



The Determinants of Customer Loyalty for Telecommunication Provider

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Abstract

Telecommunication has become an inseparable element in human life. As the advancement of technology, the numbers of service provider have risen in order to support a better telecommunication. To retain its customers, certainly the telecommunication provider should have loyal customers. Three variables have been chosen to determine the customer loyalty, namely service quality, customer satisfaction, and switching costs. This study proves that service quality has a positive influence on loyalty through intermediary from customer satisfaction. It is also found that switching cost also has a positive influence on loyalty. Telkomsel suggested to create attractive programs to maintaining service quality, customer satisfaction and switching cost for its customers. These efforts are attempts to build customer loyalty.

Keywords: Service Quality; Customer Satisfaction; Switching Cost; Customer Loyalty; Telecommunication.

1. Introduction

Nowadays, telecommunication is an inseparable part of human civilization. Everything is connected to telecommunication, including in Indonesia. To improve telecommunication network, evidently, the telecommunication provider is the party responsible to provide that kind of service. Not only that, the number of mobile telecommunication subscribers also has increased rapidly, making an Indonesia host of the fourth largest telecommunication subscribers in Asia after South Korea, China and Japan (denycell.com, n.d.).

Currently, Indonesia has six GSM providers; they are Telkomsel, Indosat, XL, Hutchinson 3 Indonesia, and Pasifik Satelit Nusantara. It is known that Telkomsel is the market leader in the GSM market, with an approximately profit of 4.4 trillion rupiahs or 45% of market share that serves more than 130 million subscribers in Indonesia (Telkomsel Indonesia, 2014). Till now, Telkomsel has released three product lines, namely Halo, Simpati and AS.

In West Kalimantan, Telkomsel has owned 72 % of its market share, it could be concluded that Telkomsel already dominated the telecommunication in West Kalimantan ("Industri - Bisnis.com," 2015). In Pontianak, the telecommunication provider is also dominated by Telkomsel with a 47% market share in 2015. In its office, GraPari, Telkomsel could serve approximately 7,000 customers monthly ("Tribunnews.com," 2013). Not to mention, Telkomsel has also been awarded as Indonesia's Most Favorite Netizen Brand and Indonesia's Most Favorite Youth Brand through a research conducted by MarkPlus Insight which also done in Pontianak ("Telkomsel | News," 2014). Since the establishment of Telkomsel, the company itself has already reached the mature market with tight competition and need to do continuous innovation to retain its customers from switching provider.

Based on the obtained data above, the author would like to take Telkomsel as the research object. Telkomsel offers a higher priced plan than the other telecommunication providers, but still manages to have the largest number of telecommunication subscribers. According to Kaura Vinita, Ch. S. Durga Prasad, and Sourabh Sharma (2015) studied that service quality dimensions such as employee behaviour, tangibility and information technology have a

positive impact on customer satisfaction. The results show that employee behaviour and information technology have positive impact on customer satisfaction and customer loyalty. Not only service quality, Kotler and Keller (2014, p.35) also mentioned that the higher levels of customer satisfaction lead to greater customer loyalty. This is important because it will give the company better performance, which is critical for profitability and firm's success. Jonathan Lee, Janghyuk Lee and Lawrence Feick (2001) observed that customer loyalty may be due to satisfaction or it may be due to dissatisfaction in a product category in which relatively high switching costs make it difficult for consumers to change providers. Similarly, observed customer disloyalty can be due to dissatisfaction or linked to satisfaction in a market in which low switching costs make it easy to change providers. By understanding the role of switching costs in affecting the connection between satisfaction and loyalty, firms can take advantage of the structure of switching costs.

Besides, as the previous studies have shown, service quality is positively and significantly related to customer loyalty (Boohene et al., 2001; Aydin and Özer., 2005; Sabir et al., 2013; Amin et al., 2012). Customer satisfaction is also one of contributing factors to customer loyalty (Joachim et al., 2012; Sabir et al., 2013; Aydin et al., 2005). However, Boohene et al. (2001) found that though customer satisfaction decreased, it did not impact the customer loyalty. Switching cost is also found to be positively and significantly related to customer loyalty (Aydin and Özer., 2005; Joachim et al., 2012; Lee, 2013). As Bloemer et al. (1998) has stated in industries with relatively high switching cost, the relationship between switching cost and customer loyalty will be more significant. Although it is assumed that a high level of satisfaction is strongly correlated with increased customer loyalty, researchers have tried to separately measure customer loyalty (Jonathan Lee, Janghyuk Lee and Lawrence Feick, 2001). Therefore, this study is conducted to analyze the factors that influence customer loyalty. The variables chosen for this study is service quality, customer satisfaction and switching cost which has been investigated in various researches before.

2. Literature Review

2.1 Customer Loyalty

There is a numerous definition about loyalty and customer loyalty in literatures. Consumer behavior theory is the based concept of loyalty and it is related to brands, services or activities (Boohene and Agyapong, 2011). Uncles et.al (2003) also compared customer loyalty with brand loyalty, finding that customer loyalty emphasized that loyalty is a feature of people, rather than inherent in brands. Creating customer satisfaction and loyalty provides sustainable competitive advantage and differentiation from rivals. There are many factors that create customer satisfaction and loyalty in the literature, one of these factors is customer service (Emel Kursunluoglu, 2014). Jonathan Lee, Janghyuk Lee and Lawrence Feick explained that customer loyalty sometimes has been operationalized as a behavior such as hard-core loyalty, repeat purchase probability, etc. (2001, p.37). While Grossman (1998) posited that when there is an important benefit, it will make the customer stay and feel committed on the same product. While Oliver (1999, p.34) defined loyalty as:

“... a deeply held commitment to rebuy or repurchase a preferred product/service consistently in the future, thereby causing repetitive, same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior.”

In the telecommunication market, loyalty is measured with the length of time and the frequency with which customers stay and remain on a network (Adeleke and Aminu, 2012). If a customer uses the same telecommunication company, the customer will become more loyal. Hence, this is the target of all telecommunication companies in Pontianak to achieve and keep customers using the same service for a long time.

It is very clear that customer loyalty is a key factor to help a company to achieve long-term success (Kuusik, 2007). This is because customer loyalty is the foundation for a company sustained its competitive edge (Adeleke and Aminu, 2012). Companies' survival and strong future growth are also determined by customer loyalty (Fornell, 1992). He also argued that when a company has reached saturation point, the mature market and fierce competition, a defensive strategy which strives to retain existing customers is more important than an aggressive one. The cost of serving a loyal customer is five or six times less than a new one (Ndubisi, 2005 as cited in Adeleke and Aminu, 2012). Hence, it is better to look after the existing customer before acquiring new customers (Walsh et al., 2005). It is clear that if the telecommunication provider must succeed in retaining its existing customer by having a strong customer loyalty. It can face and keep growing in the mature market since most of the telecommunication providers in Pontianak have existed more than 10 years. Furthermore, it also helps a company to face problems of uncertainty in an intense competitive market (Amin et al., 2012).

In conclusion, customer loyalty refers to how the customers will be committed to use the products and customer loyalty is also influenced by behavior and customers' attitude. By having a high customer loyalty level, certainly the company can strive and compete in the long term, including into the telecommunication provider market.

2.2 Service Quality

According to Kotler and Keller (2014, p. 680), a service is an activity, benefit, or satisfaction offered for sale that is essentially intangible and does not result in the ownership of anything. Services do not have or follow the same or some kind of linear pattern; therefore, are highly variable in nature. The consumption and production of a service is also said to take place at the same time (Hafeez and Muhammad, 2012). The American Society for Quality's definition (as cited in Kotler and Keller, 2014) states: product quality as the characteristics of a product or service that bear on its ability to satisfy stated or implied needs. While according to Juran (as cited in Sabir et al., 2013) quality comprises two primary elements, namely (1) either a product satisfies the needs or (2) is free from deficiencies. Quality is a feature that makes companies' products different and gives companies a remarkable competitive advantage.

Service quality is a measurement of how well the service delivered matches customer expectations. Delivering quality service means conforming to customer expectations on a consistent basis (Lewis and Booms, 1983 as cited in Angelova and Zekiri, 2011). As a result, service quality is evaluated when the user of service compares his expectation with actual experience (Takeuchi, 1983 as cited in Sabir et al., 2013).

Venetis and Ghauri (2004) stated that major determinant in developing customer retention and valuable relationship is service quality. Service quality can result in repeated purchase and it will increase the market share, which leads to customer loyalty (Buzzell and Gale, 1987 as cited in Adeleke and Aminu, 2012). By offering a high service quality, a company can charge a premium price (Brown et al., 1992 as cited in Adeleke and Aminu, 2012). Providing high service quality also could improve customers' favorable behavioral intentions and reduce the unfavorable intentions (Zeithaml et al., 1996). The impact of high service quality, especially in the telecommunication provider industry could attract customers, and when they are satisfied, they will stay longer with their service provider even if the company charges a premium price.

2.3 Customer Satisfaction

The definition of satisfaction related to an individual feeling of pleasure or disappointment that come from the comparison of a product perceived performance and expectations after purchased (Kotler and Keller, 2012, p.10). They also added that if the performance falls short of expectations, the customer is dissatisfied. If it matches expectations, the customer is satisfied. Then if the performance surpasses expectations, the customer is highly satisfied or pleased. They also explained that expectations may come from past buying experience, friends' and associates' advice, and marketers' and competitors' information and promises. Therefore, a marketer should be very careful to raise the expectations, because it will end up with the customer being disappointed or it will not attract enough buyers.

Malik and Ghaffor (as cited in Sabir et al., 2013) also proposed a similar meaning of customer satisfaction. They defined it in terms of meeting the expectations of the customers using parameters associated with satisfaction. Customer satisfaction is a term used to describe when the real service experienced by a customer already meet and exceed customer expectation. The more it exceeds the customer's expectation, the higher the satisfaction is. In the context of relationship marketing, customer satisfaction is the factor that leads to long term customer retention because unsatisfied customers have very high switching rate (Sabir et al., 2013). According to Zairi (as cited in Sabir et al., 2013) the feeling of accomplishment of inner desires is called satisfaction. Customer satisfaction has a direct effect on customer loyalty (Oliver, 1999). If product or service fulfills the needs and demand of the customer, customer will become satisfied and will be converted to loyal customer. Company profitability is not only depicted in a balance sheet but it is also measured on the basis of a sound customer base and life time value that customers deliver to company. Customer satisfaction remain as the core of fundamental basis of marketing strategy and act as main driver factors for organization success (Oliver, 1999).

Lim (as cited in Sabir et al., 2013) found that customers' final pleasure may have significant affect connected with atmosphere. Sabir et al. (2013) provided an example how a dining place environment is useful to influence customer's behavior. They added that the different various atmospheric components give an effect in customer satisfaction. Besides those, the other important elements contributing in customer satisfaction in a dining place are responsiveness, cost, and meals quality. Aydin et al., (2005) made a research based on overall customer satisfaction. He concluded that cumulative customer satisfaction is the evaluation made based on the total purchase and consumption experience with a good or service over time based on previous transaction-specific satisfaction. Therefore, he added that general evaluations based on satisfaction cannot be associated only from a particular service transaction, but on all the service encountered since being a subscriber to date.

2.4 Switching Cost

Arasil et al. (as cited in Boohene and Agyapong, 2011) showed that the switching cost factor directly affects loyalty, and has a moderating effect on both customer satisfaction and trust. It was realized that switching costs

involve psychological, financial and procedural sub-dimensions. Also, customer relationships and switching costs concurrently enhanced customer loyalty. Moreover, it has also been found that as customers' perceptions of switching costs increase, the longer they remain with a particular service supplier (Aydin and Özer, 2005).

Porter (1980) pointed out that switching cost is the cost comprises of fee from one to another service providers. He also argued that there are three types of switching cost: (1) procedural switching costs, primarily involving the loss of time and effort; (2) financial switching costs, involving the loss of financially quantifiable resources; and (3) relational switching costs, involving psychological or emotional discomfort due to the loss of identity and the breaking of bonds. Though his research, he proved that all the three types of switching cost have influence on consumers' intentions to stay with their current service provider, explaining more variance than satisfaction. Increase in switching cost would result in higher risk and burden on the customer (Jones et al., 2002 as cited in Amin et al., 2012).

Burnham, Frels and Mahajan (as cited in Hao et al., 2009) defined switching costs as the onetime costs that customers associate with the process of switching from one provider to another. They provided eight dimensions of switching cost: economic risk costs, evaluation costs, learning costs, set-up costs, benefit loss costs, monetary loss costs, personal relationship loss costs, and brand relationship loss costs and then summarized these eight dimensions into three types: procedural, financial, and relational switching costs. Procedural switching costs: consisting of economic risk, evaluation, learning, and setup costs, this type of switching cost primarily involves the expenditure of time and effort. Financial switching costs: Consisting of benefits loss and financial-loss costs, this type of switching cost involves the loss of financially quantifiable resources. Relational switching costs: consisting of personal relationship loss and brand relationship loss costs, this type of switching cost involves psychological or emotional discomfort due to the loss of identity and the breaking of bonds. In their studies, they stated that all the three switching cost types appear to drive consumers' intentions to stay with their current provider.

In the case of a market having switching costs, when customers select from a number of functionally identical brands, they display brand loyalty and go on buying the same brand (Klemperer, 1987). In short, ex ante homogeneous products may, after purchase, be differentiated ex post by switching costs (Klemperer, 1987). Moreover, if customers are sensitive to a product's attributes, such as quality, uncertainty will decrease price sensitivity (Erdem et al., 2002 as cited in Aydin and Özer, 2005, p. 914): in other words, the customer behaves loyally.

For these reasons, switching costs is a factor that directly influences customers' sensitivity to price level, and so influences customer loyalty (Ruyter, Wetzels, and Bloemer, 1998; Lee, Lee, and Feick, 2001; as cited in Aydin and Özer, 2005, p. 915). There are some researches relate to this study. Previous studies refer to the studies published disseminated in the past that report results of research findings. Further, previous study will involve examine the relationship among variables which are service quality, customer satisfaction, customer loyalty and switching cost. Previous study will be shown on the table 1 below.

Table 1: Previous Study of Variables				
No	Authors and Year	Variable	Methods	Result
1	Lee et al., 2001	Customer satisfaction, customer loyalty, service quality, and switching cost	Participants in the study included 256 respondents asked by an interviewer. All items measured by five-point scale and employed regression analysis.	The implication was loyalty programs accompanied by well-designed customer satisfaction programs can be effective in increasing customer retention.
2	Caruana, 2002	Service loyalty, service quality, and customer satisfaction	The postal questionnaire used consisted of 37 items. Demographic variables were also collected. LISREL analysis is considered to be 200 replies.	The results confirm the hypothesized relationship in the research model. Service quality is found act on service loyalty via customer satisfaction.

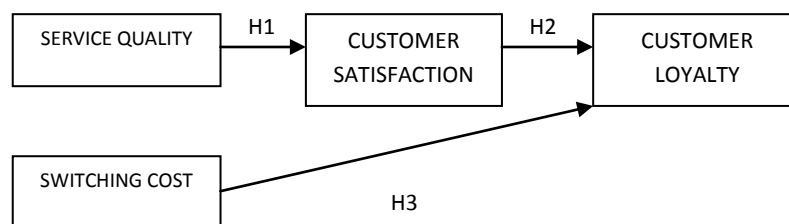
3	Edward and Sahadev, 2011	Switching cost, service quality, perceived value, customer satisfaction, and customer retention	All measures used in this study were adapted from the literature and modified based on the qualitative interviews. The research conducts exploratory and confirmatory factor analysis (CFA).	The results reveal that switching cost can have an independent effect as well as a mediating effect on CR through CS.
4	Kursunluoglu, 2014.	Customer satisfaction, customer loyalty, and customer service	The survey was constituted by 51 customer service items selected based on the literature, customer satisfaction scale, and customer loyalty scale. Employing regression analysis as statistical technique.	This research shows that SCCS is important for retailers and one of the tools for creating customer satisfaction and loyalty in Turkish retail sector.
5	Kaura et al., 2015.	Customer satisfaction, service quality, customer loyalty, perceived price, and fairness service convenience	Cross-sectional research on 445 retail banking customers through questionnaire is conducted. Analyzed using factor analyses and regression analyses. The responses obtained were analyzed using SPSS.	This finding is consistent with the previous findings. Study conducted by Lenka et al. (2009) and Kaura and Datta (2012) showed that employee behaviour and information technology help in increasing customer satisfaction and customer loyalty.
6	Yen, 2011	Switching cost, customer loyalty, and perceived risk	The study conducted an empirical research. A total of 425 online shopping customers were invited from northeastern USA as samples. For the measurement of survey scale reliability, scholars were used to take Cronbach's a value.	The sources of switching costs in e-commerce is different from in telecommunication sectors. Next, the relationship of switching costs and customer loyalty can be affected by perceived risks, which is the moderating effect.
7	Adeleke and Aminu, 2012	Customer loyalty, service quality, customer satisfaction, price, customer service/care, and corporate image	252 questionnaires were self-administered by the researchers to the subscribers of the four major GSM providers in Lagos State. 198 of the questionnaires were returned, properly filled. The questionnaires were analyzed using SPSS 17.	Customer satisfaction and loyalty in the Nigeria's GSM market are most corelated through corporate image and service quality. The correlation of customer service with customer satisfaction and loyalty, though positive is very weak.
8	Angelova and Zekiri, 2011	Service quality, perceived value, perceived quality, customer expectations, customer perception, customer loyalty, customer satisfaction (ACSI model), and customer complaints	The study was carried out using a quantitative method of collecting primary data, out of 1150 questionnaires, 1048 were analyzed using Excel and SPSS 17 to administer this study.	In conclusion, companies can benefit from the fact of knowing how customers perceive the service quality and knowing the way of how to measure service quality. Therefore, the management can use the specific data obtained from the measurement of service quality in their strategies and plans.

9	Sabir et al., 2013.	Perceived service quality, corporate image, trust, perceived switching cost, and customer loyalty	Multiple Regression Analysis, Quantitative	Highly positive correlation between service quality customer loyalty as well as with customer satisfaction.
10	Aydin and Özer. 2005.	Perceived service quality, corporate image, trust, perceived switching cost, and customer loyalty	Structural Equation Modeling	Perceived service quality, perceived switching cost, trust and corporate image have positive effects on customer loyalty.
11	Amin, Ahmad, and Hui, 2012	Service quality, customer satisfaction, and loyalty programs	Multiple Regression Analysis, Quantitative	There is a positive relationship among switching cost, trust, corporate image and perceived service quality with customer loyalty.
12	Aydin et al., 2005.	Switching cost, customer satisfaction, customer loyalty, and trust	Moderated Regression Analysis, Quantitative	Perceived switching cost, customer satisfaction and trust had a positive effect on customer loyalty, but switching cost has no effect on customer who perceive it to be low.

3. Methodology

The aim of this study is to find the relationship among service quality, customer satisfaction, and switching cost to customer loyalty. The proposed model for the research is explained in Figure 1 as well as the hypotheses development.

Figure 1: Conceptual Model



3.1 Relationship of Service Quality and Customer Satisfaction

Service quality defined as a consumer’s judgment about a product’s overall excellence (Zeithaml, 1988) is conceptualized as the consumer’s evaluation based on the comparison between customer expectations against perceived performance (Parasuraman et al., 1988; Bolton and Drew, 1991). Firms delivering high value services (quality services at reasonable prices) satisfy customer needs better (Heskett et al., 1997). Cronin and Taylor (1992) found positive correlation between service quality and customer satisfaction. Service quality that measures customer expectations and perceptions of service performance (Parasuraman et al., 1985) is one of the antecedents of customer satisfaction. Several previous studies were proved that service quality has a positive effect on customer satisfaction and loyalty (Caruana, 2002; Adeleke and Aminu, 2012; Sabir et al., 2013; Kaura et al., 2015). Ruyter, Wetzels, and Bloemer (1998) and Jones et al., (as cited in Aydin and Özer, 2005) found that there is a positive

relationship between service quality and repurchase intention, recommendation and resistance to better alternatives which are part of customer loyalty. Besides, the study done by Aydin et al., (2005), Sabir et al., (2013), Amin et al. (2012) have stated that service quality is positively related to customer loyalty. Zeithaml and Bitner (1996) argue that perceived service quality is an element of customer satisfaction. They extended the relationship of service quality and customer satisfaction is significant, satisfaction solely viewed as a wider perspective for service quality measurement. Thus, the first proposed hypothesis is:

H1: There is a positive relationship between service quality and customer satisfaction within Telkomsel as telecommunication provider in Pontianak.

3.2 Relationship of Customer Satisfaction and Customer Loyalty

Customer satisfaction is defined as an affective state with positive feelings (Cronin et al., 2000) resulting from an evaluation of the overall consumption experiences. Although it is assumed that a high level of satisfaction is strongly correlated with increased customer loyalty, researchers have tried to separately measure customer loyalty. Sasser (1995) added intuitive classification of a personal relation between satisfaction and loyalty. According to Aydin et al., (2005) cumulative customer satisfaction is an overall evaluation based on the total purchase and consumption experience with a good or service over time. He also concluded that customer's general evaluation is not based on satisfaction or dissatisfaction relating to a particular service transaction but on all the service encounters involved in being a subscriber to date. For that reason, this study will adopt his overall satisfaction approach in assessing the customer loyalty from Telkomsel as the telecommunication provider. Many studies (Aydin et al, 2005; Kotler and Keller, 2012, p. 147, Sabir et al., 2013) have found that customer satisfaction positively affected customer loyalty. Conclude that, the second proposed hypothesis is:

H2: There is a positive relationship between customer satisfaction and customer loyalty within Telkomsel as telecommunication provider in Pontianak.

3.3 Relationship of Switching Cost and Customer Loyalty

Switching costs play a crucial role by making it costly for customers to change service providers (Fornell, 1992). Fornell (1992) was one of the first writers to consider switching costs: adding them to customer satisfaction in the customer loyalty function. Past studies have shown that switching costs are positively associated with customer loyalty in the telecommunication sector (Hu and Hwang, 2006; Ibañez et al., 2005; Caruana, 2004). The results of Anderson and Sullivan (1993) similarly support the role of switching costs by observing the average satisfaction and retention elasticities for selected firms in 1989. The switching costs are positively associated with preference loyalty, and switching costs are negatively associated with dissatisfaction response.

In Ruyter et al., (1998) and Lee et al., (2001) study, they found that switching costs are a factor that directly influences customer's sensitivity to price level. Then, Aydin et al., (2005) concluded that switching cost influences customer loyalty. On the contrary, Lee et al., (2001) also mentioned that for mobile lovers, switching cost does not affect the loyalty. Thus, the influence of switching cost should be determined again by the market. Therefore, in some studies, it may result switching cost has influence to customer loyalty or switching cost does not influence customer loyalty. Simply, a customer with high switching costs is associated with higher customer loyalty because switching cost makes them less likely to switch (Lee et al., 2001; Lee, 2013). Hence, the third proposed hypothesis is:

H3: There is a positive relationship between switching cost and customer loyalty within Telkomsel as telecommunication provider in Pontianak.

4. Data Analysis

This study uses a survey. There are 100 respondents drawn in this study and the data is collected through a questionnaire. It has been known that Telkomsel has three product lines, namely Halo, Simpati and AS. Therefore, the sampling method used in this study is proportional sampling. This study employed a hierarchical regression analysis. To measure the variables, the indicators are taken and adapted from various sources. The constructs for customer loyalty, customer satisfaction, and switching cost are measured by using a five-point Likert format, with "strongly agree" to "strongly disagree" as the anchors. While service quality constructs are measured from "poor" to "excellent" as the anchors. Service quality is being measured through base services as cited in Aydin and Ozer, 2005. The base services comprises coverage of calling area, value-added services, customer support services, the suppliers' services of the operator, and services in campaigns. Customers satisfaction constructs are adapted from Aydin et al., 2005. They modified and adapted from American Customer Satisfaction Index and Feick et al., hence the indicators of customer satisfaction are overall satisfaction, pre-purchase expectations, and post-purchase expectations. (Ruyter, Wetzels, and Bloemer, 1998; Lee, Lee, and Feick, 2001; as cited in Aydin and Özer, 2005, p. 915). To measure switching cost, there are five indicators (Burnham and Jones et al.; as cited in Aydin et al. 2005). They have perceived monetary costs, uncertainty costs, evaluation costs, learning costs, and set-up costs as the

operational measures. To measure customer loyalty, a construct developed (Narayandas, 1996; Aydin et. 2005) is taken to measure Telkomsel subscribers in Pontianak. The indicators for customer loyalty are to repurchase intention, resistance to switching to competitor's product, and willingness to recommend the others.

5. Findings and Discussion

5.1 Descriptive Analysis

There are 52 % of male respondents and 48% of female respondents. 56% of respondents' age is around 20-24 years old. 58% education level of respondents is until senior high school/ vocational high school. All of respondents have been using Telkomsel for at least a year. The demographics of respondents are concluded in Table 2.

Table 2: The demographics of Respondents		
Variable	Item	Frequency
Age	20 - 24 years old	56
	25 - 29 years old	8
	30 - 34 years old	10
	35 - 39 years old	3
	40 - 44 years old	3
	45 - 49 years old	7
	≥ 50 years old	13
Gender	Male	52
	Female	48
Education level	Junior High School	6
	Senior High School/ Vocational High School	58
	Diploma	5
	Undergraduate	24
	Post-Graduate	3
	Others	4
Occupation	University Student	46
	Private Employee	23
	Teacher	2
	Government Servant	2
	Entrepreneur	21
	Others	6
Type of GSM card	Halo	33

	Simpati	34
	As	33
Length of years using Telkomsel	1-3 years	22
	4-6 years	20
	7-9 years	20
	≥ 10 years	38

Respondents' answers towards the constructs are assessed through descriptive analysis. The aim of his analysis is to acquire an overview of their answers regarding service quality, customer satisfaction, switching costs, and customer loyalty. The analysis shows that mean value of all variables is high or good. The mean value for service quality is 3.87 means that service quality has been performing well according to the respondents. The respondents also satisfy on what Telkomsel has does until now through the mean value of 3.75. The mean value of switching cost is 3.61 means that they perceived switching cost quite high. Lastly, respondents also show loyal behavior towards Telkomsel with the mean value of 3.58. The descriptive statistics results are summarized in Table 3.

Variables	Mean	N
Service Quality (X1)	3.87	100
Customer Satisfaction (X2)	3.75	100
Switching Cost (X3)	3.61	100
Customer Loyalty (Y)	3.58	100

5.2 Instrument Test

A validity test is conducted to measure the validity of an indicator or questionnaire from each variable. The test is done by performing a correlation between item scores with a total score of a construct or variable by first making a hypothesis. These results are summarized in Table 4. The results show the validity test for service quality, customer satisfaction, switching cost, and customer loyalty are valid for further analysis. A reliability test is used to determine whether the indicator or the questionnaire used is trustworthy or reliable as a variable measurement. The reliability of an indicator or questionnaire can be seen from the of Cronbach's alpha value (α), with the criteria if the Cronbach's alpha (α) is greater ($>$) than 0.60 then the indicator or questionnaire is reliable (Ghozali, 2006). The results of reliability test are shown in Table 4. All variables exceed the minimum criterion of Cronbach alpha, so those variables have satisfactory measurement validity.

Variable	Indicator	Validity Test	Cronbach Alpha
Service Quality (X1)	X1_1	0.492	0.699
	X1_2	0.587	
	X1_3	0.674	
	X1_4	0.682	
	X1_5_1	0.710	

	X1_5_2	0.625	
Customer Satisfaction (X2)	X2_1	0.854	0.867
	X2_2	0.909	
	X2_3	0.910	
Switching Cost (X3)	X3_1	0.642	0.780
	X3_2_1	0.750	
	X3_2_2	0.643	
	X3_3_1	0.656	
	X3_3_2	0.623	
	X3_4	0.757	
	X3_5	0.527	
Customer Loyalty (Y)	Y_1_1	0.742	0.822
	Y_1_2	0.765	
	Y_2	0.795	
	Y_3_1	0.789	
	Y_3_2	0.758	

5.3 Hypothesis Testing

Testing of fit model results in Table 5 showed that the proposed model able to predict dependent variable. The fit model testing by hierarchy regressing analysis with F-test and R^2 . First model explain that service quality has significant relationship of customer satisfaction. Second model furthermore explain that satisfaction and switching costs relates to customer loyalty as a whole on Telkomsel as a telecommunication provider in Pontianak.

Model	Predictor	Dependent Variable (Y)	R	R^2	Adjusted R^2	F- test	Sig
Model 1	SQ	Satisfaction	0.484	0.234	0.226	29.951	0.000
Model 2	Satisfaction Switching Cost	Loyalty	0.779	0.560	0.551	61.801	0.000

T-test is used to indicate whether independent variables affect the dependent variable partially. The values used are Beta or Standardized Coefficients. If t significance < significance levels (Alpha) then H_0 is accepted and H_a is rejected. T table is calculated through 0.05 significance level. The analysis showed that t-significance of the service quality variable on customer satisfaction is 0.000. Since t significance is lower than 5% ($0.000 < 0.05$), then service quality has significant effect on customer satisfaction. T significance of customer satisfaction variable on customer loyalty is 0.000. Since t significance is less than 5% ($0.000 < 0.05$), then customer satisfaction has a positive significant effect on customer loyalty. The t significance of switching cost variable on customer loyalty is 0.014. Since t significance is less than 5% ($0.014 < 0.05$), then switching cost has a positive significant effect on customer loyalty. All these results are recapitulated in Table 6.

Table 6: Hypothesis Testing				
Path	Standardized Coefficients	t-test	Sig	Hypothesis
SQ → Satisfaction	0.484	5.473	0.000	H1 : Accepted
Satisfaction → Loyalty	0.643	8.516	0.000	H2 : Accepted
Switching Cost → Loyalty	0.190	2.514	0.014	H3 : Accepted

The value of regression coefficient of service quality toward satisfaction is 0.484. The value of regression coefficient customer satisfaction toward loyalty is 0.643 and switching cost toward loyalty is 0.190. Concluded that, all the hypothesis is accepted. This research prove that service quality has significant relationship with consumer satisfaction as well second hypothesis is accepted. The more satisfied customers will increase customer loyalty. This study has proved that satisfaction is an intermediary in building loyalty. Service quality appears to be statistically significant in the study. Joachim et al. (2012) stated that quality could be describe in the words of Herzberg as the ‘hygiene factor’ in the mobile telecommunication industry or service quality appeared taken for granted when service providers’ performances are comparable on quality dimension. The study done by Kheng L. L. et al. (2010) and Mosahab R. et al. (2010) showed that customer satisfaction has a mediating effect between service quality and customer loyalty. In Mosahab R. et al. (2010) finding, they mentioned that the higher the service quality, the more satisfaction and loyalty.

Meanwhile, switching cost also relates with customer loyalty. A customer with high switching costs is associated with higher customer loyalty because switching cost makes them less likely to switch. Customer satisfaction shows the greatest significant value compare switching cost variables. This supports the studies by Joachim et al. (2012) and Aydin et al. (2005). Switching cost also shows a significant influence on customer loyalty, supporting the studies by Joachim et al. (2012), Aydin et al. (2005), and Amin et al. (2012). However, the value is less than customer satisfaction. Hence, customer satisfaction is the most profound variable that affects customer loyalty.

Kotler and Keller, (2014, p. 32) mentioned that there are four key marketing activities to build customer loyalty, they are interacting with customers, developing loyalty programs, personalizing marketing, and creating institutional ties. Loyal customers are also known to be a free marketing agent because they can share their positive experience and give recommendation to their friends. Lastly, the loyal customers are known to be less price sensitive. As long as they have got what they expected, they are willing to pay more because they already feel comfortable with the service.

6. Conclusion

This study has shown that customer satisfaction key factor in creating customer loyalty. Therefore, companies should pay attention to designing customer-oriented marketing strategy so that customers can meet the needs and wants. A satisfied customer will tend to be a loyal customer. This study also proves switching cost has a significant effect on loyalty. High switching costs will increase customer loyalty to a product or service. This study takes place telecommunication provider. Switching costs include monetary costs, uncertainty costs, evaluation costs, learning costs, and set-up costs as the operational measures. Sacrifices made by the consumer due to switch on the mobile phone cards from other providers generated a lot of losses, so as to increase consumer loyalty. The study also proves the influence of service quality on satisfaction. This research prove that service quality can affect loyalty through the intermediary of satisfaction.

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