

E-Service Quality and Consumer Perceived Value of M-Banking Users with the Moderation Effect of Satisfaction

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Abstract: The rapid development of information technology was utilized by the banking industry to provide M-Banking services. This study aims to determine the effect of electronic service quality and perceived value on loyalty with satisfaction as a mediating variable. The result indicated that satisfaction is an absolute mediating variable for e-service quality and perceived value on loyalty. This study collected 290 data and the data sampled was analyzed by structural equation model. The result reveals that the variable effect of electronic service quality and consumer perceived value on loyalty with satisfaction as a mediating variable is greater compared with the direct effect. It shows that M-Banking users in Lampung Province perceived the benefits of the service and categorized M-Banking services in a good way. Mobile Banking services should provide information about transaction fees, such as understanding that there is a risk for every transaction in the mobile banking application, reasonable monthly administration fees charged, the cost of each transaction is affordable, and access does not require a large internet quota.

Keywords: Electronic service quality, Perceived value, Satisfaction, Loyalty.

INTRODUCTION

The development of information technology encourages researchers to conduct research on the use of information technology to satisfy customers and ultimately have an impact on loyalty [1, 2]. Companies performed electronic services by utilizing internet technology, in this case e-marketing. E-service quality and consumer perceived value are factors that directly influence customer satisfaction and have an indirect effect on loyalty after being mediated by the consumer satisfaction variable [3, 4]. The quality of electronic services encourages people to do online banking transactions which make it easier for people to get services without time constraints and can be done in various places [4]. The ultimate goal of electronic services is to make customers loyal to the company. On the other side, the company must provide good service to create a satisfaction that will be perceived by the customer so that in the end the customer will become loyal to buy the product or service at the company again. For this reason, what must be prioritized first is to create good electronic services [5]. One banking service who use the internet is the internet banking/electronic banking. Electronic banking is one of the banking services that make it easier for customers to get information and perform banking transactions through the network internet. The birth of Internet

Banking has been changing the customer's paradigm regarding transactions banking. There is no physical interaction between the Bank and customers in conducting transactions present unique situation Internet technology-based services have several obstacles in increasing the number of users. The obstacle is the reliability of the internet network. Another factor is the perception value of consumer who doubts the safety factor when using information technology, especially safety in transaction [2, 6].

E-service quality is a service provided to internet network users as an extension of a site's ability to facilitate shopping, purchasing, and distribution activities effectively and efficiently [4, 7]. Define e-service quality as the extent to which a website is able to facilitate consumer activities including shopping, purchasing, distribution of goods and services effectively and efficiently. Another factor that affects consumer satisfaction on electronic services is the perception value of consumer. The consumer perceived value must be proportional to the value offered by a company so that it can influence customers to repurchase or switch from competing companies. Perceived value is very important to customers because the relationship between customer satisfaction and customer loyalty appears strong when customers feel that they currently have an e-business that provides a

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higher overall value than that offered by competitors [8-10]. Consumer's perception value (customer value) is defined as the exchange of customer purchases between what they receive and what they sacrifice [11]. Customer expectations and needs are a fundamental element to create customer value. Customer value is something that is fundamentally formulated based on all marketing activities carried out by the company. Customer value is an assessment of the comparison of all the company's marketing activities with competitors [12]. The higher the customer value, the higher the motivation of the customer to buy the company's products. The basic foundation for forming a value is a measurement of market orientation [9]. Perceived consumer value (customer value) is a customer's perception of what they want as a consequence of using the product, occurring in certain situations that can help the offering of goods and services in line with the desired goals [11]. The concept of customer value itself provides a description of a company's customers, consider what they want and believe that they will benefit from a product. Customers become more value-oriented and are not affected by high quality or low prices [11].

Consumers start activities in market interactions based on their needs and desires for goods and services, and this need encourages producers, namely companies to provide these goods and services. In line with the emergence of needs and wants, the customers also have expectations regarding the goods and services they will receive from the producers [13]. Companies that have started to know and understand that Marketing is an important factor in achieving success company marketing concept aims to provide satisfaction to consumer wants and needs. The company's goal is to provide satisfaction to consumers through the products offered, products that have more value will also provide more satisfaction for consumers [14]. For the government, the concept of customer satisfaction/dissatisfaction can assist them in identifying and isolating products and industry that requires government action in order improve consumer welfare. For consumers, concept customer satisfaction is useful in providing more information information about how satisfied or not other consumers are with the product or certain services. The value of the product can be fulfilled through increasing the usability of the product. The opinion above it can be concluded that quality Service is a level of ability (ability) of the company in provide everything that is the hope of customers in meeting their needs. Service can also be defined as something invisible and easy is lost. This variable is very important in the buying decision process because of the waiter satisfying consumers will have an impact on the occurrence of repeated purchases which will ultimately increase sales turnover. This is the basis for a producer or company to meet the needs and expectations of consumers for goods and services so that consumer satisfaction could be achieved [13]. This

study aims to determine the effect of electronic service quality and perceived value on loyalty with satisfaction as a mediating variable

MATERIALS AND METHODS

Research Design

The data obtained by distributing questionnaires using google form to m-banking users in Lampung Province. It ensures that the respondent is an m-banking user by giving the question "are you an m-banking user". If the respondent answered yes then the respondent can answer the next question on the questionnaire. The population of this study is unknown. The sample calculation uses the Lemeshow method with a margin of error of 5%, obtained a minimum sample size of 236 samples. The samples collected were 320 and 290 samples could be processed. The use of the lemeshow method because information about population characteristics is not known with certainty, both from demographic elements such as gender or income level

Hypothesis Development

Electronic service quality is the extent to which a website facilitates customers in shopping or buying effectively and efficiently. E-service quality has a positive effect on satisfaction, and added in other research that service quality has a positive influence on repurchase intentions directly and indirectly through satisfaction. The quality of electronic services is one of the invisible (intangible) activities and the activity is only carried out when the customer makes an order or purchase through the website [7]. Consumers will pay attention to the level of reliability and security when transacting using electronic services. Consumers who feel satisfaction will be loyal to the electronic services [8]. When the quality of a company's electronic services is managed properly, it will cause its customers to be satisfied, then impacting on loyalty. Good quality of service and e-service will lead to customer satisfaction. Customer satisfaction is a determining factor significant from repeat purchases, positive word of mouth information customer loyalty/loyalty. Satisfaction customers will affect the intensity of behavior to purchase services from the same service provider. Thus the first hypothesis of this study is formulated as follows:

H1: Electronic service quality has a significant positive effect on customer satisfaction

H1a: Electronic service quality has a significant positive effect on customer loyalty.

A relationship between the influence of perception value on customer satisfaction and customer loyalty, so that customer satisfaction and loyalty arise when customers feel that the needs they need already exist in e-services provided by the company but not in competitor's [15]. The level of customer satisfaction is

influenced by customer’s perception value [10]. The perception value of customer is an individual evaluation of a product or service that meets customer’s expectation or satisfaction. Customer satisfaction is a comparison between the performance received and the expectation, where customer satisfaction depends on the customer perceived value[10, 14], Perceived customer value has a positive and significant effect on customer loyalty. This shows that the higher the perceived customer value, the higher the customer loyalty thus here is the second hypothesis in the study:

H2: Consumer perceived value has a significant positive effect on customer satisfaction.

H2a: Consumer perceived value has a significant positive effect on customer loyalty.

Customer satisfaction is an evaluation concept using emotional or customer’s feeling before the customer uses a service, added when the customer already used the service [10]. Measuring the level of customer satisfaction and dissatisfaction toward a product, service or brand is an important indicator for measuring customer loyalty [14]. When customers feel dissatisfied with a product, service or brand, then in general, customers turn to competing products, services or brands unless there are very strong factors that attract customers to use the products, services and brands [11,

16]. The satisfaction variable is a mediating variable for the quality of electronic services and the perception value of consumer towards loyalty [5]. In this research, consumer loyalty is influenced by the quality of electronic services variable and the perception value of consumer with satisfaction as the mediating variable. Thus, the third and fourth hypotheses are formulated as follows:

H3: The quality of electronic services has a significant positive effect on loyalty mediated by satisfaction

H4: Consumer perceived value has a significant positive effect on loyalty mediated by satisfaction

RESULTS AND DISCUSSION

The composition of the M-Banking consumer profession mostly are people who have permanent jobs, including entrepreneurs as much as 42% and civil servants as much as 35%. It indicates that most consumers have relatively good financial capabilities because they have a stable income. Group of people who have permanent jobs need to be utilized by M-Banking service providers to improve their transactions. Based on Table 1, it can be seen that all factors loading are > 0.7 so it can be concluded that all indicators of research variables are valid. The results of the reliability are reliable because the Cronbach Alpha value > 0.7

Table 1: The reliability of the data was tested using Cronbach Alpha

Variables	Indicators	Standard Loading	Critical Ratio
E-service quality (X1)	X1.1 Web site design	0.82	15.67
	X1.2 Reliability	0.71	12.71
	X1.3 Security	0.79	14.83
	X1.4 Customer service [5]	0.69	12.24
Consumer perceived value (X2)	X2.1 Product are available	0.74	13.80
	X2.2 Get what I pay	0.73	13.65
	X2.3 Products are worthwhile	0.83	16.26
	X2.4 Charges are fair [5]	0.74	13.96
Satisfaction (Y1)	Y1.1 Satisfied with purchase	0.82	11.17
	Y1.2 If I had to purchase again, I would still feel satisfied	0.70	14.01
	Y1.3 Purchase from this website a wise decision [5]	0.91	14.33
Loyalty (Y2)	Y2.1 First option Choice	0.82	12.32
	Y2.2 My first option in the future	0.78	14.63
	Y2.3 Positive comment [5]	0.87	16.64
GFI = 0.93; AGFI = 0.89, NFI = 0.96; CFI = 0.98 ; RMSEA = 0.065; Chi-Square = 153.65 ; df = 69; Probability = 0.000			

Goodness of Data

After calculating using Lisrel 8.80 the structural equation model can be seen in Figure 1. We observe that all hypotheses are supported at the 0.05

level and, in the same way, model fit is also acceptable (GFI = 0.93; AGFI = 0.89; NFI = 0.96; CFI = 0.98; RMSEA = 0.065; Chi-Square = 153.65; df = 69; Probability = 0.000).]

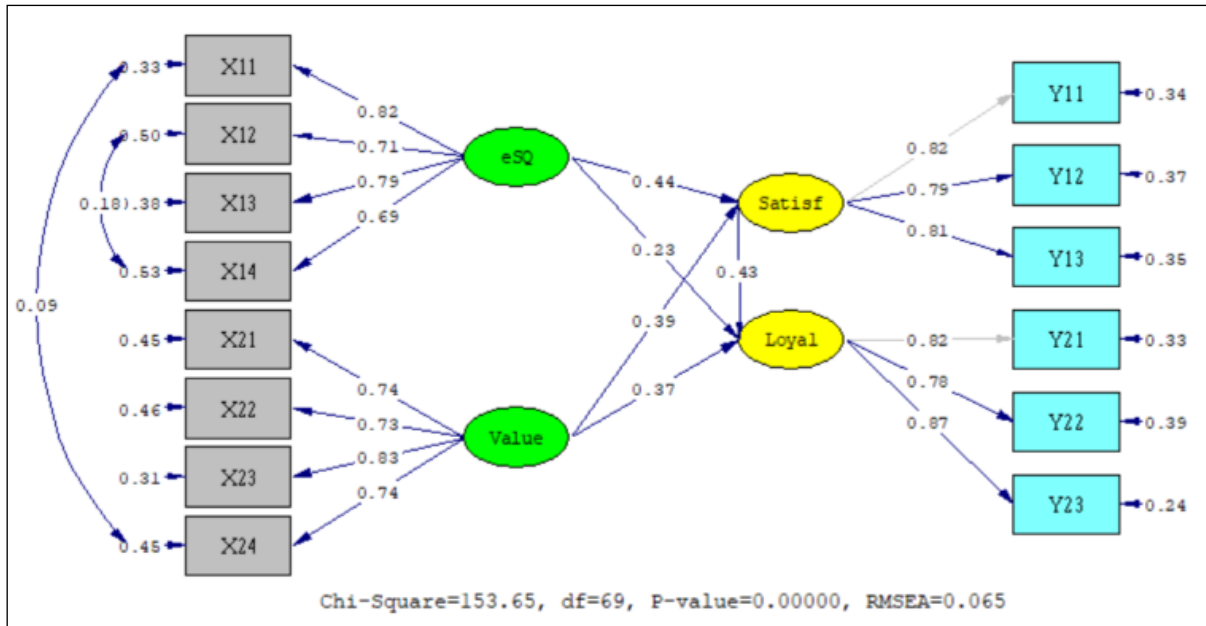


Figure 1: Structural Equation Model

Hypothesis Testing

Table 2: The direct effect of electronic service quality on loyalty is 0.44 (p-value = 0.000 <0.05).

Path	β	t-test	Result
H1 : e-Sq \rightarrow Satisfaction	0.44	6.97	Supported
H1a : e-Sq \rightarrow loyalty	0.23	4.23	Supported
H2 : value \rightarrow Satisfaction	0.39	6.16	Supported
H2a : value \rightarrow loyalty	0.37	5.28	Supported

This indicates that H1 which states that the quality of electronic services has a significant positive effect on customer satisfaction is accepted (t-test = 6.79 > 1.96) (Table 2). The direct effect of consumer perceived value on loyalty is 0.39, then H2 which states consumer perceived value has a significant positive effect on customer satisfaction is accepted (t-test = 6.16 > 1.96). Hypothesis 1a shows that e-service quality also has a significant effect on loyalty (t-test = 4.23 > 1.96). Hypothesis 2a that consumer value also has a significant direct effect on loyalty (t-test = 5.28 > 1.96). Based on Table 2, it is also known that electronic service quality and consumer perceived value are variables that form loyalty. The difference only occurs in the coefficient of each variable. This difference occurred presumably due to differences in analysis tools, the characteristics and number of samples. E-service quality has a significant effect on satisfaction. The implication of accepted hypothesis I, consumers consider that website design is the consumer's first impression to use M-banking. The design is designed with a good flow, causing consumers to easily make transactions. Another factor that causes consumers to use M-Banking is the issue of security in transactions. The security in question is not only security in transactions, protection of customer money and security of personal data. In addition, consumers also consider

the consumer service factor that guides consumers when they make a complaint.

The influence of consumer perceived value of M-Banking users in Lampung Province on loyalty is greater than the effect of service quality. Consumers consider that the imposition of transaction fees, the benefits of using good quality M-Banking products and services are factors forming consumer loyalty. Meanwhile, based on the quality factor of customer service, users assume that good design of each M-Banking and transaction safety are the important factors in shaping M-Banking consumer loyalty in Lampung Province. Consumers perceive that the products offered by M-banking have the benefit of reducing the length of time they transact. In addition, the transaction costs incurred by consumers are considered reasonable to obtain the benefits obtained from the m-banking application used. Consumers also consider that products offered with various transaction features are considered by consumers to make banking transactions easier.

Mediation Testing

Table 3 shows the result of the mediation effect (satisfaction variable). Table 3 also shows the role of the satisfaction variable as a mediating variable. Based on the calculation, it is known that the effect of service quality on loyalty mediated by the satisfaction

variable is significant with an influence coefficient of 0.372 (t-Test 3,72 > 1.96).

Table 3: The mediation effect (satisfaction variable)

Path	Coefficient	t-test	Result
H3 : e-Sq → Satisfaction → Loyalty	$0.23 + (0.44 \cdot 0.43) = 0.419$	3.72	Supported
H4 : value → Satisfaction → loyalty	$0.37 + (0.39 \cdot 0.43) = 0.538$	6.19	Supported

This implicated for the acceptance of H3 which states that the quality of electronic services has a significant positive effect on loyalty mediated by satisfaction. The mediating role of the satisfaction variable is also calculated on the perceived value of consumers. The result shows that the coefficient of consumer perceived value on loyalty mediated by the satisfaction variable 0.538 (t-Test 6.19 > 1.96). Thus H4 “consumer perceived value has a significant positive effect on loyalty mediated by satisfaction” is accepted. Based on the calculation of the mediating effect of the satisfaction variable, it can be concluded that the satisfaction variable is a full mediation for the quality of electronic services and the consumer perceived value on loyalty. It is because the direct effect of each variable is smaller than the indirect effect. The indirect effect of the electronic service quality variable on loyalty is 0.419. The indirect effect of the consumer's perceived value variable on loyalty is 0.538. The calculation results also show that the mediating effect of the satisfaction variable can increase the coefficient of electronic service quality and the consumer perceived value on loyalty twice compared to its direct effect. Customer satisfaction is referred to a tool to assess the emotions perceived continuously from time to time [17]. Satisfied customers will definitely provide feedback for the company by repurchasing because the services provided by the company always prioritizes its customers, especially in electronic services that are very much needed by customers who require a level of practicality and speed in service and product purchases or services Loyalty [4].

Based on the calculation of the moderating effect, it is known that consumers are satisfied with the use of mobile banking services. This proves that the average customer is satisfied with the M-banking they use. The next behavior is the use of mobile banking services which states that they will seek information for future banking transactions, choose to use mobile banking when transacting, and recommend others to transact in mobile banking. This means that future respondents will look for information that makes it easier to transact, choose to use mobile banking, and be willing to recommend others to transact via mobile banking. Mobile Banking services should continue to improve the innovation of service features on the Accessibility dimension, such as simplifying the flow of mobile banking banking transactions so that they are not confusing. The highest neutral answer is on the question "Mobile banking transaction flow is not confusing". Banks must make improvements and improvements to the transaction flow so that no

customers feel confused when accessing mobile banking features. This can be a customer assessment in intending to use mobile banking services. Mobile Banking services should provide information about transaction fees, such as understanding that there is a risk for every transaction in the mobile banking application, reasonable monthly administration fees charged, the cost of each transaction is affordable, and access does not require a large internet quota. This indicates that customers still perceive the information obtained and the costs sacrificed tend to burden the customer. Banks can adjust fees for each transaction on mobile banking services, and expand information about the impact that can occur during transactions. This can improve customer perceptions of sacrifice for the better, and further form loyalty to use mobile banking services.

Customer loyalty as a series of consumer activities that will make repeat purchases [18]. Having loyal customers is a priority and foremost strategy for marketers. Moreover, in reality, customer retention programs and making loyal customers turn out to be cheaper than targeting new customers who usually demand aggressive promotions with definitely high costs [17]. In addition, building customer loyalty means dealing with the existing customers. The customers have tried and may still be using the product. Consumers like this, tend to see the negative side of the product rather than its goodness [13]. Companies must provide extra benefits that can encourage customers to have emotional attachments to the products used to get customer loyalty [8]. Loyalty is not just consuming products continuously (repeat buying), but more than that customers can make referrals (refer to other people) and become the advocator for the products they use. Building customer loyalty is also getting harder because of the increasing number of products offered to consumers [18, 19].

CONCLUSION

Service providers need to provide customer retention services by giving points for each transaction made and at a certain amount they can be exchanged for prizes. There are many other things that can be done regularly such as displaying testimonials from consumers who have made transactions and creating giveaway event regularly.

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