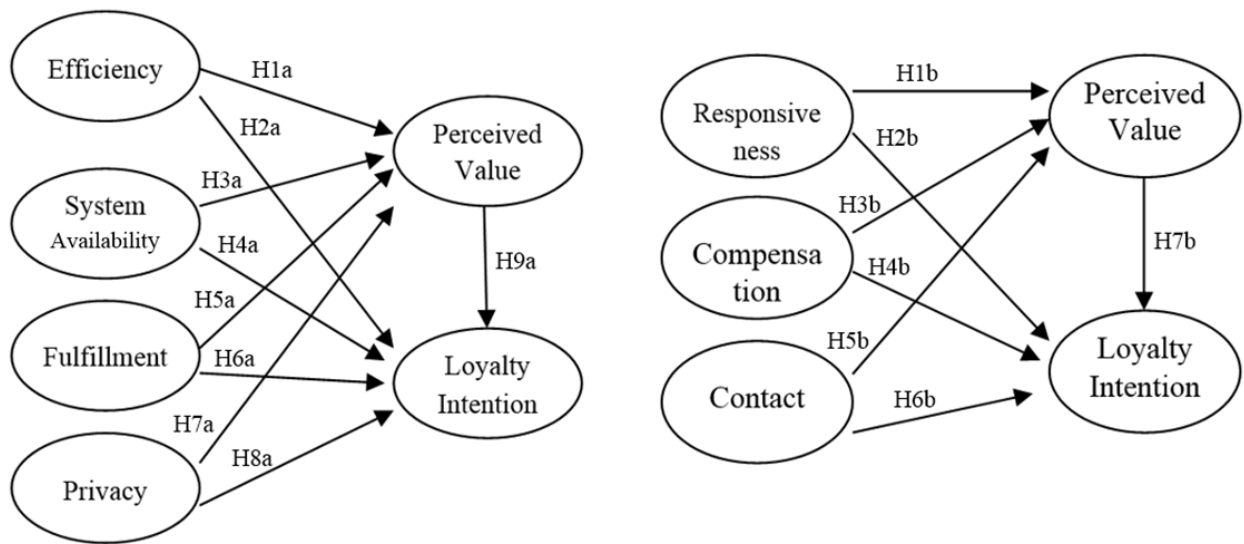
The definitions of the key terms used for E-S-QUAL and E-RecS-QUAL are provided in Table 2. The first dimension of E-S-QUAL, 'efficiency', is defined by Parasuraman *et al.* (2005, p. 220) as 'the ease and speed of accessing and using the site'. Ranganathan and Ganapathy (2002) reported that preference for online shopping is due to the consumer's convenience of location and most significant is the time saved unlike conventional shopping.

Table 2: Definitions of Key Terms Used

Term	Definition
Customer Perceived Quality	Global judgment or attribute relating to superiority of a service relative to competing offering (Parasuraman *et al.*, 1988)
SERVQUAL	Parasuraman *et al.* (1988) have also identified five attributes which constitute the base of a global measurement devise of service quality, namely, SERQUAL

Table 2: Definitions of Key Terms Used: Continues

Term	Definition
E-S-QUAL	Multiple-item scale for measuring the service quality delivered by websites and developed by Parasuraman *et al.* (2005)
E-RecS-QUAL	Subscale which contains how to handle service problems and inquiries, and how to handle non-routine encounters with the customers
Efficiency	Ease and speed of accessing and using the site (Parasuraman *et al.,* 2005, p. 220)
System Availability	Correct technical functioning of the site (Parasuraman *et al.,* 2005, p. 220)
Fulfillment	Extent to which the site's promises about the order delivery and item availability are fulfilled (Parasuraman *et al.,* 2005, p. 220)
Privacy	The degree to which the site is safe and protects customer information
Responsiveness	Effective handling of problems and returns through the site (Parasuraman *et al.,* 2005, p. 220)
Compensation	Dimension related to refunding shipping and handling costs etc. in case of problems
Contact	Availability of assistance through telephone even online representatives; it is important that, in case the customer has a problem, the customer service agent is available

Evaluation and management of quality of service are the key challenges of web-based service providers and they directly influence customer satisfaction (Chen and Chen, 2014). Kim *et al.* (2006) have shown that privacy has a strong impact on the intention to make any purchase. In the E-RecS-QUAL model, the 'responsiveness' dimension is defined as effective handling of problems and service-related responses and returns through the site (Parasuraman *et al.*, 2005, p. 220). The dimension 'compensation' is related to the refund for the services of shipping and operational costs in case of any hindrance in delivering the goods and services. Finally, the "contact" dimension of E-RecS-QUAL relates to the availability of assistance through telephone and accessibility of online representatives.

Companies have to understand which components might affect and attract customers to use online service. For the sake of sustainable operation and development, companies should cultivate long-term relationships with present customers. Morgan and Hunt (1994) proclaim the commitment-trust theory of relationship is suitable for varied relational exchanges such as customers, employees or suppliers. Developing a long-term relationship with customers could be one of the most important strategies for national and international companies so that they could maintain their competitiveness globally. In addition, companies should understand how they could attract various customers around the world to use their service online. Thus, for the purpose of exploring how companies can keep a successful relationship with their customers online and providing quality service, this study applies the commitment-trust theory as its foundation.

In situations where in the customer encounters certain challenges from the service provider over distant locations, there is always a need for customer executives to be available as and when required. Parasuraman *et al.* (2005) defined e-SQ as 'the extent to which a web site facilitates efficient and effective shopping, purchasing and delivery of products and services.' In their leading work, Parasuraman *et al.* (2005) provided an efficient system to measure the e-service quality

perceived by the consumer. However, the study focused on websites that sell products in contrast to services such as those offering financial and informational services. Hence there arises every need for further research to be carried out to validate the E-RecS-QUAL scale, in the context of diverse web sites, especially those involving unusually challenging situations from customers. Thus, one of the current research objectives is to validate online service quality of websites offering services, using E-S-QUAL and E-RecS-QUAL models in different cultures.

The Kingdom of Saudi Arabia (KSA) is one of the largest countries in the Middle East. The internet was introduced in the KSA in 1998 and the internet infrastructure is in the high state of readiness. AME Info (2007) has reported that the KSA showed internet users a growth rate of around 1,170 percent. According to the Internet World Stats report (2011) by December 2010, 11.4 million Saudi internet users went online. With the increasing online services, institutions offering online services in the KSA face challenges in identifying and addressing consumer concerns. Sohail and Shaikh (2008) have also studied internet banking and the quality of service in the KSA. The study identified efficiency and security, fulfillment, and responsiveness as factors that influence users' evaluation of service quality of internet banking services.

Similarly, Internet World Stats (2013) notes that by the end of December 2013, internet users in China reached 620 million, which is around 49 percent of users in Asia. Thus, it is the largest market in the region. BCG (2010) reports that 8 percent of the Chinese population shopped online in 2009, compared with only 3 percent in 2006. Presently, consumer to consumer marketing (C2C) accounts for the largest segment in the Chinese ecommerce industry. Currently, China's online shopping markets are dominated by C2C marketing that accounts for 93.2 percent of total online sales (Su, 2009). However, business-to-consumer marketing (B2C) is growing (Backaler, 2010). For China, however, there are very limited studies focusing on consumer perceptions of online service quality.

B. Hypotheses Development

Based on the dimensions of online service quality identified in the previous section and defined in Table 2, the following hypotheses are developed regarding the expected differences among the online consumers of China and the KSA across various dimensions.

The proposed hypotheses of E-S-QUAL are:

H1a: Online shoppers perceive that the efficiency of a website affects their perceived value toward the website.

H2a: Online shoppers perceive that the efficiency of a website affects their loyalty intention toward the website.

H3a: Online shoppers perceive that the system availability of a website affects their perceived value toward the website.

H4a: Online shoppers perceive that the system availability of a website affects their loyalty intention toward the website.

H5a: Online shoppers perceive that the fulfillment of a website affects their perceived value toward the website.

H6a: Online shoppers perceive that the fulfillment of a website affects their loyalty intention toward the website.

H7a: Online shoppers perceive that the privacy of a website affects their perceived value toward the website.

H8a: Online shoppers perceive that the privacy of a website affects their loyalty intention toward the website.

H9a: Online shoppers perceive that their perceived value affects their loyalty intention.

The proposed hypotheses of E-RecS-QUAL are:

H1b: Online shoppers perceive that the responsiveness of a website affects their perceived value toward the website.

H2b: Online shoppers perceive that the responsiveness of a website affects their loyalty intention toward the website.

H3b: Online shoppers perceive that the compensation of a website affects their perceived value toward the website.

H4b: Online shoppers perceive that the compensation of a website affects their loyalty intention toward the website.

H5b: Online shoppers perceive that the contact of a website affects their perceived value toward the website.

H6b: Online shoppers perceive that the contact of a website affects their loyalty intention toward the website.

H7b: Online shoppers perceive that their perceived value affects their loyalty intention.

III. Methodology

A survey is conducted to measure service quality of websites offering online services in both China and the KSA. This is done with the help of the scales developed by Parasuraman *et al.* (2005). They developed a 22-item scale (E-S-QUAL) measuring service quality and an 11-item E-RecS-QUAL scale measuring e-recovery. In this study, parameters from both scales were utilized without any modifications. The components for E-S-QUAL and E-RecS-QUAL are Likert-scale questions with responses ranging from "Strongly agree" (5) to "Strongly disagree" (1). The reliabilities are calculated for each dimension, and most of the results are above 0.81. In addition to the service quality of perception scales, consumer's online shopping experience, value assessment and likelihood of online shopping are also measured using the scales developed by Parasuraman *et al.* (2005).

A. Data Collection and Sample Characteristics

Data is collected in such a way that the sample constitutes of 250 Chinese and 301 KSA customers who had prior experience in online service transactions. The researchers enlisted the help of 20 executives in Saudi Arabia to explain the questionnaires. The possibilities for data collection are very limited in the KSA and hence very less secondary data are available in the market. To get reliable data, executives with varied expertise from stock markets and financial institutions like banks are requested to collect the data. The demographic information of the respondents is collected through the final section of the questionnaire. The questionnaire is designed in English by the principal researchers. The questionnaire is translated into Chinese and Arabic by the nationals.

IV. Analysis

AMOS™ software is used to perform multi-group analyses to test the conceptual model. Results revealed a good model fit. The values of goodness of fit (GFI), comparative fit index (CFI) and incremental fit index (IFI) are above 0.9 (Bagozzi and Yi, 1988). The root mean square error of approximation (RMSEA) which is an important index of measurement of fit also had a value of less than 0.5, representing a good model fit (Baumgartner and Homburg, 1996). Lastly, the p-value of χ^2 (chi-square test) was larger than 0.05 ($\chi^2(1) = 2.01$, $p = 0.15$; GFI = 0.99; CFI = 0.99; IFI = 0.99; RMSEA = 0.04). After sequentially fixing the non-significant parameters in each sample to zero, the models are shown in Figure 2.

Table 3 shows that the relationships between *Efficiency* and *Perceived Value* ($EFF_{PV (C)} = 0.19$, $p < 0.05$; $EFF_{PV (SA)} = 0.31$, $p < 0.01$), *Efficiency* and *Loyalty Intention* ($EFF_{LI (C)} = 0.12$, $p < 0.10$; $EFF_{LI (SA)} = 0.19$, $p < 0.01$) and *System Availability* influences *Perceived Value* ($SYS_{PV (C)} = 0.23$, $p < 0.01$; $SYS_{PV (SA)} = 0.23$, $p < 0.01$) in both countries. Therefore, H1a, H2a and H3a are supported. *System Availability* affects *Loyalty Intention* only in Saudi Arabia ($SYS_{LI (C)} = 0.03$, $p = 0.660$; $SYS_{LI (SA)} = 0.34$, $p < 0.01$); H4a is not supported. *Fulfillment* influences *Perceived Value* ($FUL_{PV (C)} = 0.21$, $p < 0.05$; $FUL_{PV (SA)} = -0.02$, $p = 0.723$) and *Loyalty Intention* ($FUL_{LI (C)} = 0.22$, $p < 0.01$; $FUL_{LI (SA)} = 0.03$, $p = 0.594$) only happened in China. Hence, H5a and H6a are not supported. In Saudi Arabia, *Privacy* affects *Perceived Value* ($PRI_{PV (SA)} = 0.34$, $p < 0.01$), but it does not happen in China ($PRI_{PV (C)} = 0.08$, $p = 0.264$). H7a is not supported. H8a is not supported because *Privacy* does not influence *Perceived Value* ($PRI_{LI (C)} = 0.08$, $p = 0.139$; $PRI_{LI (SA)} = -0.02$, $p = 0.669$) in both countries. *Perceived Value* affects *Loyalty Intention* ($PV_{LI (C)} = 0.45$, $p < 0.01$; $PV_{LI (SA)} = 0.41$, $p < 0.01$) in both countries, supporting H9a.

Table 3: Results of E-S-QUAL Model

Hypotheses		China			Saudi Arabia			Critical Ratios for Coeff. Differences
	Proposed Path	Coeff.	p		Coeff.	p		|z|
H1a	EFF → PV	0.19	0.029	*	0.31	0.000	*	0.85
H2a	EFF → LI	0.12	0.094	**	0.19	0.000	*	0.68
H3a	SYS → PV	0.23	0.009	*	0.23	0.000	*	-0.30
H4a	SYS → LI	0.03	0.660		0.34	0.000	*	3.35 ††
H5a	FUL → PV	0.21	0.015	*	-0.02	0.723		-2.32 ††
H6a	FUL → LI	0.22	0.002	*	0.03	0.594		-2.47 ††
H7a	PRI → PV	0.08	0.264		0.34	0.000	*	3.08 ††
H8a	PRI → LI	0.08	0.139		-0.02	0.669		-1.41
H9a	PV → LI	0.45	0.000	*	0.41	0.000	*	-0.32

* $p < 0.05$; ** $p < 0.10$; ††: \|z\| > 1.645, $p < 0.10$

Figure 2: E-S-QUAL Models of China and Saudi Arabia*

*only significant relationships are presented
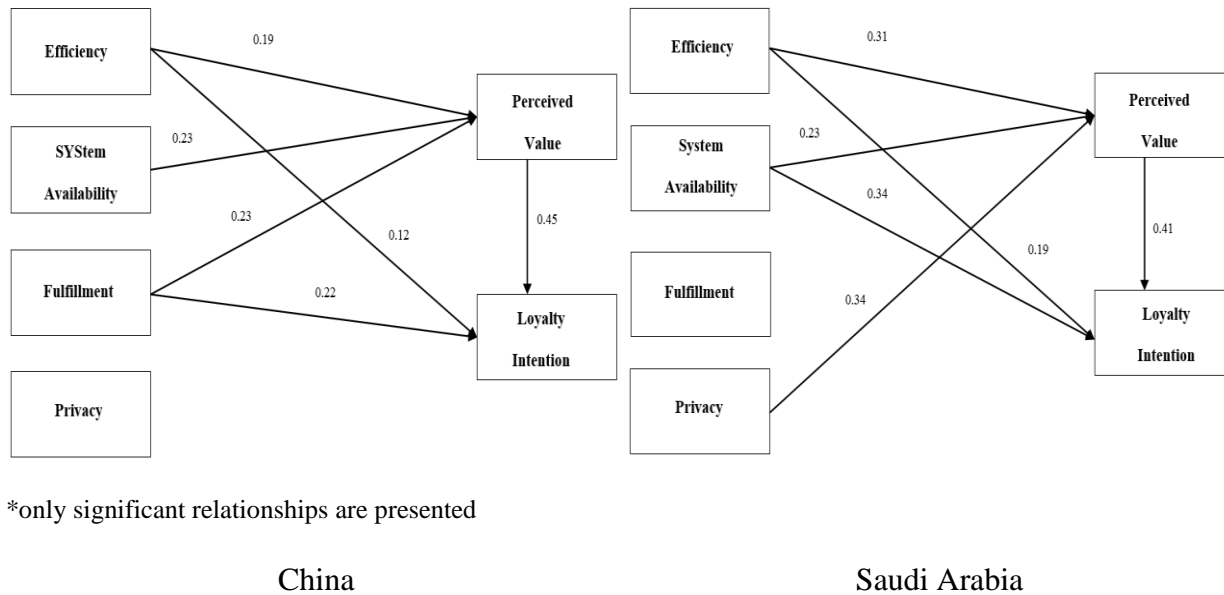
China   Saudi Arabia

Table 4 describes the results of the E-RecS-QUAL model. Only in China, *Responsiveness* influences *Perceived Value* ($RES_{PV (C)} = 0.34$, $p < 0.01$; $RES_{PV (SA)} = 0.07$, $p < 0.318$), not supporting H1b. H2b is supported because the relationships between *Responsiveness* and *Loyalty Intention* are significant ($RES_{LI (C)} = 0.28$, $p < 0.01$; $RES_{LI (SA)} = 0.11$, $p < 0.10$) in both countries. *Perceived Value* is only affected by *Contact* in China ($CON_{PV (C)} = 0.27$, $p < 0.01$; $CON_{PV (SA)} = 0.10$, $p = 0.120$). H3b is not supported. *Contact* influences *Loyalty Intention* ($CON_{LI (C)} = 0.13$, $p < 0.05$; $CON_{LI (SA)} = -0.13$, $p < 0.01$) in both countries, supporting H4b. H5b and H6b are not supported since only in Saudi Arabia *Compensation* affects *Perceived Value* ($COM_{PV (C)} = 0.09$, $p = 0.247$; $COM_{PV (SA)} = 0.19$, $p < 0.05$) and *Loyalty Intention* ($COM_{LI (C)} = -0.05$, $p = 0.447$; $COM_{LI (SA)} = 0.24$, $p < 0.01$). Lastly, in both countries *Perceived Value* ($PV_{LI (C)} = 0.47$, $p < 0.01$; $PV_{LI (SA)} = 0.55$, $p < 0.01$) affects *Loyalty Intention*. These results support H7b. Figure 3 shows the results of E-RecS-QUAL Model.

Furthermore, concerning the two entire models, the E-S-QUAL model explains a similar percentage of variance of *Perceived Value* ($R^2_{PV(C)} = 0.38$; $R^2_{PV(SA)} = 0.33$) and *Loyalty Intention* ($R^2_{LI(C)} = 0.58$; $R^2_{LI(SA)} = 0.52$), but the E-RecS-QUAL model explains a distinct percentage of variance of *Perceived Value* ($R^2_{PV(C)} = 0.36$; $R^2_{PV(SA)} = 0.09$) and *Loyalty Intention* ($R^2_{LI(C)} = 0.52$; $R^2_{LI(SA)} = 0.46$). According to the results of Tables 3 and 4, consumers in both countries do share similar attitudes toward *Perceived Value* and *Loyalty Intention*, e.g., in the E-S-QUAL model, *Efficiency* has a direct effect on *Perceived Value* and *Loyalty Intention. System availability* affects *Perceived Value*, and *Perceived Value* plays a mediator role between *Efficiency* and *Loyalty Intention.* In the E-RecS-QUAL model, *Loyalty Intention* is affected by *Responsiveness*, *Contact*, and *Perceived Value*. Further insight about consumers' *Perceived Value* and *Loyalty Intention* is obtained by computing the direct, indirect and total effects (Tables 5 and 6). In both countries, *Perceived Value* plays a major role in affecting *Loyalty Intention*. In the E-S-QUAL model, *System Availability* for China and *Privacy* for Saudi Arabia are the most important roles to affect

Perceived Value. In the E-RecS-QUAL model, *Responsiveness* for China and *Compensation* for Saudi Arabia are important to *Perceived Value*.

Table 4: Results of E-RecS-QUAL Model

Hypotheses		China			Saudi Arabia			Critical Ratios for Coeff. Differences
	Proposed path	Coeff.	*p*		Coeff.	*p*		|z|
H1b	RES → PV	0.34	0.000	*	0.07	0.318		-2.65 ††
H2b	RES → LI	0.28	0.000	*	0.11	0.059	**	-2.26 ††
H3b	CON → PV	0.27	0.000	*	0.10	0.120		-2.54 ††
H4b	CON → LI	0.13	0.016	*	-0.13	0.007	*	-3.49 ††
H5b	COM → PV	0.09	0.247		0.19	0.010	*	0.65
H6b	COM → LI	-0.05	0.447		0.24	0.000	*	2.91 ††
H7b	PV → LI	0.47	0.000	*	0.55	0.000	*	0.60

* *p* < 0.05; ** *p* < 0.10; ††: \|z\| > 1.645, *p* <0.10

Figure 3: E-RecS-QUAL Models of China and Saudi Arabia*
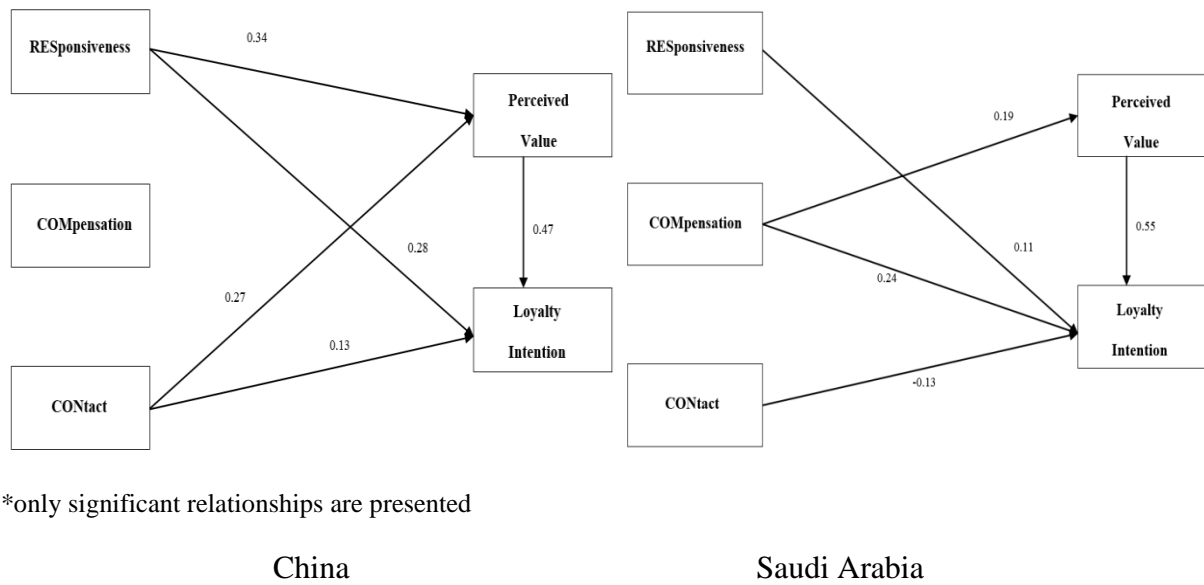
*only significant relationships are presented

China   Saudi Arabia

**Table 5: Standardized Total, Indirect and Direct Effects of E-S-QUAL
Model on Perceived Value and Loyalty Intention**

China			
(1) Effect on *Perceived Value*	Total Effect	Direct Effect	Indirect Effect
from:			
Privacy	0.075	0.075	0.000
Efficiency	0.190	0.190	0.000
Fulfillment	0.208	0.208	0.000
System Availability	0.229	0.229	0.000
(2) Effect on *Loyalty Intention*	Total Effect	Direct Effect	Indirect Effect
from:			
Privacy	0.116	0.082	0.033
Efficiency	0.206	0.121	0.085
Fulfillment	0.315	0.222	0.093
System Availability	0.134	0.032	0.102
Perceived Value	0.445	0.445	0.000
Saudi Arabia			
(1) Effect on *Perceived Value*	Total Effect	Direct Effect	Indirect Effect
from:			
Privacy	0.342	0.342	0.000
Efficiency	0.306	0.306	0.000
Fulfillment	-0.021	-0.021	0.000
System Availability	0.226	0.226	0.000
(2) Effect on *Loyalty Intention*	Total Effect	Direct Effect	Indirect Effect
from:			
Privacy	0.120	-0.020	0.140
Efficiency	0.319	0.194	0.125
Fulfillment	0.018	0.027	-0.009
System Availability	0.434	0.341	0.093
Perceived Value	0.409	0.409	0.000

Note:
(1) Total effect = Direct effect + Indirect effect
(2) Indirect effect = Indirect effect via affective components + Indirect effect via cognitive components

**Table 6: Standardized Total, Indirect and Direct Effects of E-RecS-QUAL
on Perceived Value and Loyalty Intention**

China			
(1) Effect on *Perceived Value* from:	Total Effect	Direct Effect	Indirect Effect
Compensation	0.090	0.090	0.000
Responsiveness	0.336	0.336	0.000
Contact	0.274	0.274	0.000
(2) Effect on *Loyalty Intention* from:	Total Effect	Direct Effect	Indirect Effect
Compensation	-0.009	-0.052	0.043
Responsiveness	0.440	0.280	0.159
Contact	0.261	0.131	0.130
Perceived Value	0.474	0.474	0.000
Saudi Arabia			
(1) Effect on *Perceived Value* from:	Total Effect	Direct Effect	Indirect Effect
Compensation	0.188	0.188	0.000
Responsiveness	0.073	0.073	0.000
Contact	0.097	0.097	0.000
(2) Effect on *Loyalty Intention* from:	Total Effect	Direct Effect	Indirect Effect
Compensation	0.344	0.239	0.104
Responsiveness	0.147	0.107	0.040
Contact	-0.076	-0.129	0.053
Perceived Value	0.554	0.554	0.000

Note:
(1) Total effect = Direct effect + Indirect effect
(2) Indirect effect = Indirect effect via affective components + Indirect effect via cognitive components

V. Discussion and Future Research Recommendations

Efficiency is widely recognized as the ratio of outputs to inputs. Customers who prefer online services weigh their ordered products or services, time, money and effort they invest for the online transaction. Consumers from both China and Saudi Arabia believe that a reasonable tradeoff between the outputs and inputs is very crucial and will determine the value of the online service. The convenience or pleasure obtained from high efficiency service helps to foster a long-term customer service-provider relationship. System availability is another key aspect that influences consumers' perceived value in both countries.

However, system availability has a different impact on the loyalty intention of consumers from both countries. The system availability could not significantly increase or decrease the loyalty intention for Chinese consumers, while it could for consumers from Saudi Arabia. The reason for this is attributed to the Chinese companies that provide their online services approachable to consumers anywhere and anytime. Hence by nature, consumers prefer the system availability as an integral part of the whole service. For example, Chinese consumers would be happy if an online

service provider would have good system availability but would not be very surprised so as to limit themselves to this company.

Apart from the above, fulfillment is proved to have an important role for perceived value and loyalty intention among Chinese consumers. However, it is insignificant in Saudi Arabia for either perceived value or loyalty intention. There are many factors that could affect the process order fulfillment to order completion. Among these factors, logistics is one of the most critical elements. Since China is a huge country with a huge population, it might still take longer to deliver to the place located elsewhere from the service provider, especially in remote areas. Hence maintaining the logistics service quality can be very different. With a lot of comparisons, consumers in China would prefer those who can deliver the products or services in time. On the other hand, this is not the case with Saudi Arabia as the country is relatively small and as a result the order fulfillment quality is not very heterogeneous. This in turn makes the order fulfillment a success.

Privacy also exhibits an obvious discrepancy between two countries. It does not have a significant effect on both perceived value and loyalty intention in China. But, in Saudi Arabia, it is significant while discussing the relationship of privacy and perceived value. In China, people are confident that their privacy information will be protected by sophisticated and secure online system. According to the E-RecS-QUAL model, Chinese companies should watch out for the responsiveness of the customers in order to enhance consumer value and loyalty. A possible reason for that is China has a very big market size due to its large population. The competition is fiercer in attracting the consumers than retaining the consumers. Therefore, Chinese consumers appreciate a quick response and accessibility after sale. Compensation is not a big deal for Chinese consumers, since many online business platforms serve as moderators and protectors of consumers. On the other hand, compensation is essential in Saudi Arabia. It has significant influence on both perceived value and loyalty intention, while responsiveness and contact are only influential to loyalty intention, but not to the perceived value.

The overall outcomes of the research are providing a good base to the managers of the organizations in the region to explore the perception of the customer related to the products and services they offer. This can give them ideas of enhancing loyalty of customer by improving the quality of their online services. The outcome of the current research also provides support for the E-S-QUAL model and E-RecS-QUAL model implementation in Asian country-based researches, which will ultimately help to improve the theoretical aspect of the models. Any future research done in this domain can observe these findings and hence can achieve the required goals.

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