

Relationship Between E-Commerce Service Quality, Satisfaction, Trust and Customer Loyalty in the Hotel Industry in the East Coast of Peninsular Malaysia

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Abstract: E-commerce system websites have helped to expand the business into the international sphere. Manage satisfaction, trust and customer loyalty to the use of services in the long term in view very important for business development. Lack of studies on the quality of service of E-commerce in the hotel industry in Malaysia in general and on the East Coast of Peninsular Malaysia in particular has prompted this study to be done. The main objective of this study was to identify and measure the perception of foreign tourists to the service factors of E-commerce website that influence satisfaction, trust and loyalty. Based on previous studies, a conceptual framework of this study were established, the relationship between E-commerce service quality, satisfaction, trust and customer loyalty in the hotel industry in the East Coast of Peninsular Malaysia. Tourism sector is the second largest foreign exchange earner after manufactured goods and the seventh largest contributor to the Malaysian economy with a Gross National Income (GNI) of RM47.2 billion in year 2013. The hotel industry is one of the tourism sectors. The hotel industries have international dimensions and have the use of the highest sites. Tourism and hotel industry, especially has proven to be a catalyst for development and these dynamics have turned the industry into a key-driver for economic growth.

Key words: E-commerce service quality, customer loyalty, Malaysia hotel industry, catalyst, development

INTRODUCTION

Developments in information technology and the internet is growing rapidly day by day. Similarly, within the reach of the internet is widely viewed as a key driving force in a sharp increase in the use of E-commerce services in the world in general and Malaysia in particular. E-commerce websites provide benefits in terms of access to wider use of local consumers moving internationally. E-commerce also provides new opportunities to export goods and to services more widely. E-commerce can improve and raise the level of efficiency in an organization. In 2010, the market size of E-commerce in Malaysia has reached RM1.8 billion and will continue to increase up to RM5 billion in 2014. The development of E-commerce market size in Malaysia is RM2 billion to RM3 billion per year (Malaysia Crunch, 2013). The report also reveals that online purchases are most active in Malaysia is in the tourism industry at a cost of RM435 million which is 24% compared to other industries.

The use of E-commerce in the hotel industry is seen can improve performance if satisfaction and customer

trust are met and eventually customers will continue to be faithful to use it as a means of purchase. E-commerce website is one of the important strategies in business today. Service sector is an important sector in the Malaysian economy which accounts for about 50% of Gross Domestic Product (GDP). Tourism industry is a contributor to socio-economic development in Malaysia and is the third largest contributor to total income after manufacturing in 2008 and 2009 (MoT, 2008, 2009). Between 2006 and 2010, revenue from tourism increased by 55.6% from RM36.3-56.5 billion and foreign tourist arrivals increased by 41.4% from 17.4-24.6 million people. This information indicates that it is very important studies on loyalty, satisfaction and trust of foreign tourists in the quality of services offered in the tourism industry in general and hotels in particular. In line with Visit Malaysia year 2014 this study was conducted to examine and identify the tourists who flock to the East Coast of Peninsular Malaysia using the hotel or travel agency E-commerce websites to make room reservations, either they satisfied and believe the E-commerce service websites.

Problem statement: The expansion rate of foreign tourists staying in hotels above three star on the East Coast of Peninsular Malaysia is positive except in 2012. Based on Fig. 1, it was shown that the rate of foreign tourists staying in hotels East Coast of Peninsular Malaysia is decreased for the three states of Pahang, Terengganu and Kelantan. In 2011, the number of foreign tourists staying at the hotel include a total of 3,218,135 people and had dropped in 2012-3,107,088 people. While in the state, the number of foreign tourists staying at the hotel in 2011 is estimated at 132,520 people and has declined to 132,407 people in 2012 and in Kelantan number of foreign tourists staying at the hotel in 2011 was over 69,331 people and has dropped to 60,588 people in 2012. The decrease in occupancy rates in hotels may be due to several factors which include the lack of a unique destination, hotel services offered weakness, lack of promotion, weak management, poor communication and technology (hotel websites and online booking) (Ab Hamid *et al.*, 2011). Therefore, this study will look and identify the notion of foreign tourists on the E-commerce service quality factors contributing to the lower occupancy rate.

In the service sector, an efficient coordination was found that communication and information is a critical factor, therefore an efficient Internet technology has added value and has facilities in service delivery. Competition in the hotel industry is how the values given by the quality of customer service for foreign tourists and local (Ab Hamid *et al.*, 2011). Based on the analysis of previous studies, 35-40% of sales revenue is from the website of E-commerce is from repeat customers to buy (Eid, 2011). Therefore, it is very important to know and determine the factors that influence customer loyalty in using the E-commerce website in the hotel industry.

These challenges and the competitive situation in the hotel industry need a better understanding of satisfaction, trust and customer loyalty in achieving Malaysia as a reputable and preferred destination in Asia. Globally,

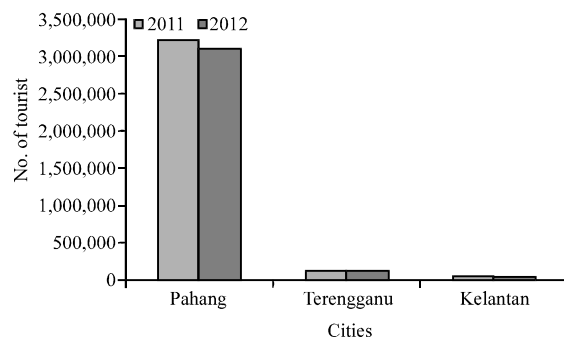


Fig. 1: No. of Foreign Tourists Stay Hotel East Coast Malaysia; Tourism Malaysia

customer loyalty typically has strong ties in increased profitability and long-term development of an organization (Eid, 2011; Reichheld, 1994). Smaller increase in the number of loyal customers can increase profits drastically within an organization (Huffmire, 2001).

Many empirical studies that examine the relation of satisfaction, trust and customer loyalty as a result of E-commerce service website received in many countries of the world due to its importance in terms of maintaining customer loyalty to the organization (Kim *et al.*, 2009; Cyr, 2008; Anderson and Srinivasan, 2003). Although, there are empirical studies such as Eid (2011), Kassim and Ismail (2009) and Park and Kim (2003) which was discussed on satisfaction, trust and E-commerce customer loyalty but in the hotel industry in Malaysia is limited. To what extent E-commerce service quality affects satisfaction and customer trust in customer loyalty yet to be identified. Therefore, this study will be undertaken to identify the factors of E-commerce service quality and its relationship with the satisfaction and trust of the clients in the hotel industry of the East Coast of Peninsular Malaysia.

Research questions: Based on the gap of the previous studies and models proposed in Fig. 2, the study also answer the following questions related to E-commerce service quality, satisfaction, trust and loyalty. Asked the following question:

- How can tourist assess the quality of E-commerce services?
- How does the tourist experience in using website service?
- Why tourist stay confident transacting online hotel websites in Malaysia?
- How the variables measured service, E-commerce service quality, loyalty customer, customer trust and customer loyalty interrelated?

Research objective: The objectives of this study were to:

- Identify tourists perceptions on E-commerce service quality factors
- Measure the quality of E-commerce service for travel loyalty with customer satisfaction and trust as a mediator variable

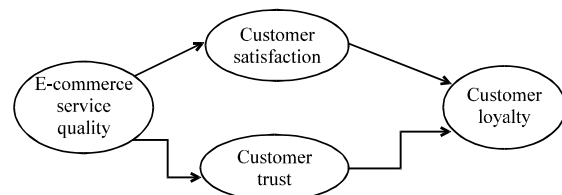


Fig. 2: Conceptual model of E-commerce service quality, satisfaction, trust and customer loyalty (Eid, 2011)

- Acquiring the service quality factors that affect E-commerce satisfaction, trust and loyalty of tourists
- Developing E-commerce service quality instruments

Literature review

Customer loyalty: Loyalty refers to the repetitive purchase of a product or service from the same brand. Oliver (1997) defines customer loyalty is when customers commit to buy back continuously and consistently in the future with the same brand. In the context of tourism, customer loyalty was loyalty to one's destination or traveling back and recommend to others through mouth to mouth (Kuenzel and Katsaris, 2009). Whereas in the context of loyalty of E-commerce customers is very important and valuable. On this day, traders who use E-commerce websites, trying to find out how to build customer loyalty. Loyal customers not only find information for themselves but they will be a source of information to other customers. Some of the factors that can create customer loyalty has been proposed that customer satisfaction and customer trust will also affect the development of a long-term relationship between the customer and the dealer. The study by Kassim and Ismail (2009) relating to online customers find satisfaction and confidence will improve and give loyal customers. The research by Eid (2011) in Saudi Arabia, showing both variable between satisfaction and trust of the customers has a positive relationship with customer loyalty purchase through the E-commerce websites.

Service quality of E-commerce: The quality of the user interface referring to Gummerus *et al.* (2004) the user interface is the channel where the users in relation to E-service providers. The study by Park and Kim (2003) found that the quality of the user interface will indirectly affect customer satisfaction as it replaces the physical evidence of the sale. It also represents the ability of E-services provider.

Study by Srinivasan *et al.* (2002) have shown that interactive aspects of the applications of E-commerce has a strong relationship with customer loyalty. The results of the study by Cyr (2008) have found that these factors interface design E-commerce websites such as information design, navigation and visual affects trust and satisfaction of the customer and will not be influenced by the culture of different customers. This is further strengthened by the findings of the Alam and Yasin (2009) in Malaysia which have user interface design has a strong relationship with customer satisfaction.

Information quality: Quality of product or service information can be defined as customers' perception of

quality of service or product information supplied on this website (Park and Kim, 2003). Quality website content should be questioned because it is one way to give belief in E-customer (Eid, 2011; McKnight *et al.*, 2002). The study Park and Kim (2003) has also been found that the quality of information will directly affect customer satisfaction. The results of the study by Cyr (2008) have found that culture also plays a role in the quality of information for customer satisfaction.

Notion of security: The notion of security response depends on the reliability of the method of payment and the manner of the transfer and storage of data (Kolsaker and Payne, 2002). The notion of security vulnerabilities of E-commerce website by the customer will result in risk and a major obstacle to the development of E-commerce web site (Dong-Her *et al.*, 2004). Whereas according to Flavian and Guinaliu (2006) reliance on the website E-commerce is dependent on the security of customers' perception of how E-commerce website to manage their personal data. E-commerce websites can increase the trust of the customers by enhancing system security E-commerce website (Eid, 2011; Warrington *et al.*, 2000).

Notion of privacy: Can be defined as the ability of customers to control the presence of others close during the transaction and process the transactions without the need to turn up (Goodwin, 1991). Whereas according to Flavian and Guinaliu (2006) says the trust of the E-commerce websites is influenced by the notion of privacy by customers based on how organizations control their personal data. Privacy is the most critical factor in attracting more online potential customers and retain existing customers (Park and Kim, 2003).

- H₁: the improved quality of E-commerce service is increasing tourists satisfaction
- H₂: the improved quality of E-commerce service is increasing tourists belief

Customer satisfaction: Customer satisfaction is how the customer is satisfied with the product or service offered. It has a close relationship with personal beliefs (Geyskens *et al.*, 1996). Zins (2001) also states that if the customer is satisfied at a high level it will lead to loyalty. However, the impact of customer satisfaction on customer loyalty are complex. But, according to Fisher (2001) customer satisfaction is just one reason only and is not a major cause why customers will switch to other service or product. A study by Anderson *et al.* (1994) shows customer satisfaction are the main culprits in determining customer loyalty. Anderson and Srinivasan (2003) found

that both the trust and the perception of value which has been developed by the company will affect customer satisfaction on loyalty use of E-commerce website. Studies conducted by Cyr (2008) also found satisfaction with E-commerce websites is a key factor in leading to customer loyalty.

- H₃: customer satisfaction has a direct positive effect on customer loyalty

Customer trust: Is a group of trust by customers online for online providers and also the behavior of the suppliers in the future (Coulter and Coulter, 2002). Meanwhile, according to Lee and Lin (2005) suggests the belief encourage online purchasing and indirectly it will affect the attitude of the purchase of E-whole salers. Loyalty has contributed to the process of connecting and maintaining the value and importance of the relationship must be formed by faith (Eid, 2011; Chaudhuri and Holbrook, 2001). The study by Cyr (2008) have found that in countries such as Germany and China shows confidence in E-commerce websites have a strong relationship between trust in the E-commerce website with customer loyalty.

- H₄: customers trust have a direct positive effect on customer loyalty

Formation of theoretical model: Based on the literature, the instrument developed by Eid (2011) has been taken and modified as instrument conceptual framework.

MATERIALS AND METHODS

Sample: To conduct the study, researchers chose a quantitative research using a questionnaire as an instrument. Survey research design used to collect primary data. Inferenced population are tourists staying in hotels and resorts above three stars on the East Coast of Peninsular Malaysia. This study chose the hotel industry because the industry is growing rapidly in Malaysia. Studies involving the hotel industry in Malaysia is still slightly in determining satisfaction, trust in the quality of E-commerce service websites thus creating E-customer loyalty.

Table 3: Number of samples for each hotel's rating

States	Above 3 stars hotels (N)	*1(n)	Percentage	Unit of analysis	Total respondents for each hotel (unit of analysis/n)
Pahang	43	34	54	162	5
Kelantan	10	10	16	48	5
Terengganu	19	19	30	90	5
Total	72	63	100	300	-

*1From 63 samples, the number of samples for each state ought to be 21 hotels. But, the states of Kelantan and Terengganu, the hotel is limited (10 and 19). Therefore, the total number of samples is not enough of the 2 states would be added to the hotel in Pahang which has a more hotels

According to the Ministry of Tourism Malaysia there are about 72 hotels of above three stars hotel on the East Coast of Peninsular Malaysia. That are 43 Pahang hotels, Kelantan 10 hotels and 19 hotels of Terengganu. The Table 1 shows the statistics of the hotel on the East Coast of Peninsular Malaysia.

The criteria that will be used to identify the informant or respondent is E-customers who have made hotel reservations on-line either through hotel websites or through the website travel agencies websites.

Sample size: Based on Krejcie and Morgan (1970) if the population in this study of 72 hotel then the appropriate sample size used in this study are 63 hotels:

$$17+9+4 = 30$$

According to Hair *et al.* (2010) total observations of a sample should exceed the variable (Table 2). Accurate minimum sample size is minimum 5 and maximum of 10 observations. Using 5-10 as the number of observations by 30 variables (Table 3), therefore, the respondents estimated between 150-300 ((5×30)-(10×30)). Between 150-300, we choose 300 as respondents in this study.

Measurement

E-commerce service quality: Researchers will measure the E-commerce service quality by using 17 items, based on the work by Eid (2011) using a Likert scale of 1-5 which includes "strongly disagree" to "strongly agree".

Table 1: Number of above three stars hotel on the East Coast of Peninsular Malaysia

States	Rating (star)			Total
	5	4	3	
Pahang	5	15	23	43
Kelantan	1	2	7	10
Terengganu	4	5	10	19
Total	10	22	40	72

Ministry of Tourism Malaysia

Table 2: Number of sample size based on population

Total population	Total sample
75	63
70	59

Krejcie and Morgan (1970)

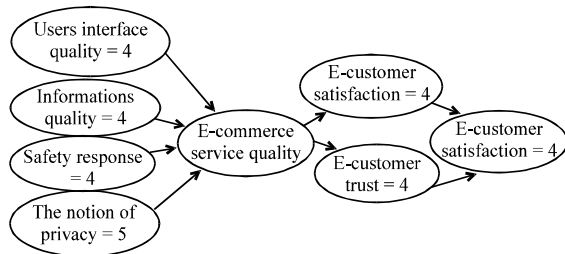


Fig. 3: Conceptual model of E-commerce service quality, customer satisfaction, customer trust and customer loyalty

It involves four dimensions including user interface quality, information quality, perceived safety and the notion of privacy Fig. 3.

E-customer satisfaction: Questionnaire on E-customer satisfaction consists of 4 questions are also based on the work of Eid (2011). Grant scores using Likert scale of 1-5 which includes “strongly disagree” to “strongly agree”.

E-customer trust: This study contains 5 questions related to E-customer trust. These questions are also based on the research of Eid (2011). E-customer trust is based on the perception among respondents to each statement reflects the true state of their faith in online purchasing. Perception may be measured based on the level of agreement for each statement involved using a 1-5 Likert scale that includes “strongly disagree”to “strongly agree”.

E-customer loyalty: Questionnaires on E-customer loyalty consists of 4 questions, based on the research of Eid (2011). E-customer loyalty is based on the perception among respondents to each statement reflects their loyalty to buy online and will continue to buy on-line in the future. Perception may be measured based on the level of agreement for each statement involved using a 1-5 Likert scale that includes “strongly disagree” to “strongly agree”.

Design of the questionnaire: The study involved the collection of quantitative data using a questionnaire as an instrument. The questionnaire involved using a closed question format ‘close-ended question’ which requires the respondent to answer the statement by selecting a predetermined scale. The questionnaire consists of five parts as follows:

- Personal information questionnaire
- E-commerce service quality

- E-customer satisfaction
- E-customer trust and E-customer loyalty

Pilot studies: Pilot study is important to be conducted prior to a questionnaire distributed to the actual survey respondents. According to Ghazali a pilot study to test the questionnaire, subjects receiving and arranging the experiment so that more perfect. It includes to improve instruction and the content of the questionnaire in terms of language style for easyunderstood:

- To ensure long or short statements and the time period used forcomplete all the questions involved
- To determine the reliability coefficient of each variable and the dimensions usedin the survey
- The validity of an instrument to ensure it measures the real thing to be measured
- The need to improve the questionnaire by adding or subtracting items

A pilot study will be conducted on three of three stars on the state of Pahang in early January 2014. Through, this pilot study, 30 respondents will be selected and given questionnaires prior to the actual study done. Respondents were foreign tourists who have booked a hotel room online. According to Heiman (1998) a pilot study should use the respondents have in common in terms of shape and the characteristics of the actual respondents of the study. Based on these reasons the pilot study respondents will meet the same criteria and have real equality survey respondents as later. Respondents were asked to give comments that include sentence structure used the overall level of understanding, the questions deemed difficult to understand and confusing, other relevant comments and the time taken to complete the questionnaire. The findings of the study enabled the researcher to make some changes and modifications in structure and wording to make it more easily understood. The time period used to answer the questionnaire ranged from 30-50 min.

Procedure for data collection: In the form of a questionnaire that will be distributed, researchers will attach a written description of the user fill out a form in order to avoid respondents make mistakes and run into any difficulties. Respondents were also asked to fill it in good faith based on opinion or evaluation alone without taking other people’s opinions. Questionnaires were distributed to 300 hotel’s client. Customers will be given to answer the questionnaire at check-in hotel. Each hotel will be a grace period of 1-3 weeks to collect and return all questionnaires were answered.

RESULTS AND DISCUSSION

Statistical data analysis: Data collected will be tested with Confirmatory Factor Analysis (CFA) to assess the construct-construct pre-tested goodness-fit of the proposed research model using SEM. AMOS software will be used when performing the SEM to obtain the relationship between the constructs-constructs in the survey simultaneously and will be tested with the model proposed. Goodness-of-Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI) will be used to find the goodness-of-fit of the proposed model. Baseline Comparisons Indexes, Normed Fit Index (NFI), Tucker-Lewis Index (TLI) and the Comparative Fit Index (CFI) is another set of statistical goodness-of-fit which will also be used to support the hypothesized model. Root Mean Square Error of the Approximation (RMSEA) for the proposed model will also be available to identify the appropriate error estimates for the model before the model is acceptable (Hair *et al.*, 2010). SEM also is used to test hypotheses that have been proposed.

CONCLUSION

According to the theory have shown that E-commerce service quality will influence customer satisfaction with the services associated consumer confidence is also one mediator that will influence customer loyalty in using the website as a substitute for traditional purchases. But, most research is done in western countries. Therefore, the researchers decided to study in Malaysia and in the hospitality industry.

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