E-Service Quality, E-Satisfaction and E-Loyalty of Online Shoppers in Business to Consumer Market; Evidence form Malaysia

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Abstract. The growing usage of internet and online shopping in Malaysia presents a huge prospect in e-commerce market, specifically for B2C segment. As a result, electronic service quality (e-SQ), electronic satisfaction (e-Satisfaction) and electronic loyalty (e-Loyalty) become vital for online retailers to attract and retain online shoppers in this virtual environment. The association between e-SQ, e-Satisfaction and e-Loyalty should be continuously examined to cope with the advancement in information and communication technology, and the changing expectation of online shoppers. However, construct of e-SQ for online retailers in B2C market is still debatable. In this research, E-SERVQUAL was integrated with the other e-SQ scales to measure e-SQ of a prominent online retailer in Malaysia. Specifically, the e-SQ constructs are Efficiency, Privacy and Trust, Fulfilment, Responsiveness, Contact and Website Design. 390 sets of completed and usable questionnaires were gathered using online questionnaire and convenience sampling procedure. The result indicated that the five proposed dimensions of e-SQ constitute e-SQ of online retailer in B2C market. All the dimensions of e-SQ were found to have positive and significant effect on e-Satisfaction of online shoppers. Responsiveness of e-SQ had the strongest impact on e-satisfaction of online shoppers. The shoppers e-Satisfaction was positively and significantly affected their e-Loyalty towards continuous usage of online retailer's website. Managerial and theoretical implications are discussed based on the results of the study.

Keywords: e-SQ, e-Satisfaction, e-Loyalty, Gap Model Online Shopping

1.0 Introduction

Electronic commerce (e-commerce) refers to the process of carrying out business between enterprises and customers using electronic medium such as internet. Companies are extensively using this sales channel to compete with their competitors in the e-commerce market. Business to Consumer (B2C) is one of the natures of transactions in e-commerce. According to Turban, et.al [1], B2C refers

to e-commerce model in which businesses sell to individual shoppers. The B2C online market has been growing rapidly over the past several years and consumers are increasingly favoured online shopping. About 70 per cent of Malaysians are active online users, and more than half do their shopping on the web [2]. Malaysian consumers used up to about RM4.5 bil on online shopping, showing a 33% increase from 2010, [3] and it is projected to raise to RM15bil in 2014. In addition, the number of B2C online companies is also increased. Therefore, it is crucial to examine e-SQ, e-Satisfaction and e-Loyalty of online shoppers in B2C market in Malaysia.

Issue of which dimensions of e-SQ serve as better construct of e-SQ for online sellers in B2C market is highly debated. According to Lei Dai et al., [8], e-SQ dimensions, such as efficiency, system availability, fulfillment, privacy, responsiveness, contact and compensation [9] influences the customers' continuous usage of the B2C website. Sitequal [10] of e-SQ instrument features ease of use, design, processing speed and security to assess the quality of electronic services in a B2C website. Web site design quality is crucial for online stores [11] and it is a strong predictor of customer quality judgments, satisfaction, and loyalty for internet retailers [12]. Besides, Brown et al., [13] proposed service quality and trust as additional factors to consider for measuring e-SQ in a B2C e-commerce environment. In addition, building and enhancing online trust could be a better way to address the customers' data privacy concerns in e-commerce. Since privacy and trust are directly related, establishing procedures to enhance user's trust may lessen customers' privacy concern. According to Saleh Bukhari *et al*. [14], although privacy and trust might not always have the same definition, in many cases it presents similar idea in different fields or contexts. Although the privacy dimension used to measure the service quality in B2C website has been recognized in many studies, the emperical validation of trust dimension and also the website design dimension used to measure the e-SQ of B2C website in Malaysia has not been addressed. This brings to the issue of what constitute e-SQ for online retailers in B2C market in Malaysia? Therefore, examining e-SQ construct by combining various e-SQ models to address these issues is important to research, especially in Malaysia's B2C market.

The delivery of the high e-SQ is the key determinants of success or failure of online retailers in B2C e-commerce instead of merely the presence of website and low price offered [4]. E-service quality is overall customer assessment and judgment of e-service delivery in the virtual marketplace [5], and high e-SQ will increase customers' satisfaction and in turn lead to customer repurchases behaviour. Superior e-SQ is the way to enhance e-Satisfaction and increasing e-Loyalty in B2C market [6,7]. Loyal customers will make recommendation to their friends which in turn will help to attract new customers and boost sales. Previous study had indicated that there was strong and significant effect between e-SQ and e-satisfaction in e-commerce [6,7]. However, with the advancement in internet and information technology, online shoppers' expectation towards quality of online retailers' website is changing and increasing, thus examining e-SQ on a continuous basis is needed. Further, most online shoppers now are information technology literate, therefore their judgement of e-SQ of B2C websites could be different, as compared to the previous related studies. Thus, the effect of online retailers on e-satisfaction and e-satisfaction on e-loyalty of online buyers in B2C market should be further researched due to these changes. Hence, the association among e-SQ, e-satisfaction, and e-loyalty should also be continuously examined in order to provide insightful information towards developing a better understanding of e-SQ-e-Satisfaction-e-Loyalty in B2C segment.

This study provides empirical evidence on the association of e-SQ, e-Satisfaction and e-Loyalty of online shoppers in B2C websites. Specifically, this study aims to answer to the following research questions; (i) what constitute e-SQ for online retailers in B2C market? (ii) Does e-SQ positively affect e-Satisfaction of online shoppers in B2C market of Malaysia?; and (iii) Does e-Satisfaction positively affect e-loyalty of the online shoppers? This paper argues on e-SQ issues and dimensions, thus provides additional insight on how online buyers judge website quality of online sellers. It also enriches current literature on the established association of e-SQ, e-Satisfaction and e-Loyalty in the context of online retailers-online shoppers in Malaysia's B2C market. For e-marketers, this study

provides useful information on the current issue of determining e-SQ and ways of improving it to fulfil online e-Satisfaction of shoppers and their e-Loyalty towards the online retailers.

2.0 Literature Review

Electronic service quality (e-SQ) is increasingly important in influencing customer evaluations and judgments regarding the quality of e-service delivery in the virtual marketplace. The e-SQ is highly concerned due to it highly related with the success or failure of an internet-based company such as online shopping in B2C. Online shopping in B2C involves online shoppers accessing the online vendors' websites to purchase a product; therefore the extent to which their needs are fulfilled is important. The transactions between online shoppers and online retailers are conducted through websites and the smooth transactions are achieved by high level of e-SQ. Website quality or e-SQ is defined as "the extent to which a website facilitates efficient and effective shopping, purchasing and delivery of products and services" [16] Website's quality plays a key role in determining the web experience of the customers [16]. In other words, a website is seen as one of the online retailers' instruments for delivering quality of electronic services to online shoppers.

A number of scales to measure e-SQ of an online retailer as perceived by its on-going customers were developed. Among the main e-SQ assessment techniques are E-SERVQUAL, WEBQUAL, SITEQUAL and ETAILQ. SITEQUAL which is used to measure the quality of a website was developed by Yoo and Donthu [10]. The dimensions of SITEQUAL are ease of use, aesthetic design, processing speed, and security. The e-SERVQUAL, developed by Zeithaml *et al*., [9,16] is a method for measuring website e-SQ based on the online shoppers perceptions of how well the website meet their online transaction requirements. The scale contains the core scale (E-S-QUAL) and the recovery scale (E-RecSQUAL). There are four dimensions in E-S-QUAL which are efficiency, fulfilment, reliability and privacy. Responsiveness, contact and compensation are dimensions of e-RecQual. WEBQUAL was developed by Loiacono, Watson and Goodhue [17] in order to evaluate website quality focusing on the website interface. The WEBQUAL was used to predict the re-visit/re-use behaviour of web users based on their perceptions of overall website quality. There are four dimensions in the WEBQUAL, which are usefulness, ease of use, entertainment and complimentary relationship. WEBQUAL 4 developed by Barnes & Vidgen [18] was the mixture and enhancement from the previous WEBQUAL and it composed of 22 items of three dimensions of usability, information and service interaction. The eTailQ, a scale used for assessing and predicting e-tail quality, was developed by Wolfinbarger and Gilly [19]. The authors suggested that four factors - website design, fulfillment/reliability, privacy/security and customer service - are strong predictive of customer judgments of quality and satisfaction, customer loyalty and attitudes toward a website.

Many studies involving B2C websites have been conducted to investigate dimensions of e-SQ that influence online shoppers to engage in B2C websites. Among e-SQ instruments discussed above, e-SERVQUAL is widely used due to e-SERQUAL measures e-SQ throughout the complete customer shopping experience in online purchasing process, taking into account both the pre-website and post-website stages of this process. The works of Yang and Tsai [6] , Rahman and Miazee [20] and Pooja Jain and Dr Narender Kumar [21] utilizing E-SERQUAL in measuring quality of B2C websites indicated that the instrument is highly reliable in predicting how online shoppers' evaluate quality of retailers' websites. However, other e-SQ dimensions should be considered because in the purchasing process of e-commerce, online shoppers demand for innovative and visually appealing websites, well organized user interface before they trust the websites. Thus, web site design quality is important [11] and it is a strong predictor of customer quality judgments, satisfaction, and loyalty of online shoppers [19]. In the research of Lee and Lin [22], trust and personalization dimensions were used in measuring e-commerce website. However, according to Saleh Bukhari *et al*. [15], although privacy and trust might not always have the same definition, in many cases it shows similar idea in different fields or contexts. Therefore, trust should be incorporated in the e-SQ instrument to determine the

quality of a website. Thus, efficiency, fulfilment, reliability and privacy of E-SERVQUAL, web design of e-TailQ and trust were proposed to determine e-SQ for online retailers in B2C market.

According to Anderson and Srinivasan [23], e-satisfaction is described as the gratification of the customer that comes from his or her earlier real buying experience with a certain electronic commerce company. Customer satisfaction is crucial for creating long-term relationships with clients and in sustaining profitability of online retailers. E-Satisfaction is a critical component in determining the success of online shopping, especially in B2C market. Schaupp and Bélanger [24] developed E-Satisfaction Scale to measure the level of satisfaction of customer towards products or services that are provide by online retailers. Park and Kim [25] found that customer satisfaction was influenced by the quality of the user interface, because it provides physical proof of the online service provider's capability as well as facilitating easy use of the online service. Website user interface design is strongly associated to customer satisfaction [26].

Chengwen Yao and Shuling Liao [27] found that wise decision, shopping experience, overall satisfaction and satisfaction in online transactions service will determine e-satisfaction of online shoppers. Further, online shoppers' enjoyment will determine their satisfaction in online shopping [28]. According to Mustafa [29], e-satisfaction of online shoppers was determined by the performance of the website and the product provided by the website. Therefore, wise decision, shopping experience, overall satisfaction, satisfaction in online transactions service, enjoyment, performance of the website and the product provided by the website are highly recommended items to be used in measuring e-satisfaction of online shoppers.

The importance of developing e-loyalty of online shoppers has been stressed by most previous researchers to ensure profitable customer relationship. E-Loyalty is important from marketing point of view since the cost of getting new customers was noticeably higher than the cost of retaining the existing ones [30]. In fact, the successful online business ventures from the unsuccessful ones can be discerned by the repeat purchases from loyal customers. Online shoppers' loyalty deals with customer's real repurchase behaviour and it is defined as the favourable attitude of a customer towards an electronic business resulting in repeat purchase behaviour [23].

Yang & Tsai [6] proposed that first choice, positive comments and encourages someone surfing on the website will determine the loyalty of customers in online shopping in B2C market. In addition, like to use the website, recommendation, purchase intention, care about the website and best retail website will determine the e-loyalty of customers [31]. In conclusion, first choice, positive comments, encourages someone surfing on the website, like to use the website, recommendation, purchase intention, care about the website and best retail website are items that should be considered when measuring e-loyalty of online shoppers.

Zeithaml et al. [32] exploratory research indicated the presence of gaps in companies interacting with their customers through the internet. Four gaps were identified in the gap model of e-SQ, which were information gap, design gap, communication gap and fulfillment gap. The company side shows three potential disconnects that can occur in the process of designing, operating, and marketing Web sites, and these disconnects are information, design, and communication gaps. These gaps jointly contribute to the "fulfilment gap" on the customer's side, eliciting a chain of adverse effects on perceived e-SQ, perceived value, and purchase/repurchase behaviour (e-Loyalty). The elimination of e-SQ gaps will lead to e-Satisfaction which results in increased perceived e-SQ, value, purchases and repurchases (e-Loyalty). Therefore the gap model is a good model for online retailers to determine their websites quality (e-SQ) and how the e-SQ effect e-Satisfaction of online shoppers, which in turn effect the e-Loyalty, with the aims of building a long term relationship with their on line shoppers.

Improving the relationship between online shoppers and online sellers and their mutual benefits of satisfaction (buyers) and performance (sellers) through superior e-SQ has been the focus of e-marketers and researchers. Assessment of e-SQ particularly is to improve the online service delivery that can lead to online shoppers' satisfaction. E-SQ is a significant antecedent of online shoppers' assessment of value that will influence their e-Satisfaction. E-SQ dimensions are strongly predictive of the satisfaction of online consumers [33]. E-SQ is strongly associated to online customer

satisfaction, and many studies had indicated that there were strong positive relationship between e-SQ and e-Satisfaction of online shoppers in B2C website [6,34]. Thus, it is hypothesized that e-SQ is positively and significantly affect e-Satisfaction of online shoppers in B2C market.

The relationship between satisfaction and loyalty has been found to apply in both offline and online stores [35]. Many studies showed that customer satisfaction is a direct antecedent of consumer loyalty in B2C e-commerce. In accordance with the earlier research [36], it is estimated that a higher level of customer satisfaction will lead to greater loyalty. Numerous studies have revealed that there was evidenced in the context of e-commerce about the positive impact of online satisfaction on loyalty [7,37]. The relationship between e-satisfaction and e-loyalty of customers had been found to be significant in numerous studies [32,] and this will lead to the positive predisposition of long-term loyalty [38]. Therefore, it is hypothesized that e-Satisfaction of online shoppers is positively and significantly affect their e-Loyalty in in B2C market.

3.0 Methodology

The descriptive survey was employed to examine the relationship between e-SQ, e-Satisfaction and e-Loyalty of online shoppers in B2C market. A questionnaire was developed based on the review of Gap Theory of electronic service quality and previous researches related to e-SQ, e-Satisfaction and e-Loyalty in B2C. A total number of 39 items were constructed to measure the independent and dependent variables of the study, as follows:

- Section A of the questionnaire requires respondents to indicate their demographic information.
- In Section B of the questionnaire, 24 items of e-SQ Dimensions (Efficiency, Privacy and Trust, Fulfilment, Responsiveness, Contact and Website Design) were constructed based on E-SERQUAL instrument [9] and previous studies of Wolfinbarger and Gilly [19], Lee and Lin [22], and Saleh Bukhari *et al*. [15].
- In Section C, seven (7) items of e-satisfaction of online shoppers were adapted from previous researches of Lee and Lin [22], Kim and Jackson [38], Yao and Liao [27], Mustafa [29] and Xiaoying Guo1 *et al*., [39].
- In Section D, eight (8) items of e-loyalty of online shoppers in the questionnaire were adapted based on the works of Yang & Tsai [6], Leung Nga Yin *et al*., [31] and Lam [34].

The Likert scale ranging from “strongly disagree” (1) to “strongly agree” (5) was used to measure all the independent and dependent variables of this study.

The population of this study is the total number of online shoppers of a prominent local online seller in Malaysia. This online seller is the most popular B2C and it is ranked top (among 11 popular B2C online retailers) in Malaysia and occupied number 96 in Alexa ranking, 2013. The sample size of 390 online shoppers (for 10% margin error) was determined based on the multivariate research procedure, proposed by Hill [40]. Online questionnaire was employed to gather 390 completed and usable questionnaire using convenience sampling procedure. It took six weeks to collect the 390 completed and usable questionnaires. The data collected was kept automatically in Google spreadsheet and exported to Statistical Package for Social Science (SPSS) for further analysis.

4.0 Result and Analysis

Exploratory Factor Analysis (EFA) was performed in order to examine the validity of the instrument for further analysis. As shown in Table 1 (e-SQ) and 2 (e-Satisfaction and e-Loyalty), the KMO for e-SQ, e-Satisfaction and e-Loyalty are 0.886, 0.925 and 0.921 respectively, supported by Bartlett’s test of Sphericity of 0.000. The Total Variance Explained for e-SQ is 72.180%. The rotated component matrix of EFA yielded six components, which are the six proposed dimensions of e-SQ. All dimensions and items of e-SQ were retained since the factor loading scores of ≥ 0.5 (Table 1). The rotated component matrix of EFA yielded one component each for e-Satisfaction and e-Loyalty. The

Total Variance Explained for e-Satisfaction and e-Loyalty are 65.169% and 62.892% respectively. All the seven items of e-Satisfaction and eight items of e-Loyalty were retained based on the factor loading of more than 0.5, as shown in Table 2.

Table 1: Rotated Component Matrix[a] for e-SQ

Variable	1	2	3	4	5	6
E1 This website makes it easy to find what I need.	.052	.188	.109	.085	**.775**	-.020
E2 This website is simple to use.	.081	.156	.150	.089	**.855**	.066
E3 This website loads its pages fast.	.310	.114	.123	.112	**.707**	.195
E4 Information provided at this website is well organized	.248	.220	.074	.293	**.659**	.229
P5 This website protects information about my Web-shopping behaviour.	.354	**.509**	.114	.220	.318	-.077
P6 This website protects information about my credit card.	.347	**.721**	.090	.133	.252	.050
P7 This website does not share my personal information with other site.	.077	**.849**	.088	.112	.202	.099
P8 I feel I can trust this website.	.022	**.788**	.258	.015	.115	.224
P9 This website instils confidence in customers.	-.026	**.690**	.378	.126	.075	.185
F10 This website delivers customer electronic orders when promised.	.022	.325	**.767**	.119	-.032	.011
F11 This website has in stock the items the company claims to have.	.061	.154	**.795**	.115	.228	.114
F12 This website is truthful about its offerings.	.158	.138	**.780**	.155	.172	.137
F13 This website a makes items available for delivery within a suitable time frame.	.302	.081	**.774**	.148	.104	-.036
R14 This website provides me with convenient options for returning items.	**.765**	-.007	.182	.199	.158	.157
R15 This website offers a meaningful guarantee.	**.790**	.057	.162	.181	.224	.178
R16 This website takes care of problems promptly.	**.783**	.180	.089	.258	.128	.216
R17 This website tells me what to do if my transaction is not processed.	**.716**	.237	.097	.110	.085	.348
C18 This website provides contacts (telephone and email) to reach the company.	.280	.122	.055	.098	.112	**.765**
C19 This website has customer service representatives available online.	.314	.143	.051	.193	.076	**.802**
C20 To get more information about products of this website, I could turn to the Website's facebook, twitter or others.	.109	.132	.087	.331	.110	**.753**
W21 This website is innovative.	.218	.106	.251	**.650**	.140	.393
W22 This website is visually appealing.	.116	.071	.181	**.831**	.165	.210
W23 The user interface of this website has a well-organized appearance.	.174	.129	.106	**.830**	.137	.045
W24 It is quick and easy to complete a transaction at this website.	.279	.132	.110	**.653**	.087	.193
Total variation explained	72.180%.					
Kaiser-Mayer-Olkin Measure of Sampling Adequacy	0.886					
Bartlett's Test of Sphericity						
Approac. Chi-Square 5802.254 D.F 276 Significant .000						

Table 2: Rotated Component Matrix[a] for e-SQ, e-Satisfaction and e-Loyalty

Variable	e-Satisfaction	e-Loyalty
ESAT1 My decision to purchase from this website was a wise one.	**.792**	
ESAT2 I am satisfied with the shopping experience of this website.	**.824**	
ESAT3 I have truly enjoyed purchasing from this website.	**.804**	
ESAT4 I am satisfied with the product provided from this website.	**.814**	
ESAT5 I am overall satisfied electronic purchasing with this website.	**.816**	
ESAT6 The performance of this website meets my expectation.	**.822**	
ESAT7 In general terms, I am satisfied with the online transactions service provided by this website.	**.778**	
EL1 I like using this website.		**.797**
EL2 When I need to make online purchase, Lazada is my first choice.		**.794**
EL3 I would recommend Lazada to others.		**.833**
EL4 I intend to purchase electronic with Lazada in the future.		**.801**
EL5 To me, Lazada is the best retail website with which to do business.		**.804**
EL6 I would say positive things or comments about Lazada to other people.		**.784**
EL7 I would encourage someone surfing on Lazada.		**.754**
EL8 I really care about the future of Lazada.		**.775**
Total variation explained	65.169%	62.892%
Kaiser-Mayer-Olkin Measure of Sampling Adequacy	**.925**	**.921**
Bartlett's Test of Sphericity		

Approac. Chi-Square	1545.197	1813.551
D.F	21	28
Significant	.000	.000

In addition, Cronbach's alpha values for e-SQ dimensions - Efficiency, Privacy and Trust, Fulfilment, Responsiveness, Contact and Website Design are 0.837, 0.854, 0.857, 0.885, 0.840 and 0.853 respectively. The overall Cronbach's alpha value for e-SQ is 0.927. For e-Satisfaction and e-Loyalty, the Cronbach's Alpha values are 0.911and 0.915 respectively. Thus, constructs of e-SQ, e-Satisfaction and e-Loyalty used in this study are reliable and valid for further analysis.

The result of Multiple Regression analysis in Table 3 shows that the entire e-SQ dimensions are positively and significantly affect e-Satisfaction of online shoppers. Specifically, the significant effects of e-SQ on e-Satisfaction are: Responsiveness (β 0.213, t 4.308, Sig. 0.000), Privacy and Trust (β 0.190, t 3.994, Sig. 0.000), Efficiency (β 0.189, t 4.078, Sig. 0.000), Contact (β 0.126, t 2.661, Sig. 0.008), Fulfilment (β 0.118, t 2.649, Sig. 0.008) and Website Design (β 0.103, t 2.093, Sig. 0.037). The R square (R^2) for this regression model was 0.483, indicating 48.3% of the variance in e-Satisfaction was explained by the e-SQ dimensions. In addition, the most significant factor of e-SQ affecting e-Satisfaction is responsiveness (β 0.213, t 4.308, Sig. 0.000).

Table 3: Results on the Impact of e-SQ on e-Satisfaction of Online Shoppers

Coefficients[a]							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
		B	Std. Error	Beta			
1	(Constant)	.796	.162		4.902	.000	
	Efficiency	.164	.040	.189**	4.078	.000	1.588
	Privacy and Trust	.164	.041	.190**	3.994	.000	1.684
	Fulfilment	.099	.037	.118*	2.649	.008	1.475
	Responsiveness	.171	.040	.213**	4.308	.000	1.818
	Contact	.092	.035	.126*	2.661	.008	1.665
	Website Design	.087	.042	.103*	2.093	.037	1.807
R = 0.695			F – Value = 59.570				
R Square (R^2) =0 .483			Std. Error of the Estimate = .44476				
Adjusted R^2 = .475							
a. Dependent Variable: e-Satisfaction							

The linear regression analysis result in Table 4 shows that e-Satisfaction of online shoppers is positively and significantly affect e-Loyalty of the shoppers (β 0.772, t 23.889, Sig. 0.000). The R square (R^2) for this regression model was 0.595, indicated that 59.5% of the variance in e-Loyalty was explained by e-Satisfaction.

Table 4: Results on the Impact of e-Satisfaction of Online Shoppers on e-Loyalty

Coefficients[a]							
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**VIF**
		B	**Std. Error**	**Beta**			
1	(Constant)	.898	.126		7.125	.000	
	e-Satisfaction	.784	.033	.772**	23.889	.000	1.000
R = .772			F – Value = 570.682				
R Square (R^2) = .595			Std. Error of the Estimate = .39722				
Adjusted R^2 = .594							
a. Dependent Variable: e-Loyalty							

5.0 Discussions

This research proposed efficiency, fulfilment, reliability of E-SERVQUAL, web design of e-TailQ and a combination of privacy (e-SERVQUAL) and trust to determine e-SQ of online retailers in B2C segment. The finding has confirmed the appropriateness of these constructs in predicting e-SQ of the online retailer's website. This is in line with the work of Yang and Tsai [6], Rahman and Miazee [20] and Jain and Kumar [21]. It shows that employing efficiency, fulfilment, reliability of E-SERVQUAL scale [9,32], website design of e-TailQ [19], and trust [15, 22] with privacy [9,32] are predictors of e-SQ in online shopping of B2C. With the total variance explained of 72.180% and all dimensions and items were well loaded in their components matrix of EFA, it can be concluded that these constructs are predictors of e-SQ for the online retailers. Thus, the first research question of this study is answered.

How e-SQ of online sellers' website quality affect online buyers' e-satisfaction is the second research question of this study. All the e-SQ dimensions are positively and significantly affect e-Satisfaction of online shoppers. This finding is consistent with the previous studies [6,33,34], in which e-SQ has a strong positive effect on e-satisfaction in B2C website. Specifically, responsiveness (β 0.213, t 4.308, Sig. 0.000), Privacy and Trust (β 0.190, t 3.994, Sig. 0.000), Efficiency (β 0.189, t 4.078, Sig. 0.000), Contact (β 0.126, t 2.661, Sig. 0.008), Fulfilment (β 0.118, t 2.649, Sig. 0.008) and Website Design (β 0.103, t 2.093, Sig. 0.037) of e-SQ affect e-Satisfaction of online shoppers. For e-marketers, this finding proposes that in order to stay competitive in online shopping of B2C market, they must ensure all these indicators of websites quality are well addressed in their electronic delivery systems.

Responsiveness (β 0.213, t 4.308, Sig. 0.000), exerted the largest impact on e-Satisfaction of online shoppers, which is consistent with the work of Kim and Jackson [38]. Therefore, online retailers are encouraged to concentrate on providing meaningful guarantee, promptly entertain online shoppers' inquiries and problems and convenient options for returning the purchased items.

The third research question of this study is to determine the effect of online buyers' satisfaction on their e-Loyalty towards the online shoppers. It was found that e-Loyalty of online shoppers is affected by their e-satisfaction (β 0.772, t 23.889, Sig. 0.000). The strong association between e-Satisfaction and e-Loyalty of online shoppers was also observed in the previous studies [7,32,37,38,41]. This study provides empirical evidence to support this link in online shopping of B2C market in Malaysia. Hence, online retailers in B2C segment should concentrate on providing e-SQ and quality products to attain high level of e-Satisfaction and e-Loyalty of online shoppers.

6.0 Conclusion

This study extended the formation of e-SQ, e-Satisfaction and e-Loyalty in online shopping of B2C market. It shows that e-SQ significantly influenced e-Satisfaction of online shoppers, which in turn affected their e-Loyalty. This association was observed in other services, for example internet banking, hotel, telecommunication and higher education, to name a few. Further, construct of e-SQ of this study provides usable dimensions to be considered when developing a conceptual model involving e-SQ. It shows that, relying on one e-SQ instrument is insufficient. Hence, combining several dimensions of e-SQ scales would give better understanding on quality of electronic services delivered. In conclusion, this research found that construct of e-SQ requires a combination of dimensions from various e-SQ instruments (Research Question 1), the e-satisfaction of online buyers is affected by e-SQ of online sellers, (Research Question 2) and the buyers' e-loyalty towards the online sellers is influenced by their e-satisfaction (Research Question 3).

Despite meeting the research questions of the study, this study has several limitations. Firstly, e-e-Satisfaction is influenced by e-SQ dimensions positively, and e-Loyalty of online shoppers is affected by the extent to which they are satisfied with the online transaction with the online retailers. The mediating effect of e-Satisfaction between e-SQ and e-Loyalty is suggested for future researches

because this association is observed in other services, for example in higher education, internet banking and telecommunication. Further, it is recommended to cover all popular online retailers in Malaysia, for example top 10 B2C retailers to provide reliable and usable model of e-SQ, e-Satisfaction and e-Loyalty of online shoppers in B2C market.

References

[1] Turban E. King D., Lee, J. K. and Viehland, D. (2009) Electronic Commerce 2009: A Managerial Perspective. Prentice Hall.
[2] Igor Pezzilli, Malaysian Flavours (2013). Retrieved from http://www.malaysianflavours.com/2013/04/lazada-turns-one-in-malaysia.html
[3] The Star Online (2012). Online shopping made easy. Retrieved from http://www.thestar.com.my/story.aspx?file=%2f2012%2f7%2f19%2fnorth%2f11688942&sec
[4] Xi Zhang and Yu Tang (2006). Customer Perceived E-service Quality in Online Shopping. Unpublished Master Thesis. LUT.
[5] Santos, J. (2003), "E-service quality: a model of virtual service quality dimensions", Management Service Quality, Vol. 13. No. 3, pp. 233-46.
[6] Yang Hao-erl and Tsai Feng-Shii (2007). General E-S-QUAL Scales Applied To Websites Satisfaction and Loyalty Model. *Communications of the IIMA.* Volume 7 Issue 2.
[7] Grace Lin, T. R., & Chia, C. S. (2009). Factors influencing satisfaction and loyalty in online shopping: an integrated model. *Online Information Review*, *33*(3), 458-475. http://dx.doi.org/10.1108/14684520910969907.
[8] Lei Dai , Lihua Huang, Yuandong Yi(2005). How B2C Service Quality Influences Website Continuance?
[9] Parasuraman, A. Zeithaml, V.A., Malhorta, A. (2005). E-S-QUAL, A Multiple-Item Scale for Assessing Electronic and Revolution in Web Site Functionalities. Decision Sciences, 35(3), 423-455.
[10] Yoo, B. & Donthu, N. (2001). "Developing a Scale to Measure the Perceived Quality of an Internet Shopping Site (SITEQUAL),"Quarterly *Journal of Electronic Commerce* Vol. 2 No. 1, 31-46.
[11] Than, C.R., and Grandon, E. (2002) 'An exploratory examination of factors affecting online sales', *Journal of Computer Information Systems*, Vol. 42, No. 3, pp. 87-93.
[12] Wolfinbarger, M. & Gilly, M. C. (2003). "eTailQ: Dimensionalizing, Measuring and Predicting Retail Quality," *Journal of Retailing* Vol. 79,183-98.
[14] Saleh Bukhari, Ahmad Ghoneim and Charles Dennis (2012). Understanding the Factors that Attract Travellers to Buy Airline Tickets Online In Saudi Arabia. *European, Mediterranean & Middle Eastern Conference on Information Systems 2012*
[16] Zeithaml, V.A. (2002). Service excellence in electronic channels. *Managing Service Quality*, 12(3), 135138.
[17] Loiacono, E. T., Watson, R. T. & Goodhue, D. L. (2002). "WEBQUAL™: A Measure of Web Site Quality," in Evans, K. & Scheer, L. (Eds), *Marketing Educators' Conference*: Marketing.
[18] Barnes, S.J. and Vidgen, R.T. (2002). An integrative approach to the assessment of e-commerce quality. *Journal of Electronic Commerce Research* 3(3), 114-127.
[19] Wolfinbarger, M. & Gilly, M. C.(2003). eTailQ: dimensionalizing, measuring and predicting etail quality, Journal of Retailing, Volume 79, Issue 3, Pages 183-198
[20] Rahman, M.M. & Miazee, M.H. (2010). "E-Service Quality and Customer Satisfaction: A Study of Online Customers in Bangladesh".
[21] Jain and Kumar 2011). "Measurement of E-Service Quality: An Empirical Study On Online Railway Ticket Reservation Website Service". *Sri Krishna International Research & Educational Consortium*, Volume 2, Issue 1.
[22] Lee, Gwo-Guang & Lin, Hsiu-Fen. (2005). Customer perceptions of eservice quality in online shopping. *International Journal Retail & Distribution Management*. 33(2), 161-176.
[23] Anderson, R.E., and Srinivasan, S.S. (2003). E-satisfaction and e-loyalty: A contingency framework. *Psychology and Marketing*, 20(2), 123-138.
[24] Schaupp L. Christian, Bélanger France (2005). A Conjoint Analysis of Online Consumer Satisfaction, *Journal of Electronic Commerce Research*, 6(2), pp. 95-111.
[25] Park, C. and Y. Kim. (2003) "Identifying Key Factors Affecting Consumer Purchase Behaviour in an Online Shopping Context" *International Journal of Retail & Distribution Management*, Vol. 31, 1:16–29.

[26] Alam, S. S. and N. M. Yasin, (2009) "An Investigation into the Antecedents of Customer Satisfaction of Online Shopping," *The Australian & New Zealand Marketing Academy (ANZMAC) Conference, Melbourne, Australia*. 30 November – 2 December, Paper number 79, 2009.
[27] Chengwen Yao and Shuling Liao (2011). "Measuring the Antecedent Effects of Service Cognition and Internet Shopping Anxiety On Consumer Satisfaction With E-Tailing Service". *Management & Marketing Challenges for the Knowledge Society*, Vol. 6, No. 1, pp. 59-78.
[28] Hitoshi Okada, Kanokwan Atchariyachanvanich and Noboru Sonehara (2006). "What Keeps Online Customers Repurchasing through the Internet? *ACM SIGecom Exchanges*, Vol. 6, No. 2, December 2006, Pages 47-57.
[29] Mustafa I. Eid (2011). "Determinants of E-Commerce Customer Satisfaction, Trust, And Loyalty In Saudi Arabia". *Journalof Electronic Commerce Research*, VOL 12, NO 1.
[30] Reichheld, F. and P. Schefter, (2000) "E-loyalty: Your Secret Weapon on the Web," Harvard Business Review, Vol. 78, 4:105-115.
[31] Leung Nga Yin, Yanmie and Ma Karman Ka Ching (2012). "Factors Affecting Hong Kong Customers' E-loyalty and Repeated Purchase Intention in Online Chinese Retail Stores and the Moderating Effect of Electronic Word-of-Mouth".
[32] Zeithaml, V.A., Parasuraman, A., and Malhotra, A. "e-service quality (2000): definition, dimensions and conceptual model," Working paper, Marketing Science Institute, Cambridge, MA.
[33] Zha J., Ju F. and Wang L. (2006). Customer Satisfaction in E-commerce: an Exploration of its Antecedents and Consequences, *International Conference on Management of Innovation and Technology*, pp.540-544.
[34] Lam Shuk Ling (2011). "The Study of E-Service Quality, E-Satisfaction And E-Loyalty Of Generation Y In Hong Kong: A Case Of Taobao".
[35] Zhang, X., & Prybutok, V.R. (2005). A consumer perspective of e-service quality. *Journal of Marketing*, 52, 461–477.
[36] Zins, A., "Relative Attitudes and Commitment in Customer Loyalty Models: Some Experiences in the Commercial Airline Industry," *International Journal of Service Industry Management*, Vol. 12, 3:269-294, 2001.
[37] Devaraj, F., Fan, M. & Kohli, R. (2002). Antecedents of B2C Channel Satisfaction and Preference: Validating e-commerce Metrics, *Information System Research, 13*(3), 316-333.
[38] Kim E. Y., Jackson V. P. (2009). "The Effect Of E-SERVQUAL on E-Loyalty For Apparel Online Shopping". *Journal of Global Academy of Marketing Science*, 19-4 (2009) 57-65.
[39] Xiaoying Guo, Kwek Choon Ling & Min Liu (2012). "Evaluating Factors Influencing Consumer Satisfaction towards Online Shopping in China". *Asian Social Science*; Vol. 8, No. 13.
[40] Hill R.R. (1998). Analytical comparison of optimization problem generation methodologies. *Proceedings of 30th conference on winter simulation*. Pg 609-616.
[41] Gee, R., Coates, G. and Nicholson, M. (2008). Understanding and profitably managing customer loyalty. *Marketing Intelligence and Planning*. Vol. 26 No.4, pp. 359-374.