

Factors Associated with Customers' Satisfaction in Online Purchasing: A Study in a Malaysian Public University

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Received Date: 5 July 2020
Accepted Date: 27 July 2020

ABSTRACT

E-commerce has transcended the traditional way of shopping into a new and more efficient way of purchasing. Through this approach, businesses are conducted through the internet in which activities such as information searching, information sharing, products and services purchasing are performed. There are many reasons why online purchasing has become one of the most preferred channels for customers to purchase goods or services. This study is conducted to examine crucial factors related to customers' satisfaction in online shopping and specifically looking at four factors: information quality, service quality, security/privacy and website design and their relationship with customers' satisfaction in online purchasing. 320 questionnaires were distributed through purposive sampling techniques to students from a public university in Malaysia. The findings revealed that website design and information quality were the most impactful factors that influence customer's online purchasing. These findings are useful for online retailers and marketers to understand consumers' behaviour when purchasing online, thus enabling them to develop more effective marketing strategies. For future research, this study suggests that the population of the study should be expanded and other types of variables should be included such as mediating and moderating variables to obtain more accurate and precise findings. It is also suggested that the research could be conducted using random samplings so that the findings can be generalised.

Keywords: e-commerce, customers' satisfaction, online shopping, information quality, service quality, security and privacy, website design.

1. INTRODUCTION

The number of internet users in Malaysia has significantly increased from year to year. In a 2018 survey conducted by the Malaysian Communication and Multimedia Commission, the percentage of internet users in 2017 mounted up to 87.4%, which was 10.5% higher than in 2016 (76.9%). There were approximately about 28.7 million internet users in 2017, and it was an increase from 24.5 million in 2016. With the increasing number of internet users, the number of people who shopped online also increased exponentially. Gupta, Bansal and Bansal (2013) defined online shopping as a form of electronic device for purchasing without any intermediary services

Online shopping allows customers to shop 24 hours a day/7days a week from any location where customers have the internet access. The benefits of online shopping have resulted in an increasing number of internet users for this purpose. According to Jhe (2014), this growing number of online shoppers is a sign of the increasing sense of comfort with the use of the internet for shopping. Customers felt that it is more comfortable to shop online as conventional shopping is usually attributed with anxious, crowded, traffic jams, limited time and parking space (Jarvelainen, 2007). Online shopping also has various open opportunities for the online businesses to grow.

The e-Commerce market in Malaysia, for example, showed a positive trend, with gross value added contributing 6.3% to gross domestic product (GDP) in 2017. Furthermore, value-added for e-Commerce had increased from RM75.0 billion in 2016 to RM85.8 billion in 2017 (MCMC 2018). Companies are extensively using this sales channel to compete with their competitors in the e-commerce market.

In an online environment, customer satisfaction is one of the essential keys, leading to the increasing customers' loyalty, and long-term growth of online stores. Customers must be satisfied with their online shopping experience; otherwise, they will exit the website without buying anything (Kim & Stoel, 2004). Although there are numerous studies have been conducted to determine the factors of customer satisfaction in online shopping activities (Jun, Yang & Kim, 2004; Ballantine, 2005; Cappelli, Guglielmetti, Mattia, Merli & Renzi, 2011), there is still a need for a closer examination on customer satisfaction in specific countries such as Malaysia. This study outlines explicitly four key factors which are information quality, service quality, security/privacy and website design to understand the factors that will determine the satisfaction of the customers in their online purchases. The main objective of this study is to identify the relationship between those four factors and

their satisfaction in online purchase.

2. LITERATURE REVIEW

2.1 Customers Satisfaction

Customer satisfaction is one of the essential factors that will determine an enterprise's survival. Customer satisfaction in the marketing terms describes how products or services supplied by a company meet or exceed a customer's expectation (S, Praveen, 2015). Studies have shown that those businesses with high customers' satisfaction are likely to generate revenue up to 18 times higher compared to those companies with low satisfaction rates.

According to DeLone and McLean (2003), a satisfactory purchase experience would appear to be one requirement that might lead to repurchasing. Nawi, Al Mamun and Raston (2015) further stated that customers' satisfaction would lead to not only repurchase intention but also recommendation of mouth to mouth and loyalty in the long term.

2.2 Information Quality

Gao, Zhang, Wang and Ba (2012) define information quality as how much information is available about the attributes of a product, how brand or company is useful for the customers, and what helps them evaluate such objects. Information plays a vital role in customers' decision-making process, as it would guide them due to the absence of physical interaction with the product in the online environment (Ghasemaghahi and Hassanein, 2013). Customers are not able to deal with a significant quantity of information, considering that the excess of information might not be processed, and a part of the information may be lost, because of the bounded capability of people in processing an excessive amount of data (Zheng, Zhao and Stylianou, 2013). Providing and presenting updated information adequately, appropriately, and correctly, about the products and services are found to have a direct effect on customer's satisfaction and trust towards online purchasing.

There are four dimensions of information quality according to a study conducted by Guo et al. (2012), namely accuracy, content, format and timeliness. These four dimensions of information quality will give satisfaction to customers, especially to those with time constraints and also to impulsive buyers (Kristiano et al., 2012). Thus, the higher quality information provided by the retailers, the better the decisions could be done by the customers in purchasing the products or services. According to this, the first hypothesis for this study is developed as below:

H1: Information quality has a positive relationship with customers' satisfaction towards online shopping.

2.3 Service Quality

Service quality is one of the vital determinants of the success of retailers. Service quality significantly influences customers' satisfaction and intentions to shop online (Cai & Jun, 2003). According to Kotler (2004), the quality of service is a form of consumer assessment of the level of perceived service with the level of service expected value. Service quality has a direct impact on customers in keeping a loyal and robust relationship with the online retailers (Zeithaml, 2002). Online retailers fail primarily due to low-quality services, which are rendered to their customers. Online retailers with excellent service quality have the advantage of learning about their customer's expectation, thus improving their satisfaction (Kristiano et al., 2012).

H2: Service quality has a positive relationship with customers' satisfaction towards online shopping.

2.4 Security and Privacy

Website security is defined as the ability of a website to safeguard any unauthorised use of customers' personal information during an electronic transaction (Guo et al., 2012). In the online shopping world, online buyers are concerned about online payment security, reliability, and privacy policy of the online store (Gefen, D., 2002). When a customer trusts the online sellers, he or she trusts the sellers' capability to protect their privacy, and it is safe to complete an online transaction. The measure of website security, privacy and trust include the protection of private information, safety usage of credit card, security features, trust, and positive experience of online purchasing (Arif et al. 2013; Shergil & Chen 2005). Previous studies have shown that these factors influenced how online buyers rate quality of online sellers, and subsequently affect their online purchase intention (Arif et al. 2013; Shergil & Chen 2005; Niranjnamurthy & Dharmendra, 2013).

H3: Security and privacy has a positive relationship with customers' satisfaction towards online shopping.

2.5 Website Design

In online purchasing, when a customer is satisfied with the quality of the online sellers' website, it will increase his or her involvement in online purchasing

(Boudhayan Ganguly et al., 2010). Online shopping is pleasant and satisfactory to customers when the shopping websites are neat and more comfortable to read and navigate (Pastrick, 1997). Liu et al. (2008) found that a website with good design could lead to better customer impression, recognition and positive attitude towards the website and its goods. Effective website design takes account of navigation capability or visual appeal of the website (Cyr, 2008). Well-designed websites will reduce the time of information search, and avoid the possibilities of mismatch (Luo, Ba and Zhang, 2012). They further pointed out that an excellent website adds value to customers' experience and helps the low visibility retailers on post-purchase satisfaction which in turn, increases the customers' satisfaction.

H4: Website design has a positive relationship with customers' satisfaction towards online shopping.

3. CONCEPTUAL FRAMEWORK

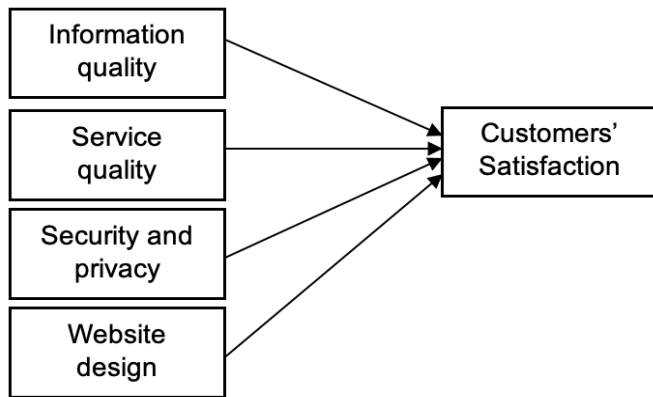


Figure 1: Conceptual Framework (Adapted from Liu, 2008)

4. METHODOLOGY

This study utilised the quantitative research method. Correlational research design was used in order to establish the presence of relationship among variables. This research was conducted in the field study with a non-contrived setting and minimal researchers' interference. Data were collected through a questionnaire survey. The questionnaire's questions used to measure the constructs were adapted from Liu et al., (2008). The researchers used the Likert-type scale to examine how strong the respondents agree and disagree with the statement in the questionnaires. 320 questionnaires were distributed through purposive sampling to 320 postgraduate

students in a public university in Melaka. The respondents were asked whether they have experience in online purchasing before they were given the questionnaire, and only those who have experience in online purchasing at least once were chosen as the respondents of this study.

5. RESEARCH FINDINGS

5.1 Respondent Profile

Table 1 displayed the results of the demographic profile of the respondents. Majority of the respondents of this study were female (75.6%). Majority of them aged between 21-23 years old (60.6%) and had made at least one online purchase (53.1%) in a month. They preferred to make purchases through commercial online websites such as Lazada (53.1) also other online websites.

Table 1: Respondent Profiles

Item		Frequency	Percentage
Gender	Male	78	24.4
	Female	242	75.6
Age	18-20	108	33.8
	21-23	194	60.6
	24-26	13	4.1
	27 and above	5	1.6
Frequency of online purchasing in a month	Once in a month	206	64.4
	2-4 times a month	102	31.9
	5-7 times a month	8	2.5
	More than 8 times a month	4	1.3
Favourite online shopping websites	Lazada	170	53.1
	Zalora	81	25.3
	Mudah.com	63	19.7
	Sephora	44	13.8
	Hermo	53	16.6
	Others	182	56.9

5.2 Correlation Analysis

The findings indicated that the quality of information in an online website is strongly associated with customers' satisfaction ($r = 0.578^{**}$, $p = 0.01$) suggested that if the customer is satisfied with the content provided through the online website, they would somehow be satisfied with their online purchasing. Another factor which is the quality of services of an online website was also strongly associated with customer satisfaction ($r = 0.559^{**}$, $p = 0.01$) suggested that if the customers are

satisfied with the quality of services provided through online websites, the higher their satisfaction will be in online purchasing . Security and privacy of an online website was also strongly associated with customers' satisfaction ($r = 0.489^{**}$, $p = 0.01$). The findings suggested that the trust of customers towards security in online shopping websites will make them feel satisfied with their online purchasing. Website design also showed strong association with customers' satisfaction ($r = 0.648^{**}$, $p = 0.01$) suggested that if the customers are satisfied with the design of the websites, they will probably feel satisfied with their online purchasing.

Table 2: Correlation Analysis

		Info Quality	Service Quality	Security/privacy	Website design
Customers Satisfaction	Pearson Correlation	0.578**	0.559*	0.489**	0.648**
	Sign (2-tailed)	.000	.000	.000	.000
	N	320	320	320	320

5.3 Multiple Regression

Multiple regression analysis was conducted to analyse further on the most significant factors that contributed to customers' satisfaction in online purchasing. According to table 3, all the independent variables (information quality, service quality, security/privacy and website design) together explained about 49% of the variance (R Square) in customers' satisfaction, as indicated by F-Value of 78.426 in the ANOVA table. From the result of standardised coefficients (Beta), only two out of the four attributes were the significant contributors ($p < 0.05$) to customers' satisfaction which were the website design and quality. Website design was the major contributor to the customers' satisfaction which was about 42.6% and followed by information quality 25.4%. Thus, h1 and h4 were accepted.

Table 3: Multiple Regression

Variables	Beta	t.	Sig.
Info Quality	0.254	4.392	0.000
Service Quality	0.87	1.411	0.159
Security/Privacy	0.56	1.025	0.306
Website Design	0.426	8.015	0.000
R-Square	0.499 (49.9%)		
F – Value	78.426		
Sig	0.000		

6. DISCUSSION AND CONCLUSION

Based on the results of this study, only two out of the four variables were significantly correlated with customers' satisfaction in online shopping, that is Information Quality and Website Design ($p < 0.05$). Website design was identified as the highest factor or the major contributor to customers' satisfaction in online shopping (42.6%). A study done by Sanchez et al. (2006) found that the accuracy of the information was a vital component in delivering information in online business. Thus, it is crucial that an online shopping website has complete information the customers need for their purchase decision-making. A study conducted by Hassan and Nik (2010) had similar findings in which online shopping activity and website features were positively correlated. If a website is designed with high quality features, it can help the customers for successful transactions, thus attract the customers to revisit the website (Li and Zhang, 2002).

Another factor which is the information quality of the website contributed about 25.4% to the satisfaction of customers in online purchasing. Online shoppers mostly depend on the information on the website to complete their purchase decision because customers can only evaluate products or services based on the website's presented information (Kim and Nieh, 2009).

7. RESEARCH LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

This research was conducted only at a public university in a state of Malaysia; therefore, it is difficult to be precise about the actual factors that lead to customers' satisfaction in online shopping. The study is expected to come out with follow

up studies to expand the range of the sample; thus, the findings will be more representative. Since the study is conducted through convenience sampling, we look forward to adopting random sampling in the future so that the selected sample would be unbiased and generalisable. This topic of the study is still current where online shopping is said to offer many opportunities to not only the customers but also enterprises. It is hoped that it will continually expand and explore in other dimensions and contexts such as behavioural context that could also be tested on a broader range of constructs.

REFERENCES

- Ariff, M., Yan, N., Zakuan, N., Rahim, K., & Ismail, K. (2013). Online purchasing behaviour of Malaysia's young consumers. In *Recent Trends in Social and Behaviour Sciences: Proceedings of the International Congress on Interdisciplinary Behaviour and Social Sciences*.
- Ballantine, P. W. (2005). Effects of interactivity and product information on consumer satisfaction in an online retail setting. *International Journal of Retail & Distribution Management*, 35(6), 461-471.
- Boudhayan Ganguly, Satya Bushan Dash, Dianne Cyr, Milena Head (2010). The effects of website design on purchase intention in online shopping: the mediating role of trust and the moderating role of culture. *International Journal of Electronic Business* 8(4/5):302-329.
- Burke, R. (2002). Hybrid recommender systems: Survey and experiments. *User modelling and user-adapted interaction*, 12(4), 331-370.
- Cai, S. and Jun, M. (2003). Internet users' perceptions of online service quality: a comparison of online buyers and information searchers. *Managing Service Quality*, 13, pp. 504–519.
- Cappelli, L., Guglielmetti, R., Mattia, G., Merli, R., & Renzi, M. F. (2011). Testing a customer satisfaction model for online services. *International Journal of Quality and Service Sciences*, 3(1), 69-92.
- Cyr, D. (2008). Modelling website design across culture: relationships to trust, satisfaction and E-loyalty. *Journal of Management Information Systems*, 24(4), 47-72.

- Gao, J., Zhang, C., Wang, K., & Ba, S. (2012). Understanding online purchase decision making: The effects of unconscious thought, information quality, and information quantity. *Decision Support Systems*, 53(4), 772-781.
- Gefen, D. (2002). Reflections on the dimensions of trust and trustworthiness among online consumers. *ACM SIGMIS Database: the DATABASE for Advances in Information Systems*, 33(3), 38-53.
- Ghasemaghaei, M., & Hassanein, K. (2013). Consumers' Satisfaction With Online Information Quality: The Moderating Roles Of Consumer Decision-Making Style, Gender And Product Involvement.
- Guo, X., Ling, K. C., & Liu, M. (2012). Evaluating factors influencing consumer satisfaction towards online shopping in China. *Asian Social Science*, 8(13), 40.
- Gupta, A., Bansal, R., & Bansal, A. (2013). Online shopping: A shining future. *International Journal of Techno-Management Research*, 1(1), 1-10.
- Hassan, Y., & Abdullah, N. F. A. (2010). Influencing factors on consumer choice towards online shopping. Online: http://www.internationalconference.com.my/proceeding/2ndice2010_proceeding/PAPER_086_ConsumerChoice.pdf (Retrieved 2011-04-22).
- Järveläinen, J. (2007). Online purchase intentions: an empirical testing of a multiple-theory model. *Journal of organisational computing and electronic commerce*, 17(1), 53-74.
- Jhe, R. (2014). Marketing Online Shopping-Consumer's perception on online shopping. Retrieved January 4, 2016.
- Jun, M., Yang, Z., & Kim, D. (2004). Customers' perceptions of online retailing service quality and their satisfaction. *International Journal of Quality and Reliability Management*, 21(8), 817-840.
- Khristianto, W., Kertahadi, I., & Suyadi, I. (2012). The influence of information, system and service on customer satisfaction and loyalty in online shopping. *International Journal of Academic Research*, 4(2), 28-32.

- Kim, H., & Niehm, L. S. (2009). The impact of website quality on information quality, value, and loyalty intentions in apparel retailing. *Journal of Interactive Marketing*, 23, 221-233.
- Kim, S., & Stoel, L. (2004). Apparel retailers: website quality dimensions and satisfaction. *Journal of Retailing and Consumer Services*, 11(2), 109-117.
- Kotler, P. (2004). *Ten deadly marketing sins: signs and solutions*. John Wiley & Sons.
- Li, N., & Zhang, P. (2002). Consumer online shopping attitudes and behaviour: An assessment of research. *AMCIS 2002 Proceedings*, 74.
- Lian, J. W., & Lin, D. C. (2007). To buy or not to buy experience goods online: Perspective of innovation adoption barriers. *Computers in Human Behavior*, 29(3), 665-672.
- Lin, G. T., & Sun, C. C. (2009). Factors influencing satisfaction and loyalty in online shopping: an integrated model. *Online information review*.
- Liu, X., He, M.Q., Gao, F., & Xie, P. H. (2008). An empirical study of online shopping customer satisfaction in China: a holistic perspective. *International Journal of Retail & Distribution Management*, 36(11), 919-940.
- Luo, J., Ba, S., & Zhang, H. (2012). The effectiveness of online shopping characteristics and well-designed websites on satisfaction. *Mis Quarterly*, 1131-1144.
- Mathwick, C., Malhotra, N., & Rigdon, E. (2001). Experiential value: conceptualisation, measurement and application in the catalogue and Internet shopping environment-1. *Journal of retailing*, 77(1), 39-56.
- Menon, S., Kahn, B.: Cross-category effects of induced arousal and pleasure on the Internet shopping experience. *Journal of Retailing* 78(1), 31-40 (2002).
- Nawi, N. B. C., Al Mamun, A., & Raston, N. A. (2015). Examining customer satisfaction at the point-of-purchase phase: A study on Malaysian e-consumers. *Asian Social Science*, 11(16), 88.

- Niranjanamurthy, M., & Chahar, D. (2013). The study of e-commerce security issues and solutions. *International Journal of Advanced Research in Computer and Communication Engineering*, 2(7), 2885-2895.
- Pastrick, Greg. "Secrets of great site design." *Internet User* (1997): 80-87
- Sanchez, J., Callarisa, L., Rodriguez, R. M., & Moliner, M. A. (2006). Perceived value of the purchase of a tourism product. *Tourism Management*, 27(3), 394-409.
- S. Praveen Kamaraj (2015). Consumer satisfaction in online shopping. *Wide Spectrum*, 6(9), 18-25.
- Shergill, G. S., & Chen, Z. (2005). Web-Based Shopping: Consumers' attitudes towards Online Shopping in New Zealand. *Journal of electronic commerce research*, 6(2), 78.
- Suki, N. B. M., Ahmad M. I., & Thyagarajan, V. (2002). Motivation and concern factors for internet shopping: A Malaysian perspective. *The Electronic Journal for Ecommerce Tools and Applications*, 1, 1-18.
- W.H. DeLone and E.R. McLean, The DeLone and McLean Model of Information Systems Success: A Ten-Year Update. *Journal of Management Information Systems*, 2003. 19(4): p. 9-30.
- Zeithaml, V.A. (2002) Service Excellence in Electronic Channels. *Managing Service Quality: An International Journal*, 12, 135-139.
- Zheng, Y., Zhao, K., & Stylianou, A. (2013). The impacts of information quality and system quality on users' continuance intention in information-exchange virtual communities: An empirical investigation. *Decision Support Systems*, 56, 513-524.