

Electronic Service Quality of Malaysia Airline Industries (Low Cost Carrier)

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Abstract – This research was perform to examine the dimension electronic service quality of Malaysia airline industries (low cost carrier) and the impact on customers perceived service satisfaction. This research employed convenience sampling procedure and questionnaire as method to gain data, 392 completed questionnaires were gathered from Malaysia airline industries (low cost carrier) website users. The Confirmatory Factor Analysis performed and indicated that five dimensions such as fulfilment, system availability, efficiency, site privacy and aesthetic and customizations were applicable to measure Malaysia airline industries (low cost carrier) e-SQ. The regression analysis performed showed that e-SQ dimension-fulfilment, system availability, efficiency, site privacy and aesthetic and customizations have a significant positive relationship exist between e-SQ dimension and perceived service satisfaction in the Malaysia airline industries (low cost carrier) website users. Future research recommendations to discuss on impact dimension of e-SQ regarding to recovery issue such as compensation, responsiveness and contact on customers perceived satisfaction in Malaysia airline industries (low cost carrier). Copyright © 2015 Penerbit Akademia Baru - All rights reserved.

Keywords: Electronic Service Quality, e-S-Qual, Perceived Service Satisfaction

1.0 INTRODUCTION

The trend of internet usage in Malaysia show rapid growth through years according to Internet World Stats Report, current total internet user in Malaysia was more than 16.9 million and this number is expected to increase over time. Increasing trend of internet usage in the world create new opportunities for retailers to create website in offering their product and service [1]. In internet or electronic business, there are many terms used to represent transaction or activities done through internet or online such as internet marketing, electronic marketing, e-commerce, e-shopping, e-service organization and many others. Website is the most commonly used platform in interactive communication channel in improving customer's relationship management especially for electronic service organization.

The airline industries is also no exception to the e-commerce phenomenon, where many airline organization have established their own website in order to detour travel agent intermediaries, becoming increasingly focused on online communication, information and transaction [2]. Competitive business environment with globalization of the market and



booming of internet applications, makes most of the enterprises are trying harder to attract and win new customers and try to maintain relationship with existing customers by giving them more satisfaction in the highly competitive electronic market [3]. These challenge also faced by airline industries players, past researcher realise that e-services marketing have grown rapidly especially on airline website and e-commerce. Moreover e-service marketing activities have attracted a great deal of attention [4].

Electronic service quality (e-SQ) plays an important role for any business that have involved with online transaction to attract customers. With improving e-SQ its will improve and crate service satisfaction and increase customers expectation. Customer's assessment of website quality and e-SQ usually based on their actual experience of interacting with the site and post interaction service [3]. Customers have different expectation and requirement of their satisfaction with one particular service, they deem different aspect of the service delivery process to be satisfied. Due to customer's requirement and expectation not homogeneous, it is important to know customers better and serve them accordingly. Improving e-SQ can be the key advantage in nowadays service market.

Past researchers indicated that e-SQ will affect the perceived service satisfaction positively on particular service [1,3-4]. Oh [5] provided evidence that influences role of electronic service quality and directs antecedent of perceived service satisfaction. Thus, as electronic service quality improve the probability of customers satisfaction expected to increase. Previous studies on marketing point out that the key of corporate success and competitive advantage are the enhancement of electronic service quality and perceived service satisfactions [6]. The formations of electronic service quality and perceived services satisfaction have long being discussed and it is the most important research topic in service marketing literatures. In order to be successful, e-services marketers must focus on electronic service quality and after that perceived service satisfaction will come by own self.

Research conducted by Kuo, Wu and Deng [7] indicated that electronic service quality influence perceived service satisfaction. With high level of electronic service quality it will influence customers to have a post-purchase intention. In order to satisfy customers, service provider organization need to give more attention on two aspects namely product quality and service quality. Satisfy customers will stay and use the service provided from airline service provider but unsatisfied user will leave the service.

1.1 The Importance of Electronic Service Quality (e-SQ)

Quality of website design plays an important role for any business unit that involved with online store of online transaction to conduct their marketing activities. Since the design of website plays an important role in attracting customers, Lee and Wu [4] reported that with improving electronic service quality, interactive website and electronic service recovery issue can fulfil customer's expectation and satisfaction. Farnaz and Shoki [15] and Lee and Wu [4] also indicated that electronic service quality will affect the consumer satisfaction positively.

Website created by business organization or non-business organization usually has mutual goals that are to deliver offered service or information to audience through an elegant design in order to keep current customers in touch with organization and attract potential customers to adopt online connectivity with the organization. Usually website mutual agreement of relationship will bring both parties benefit such as time saving, cost reduction and simplicity of connection. Furthermore, with online system, it enables customers to function more independently and perform many transactions on their own via firm's website. Therefore,



understanding e-service marketing activities has attracted a great deal of attention [4]. The contribution of high level of electronic service quality can make business performance unquestioned.

Quality is strongly related to customers' satisfaction and retention. Therefore, quality is expected to be a determinant of success factor not only in a traditional environment but in online market space as well. With the introduction of new technologies such as internet in the marketing practice of firms, e-service quality become most important issues for marketers in the service sector [8].

Service delivery process on the internet or website is significantly different from the traditional airline environment especially due to lack of direct contact between the employee and service provided and the customers. The attribute for defining a high-quality services delivery is expected to differ in two context of traditional and internet based service. Because of the different exist, the challenge raise in measuring the quality of online service [24]. With the trend of internet user shows the increase number year to year, the knowledge about defining high-quality service delivery over the internet become crucial for airline to stay competitive on the market place.

During the last decade, there are several publish report in referent international journals and conferences on identifying the key dimensions of e-service quality. The study has been customized in banking industry, car industry, mobile wallet industry and etc. [25-27]. However, given the theories of e-service quality are based on customers perceptions, do the perceptions translate well to others industries such as airline and would it be possible to use proposed e-service quality dimension in airline low cost carrier industry? Crossing industries boundaries exposes theories and concept to a host of institutional and nature differences that affect the ability to generalize theories develop in some industries. A review on e-service quality dimension, service industry had resulted that not all dimensions in the scale are suitable to measure quality of the electronic services [1].

1.2 The Influence of Electronic Service Quality (e-Sq) and Perceived Service Satisfaction

Influence of electronic service quality (e-SQ) and perceived service satisfaction have long being been discusses and it is the most important research topic in marketing service literature [28], enhancement of e-service quality and perceived service satisfaction will give organization competitive advantage in market place. Previous study also pointed out that formation of e-service quality and perceived service satisfaction are the key of corporate success [29].

Research conducted by past researcher [7] indicated that there have a relationship exists between e-service quality and perceived service satisfaction. For example, e-service quality will positively create customers satisfaction. Analytical from others researcher [30] study showed that substantial different between the e-service quality of various personal characteristic such as age, income, education level and etc. some author indicate that influence role of e-service quality may affect customers perceived service satisfaction. Therefore, as service quality improve, the probability of customers will satisfied will increase.

Computer-aided services has grown in numbers and significance proportion to the rapid growth of internet adoption. E-service growth, also known as web-based self-service has



played important role in mordent economic. Change on human lifestyle that more prefer more to e-commerce, e-business and e-service added with booming internet usage over the world has post a new set of challenge to service organization. One of the challenge is the quality of the electronic service (e-service) provided by company's website and others electronic media. The quality of enterprise website has become key indicator of how well a company is likely to satisfy customers. E-service quality could influence important service outcomes, such as customer's perceived service satisfaction, intention and loyalty [31]. Furthermore, service quality will improve the degree and probability of customer's satisfaction.

2.0 LITERATURE REVIEW

2.1 Electronic Service Quality (e-SQ)

Electronic service quality (e-SQ) received a great attention from academic research since the early work done by Zeithmal, Parasuraman and Malhotra [8]. The first concept of electronic service quality has being introduced by them on year 2000. They give definition of electronic service quality as: *"the extent to which a website facilitates efficient and effective shopping, purchasing and delivery of product and services"*. Their definitions of electronic service quality cover completed customer's electronic service experience from stage pre-website, on-website and post-website. Others popular definition regarding to electronic service quality being introduced by Santos [9] is: *"overall customers's perception, judgment and evaluation on the quality of service obtained from a virtual marketplace"*. Beside these two definitions of electronic service quality. In fact, many researchers also introduce their own definition base on their study and finding to represent electronic service quality. The general agreement among researchers is electronic service quality was associated with the effective and efficient of website to meet user needs and expectation.

2.2 Perceived Service Satisfaction

Customer perceived service satisfaction is an evaluation on an emotional and it reflects consumers perceptions of positive feeling that are invoked by possession and use of a service [10]. Customer's satisfaction related with website, will drive from two main sources: satisfaction with the quality of website information contents and satisfaction with the site system performance in deliver information [11]. The two criteria mentioned are important during customers satisfaction creating, if one of those criteria mentioned is not perform well, the customers satisfaction may not be so good and customers percentage for dissatisfaction is so high. Yang and Cheng [12] indicated that customer's satisfaction referred to the extent in which the user perceived the difference between expectation and service received. Udo, Bagchi and Kirs [13] presented definition of satisfied customers, as refer to those who are more likely to stay with the company for long periods. They are also likely to provide new referrals through positive word of mouth, buy more products and resist competitive pressures.

Service satisfactions will drive from perceived quality and perceived value. Usually customers will compare their own service experiences and expectation when they perceived fair treatment [14]. In order to make customers satisfy, a service provider firm or goods provider firm needs to offer three basic aspects to customers which are quality of product, quality of service and acceptable price according to customers' preference and expectation. Therefore, service satisfaction is defined as the total consumption perception of consumers when using online transaction trough airline website. Researchers used a variety of terms to

describe the positive interaction between work and family roles, for example, work-family enrichment, facilitation, enhancement, engagement and positive spill over.

2.3 Electronic Service Quality Instrument

From the first time of e-service quality being introduced until now, there are many scales developed by many parties such as academician and business to measure e-service quality. From all scales developed, it has four e-service quality measurement systems, namely SITEQUAL, e-SERVQUAL, WEBQUAL, and eTailQ, which appear to be more comprehensive amongst those, reported.

SITEQUAL An earlier attempt to assess the website quality on the base of differentiating of internet shopping, Yoo and Donthu [16] have developed SITEQUAL scale including four major factors which are: ease of use, speed, security and aesthetic. Ease of use is more concern on the website ability to search and find information, speed focuses more into area of interactive responsiveness and promptness of user request, furthermore, security embraces the personal data and financial information of customers or user and finally aesthetic design involves area such as quality photo and colour. Yoo and Donthu [16] also proved that, ease of use and security significant are correlated with overall quality of website, moreover all dimensions are significantly correlated with website overall quality.

Parasuraman et al. [17] have developed E-S-QUAL to measure and understand service quality and e-service quality. The E-S-QUAL scale contains a core and recovery scale. There are four dimension scales suggested as core determination of E-S QUAL by Parasuraman et al. [17], the dimension are: efficiency (ease of use and speed), system availability (technical and correct function), fulfilment (accuracy and service promises) and privacy (assurance of site safety and customers' confidential information). E-S-QUAL or core scale is used to measure the customers' perceptions of service quality delivered by online retailers.

Interestingly, with aim to give the web apparel more attention in affecting customers visit, Parasuraman has extended E-S-QUAL to be e-RecS-Qual, e-RecS-Qual or recovery scale refers to specific situations, when customers have questions or runs into a problem. The three extra suggested factors are responsiveness, compensation and contract. In other words, it can be said that core scale refers to the quality of the company's website, while the recovery scale is more concerned with the actual performances of the company, rather than with website performance.

Instrument WEBQUAL has been proposed by Loiacono et al. [18] as method of evaluating website quality. WEBQUAL gives more attention to website interface and it is suggested to be the most empirically grounded e-SQ scale. WEBQUAL is developed based on the conceptual background of Reasoned Action theory (TRA) and the Technology Acceptance Model (TAM). The main idea behind the use of WEBQUAL is to predict the re-visit or re-use behaviour of website user based on their perceptions. The instrument consists of four constructs, namely usefulness, ease of use, entertainment, and complimentary relationship, which include a range of website dimensions. Each of constructs is evaluated by a website visitor according to his or her perceptions of website quality.

eTailQ is developed by Wolfinbarger and Gilly [19], and it is also known as comQ by some researchers. eTailQ is the scale used to measure and predict e-tail quality. It has four website quality dimensions or factors that can be used as prediction customers judgements of quality and satisfaction with the website, the dimensions are: website design (delivery right product



within the time frame promised), fulfilment/reliability (appropriate personalisation and product selection), privacy/security (privacy of shared information), and customers service (quick response).

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In summary, it can be conclude that each instrument represent similarities different researcher will consider different measurement of electronic service quality dimension that related to their purpose of study. For example some authors will indicate five dimensions but others may consider seven dimensions. In general, measurement of e-service quality can be divided into two main groups that are: customer's perception of electronic service quality retain online service and customer's perception of electronic service quality retain during the challenge raise.

3.0 METHODOLOGY

Based on the review of electronic service quality instruments and previous airline industries website studies, the six dimension of electronic service quality was identified to determine electronic service quality of Malaysia airline industries (low cost carrier). The e-SQ dimension for this study was adopted and modified base on e-S-Qual [17]. The dimensions selected were efficiency, fulfilment, system availability and privacy. Based on literature review others two dimensions was added and modified by authors were site aesthetics and customization [4]. For perceived service satisfaction, five item used to measure Malaysia airline industries (low cost carrier) website users, all item was adopted base on the construct of perceived service satisfaction purpose by Janda, Trocchia and Gwinner [20].

The population size for this research was the total numbers of Malaysia airline industries (low cost carrier) website user. According to Sekaran [21] a range of minimum number of sample size was 30 and maximum number of sample size was 500 is acceptable for e-marketing surveys. Sample size required should be 5 to 10 times of variables with 10% and 5% margin error. The number of total variable in the developed questionnaire was 53, thus a minimum of 265 questionnaire are needed with 10% margin error and 530 questionnaire are needed with 5% margin error. In this research the author selected 5% margin of error. However, only 392 set questionnaires were fully answered and completed by respondent.

4.0 RESULTS

4.1 Profile of Respondent

The total numbers of Malaysia airline industries (low cost carrier) website user participate in this study was 392. This 392 completed questionnaire was satisfactory for having 5% confident interval. As shown in Table 1, all demographic characteristics of respondent are summarized as follow:

- In term of experience using Malaysia airline industries (low cost Carrie) website, the majority of respondent 382 or 97.4% have experience using Malaysia airline industries (low cost Carrie) website.
- 208 were female respondent (54.5%); and male respondent were 174 (45.5%).
- Most of respondent hold bachelor degree (270 or 70.7%).
- Majority respondent purpose flying with Malaysia airline industries (low cost carrier) were leisure (187 or 49%).



- In term of age respondent, the majority of respondent (276 or 72.3%) have been between 21 to 30 years old.
- Most of respondent were Malaysia residential 376 or 98.4%.
- Numbers of flight booking tickets per year's majority respondent made 2 to 4 booking ticket (49%).

Demographic	Category	Frequency	Percentage (%)
Experiences Using Website	Ever	382	97.4
Experiences Using website	Never	10	2.6
Gender	Male	174	45.5
	Female	208	54.5
Education Laval	SPM	21	5.5
Education Level	STPM	40	10.5
avnarianaaa	DEGREE	270	70.7
experiences	MASTER	41	10.7
Education	PHD	5	1.3
	PROFESSIONAL	5	1.3
Dumpers of Flaving	Leisure	187	49
Purpose of Flying	Business	50	13
Education	Personal	145	38
Age	< 20	33	8.6
avnarianaaa	21 ~ 30	286	72.3
experiences	31 ~ 40	58	15.2
Education	41 ~ 50	15	3.9
	>51	0	0
Residential Status	Malaysia	376	98.4
	Non Malaysian	6	1.6
Number of booking in one year	< 1	173	45.3
experiences	2 ~ 4	187	49
	5~6	22	5.7
Education	>7	0	0

Table 1: Summary of demographic characteristics

4.2 E-SQ Dimension of Malaysia Airline Industries (Low Cost Carrier)

The dimension of Malaysia airline industries (low cost carrier) was analysed using few factor analysis and reliability test. Original purpose of e-service quality dimension in this study contained six dimensions which are efficiency, fulfilment, privacy and security, site aesthetic, customization and system availability. After factor analysis was run only five dimensions remain. From five dimensions remain, four dimensions fixed with original dimension and one dimension change from site aesthetic to site privacy and aesthetic. Results of Factor Analysis represent KMO value for all e-SQ dimensions exceed 0.7.

Table 2, represent summary of the Cronbach's Alpha result. As show in Table 2, the reliability coefficient (alpha value) for the entire construct e-SQ around 0.903 to 0.941 is more than 0.7 which shows high statistically reliable. Therefore, based on the result of factor analysis and reliability test, dimension of e-SQ of Malaysia airline industries (low cost carrier) were fulfilment, system availability, efficiency, site privacy and aesthetic and customization.



Variables	Cronbach's Alpha if Item Deleted
Fulfilment	.941
System Availability	.912
Efficiency	.903
Site privacy and Aesthetic	.913
Customization	.924

Table 2: Cront	bach's Alpha	Values of t	the Constructs
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4.3 The Impact of E-Sq on Perceived Service Satisfaction

In order to identify the relationship between Malaysia airline industries (low cost carrier) e-SQ dimension and customers perceived service satisfaction. Researcher was performing Pearson's correlation of coefficient analysis. Table 3 show the result of correlation between e-SQ dimension and perceived service satisfaction. All five e-SQ dimension for Malaysia airline industries (low cost carrier) were positively and significant correlated with perceived service satisfaction. A significant high positive relationship exist between all dimension (efficiency, site privacy and aesthetics, fulfilment, system availability and customization) with perceived service satisfaction with correlation value between 0.709 and 0.802 (p<.01).

e-SQ Dimension		Perceived Service Satisfaction
Efficiency	Pearson Correlation	.789**
	Sig. (2-tailed)	.000
Site privacy and aesthetic	Pearson Correlation	.746**
	Sig. (2-tailed)	.000
Customization	Pearson Correlation	.802**
	Sig. (2-tailed)	.000
fulfilment	Pearson Correlation	.709**
	Sig. (2-tailed)	.000
System availability	Pearson Correlation	.709**
	O' = (O + (1 + 1))	000

 Table 3: Result of Pearson Correlation of e-service quality with perceived Service satisfaction

Table 4: Result of Multiple Regression e-service quality with perceived service Satisfaction

Sig. (2-tailed)

.000

				t		
	В	Std. Error	Beta			
	7.018	.495		14.167	.000	
Customizatio n	.012	.001	.404	9.114	.000	2.852
Site privacy and aesthetic	.001	.001	.092	1.818	.070	3.730
Efficiency	.005	.001	.316	6.411	.000	3.524
System availability	.058	.023	.111	2.500	.013	2.853
fulfilment	.012	.022	.026	.550	.583	3.324



In order to examine the impact of Malaysia airline industries (low cost carrier) e-SQ dimension towards perceived service performance multiple regression analysis was employed. According to Table 4, all VIF value all independent variable was less than 10 this represent that the threat of multicollinearity problem is not exist in this research. The R-square value of the multiple regression result show that 73.9 percent of the variation in perceived service satisfaction can be explain by the variation in the independent variable of efficiency, site privacy and aesthetics, fulfilment, system availability and customization. Future research should consider dimensions of compensation, responsiveness and contact, which not cover on this research due to assumption that there is no complain or issue after post purchase, those dimensions may give an impact on perceived service satisfaction.

Table 4 has shown result of Coefficient strength of each e-SQ dimension influencing on the perceived service satisfaction. There were only three dimensions statically significant which highest Beta was customization (B 0.012, std 0.01, β 0.404, t 9.114, Sig. 0.000), The next strongest variable efficiency (B 0.005, std 0.01, β 0.316, t 6.411, Sig. 0.000), and the last strongest variable system availability (B 0.058, std 0.23, β 0.111, t 2.500, Sig. 0.013). The remaining e-SQ dimension Site privacy and aesthetic and fulfillment were not significant.

5.0 RESULT AND DISCUSSION

The finding of this research indicated that dimensions of e-SQ Malaysia airline industries (low cost carrier) were loaded into five dimensions (efficiency, site privacy and aesthetics, fulfilment, system availability and customization). This finding was statically significant using factor analysis and reliability test. The result on the significant dimension of e-SQ were consistence with previous research finding Yoo and Donthu [17], Zeithamal [8], Wolfinbarger and Gilly [19], Parasuraman [22], Yang and Cheng [12] and Lee and Wu [4]. These finding did not cover dimension used in measuring e-SQ retained during challenge raise. Future research should focus on the others three dimension compensation, responsiveness and contact, those dimension may give an impact on perceived service satisfaction. The relationship used to describe the airline industry (low cost carrier) e-service quality and perceived service satisfaction were explain in Figure 1.

Once all analysis was perform for the correlation, the independent variable and dependent variable show high and positive correlation. The R value for this study were 0.860, it clearly define that there is always a positive relationship between e-service quality and perceived service satisfaction in Malaysia airline industry (low cost carrier). Thus, as e-service quality has improve the probability of customers perceived satisfaction expected to increase.



Figure 1: Relationship of e-Service quality and perceived service satisfaction



6.0 CONCLUSION

Through the analysis, there were five dimension suggested for Malaysia airline industry (low cost carrier) e-service quality profile. Dimension that constituted e-service quality of Malaysia airline industry (low cost carrier) was fulfilment, site privacy and aesthetics, efficiency, customization, and system availability. Those airline industry (low cost carrier) players, which plan to improve their service quality, should start from the above five dimension, to carry out internal adjustment to improve their website service quality.

Website service can be consider as pure service, in case of pure service as Malaysian airline industries (low cost carrier) website quality is generally given a greater impact towards customers satisfaction [23]. The result of correlation and regression analysis proved that there was positive and high correlation between e-SQ dimension and perceived service satisfaction dimensions for Malaysia airline industries (low cost carrier) website service. The Malaysia airline industry (low cost carrier) need to specifically concentrate on e-service quality dimension (fulfilment, site privacy and aesthetics, efficiency, customization, and system availability) having high impact on perceived service satisfaction. Malaysia airline industry (low cost carrier) players should delight their customers by exceeding their expectations to enhance customer's satisfaction, such as principle could be applied to all the above dimensions in website service.

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