

Customer Satisfaction in Online Shopping in Growing Markets: An Empirical Study

Syed Shah Alam, MAHSA University, Jenjarom, Selangor, Malaysia

Mohd Helmi Ali, Universiti Kebangsaan Malaysia, Bangi, Malaysia

Nor Asiah Omar, Universiti Kebangsaan Malaysia, Bangi, Malaysia

Wan Mohd Hirwani Wan Hussain, Universiti Kebangsaan Malaysia, Bangi, Malaysia

ABSTRACT

The aim of this study is to examine the factors affecting customer satisfaction in online shopping. The conceptual model for this study was developed based on the previous research in the online shopping context. In this research, ten hypotheses on factors affecting customer satisfaction in online shopping are outlined with empirical data from 337 respondents. Data was collected through a Google form. The regression results show that customer service, information quality, response time, transaction capability, delivery, merchandise attributes, security/privacy, convenient payment method, and price have significant positive influence on customer satisfaction in online shopping. From a managerial viewpoint, this study results provide support for investment decisions for customer satisfaction from online retailers in Malaysia.

KEYWORDS

Empirical Study, Malaysia, Online Shopping, Satisfaction

INTRODUCTION

Customer satisfaction is one of the main topics in marketing, psychology, and consumer research. Researchers argue that customer satisfaction is the result of a customer's observation of the value received from the product or service what is expected in buying decision and needs associated with the buying. According to Zeithaml and Bitner (2003) satisfaction evaluate by the customers about particular product or service, to check whether it has met the expectations and needs. Researcher indicated that profitability of a firm is depending on the customer satisfaction (Zeithaml, 2000). As customers are the main source of firm's revenue, thus researchers and academicians always giving importance on customer satisfaction research.

Purchasing through electronic medium is considered as online shopping where everybody can purchase any time and any location through Internet. There are many types of online shopping. In this research we considered business to consumer (B2C) online shopping where consumers buying

DOI: 10.4018/IJABIM.2020010105

This article, originally published under IGI Global's copyright on January 1, 2020 will proceed with publication as an Open Access article starting on February 1, 2021 in the gold Open Access journal, International Journal of Asian Business and Information Management (converted to gold Open Access January 1, 2021), and will be distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>) which permits unrestricted use, distribution, and production in any medium, provided the author of the original work and original publication source are properly credited.

their products and services directly from the online retailers. Now-a-days online business portals offers varieties of products to the consumers. Online researchers are well informed that annually online B2C sales volume increasing at a very high rate. According to Ecommerce Foundation (2016) globally 1.4 billion people purchase product and/or services at least one through online, in which they spent 2,272.7 billion dollars online with the annual growth rate of 19.9%. Another report eMarketer (2016) highlighted that it was expected to retail online sales 1.915 trillion dollar in 2016, accounting for 8.7% of total retail spending worldwide and also expecting by 2020 in Asia-Pacific total online retail sales will be 2.725 trillion dollars with growth rate of 31.5%.

In Malaysia online shopping fast gaining popularity because it is offering wide selection of goods and service and convenience shopping environment. Over the past few years due to increased penetration of mobile devices and affordable Internet services in Malaysia the e-commerce market has been growing steadily. According to HKTDC Research (2017) report, currently one third of total Malaysian buy product and services online. Another report by Euromonitor highlighted by HKTDC (2017) Research that online retail sales in Malaysia increased from MYR1.0 billion in 2011 to MYR2.4 billion in 2016, in which the average growth rate is 18.5%.

Due to the rapid growth of online shopping in Malaysia it is emphasizes the importance of focusing customer satisfaction issue while developing online retail store. According to Kim and Stoel (2004) customer will not return to the online outlet if they are not satisfied with their shopping experience through online. Compare to the developed countries online customers, Malaysian customers are different in terms of trust of buying through online. Customers in Malaysia are very cautious in buying decision and also they are very price sensitive. Thus, it is very important to Malaysian to examine the factors that affect online shopping satisfaction.

To gain competitive advantage, it is important to the companies to understand their customers very well, so that they can serve better and continuously. Researcher like Garver and Gagnon (2002) show that market orientation and customer satisfaction have direct relationship between customer satisfaction and organizational performance. In this competitive online business environment, it is also important for the online retail stores to know how to satisfy their customers. This will ultimately assist them to sustain their growth and market share (McKenney et al., 2002).

PROBLEM STATEMENT

The rapid growth of online retail stores creates new era of competition. It is important for the online retailers to differentiate themselves from one to another and to become market leader they need present themselves well to consumers. On the other hand, online consumers claimed that they are still unsatisfied with their buying experiences through online. The main reason is that consumers are unsatisfied because they do not have enough and actual information during their purchasing time. Due to aggressive competition in online retailing context it is crucial for the online retailers to identify the factors that affects their satisfaction level of online consumers. Thus, the main intention of this research is to examine the factors that affecting satisfaction of Malaysian online consumers.

According to Shore (1998) and Spanos et al. (2002) due to cultural differences information system research results limit the generalizability from one country to another country context. Other researchers also identified customer behavior and satisfaction differ in different culture, logistics and credit context (David, 2007; Sharma et al., 1995; Gentry, 1982). This justified that examine the factors of online shopping customer satisfaction in Malaysia may be different from that of other countries. Moreover, there is a dearth of research on online shopping customer satisfaction on Malaysian context, so little known about the variable of Malaysian online shopping customer shopping.

LITERATURE REVIEW

Relevant Empirical Study

Recently Rajesh (2018) identified factors affecting online shopping and its customer satisfaction in India. Using non-parametric data this study used Mann Whiney U test to analyse the data. This study results identified both male and female equally accepted good after sales service, return policy, clarity about terms and conditions, time consuming process are important factors affecting online customer satisfaction.

Yilan and Suyun (2016) conducted an empirical study on the factors affecting customer satisfaction based on B2C online shopping. This study results reveal that service value, enterprise image, product value and website security have significant effect on customer satisfaction in online context. A study conducted in China on empirical factors affecting customer satisfaction and re-purchase intention in online store. This study results show that convenience, price, product information, financial risk, return policy, delivery risk and product risk have significant effect on customer satisfaction (Khan et al., 2015).

Fang (2014) studied on students e-satisfaction in China and found that service quality, quality of logistics distribution, core value of products, network shopping safety, return policy and online shopping core advantage have positive significant effect on customer satisfaction, whereas customer expectations has negative significant effect. Another study conducted in India by Singhal and Shekhawat (2014) on customer satisfaction in online shopping experience of tourism products and confirmed that ease of website, accuracy of information, speed and price, ease of accessing websites, customized products availability and loyalty for online portals have significant effect on customer satisfaction in online context.

FACTORS AFFECTING CUSTOMER SATISFACTION IN ONLINE SHOPPING

There are a number of previous empirical researches relevant to this study. These include those addressing the factors that have significant influence on customer satisfaction in online shopping (Liu et al., 2008; Singhal, & Shekhawat, 2015; Kaur & Wei, 2013; Khan et al., 2015). There are few factors identified from the previous research which are found to be significant (please

Table 1. Factors influencing e-satisfaction

Independent Variable	Author and Year
Convenience	Szymanski, & Hise, 2000; Moharrer et al., 2013; Ranjbarian et al., 2012
Website design	Liu et al., 2008; Kaur & Wei, 2013; Szymanski & Hise, 2000; Heiner et al., 2004
Customer service	Liu et al., 2008; Kaur & Wei, 2013
Trust	Dash, 2012
Information quality	Liu et al., 2008; Kaur & Wei, 2013
Response time	Liu et al., 2008; Kaur & Wei, 2013
Transaction capability	Kim, & Stoel, 2004; Liu et al., 2008; Kaur & Wei, 2013
Delivery	Liu et al., 2008; Kaur & Wei, 2013
Merchandise attributes	Liu et al., 2008; Kaur & Wei, 2013; Szymanski & Hise, 2000; Heiner et al., 2004; Ranjbarian et al., 2012
Security/privacy	Liu et al., 2008; Kaur & Wei, 2013
Price	Liu et al., 2008
Product variety	Dash, 2012; Szymanski & Hise, 2000
Financial security	Szymanski & Hise, 2000; Dash, 2012

refer Table 1). In this research we utilize ten factors i.e. website design, customer service, information quality, response time, transaction capability, delivery, merchandise attributes, security/privacy, convenient payment method and price are used by Liu et al. (2008) and Kaur and Wei (2013).

Website design is one of the most important factors that could help customer to visit website. Liu et al. (2008) identified good website design has significant influence on customer satisfaction in online shopping. Combination effect of colour, website structure, navigation and ease of use are tested by Pastrick (1997) research. Kaur and Wei (2013) study also used website design is one of the predictors for customer satisfaction in online shopping. Shergill and Zhaobin (2005) study found that web site design is one of the important predictors for online shopping.

Logistics efficiency and customer service are another important predictor of customer satisfaction. Chen and Chang (2003) highlighted that in Internet transaction most common complaints are defective product, refund and billing disputed, poor customer service and product exchange and return policies. Kaur and Wei (2013) and Liu et al. (2008) used customer service is one of the important predictors to test customer satisfaction in online shopping.

Information quality, price and variety of merchandise are playing important role for the customer satisfaction in online shopping experience (Liu et al., 2008). According to Bakos (1997) to reduce search cost for customer online store need to provide product and price related information. Peterson et al. (1997) highlighted that higher level of customer satisfaction depends on the higher quality and extensive information. Price and merchandise variety are playing important for decision making. E-satisfaction would be possible if online retail store offers varieties of product and superior product assortment (Szymanski, & Hise, 2000).

Researcher argued that payment mechanisms, privacy/security, speed of operation and transaction capabilities are some of the important factors those online customer satisfaction (Liu et al., 2008). According to Grewal et al. (2004) and Friedman et al. (2000) argued that consumer preferred secured and privacy protected online store than traditional shop. Grabner-Kraeuter (2002) and Yianakos (2002) also mentioned online store lost sales if the infrastructure is not adequate, privacy is not protected and security is a concern and consumer do not trust the online store. Researcher like Chen and Chang (2003) also stated that online shoppers' tolerance power is very low. Dellaert and Kahn (1999) mentioned that on average online shoppers wait for eight seconds for system feedback before bailing out. So, web designers should provide good appearance and functional website with fastest loading time.

RESEARCH MODEL

The research model for this study was developed based on the previous empirical research done on e-satisfaction in different countries (refer to Figure 1). The model examines the factors that affect customer satisfaction in online shopping.

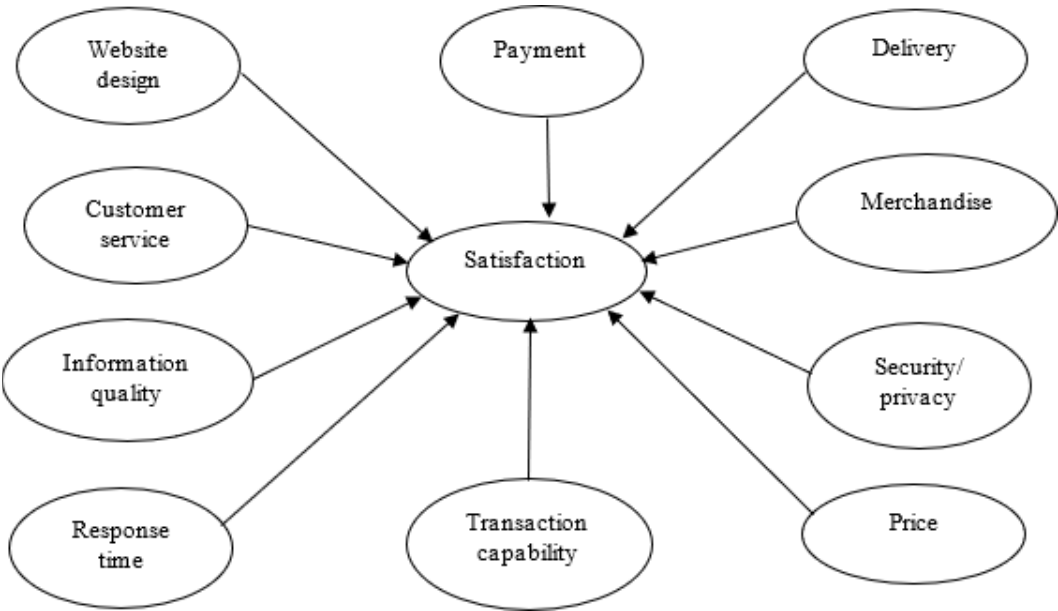
The above schematic diagram of the research model shows the independent and dependent variables relationship. The above research model is the foundation of whole research.

In this research customer satisfaction in online shopping is the dependent variable. To find out the answer to the problem the dependent variable is analyse in this research. Moreover, the independent variables in this research are website design, customer service, information quality, response time, transaction quality, delivery, merchandise, security/privacy, convenient payment method and price.

HYPOTHESES

A series of hypotheses were developed based on the proposed model, are shown below:

Figure 1. A schematic diagram of the research model



Hypothesis 1: There is a significant relationship between website design and customer satisfaction in online shopping.

Hypothesis 2: There is a significant relationship between customer service and customer satisfaction in online shopping.

Hypothesis 3: Information quality will have positive effect on customer satisfaction in online shopping.

Hypothesis 4: Response time will have significant influence on customer satisfaction in online shopping.

Hypothesis 5: Convenient payment method has significant positive influence on customer satisfaction in online shopping.

Hypothesis 6: Good transaction capability will have significant influence on customer satisfaction in online shopping.

Hypothesis 7: Prompt delivery of product or services will have significant positive effect on customer satisfaction in online shopping.

Hypothesis 8: Wider merchandise variety will have a significant positive influence on customer satisfaction in online shopping.

Hypothesis 9: Security/privacy will have a positive effect on customer satisfaction in online shopping.

Hypothesis 10: Lower price of the product and services will have significant influence on customer satisfaction in online shopping.

RESEARCH METHODS

Primary data for this research was gathered through online survey. Questionnaire was uploaded in google form. Students from one public university were asked to respond the questions. It was clearly mentioned to the students that anybody purchase online at least one product can be the respondent for this survey. A total of 337 were responded our questionnaire.

Bivariate frequency distribution of the respondents was done based on age, gender and race and other question related online shopping.

Regression analysis was used to test ten hypotheses. The analysis enabled us to test the individual impact of independent variables on customer satisfaction in online shopping.

Female respondents were the majority (56.97%) in this research, more than 60% (62.61%) of the respondent's age between 19 and 24. Malay group was the highest contributors of the total respondents (55.49%) and the second highest group is represented by Chines with 39.76%.

Most of the respondents spent 1-2 hours on Internet (29.97%), 2 to 3 hours (37.09%), 3 to 4 hours (22.84%) and only 10.97% respondents spent less than 1 hour every day. More than 40% of the respondent buy online frequently (47.77%).

Data Collection Instrument

Structured closed ended questionnaire was used to collect the data. The measures of website design were adapted from Shergill and Chen (2005). Customer service, information quality, privacy/security were adapted from Ariff et al. (2013). Response time, transaction capability, delivery, merchandise, convenient payment and price were measured using scale developed by Liu et al. (2008). In the first section of the questionnaire included questions regarding demographic profile of the respondents. The second section consisted of questions measuring factors that affect customer satisfaction in online shopping using 6-point Likert scale ranging from 1 = strongly disagree to 6 = strongly agree. The third part of the questionnaire included questions regarding online shopping habits such as how many times the respondents bought product through online, how frequent they buy and how they spent in the last 6 months.

Reliability

Cronbach's alpha value suggested by Nunnally (1978) was used to test the internal reliability of the items. Minimum value of Cronbach's alpha should be 0.7 suggested by Nunnally. The Cronbach alpha value for customer satisfaction was 0.839, website design was 0.812, customer service was 0.901, information quality was 0.786, response time was 0.841, transaction capability was 0.795, delivery was 0.817, merchandise was 0.764, security/privacy was 0.883, convenient payment method was 0.821 and reasonable price was 0.811. In this study the Cronbach's alpha for all constructs were much higher than 0.7, therefore the constructs deemed to have adequate reliability.

Test for Construct Validity: Factor Analysis

A factor analysis was conducted in order to develop factors that help in explaining the role of experience and reference group in online brand trust. As suggested by Hair et al., (1995), ten factors were identified for the factor analysis using the eigen value criteria that suggest extracting factors with an eigenvalue of greater than 1.0. In conducting the factor analysis we followed Hair et al (1995). The ten factors identified explained 69.07 percent of the total variance. The extraction method used was principal axis factoring with Varimax rotation. This method has been widely accepted as a reliable method of factor analysis (see, Alexander and Colgate, 2000). In our survey, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy score (0.793) was well above the recommended 0.5 level (Malhotra, 1999).

Normality of Data and Multi-Collinearity

This study involves a relatively large sample (377 respondents) and therefore, the Central Limit Theorem could be applied and hence there is no question on normality of the data. Two major methods were utilized in order to determine the presence of multicollinearity among independent variables in this study. These methodologies involved calculation of both a Tolerance test and Variance Inflation Factor (VIF) (Kleinbaum et al, 1988). The results of these analyzes are presented in Table 3. As can be seen from this data, i) none of the Tolerance levels is <or equal to 0.1; and ii) all VIF values are well below 10. Thus, the measures selected for assessing independent variables in this study do not reach levels indicate of multicollinearity. The acceptable Durbin – Watson range is between 1.5 and

2.5. In this analysis Durbin – Watson value of 1.924, which is between the acceptable ranges, show that there were no auto correlation problems in the data used in this research. Thus, the measures selected for assessing independent variables in this study do not reach levels indicate of multicollinearity.

HYPOTHESES TESTING

The strength of the proposed hypothetical relationship was assessed using the respective statistical analyses summarized in Table 4.

Hypothesis 1: There is a significant relationship between website design and customer satisfaction in online shopping.

The results of this study show that the relationship between website design and customer satisfaction in online shopping is not significant. The multiple regression result shows that website design have t-value 1.567; p-value = 0.113. This evidence proved that, the null hypothesis could not be rejected. These results indicate that those buying through online are not very serious about the website design of the online retailers.

Hypothesis 2: There is a significant relationship between customer service and customer satisfaction in online shopping.

Customer service is one of the important factors that affect customer satisfaction in online shopping. Most of the consumers are concerned about customer service. The results of this study show that there is a significant relationship between customer service and customer satisfaction in online shopping. This relationship is significant at 0.001 level. Accordingly, the hypothesis 2 could not be rejected. The direction of the association is positive in which it indicates that the more improvement of customer service provided by the online retailers, the higher will be satisfaction of online buyers.

Hypothesis 3: Information quality will have positive effect on customer satisfaction in online shopping.

The third hypothesis is test in this research has found another important predictor that has significant relationship on customer satisfaction in online shopping. Researcher like Liu et al. (2008) also confirmed this research result. The regression results (t-value = 2.596; p-value = 0.01) indicates that the association between information quality and customer satisfaction in online shopping is positive and significant.

Hypothesis 4: Response time will have significant influence on customer satisfaction in online shopping.

Multiple regression result shows that response time is a significant predictor of customer satisfaction in online shopping (t-value = 5.891; p-value = 0.001), which lends support to fourth hypothesis and similar finding reported in Liu et al. (2008). It is expected since past literature has consistently shown that response time has a significant and positive effect on customer satisfaction in online shopping (Kaur and Wei, 2013). This finding suggests that when online consumer finds online retail store response to their query promptly, they satisfied is more likely.

Hypothesis 5: Convenient payment method has significant positive influence on customer satisfaction in online shopping.

Convenient payment method is another important predictor for customer satisfaction in online satisfaction. Studies like Liu et al. (2008) has generally shown that convenient payment methods of an online retail shop have a positive influence on customer satisfaction in online shopping. From the Table 2, regression analysis convenient payment method showed significant influence over customer satisfaction in online shopping (t-value = 4.763; p-value = 0.001). This research therefore further proves the earlier findings.

Hypothesis 6: Good transaction capability will have significant influence on customer satisfaction in online shopping.

Transaction capability also significantly associated with customer satisfaction in online shopping. Positive sign shows that there is a positive relationship between transaction capability and customer satisfaction in online shopping. Previous studies also found that transaction capability has significant positive effect on customer satisfaction in online shopping (Kim, & Stoel, 2004; Liu et al., 2008; Kaur and Wei, 2013). Multiple regression analysis shows the results of transaction capability (t-value = 5.114; p-value = 0.001), indicating that transaction capability is another very important predictor for customer satisfaction in online shopping.

Hypothesis 7: Prompt delivery of product or services will have significant positive effect on customer satisfaction in online shopping.

Multiple regression analysis shows results of (t-value = 3.856; p-value = 0.001), implying that there is positive and significant relationship between prompt delivery of product and customer satisfaction in online shopping. This research further proves earlier findings that showed delivery of product and services as having positive and significant effect on customer satisfaction in online shopping (Liu et al., 2008; Kaur and Wei, 2013).

Hypothesis 8: Wider merchandise variety will have a significant positive influence on customer satisfaction in online shopping.

Previous researches finding shown that wider merchandise variety played a vital and significant role on customer satisfaction in online shopping (Liu et al., 2008; Kaur and Wei, 2013; Szymanski & Hise, 2000; Heiner et al., 2004; Ranjbarian et al., 2012). The regression results (t-value = 4.213; p-value = 0.001) of this study shown positive and significant effect of merchandise variety on customer satisfaction in online shopping.

Hypothesis 9: Security/privacy will have a positive effect on customer satisfaction in online shopping.

When customer feels privacy and security are protected, they are more likely to product from online retail shop. Studies like those carried out by Liu et al. (2008), Kaur and Wei (2013) and Dash (2012) have generally shown that privacy and security concern is one of most important predictors for satisfaction in online shopping. The results of this study show that when customer is not fear about security and privacy the degree of satisfaction is high. Regression analysis shown results of security/privacy (t-value = 6.354; p-value = 0.001) indicating that security/privacy is most important factor affect customer satisfaction in online shopping. All of the previous studies show that security/privacy positively associated with customer satisfaction in online shopping.

Hypothesis 10: Lower price of the product and services will have significant influence on customer satisfaction in online shopping.

Table 2. Factor analysis

Determinant Factors	Factor Loading	Cronbach's α
Website Design		
This website provides in-depth information	0.723	0.812
It is quick and easy to complete transaction at this web site	0.745	
I feel comfortable in surfing this site	0.763	
This website has a good selection	0.721	
It is easy to use this website	0.733	
The level of personalization at site is about right, not too much or too little	0.758	
Customer Service		
The website showed a sincere interest in solving the problem when I face it	0.782	0.901
Inquiries are answered promptly	0.801	
The company is willing and ready to respond to customer needs	0.813	
Information quality		
The website provides accurate information	0.780	0.786
The website provides timely information	0.728	
The website provides relevant information	0.754	
Information provided was easy to understand	0.789	
The website provides details information	0.762	
Response time		
The website loads quickly	0.756	0.841
When I use the website there is very little waiting time between my actions and the website's response	0.725	
	0.719	
Convenient payment		
This website has convenient payment method	0.785	0.821
This website has complete payment options	0.777	
I accept the payment method provided by the website	0.767	
Transaction capability		
Most business processes can be completed via the website	0.782	0.795
All my business with the company can be completed via the website	0.798	
Delivery		
The product is delivered by the time promised by the company	0.658	0.817
You get what you ordered from this site	0.692	
The items sent by the site are well packaged and perfectly sound	0.687	
I am satisfied with delivery mode of the website	0.666	
Merchandise		
The product range of this website is complete	0.595	0.764
The products of other similar websites can be found at this site	0.652	
Most of the goods I need can be found at this site	0.673	
There are more choices for goods of a particular type at this site	0.671	
Privacy/security		
I feel my privacy was being protected by this site	0.725	0.883
The transaction of the website makes me feel sage	0.812	
The website provides adequate security features	0.816	
Price		
The general pricing of the website's goods is relatively low (goods price plus delivery price)	0.701	0.811
This website has bigger offering of lucky draw and discounts than similar websites	0.723	
Satisfaction		
If I had to do it over again, I'd make my most recent online purchase at this website	0.762	0.839
My choice to purchase from this website was a wise one	0.792	
I have truly enjoyed purchasing from this website	0.813	
I am satisfied with my most recent decision to purchase from this website	0.841	

Table 3. Test of collinearity

Variable	Tolerance	VIF
Website design	.732	2.312
Customer service	.699	2.861
Information quality	.743	1.963
Response time	.761	2.102
Convenient payment	.742	2.561
Transaction capability	.776	2.111
Delivery	.725	2.873
Merchandise	.801	2.914
Privacy/Security	.794	2.765
Price	.736	1.895

Table 4. Regression results

Variables	t-Value	p-Value
Website design	1.567	.113
Customer service	4.952	.000
Information quality	2.596	.01
Response time	5.891	.000
Convenient payment	4.763	.000
Transaction capability	5.114	.000
Delivery	3.856	.000
Merchandise	4.213	.000
Privacy/Security	6.354	.000
Price	2.634	.01

Low price of the product and services are the important predictor on customer satisfaction in online shopping. Regression analysis showed that price having (t-value = 2.634; p-value = 0.01) indicating that price has significant influence customer satisfaction in online shopping in Malaysia. This is consistent with the study done by Liu et al. (2008).

LIMITATION AND FUTURE DIRECTION

It is important to recognize the limitation of this research. Firstly, since the survey was conducted among respondents from google form, the results should be interpreted with caution, particularly with respect to the generalization of research findings of Malaysian consumer as a whole. Secondly, the sample size is not big enough. A larger sample size is desirable to get accurate Malaysian consumers perception regarding satisfaction level. Further research is needed to focus on a larger cross sectional analysis in the context of online shopping and more diversified random samples to verify the findings of this present study. It is also suggested to use structural equation model to test hypotheses in future.

Implication

- The findings of this research have both research and managerial implications. Customer service and delivery plays an important role for the Malaysian online consumer's satisfaction level. Due to the competition in online business it is important for the online sellers to keep close monitoring on customer services and on time delivery. Delayed delivery and poor customer services will cause customer dissatisfaction. Lack of modern delivery system in Malaysia make customer unhappy. So, it is suggested that online sellers representative should answer customer inquiries and once the problem occurs, they need to solve the problem immediately;
- Complete and detailed services and product information is required. Online context customer cannot see the products and services as it is intangible. Customer has to rely fully on online displays. Therefore, to satisfy customer in online context online retailers should provide understandable and clear information at the transaction time. At the same time online seller should provide all required information, colour, design etc. on their websites;
- Consumer data safety and transaction security is another important concern online buyers. Therefore, online sellers should provide support to protect individual customer data and information and need to assure to the customer by improving their technological system. Annoying factors such as taking longer time to place an order online, difficult to access to the website, availability of product and services online, and mistakes in filling orders online are needed to consider online retailers.

CONCLUSION

The results analyse for this research indicated the relationship between factors affecting customer satisfaction in online shopping. More specifically, customer service, information quality, response time, transaction capability, delivery, merchandise attributes, security/privacy, convenient payment method and price exhibit significant association with customer satisfaction in online shopping. The analytical results are consistent with previous studies. Privacy/security has received the most consistent support as factors that influence customer satisfaction in online shopping. Marketers need to realize that online marketing environment affects the way consumers view and develop relationship. Privacy/security is single most important predictor in online buying environment. Furthermore, it was also found that, for online buyers, response time is considered as the best predictor when compared to other constructs.

Experience buyers are different from other inexperience buyers in online shopping context. Therefore, experience gained over time has potential implications for the other buying behavior model and future research should be conducted in this area.

Regardless of some limitations, this study makes some notable contributions. First, we review previous literature in this area and develop a conceptual framework and also find out both and absolute and relative vie of the gap. Secondly, in this research we analyse factors affecting customer satisfaction in online shopping that owes its foundation to existing research and extends, thus unifying and advancing the field of knowledge.

REFERENCES

- Alexander, N., & Colgate, M. (2000). Retail Financial Services: Transaction to Relationship Marketing. *European Journal of Marketing*, 34(8), 938–953. doi:10.1108/03090560010331432
- Ariff, M. S. M., Yan, N. S., Zakuan, N., Bahari, A. Z., & Jusoh, A. (2013). Web-based Factors Affecting Online Purchasing Behaviour. *IOP Conference Series. Materials Science and Engineering*, 46(1).
- Bakos, J. Y. (1997). Reducing buyer search costs: Implications for electronic marketplaces. *Management Science*, 43(12), 1676–1692. doi:10.1287/mnsc.43.12.1676
- Chen, S. J., & Chang, T. Z. (2003). A descriptive model of online shopping process: Some empirical results. *International Journal of Service Industry Management*, 14(5), 557–569. doi:10.1108/09564230310500228
- Dash, A. (2012). Online shopping and customer satisfaction: An Empirical investigation. *International Journal of Research in Management. Economics and Commerce*, 2(11), 42–49.
- David, M. (2007). Culture, context, and behavior. *Journal of Personality*, 75(6), 1285–1320. doi:10.1111/j.1467-6494.2007.00476.x PMID:17995466
- Dellaert, B., & Kahn, B. (1999). How tolerable is delay? consumers' evaluations of internet web sites after waiting. *Journal of Interactive Marketing*, 13(1), 41–54. doi:10.1002/(SICI)1520-6653(199924)13:1<41::AID-DIR4>3.0.CO;2-S
- Ecommerce Foundation. (2016). Global B2C E-commerce Report 2016. Retrieved from https://www.ecommercewiki.org/wikis/www.ecommercewiki.org/images/5/56/Global_B2C_Ecommerce_Report_2016.pdf
- eMarketer. (2016). *Worldwide Retail Ecommerce Sales Will Reach \$1.915 Trillion This Year*. Retrieved from <https://www.emarketer.com/Article/Worldwide-Retail-Ecommerce-Sales-Will-Reach-1915-Trillion-This-Year/1014369>
- Fang, S. (2014). Empirical Study of Influential Elements of University Students' E-satisfaction. *International Journal of Business and Social Science*, 5(6), 122–129.
- Friedman, B., Peter, H. K. Jr, & Howe, D. C. (2000). Trust online. *Communications of the ACM*, 43(12), 34–40. doi:10.1145/355112.355120
- Garver, M. S., & Gagnon, G. B. (2002). Seven keys to improving customer satisfaction programs. *Business Horizons*, 45(5), 35–42. doi:10.1016/S0007-6813(02)00241-0
- Gentry, J. W. (1982). The impact of credit decisions on shopping behavior. *Advances in Consumer Research. Association for Consumer Research (U. S.)*, 9, 385–388.
- Grabner-Kraeuter, S. (2002). The role of consumers' trust in online-shopping. *Journal of Business Ethics*, 39(1/2), 43–51. doi:10.1023/A:1016323815802
- Grewal, D. I., Gopalkrishnan, R., & Levy, M. (2004). Internet retailing: Enablers, limiters and market consequences. *Journal of Business Research*, 57(7), 703–713. doi:10.1016/S0148-2963(02)00348-X
- Hair, J. F. Jr, Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate Data Analysis* (3rd ed.). New York: Macmillan Publishing Company.
- Heiner, E., Gopalkrishnan, R. I., Josef, H., & Dieter, A. (2004). E-satisfaction: A re-examination. *Journal of Retailing*, 80(3), 239–247. doi:10.1016/j.jretai.2004.08.002
- HKTDC Research. (2017). Malaysia: Online Retailing Opportunities. Retrieved from <http://economists-pick-research.hktdc.com/business-news/article/Research-Articles/Malaysia-Online-Retailing-Opportunities/rp/en/1/1X000000/1X0A94DB.htm>
- Kaur, K., & Wei, N. P. C. (2013). An empirical study of online shopping customer satisfaction in Malaysia: a holistic perspective. In *Proceedings of the International Conference on Information Technology Infrastructure*, Kuala Lumpur, Malaysia. Academic Press.
- Khan, S. A., Liang, Y., & Shahzad, S. (2015). An empirical study of perceived factors affecting customer satisfaction to re-purchase intention in online stores in China. *Journal of Service Science and Management*, 8(3), 291–305. doi:10.4236/jssm.2015.83032

- Kim, S., & Stoel, L. (2004). Apparel retailers: Website quality dimensions and satisfaction. *Journal of Retailing and Consumer Services*, 11(2), 109–117. doi:10.1016/S0969-6989(03)00010-9
- Kleinbaum, D. G., Kupper, L. L., & Muller, K. E. (1988). *Applied Regression Analysis and Other Multivariate Methods*. Boston: PWS.
- Liu, X., He, M., Gao, F., & Xie, P. (2008). An empirical study of online shopping customer satisfaction in China: A holistic perspective. *International Journal of Retail & Distribution Management*, 36(11), 919–940. doi:10.1108/09590550810911683
- Malhotra, N. K. (1999). *Marketing research: An applied orientation* (3rd ed.). New Jersey: Prentice Hall.
- McKinney, V., Kanghyun, Y., & Zahedi, F. M. (2002). The measurement of web-customer satisfaction: An expectation and disconfirmation approach. *Information Systems Research*, 13(3), 296–315. doi:10.1287/isre.13.3.296.76
- Moharrer, M., Tahayori, H., & Sadeghian, A. (2013). Drivers of Customer Satisfaction in Online Tourism-The Case of European Countries. *Middle East Journal of Scientific Research*, 13(9), 1172–1179.
- Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed.). New York, NY: McGraw Hill.
- Pastrick, G. (1997). Secrets of great site design. *Internet User*, (Fall), 80-87.
- Peterson, R. A., Sridhar, B., & Bart, J. B. (1997). Exploring the implications of the internet for consumer marketing. *Journal of the Academy of Marketing Science*, 25(4), 329–346. doi:10.1177/0092070397254005
- Rajesh, R. (2018). Evaluating the Factors Influencing Online Shopping and its Consumer Satisfaction in Pune Area. *PEOPLE: International Journal of Social Sciences*, 4(1), 54–76.
- Ranjbarian, B., Fathi, S., & Rezaei, Z. (2012). Factors Influencing on Customers' E-Satisfaction: A case Study from Iran. *Interdisciplinary Journal of Contemporary Research in Business*, 3(9), 1496–1511.
- Sharma, A., Grewal, D., & Levy, M. (1995). The customer satisfaction/logistics interface. *Journal of Business Logistics*, 16(6), 1–21.
- Shergil, G. S., & Zhaobin, C. (2005). Web-based shopping: Consumers' attitudes towards online shopping in New Zealand. *Journal of Electronic Commerce Research*, 6(2), 79–94.
- Shore, B. (1998). IT Strategy: The Challenge of over-regulation, culture, and large scale collaborations. *Journal of Global Information Technology Management*, 1(1), 1–4. doi:10.1080/1097198X.1998.10856220
- Singhal, S., & Shekhawat, S. (2015). An Empirical Study of Customer Satisfaction in Online Shopping Experience of Tourism Products in India. *International Journal of Scientific Engineering and Research*, 3(6), 61–64.
- Spanos, Y. E., Prastacos, G. P., & Poulymenakou, A. (2002). The relationship between information and communication technologies adoption and management. *Information & Management*, 39(8), 659–675. doi:10.1016/S0378-7206(01)00141-0
- Szymanski, D. M., & Hise, R. T. (2000). E-satisfaction: An initial examination. *Journal of Retailing*, 76(3), 309–322. doi:10.1016/S0022-4359(00)00035-X
- Yianakos, C. (2002). Nameless in cyberspace: Protecting online privacy. *Journal of Banking and Financial Service*, 116(6), 48–49.
- Yilan, Y., & Suyun, D. (2016). Empirical Study for the Influence Factors of Customer Satisfaction Based on B2C Online Shopping. *Journal of Computational and Theoretical Nanoscience*, 13(12), 10364–10368. doi:10.1166/jctn.2016.6166
- Zeithaml, V. A. (2000). Service quality, profitability, and the economic worth of customers: What we know and what we need to learn. *Journal of the Academy of Marketing Science*, 28(1), 67–85. doi:10.1177/0092070300281007
- Zeithaml, V. A., & Bitner, M. J. (2003). *Service Marketing: Integrating Customer Focus Across the Firm*. New York: Mc-Graw Hill.

Syed Shah Alam is an Associate Professor at the Faculty of Business, Finance and Hospitality, MAHSA University Malaysia. Prior to joining to MAHSA University Malaysia, he taught at Universiti Kebangsaan Malaysia (UKM), Universiti Teknologi MARA (UiTM) and Multimedia University Malaysia (MMU). Dr Alam is the recipient of an "Excellent Service Award" at the Universiti Kebangsaan Malaysia in 2011. He has authored for four books (Principles of E-commerce, Essentials of Internet Marketing, Product Management and E-commerce in Malaysia- Issues and Cases) and more than 100 academic articles in Entrepreneurship, Business and E-commerce area. Over the past 5 years he has been actively involved in enterprises development program in Malaysia with a special interest in participatory action research and enterprises projects. He focuses on developing and promoting linkages and collaborative enterprises activities between Malaysian educational and other institutions. He has served as the secretary for "First International Research Conference on Social Business' 2013" held in Universiti Kebangsaan Malaysia.

Mohd Helmi Ali is a senior lecturer at the faculty of economics and management, Universiti Kebangsaan Malaysia. He has published quality journal articles into reputed international journal. His area of research is supply chain management, and halal supply chains.

Nor Asiah Omar is an Associate Professor at the School of Management, Faculty of Economics and Management, Universiti Kebangsaan Malaysia (National University of Malaysia). Her research interests are in the areas of services marketing and management, relationship marketing and consumer behavior. Among others, Dr. Nor Asiah has contributed to the International Journal of Retail and Distribution Management, Journal of Relationship Marketing, Journal of Food Products Marketing, Journal of Islamic Marketing, Measuring Business Excellence, Asian Academy of Management Journal, Journal of Business Economics and Management, and Renewable Energy. She has been actively involved in a variety of research projects.

Wan Mohd Hirwani is a university researcher at Graduate School of Business, UKM and internet marketing entrepreneur. He also specializing in technology transfer, commercialization technology and law. He has been involved in technology transfer activity and commercialization technology from university to the industry. He has published numerous articles in international conference and journal publication. Specialties: Technology Transfer, Commercialization University Research, Innovation Technology, Internet Marketing Strategy. Having over 8 years' experience in internet marketing, search engine marketing (SEM), search engine optimization (SEO), business development, product, service and commercialization technology, he knows how to cost-effectively bring products and services to the market place. He has consulted with hundreds of customers about their business, ecommerce and internet solutions, helping them ensure a return on their technology investment. Dr. Wan Mohd Hirwani Wan Hussain is enthusiastic and professionals, who enjoys being part of, as well as leading, a successful and productive team.