

The influence of system quality, information quality, e-service quality and perceived value on Shopee consumer loyalty in Padang City

Wilda Kurnia Putri*

*Magister Management, Andalas University
Perintis Kemerdekaan Street, Padang, West Sumatra 25171, Indonesia*

Vera Pujani

*Faculty of Economics, Andalas University
Limau Manis, Padang, West Sumatra 25163, Indonesia*

Abstract

Electronic commerce (e-commerce) developing rapidly in Indonesia in recent years, which is one of effort to expand the reach of marketing to be more effective and efficient. This study aims to examined the effect of system quality, information quality, e-service quality and perceived value to online loyalty on Shopee customer at Padang City. This is explanatory research with quantitative method. The data were collected from 250 customer of Shopee, that have an shopped on Shopee's website more than twice. This research uses SEM-PLS with smartPLS 3 program. The result show that system quality, information quality, e-service quality and perceived value had positive and significant influence on online loyalty. Therefore, this study provides an overview of e-commerce website consumers who are more concerned about the quality of websites, so companies must focus on improving the quality of e-commerce websites.

Keywords: E-commerce website quality, system quality, information quality, e-service quality, perceived value, online loyalty

1. Introduction

The availability of internet connections is getting faster and the presence of increasingly advanced mobile phones has indirectly affected consumer behavior in Indonesia. Internet users in Indonesia is 143.26 million or 54.68% of the total population in 2017, this data increased considerably compared to 2016 is 132.7 million and 32.19% of whom using the internet for online shopping¹. With the growth of internet users in Indonesia and the utilization of the internet for online shopping, certainly has a big impact in the growth of online business in Indonesia. The development of e-commerce in recent years rapidly in Indonesia, it's one of the efforts by marketers as a new step in extending the reach of marketing, to make more effective and efficient.

There are several popular online shopping sites in Indonesia are Lazada, Tokopedia, Shopee, Bukalapak and Blibli.com. Shopee became the third most popular e-commerce based on the frequently visited, pass over Lazada and Blibli². Shopee as one of newcomer e-commerce successful shopping application on AppStore and PlayStore, and also has the most followers Instagram. Have a lot of e-commerce in Indonesia can make consumers not loyal, because consumers have many alternatives to choose for purchase a product and consumers will consider in terms of price, discounts, and promotion. So that's, how to build a long term relationship with consumers gives challenges to e-commerce.

Website is an important factor from the success of an online shopping site³. A high quality website can increase the willingness of users to use e-commerce

* Email: wildakurniaputri@gmail.com

system and increase satisfaction so that e-commerce companies can increase sales volume and expanding the reach of marketing⁴. Create consumer loyalty towards one e-commerce services need to be particular attention to trade, because consumers are loyal will provide advantages for e-commerce. Consumer loyalty is defined as a commitment to buy back the product or service in the future, though there is circumstantial and the influence of marketing efforts that have the potential to switch to a product or service with other brands⁵. Loyalty will be created automatically when the consumer benefit/value that can be felt constantly in the long term⁶.

The number of consumer e-commerce in Indonesia currently dominated by 87.83% of generation Y by age range 20 – 37 years and has income above 301 USD per month⁷. Shopping online has become a trend or style of life for most people in Indonesia, so it needs to be more effort for marketers to get the consumers for shopping at one of e-commerce and make purchases on the same e-commerce in the future. One of them is by creating a good quality website, from quality of systems, information and e-service. This research focuses on e-commerce consumer loyalty to know the relationship by system quality, information quality, e-service quality and perceived value. The purpose of this study is (1) to know how the quality system affect perceived value (2) know the influence of the information quality affect perceived value (3) to know how the e-service quality affect the perceived value and (4) to know how the perceived value affect online loyalty.

2. Literature Review

The website is one of the most revolutionary technology that changed the business environment and have an impact on the future of e-commerce which will speed up the shift of power towards the consumers, and lead to a fundamental change in the way companies connect with customers and compete with another³. The quality of a good website, the quality of information and the quality of the e-service is interesting elements that are able to attract consumers to use services such as e-commerce⁴.

2.1. System Quality

Quality of the system defined as perceived website performance by consumers through the uptake and transmission of information⁸. The quality of system is the perceived level of satisfaction of users to the technical and functional performance of the website⁹. When shopping online, consumers must rely on descriptions

and photos provided by the website in order to understand products, they will put more emphasis on system properties such as website ease of use, ease of navigation, response time, and download time¹⁰. If shopping websites can give a clear layout, the category items systematically, and a variety of options, will help consumers find deals with fewer searches and physical costs¹¹.

2.2. Information Quality

Quality of the system defined as perceived website performance by consumers through the uptake and transmission of information⁸. The quality of system is the perceived level of satisfaction of users to the technical and functional performance of the website⁹. When shopping online, consumers must rely on descriptions and photos provided by the website in order to understand products, they will put more emphasis on system properties such as website ease of use, ease of navigation, response time, and download time¹⁰. If shopping websites can give a clear layout, the category items systematically, and a variety of options, will help consumers find deals with fewer searches and physical costs¹¹.

2.3. E-service quality

In a virtual business, there is no face-to-face contact, it is even more important for shopping website to provide good services to the users as a guarantee while the user is looking for information, create purchase orders, and waiting delivery of their order¹⁴. The internet service quality developing by E-SERVQUAL scale which consists of 7 dimension, that are E-S-Qual (E-Core-Service Quality Scale) and E RecS-Qual (E-Recovery-Service Quality Scale)¹⁵. E-S-Qual cover all stages of customer interaction with a website: the extent to which facilitates efficient and effective website in the shopping, make a purchase, and shipping. E-RecS-Qual is a measure of the quality of our online services after the accepted process to measure recovery when there is a failure of a service.

2.4. Perceived value

Development of the value in the relationship between buyer and seller based on the trust of the buyer that the seller can provide a product or service that is able to match or even exceed the expectations of buyers on a regular basis¹⁶. Using the hedonic and utilitarian value value to analyze the behavior of consumers in shopping, can assess overall and presented an overview of the perceived value in a comprehensive manner⁶. So in this study, researchers used two dimensions that value as an indicator variable in assessing the perceived value.

Utilitarian value integrate more cognitive aspects of attitudes, such as economic value for money and convenience and time savings assessment, for example, a buyer shopping online because of its convenience to find and compare merchant, evaluate the price/quality ratio¹¹. Hedonic consumption are aspects of consumer behavior that is associated with aspects of multisensor, fantasy and emotive person with experience of the product, including for sample the tastes, sounds, scents, images, visual search of sensation, the emotional arousal and fantasize¹⁷.

2.5 Online Loyalty

Consumer loyalty are defined as commitment to buy back the product or services on a consistent in the future, thus causing repeated purchases a product or service with the same brand, although there is the influence of situational and marketing efforts that have the potential to cause the behavior of the switch to a product or service with another brand⁵. Loyalty is defined in two : (1) commitment to repeat orders. Loyalty is also a strong commitment to buy back products and services consistently in the future, in which the purchase is carried out to the same brand. (2) loyalty is not only a commitment, but it is the act of buying back¹⁸. E-loyalty can also be defined as a favourable attitude towards the customers business website that leads to the behavior of the repurchase and repeating the visits, including aspects of behavior and attitude¹⁹.

Conceptual Framework

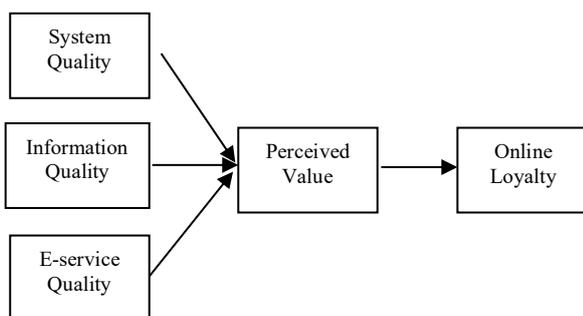


Figure 1. Conceptual Framework

3. Methods

The current research employs the quantitative methods of explanatory research in a field survey research. This study aims to test empirically, that quantitative study using statistics analysis is more suitable. Additionally, the study examines and explains the relationships and influences between variables of website quality. Running

quantitative approach, the survey using online questionnaires on the Google Forms application to obtain primary data from the customers of brand e-commerce Shopee website in Padang City.

The data obtained was derived from individual perspectives of customers who using Shopee website for buying product already seconds time. This research samples used is 250 respondents with Likert scale measuring five levels that is answer strongly disagree, disagree, neutral, agree and strongly agree. The data analysis is conducted by employing Structural Equation Modeling (SEM) using SmartPLS 3 program (Partial Least Square). In SEM process, Model and Structural Measurement was conducted as validity and reliability test also significant relationships for hypothesis.

4. Research Results

4.1 Respondent data

Most of the respondents of this study are women (60%). 92.8% of respondents were the millennial generation that has aged between 19 – 35 years. 16.8% of respondents came from in Subdistrict Pauh and majority of working as an employee of private (35.2%) and has the last level of education was Bachelor's degree (64.0%). Rated from revenue or income per month, 33.6% of respondents had income over IDR 5.5 million. Based on the experience of shopping online, 40.4% of respondents have done online shopping more than 2 years with the frequency of shopping 5 to 10 times in one year (70%) and the total range of online shopping (47.2%) between IDR 1 million – IDR 2.5 million. The majority of respondents (76.8%) buy 1 type of goods, any transactions made 90.8% through the phone and use the method of payment most by mobile banking (37.2%). To store frequently accessed in shopping, 31.27% choose Shopee for shopping and fashion products is the mostly purchased products at the time of online shopping (37.28%).

4.2 Data Analysis

This study uses Structural Equation Modeling (SEM) using SmartPLS software. Data aanalysis of SmartPLS consists of two steps. The first step is the measurement model to test reliability and validity. In the second step, the structural measurement is operated again to test the hypothesis.

4.2.1 Measurement Model

Loading Factor

Individual indicators are considered valid if it has a correlation value above 0.7. The value of the outer loading showed that several indicators which measure the variables of e-service quality have a value below 0.7,

however not all indicators that have a value of loading factor under 0.7 will be eliminated in this model. Indicators that have a value of loading factor between 0.5 – 0.6 can be accepted ²⁴.

Reliability and Validity

To test the validity in this study using the value of the average variance extracted (AVE) and the value above 0.50. Table 1, all variables have values of AVE more than 0.50. It's mean that overall indicators and variables are declared valid. The method assesses this reability in this study using cronbach alpha. All the construct is good because the value above 0.70.

Table 1. Construct Reliability and Validity

	Cronbach's Alpha	AVE
System Quality	0.865	0.711
Information Quality	0.858	0.636
eService Quality	0.922	0.611
Perceived Value	0.936	0.612
Online Loyalty	0.886	0.639

Another method to assess the discriminant validity is to compare the Square Root if Average (AVE) for each construct with the correlations between the constructs with other constructs in this model.

Table 2 Discriminant Validity

	Information Quality	Online Loyalty	Perceived Value	System Quality	eService Quality
Information Quality	0.798				
Online Loyalty	0.687	0.799			
Perceived Value	0.730	0.771	0.782		
System Quality	0.733	0.666	0.664	0.843	
eService Quality	0.737	0.770	0.684	0.684	0.782

Table 2 showed the root of AVE is higher than the correlation between other variables, so it can be concluded that all the latent variables in the study has a high validity.

4.2.2 Structural Model

The hypothesis accepted when the level of significance of 0.05 or t-value exceeds the critical value ²⁵. The value of t-statistics for the level of significance of 0.05 is 1.96. Testing the relationship between constructs showed all hypothesis was accepted. The quality of system, information and e-service has a significant to perceived value at the 0.05 (t-count greater than 1.96). Additionally, perceived value also has a significant affect the online loyalty (t-count greater than 1.96).

Tabel 3 Structural Model

Hypothesis	Path Coefficient	T-Statistics	Sig-Level
System Quality -> Perceived Value (H1)	0.125	2.163	Significant
Information Quality -> Perceived Value (H2)	0.271	4.567	Significant
eService Quality -> Perceived Value (H3)	0.499	7.238	Significant
Perceived Value -> Online Loyalty (H4)	0.771	17.616	Significant

5. Discussion

This study examined the effect quality of system, information and e-service on perceived value and customer loyalty of Shopee.id. Base on Table 3, all hypothesis accepted. The system quality is considered to have an influence on the perceived value. These result are consistant with research conducted by ⁶, with states that system quality is positive and significant affected by the perceived value. Consumers will have more confidence to use the e-commerce website if they provides a reliable operating system and easy to use.

Information quality is positive and significant affected by the perceived value, it's means the quality of information provides by the shopping website is able to influence the perceived value by consumers. The results of this research are unconsistant with these prior researchers, there is no positive relationship between quality information with perceived value because they thought the quality of the information is affected by product type ⁶. But according to researchers, the quality of information is not only influenced by the type of product, but also affected by the comprehensiveness and novelty of information.

E-service quality has significant positive influence to perceived value. Electronic service certainly different with the service at the offline store, on the environment online consumers do not have direct contact with employees so that all services obtained as virtual. The good service on a shopping website is a guarantee for the consumer to find information, making order and wait for the order ¹⁴. The quality of the e-service is very important at the start of e-commerce consumers will make a purchase, the time of the transaction and after the transaction is done, in short the interaction between consumers and sellers on e-commerce occurred from before to after the transaction. The study also supports the previous research, the e-service quality effect significantly to perceived value ⁶. Service quality a significant effect on the use of e-commerce website, where users who obtain good services will be sustained

using an e-commerce website and will increase the benefits of the use of the website ²⁶.

Perceived value has a positive and significant influence on online loyalty of consumers Shopee in Padang city. Consumers will be loyal to an e-commerce website when the website is able to provide the best value for themselves. Perceived value by consumers can be evaluated from a utilitarian value and the value of the hedonic. On this research proved that the perceived value by consumers of generation Y are based on rational, consumers will choose e-commerce provides the product as needed, useful and economical value or price affordable. Generation Y or the millennial generation is the generation that is sensitive to the price, they will be looking for e-commerce that offers branded products at affordable prices. The loyalty of a person to an online shop can be seen by purchase again in the future and also recommend the online store to potential consumers or friends in order to shopping at the same online store.

6. Conclusion

The quality of system, information and e-service Shopee website on a consumers in Padang City does affects the perceived value of consumers positive directly and significant. And also, perceived value of consumers affect the online loyalty directly and significantly. From this study can be concluded that consumers are loyal in the e-commerce website when the website is able to provide the best value to consumers. Consumers who are already getting a high perceived value, meaning consumers receive from the quality of website so that consumers will continue to using the website for buying product and also recommend to anothers. So that, increasing the perceived value by consumers is an important thing to do if the business want to get a loyal consumers because cost of maintain a consumers cheaper than to get new consumers.

Implication

This study has some implications for website managers of e-commerce to increase consumer loyalty towards an e-commerce especially to millennial generation. The quality of the systems of Shopee has a good standard as other e-commerce in Indonesia, but should be upgrading and maintain the system periodically. Website must provide clear information related products and services. The millennial generation is the generation that grew up with the increasingly technological developments, they can access information easily and then compare them. All the information regarding the products and services should be available to complete, precise, secure, up-to-date and easy to understand. In the process of fulfilling orders, would be better if the e-commerce has own

service delivery of the goods. Manager of e-commerce should maintain its position as acceptable e-commerce.

Limitations and Suggestions

This research is only focused on system quality, information quality, e-service quality, perceived value and online loyalty, and the study objects limited consumer Shopee in Padang city, so that research results are not directly applicable in other cities. Further research recommended to add another variables affected on consumer loyalty such as customer satisfaction. The scope of the study should be conducted to consumers Shopee Indonesia, so that research results can be valid globally.

References

1. APJII, Asosiasi Penyelenggara Jasa Internet Indonesia. 2018. Penetrasi dan Perilaku Pengguna Internet Indonesia 2017. <https://www.apjii.or.id/>. [Accessed 20 November 2018]
2. iPrice. 2018. Peta E-commerce di Indonesia. <https://iprice.co.id>. [Accessed 9 September 2018]
3. Shin, J.I., Chung, K.H., Oh, J.S. dan Lee, C.W. 2013. The effect of site quality on repurchase intention in Internet shopping through mediating variables: The case of university students in South Korea. *International Journal of Information Management*, 33(3), 453–463.
4. DeLone, W.H. dan McLean, E.R. 2004. Measuring e-commerce success applying the DeLone and McLean information systems Success model. *International Journal of Electronic Commerce*, Fall 2004 9(1), 31–47.
5. Hur, Y., Ko, Y.K., dan Valacich, J. 2013. A Structural Model of the Relationships Between Sport Website Quality, E-Satisfaction, and E-Loyalty. *Journal of Sport Management* 25, 458–473.
6. Wen-Chin Tsao Ming-Tsang Hsieh Tom M.Y. Lin. 2016. Intensifying online loyalty! The power of website quality and perceived value of the consumer/seller relationship. *Industrial Management and Data Systems* 116 (9)
7. Katadata Insight Center. 2018. Indonesia E-commerce Mapping 2018. <https://www.katadata.co.id>. [Accessed 26 Oktober 2018]
8. McKinney, V., Yoon, K. dan Zahedi, F.M. .2002. The measurement of webcustomer satisfaction: An expectation and disconfirmation approach. *Information Systems Research* 13(3), 296–315

9. Kim, G., Shin, B. dan Kwon, O. 2012. Investigating the value of sociomaterialism in conceptualizing it capability of a firm. *Journal of Management Information Systems*, 29(3), 327–362.
10. Dickinger, A. dan Stangl, B. 2013. Website performance and behavioral consequences: A formative measurement approach. *Journal of Business Research*, 66(6), 771–777.
11. Overby, J.W. dan Lee, E.J. 2006. The effects of utilitarian and hedonic online shopping value on consumer preference and intentions. *Journal of Business Research*, 59(10/11), 1160–1166.
12. Qutaishat, F.T. 2012. Users perceptions towards website quality and its effect on intention to use e-government services in Jordan. *International Business Research*, 6 (1), 97–105
13. Kim, H. dan Niehm, L.S. 2009. The impact of website quality on information quality, value and loyalty intentions in apparel retailing. *Journal of Interactive Marketing*, 23(3), 221–233
14. Ahn, T., Ryu, S. dan Han, I. 2004, “The impact of the online and offline features on the user acceptance of Internet shopping malls”, *Electronic Commerce Research and Applications* 3(4), 405–420.
15. Parasuraman, A., Zeithaml, V.A. dan Malhotra, A. 2005. ESQUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research*, 7(3), 213–233.
16. Butz, H.E. dan Goodstein, L.D. 1996. Measuring customer value: gaining the strategic advantage. *Organizational Dynamics*, 24(3), 63–77.
17. Hirschman, E. dan Holbrook, M. 1982. Hedonic consumption emerging concepts, methods and proposition. *Journal of Marketing* 46, 92 – 101.
18. Shang, R. A., Chen, Y. C., dan Liao, H. J. (2006). The value of participation in virtual consumer communities on brand loyalty. *Internet Research*, 16(4), 398-418.
19. Anderson, R. E., dan Srinivasan, S. S. 2003. E-satisfaction and e-loyalty: A contingency framework. *Psychology and Marketing*, 20(2), 123-138.
20. Gefen, David. 2002. Customer Loyalty in E-commerce. *Journal of the Association for Information Systems* (3), 27-51.
21. Anas Abdelsatar Mohammad Salameh, Hartini Ahmad, Faisal Zulhumadi, dan Faruq Muhammad Abubakar. 2018. M-Commerce in the Arab Open University: The Relationships between System Quality, Service Quality, and Customer Satisfaction. *Journal of Systems and Information Technology*.
22. Hasanov, Jasur., dan Khalid, Haliyana. 2015. The Impact of Website Quality on Online Purchase Intention of Organic Food in Malaysia. *Procedia Computer Science* 72, 382 – 389.
23. Chang, H.H., dan Wang, H.W. 2011. The moderating effect of customer perceived value on online shopping behavior. *Online Information Review* 35(3), 333-359.
24. Yamin, Sofyan., dan Kurniawan, Heri. 2011. Generasi Baru Mengolah Data Penelitian dengan Partial Least Square Path Modeling. Jakarta : Salemba Empat.
25. Hair, J.F., Black, W.C., Babin, B.J., dan Anderson, R.E. 2010. *Multivariate Data Analysis* 7th Edition, New Jersey : Prentice Hall.
26. Pujani, V. dan Dini, F.A. 2011. Student Perspectives Toward the Quality of E-Commerce Website. Proceedings of The 1st International Conference on Information Systems For Business Competitiveness (ICISBC) 2011, pp 226 – 230.