Investigating the Mediating Effects of Customer Satisfaction on The Relationship Between Service Quality and Customer Loyalty: A study on IndiHome customers in Semarang, Indonesia

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Abstract: IndiHome is one of the largest internet service providers in Indonesia with an increase in subscribers every year. IndiHome subscribers until 2019 reached seven million subscribers. However, over time, many customers have complained to IndiHome about slow internet access, sudden increases in billing and so on. The purpose of this research is to prove the effect of service quality on customer loyalty IndiHome in Semarang City and the mediating effect of customer satisfaction on the relationship between service quality and customer loyalty. A total of 100 IndiHome respondents in Semarang City were used as research samples. Questionnaires via Google form are used to collect data. Data analysis using regression analysis and Sobel test. The results of the regression analysis reveal that service quality has a significant effect on customer satisfaction and customer loyalty. Customer satisfaction also shows a significant effect on customer loyalty. The sobel test results show the significance of the mediating effect of customer satisfaction on the effect of service quality on customer loyalty.

Keywords: Service Quality, Customer Satisfaction, Customer Loyalty

1. Introduction

Indonesia recorded a fast growth of internet users. In the last five years, from 2015 to 2020 there has been an increase in the number of internet users by 81.13%, from 110.2 million users in 2015 to 199.6 million in 2020. On average, the increase in the number of internet users in Indonesia amounted to 16.23%. By 2025, the number of internet users in Indonesia is estimated to reach more than 256 million (Statista, 2020).

This development indicates the high need for Indonesian consumers for internet services. The increase in internet users in Indonesia can be an opportunity for information and telecommunications service providers to continue to market and sell their products to consumers. One of the products that supports internet availability is a cable internet provider. Reporting from medcom.id, cable internet providers are considered to have internet speeds that are more guaranteed, unlimited, and low latency. In addition, some cable internet product providers also include cable TV services. However, more and more internet service providers make it more difficult for consumers to determine which product best suits their needs.

PT Telekomunikasi Indonesia or commonly known as Telkom is one of the many leading internet service providers in Indonesia, as well as the only company engaged in technology, information and communication owned by BUMN (State-Owned Enterprises). Currently Telkom is also focused on providing services to Indonesian citizens in the form of Internet, cable television and landline services. One of the products from Telkom is IndiHome.

Indonesia Digital HOME or commonly called IndiHome is a product of PT Telkom Indonesia services in the form of Triple Play service packages such as landlines, high-speed fiber internet, and cable television services (USee TV Cable, IP TV). Telkom labeled IndiHome with three in one service because consumers not only get internet service, but also get telephone service and pay TV broadcasts. IndiHome was officially launched last year and became one of Telkom’s main project programs, replacing the previous products, namely Speedy and Groovia.

As one of the big cities in Indonesia, Semarang City is also the capital of Central Java which has a large number of people and migrants compared to several other cities in Central Java. Of course, the need for internet as a big city
is also high, because Semarang is also a metropolitan city. PT Telekomunikasi Indonesia (Telkom) Regional IV Central Java and Yogyakarta Special Region are based in this city, as an effort to fulfill the need for internet in the city of Semarang and its surroundings. One of the fulfillments of PT Telkom's internet needs is the availability of IndiHome cable internet.

In today's era, in facing competition from its competitors, companies cannot only focus on increasing sales or product development. Companies must be able to provide excellent service to their consumers. Companies need to pay attention to services to consumers, whether the company can provide the needs and desires of consumers, so that consumers feel satisfied with the products that have been given. Through perceived satisfaction, it can form customer loyalty, marked by the use or re-purchase of products.

Kotler & Keller (2012) states that companies use a variety of ways to maintain, one of which is ensuring the quality of products and services to meet consumer expectations. Fulfillment of expectations will create satisfaction for consumers. Satisfied consumers will become customers and they will make repeat purchases, say good things about the company to others, pay less attention to competitors' brands or product advertisements, buy different products from the same company.

Service quality was identified as a determinant of customer loyalty. This shows that the higher the quality of service provided, the more likely it is that customers will be loyal to the company. If customers feel that this is understandable because the services provided by the company are good, then consumers will return to using the product or service (Polyorat et al., 2010).

Based on research by Marina et al. (2014) with the research object of full service airlines, it was found that service quality had a significant and positive effect on customer loyalty. In his research, services that prioritize customer needs will form a customer perception because of good service quality, so the perception of customer loyalty will also increase. Research by Ngo & Nguyen (2016) proves that service quality is an antecedent of customer loyalty. Meanwhile, previous research on banking services conducted by Saputra (2013) shows that service quality has a positive but not significant effect on customer loyalty. This is because the large number of customers is not matched by a sufficient number of officers so that the limited services provided cause inconvenience and ultimately make customers disloyal.

Service quality has a close relationship with customer satisfaction. Research by Farooq et al. (2018) and Ngo & Nguyen (2016) prove that the dimensions of service quality significantly affect customer satisfaction in Malaysian Airlines and the retail banking sector. Research conducted by Lusiah et al. (2019) on online transportation stated that service quality has a positive and significant effect on customer satisfaction through the services provided. Based on this research, customer satisfaction is created because customers feel their needs have been met. On the other hand, a research by Arifitama (2016) by taking a sample of Gubug Makan Mang Engking Salatiga customers obtained positive but insignificant results. The study also found that empathy had the strongest influence on the customer satisfaction variable.

Tjiptono (2015) also states that the creation of satisfaction can provide several benefits including creating customer loyalty and word of mouth recommendations that can benefit the company. Kurniawati & Tjiptodjojo (2015) in their research found that there was a positive and significant effect of customer satisfaction on customer loyalty. This is contrary to research by Liung & Syah (2017) which found that satisfaction does not affect loyalty. Ngo & Nguyen (2016) also found that customer satisfaction plays a role in mediating the effects of service quality on customer loyalty.

According to the Consumer Care Manager of PT Telkom Regional IV, in fact, there are still many claims of complaints from IndiHome customers in the City of Semarang regarding the services provided by Telkom, such as slow network access to internet, network breakdowns, billing issues or billing surges suddenly without notifications to IndiHome customers, delays in resolving complaints, and so on.

As one of the largest internet service providers in Indonesia, customers are sorry about the services provided. These problems can reduce the quality of service which can cause customers to be disloyal to IndiHome products and companies because of the dissatisfaction felt by their customers. This study aims to prove the effect of service quality on customer loyalty and customer satisfaction, the effect of customer satisfaction on customer loyalty and
the mediating effect of customer satisfaction on the effect of service quality on customer loyalty IndiHome.

2. Theoretical Framework

Service quality

Kotler & Keller (2009) states that quality is the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs. It can be concluded that quality is all the characteristics and features of a product or service that are interpreted to satisfy needs. According to Tjiptono (2001), service quality is an effort to meet the wants and needs and deliver the right delivery to customers to balance customer expectations. Meanwhile, Parasuraman et al. (1988) stated that service quality is an evaluation of a consumer on the perceived impression of the service received at a certain time. Service quality consists of five dimensions, namely reliability, responsiveness, assurance, empathy, and tangibles (Parasuraman et al., 1988, 2005).

Customer Satisfaction

Customer satisfaction can be defined as a condition where the needs, wants, and expectations of customers can be fulfilled through the products consumed. Customer satisfaction is someone’s feeling of pleasure or disappointment from the comparison between the products purchased in accordance with or not with expectations.

Customer satisfaction is very important to maintain customer loyalty, so that customers remain loyal in buying the company's products or services. According to the Big Indonesian Dictionary, satisfaction is defined as a feeling of pleasure obtained through sacrifice. According to Kotler & Keller (2009) consumer satisfaction is a comparison between expectations and impressions obtained through a product or service that is consumed by someone who causes feelings of pleasure or disappointment. The company will succeed in getting a lot of consumers if it is able to provide satisfaction to its customers.

Customer loyalty

Kotler (2005) states that loyalty is a form of expected behavior for a product or service, characterized by the repurchasing of a product or reuse of a service, or the likelihood of someone switching to another brand or service provider. Tjiptono (2001) states that loyalty is a situation when consumers have a positive attitude towards products and producers (service providers) and are accompanied by a consistent pattern of repeat purchases.

Indicators of customer loyalty according to Kotler & Keller (2009) are Repeat Purchase (buying back the same product); Retention (resistance to negative influences on the company); Referalls (referencing the total essence of the company). Tjiptono (2015) suggests six indicators that can be used in measuring loyalty, namely repeated purchases, habits in consuming brands, always likes brands, keeps choosing brands, believes that the brand is the best brand and recommends the brand to others.

3. Hypothesis Development

Service quality is closely related to customer loyalty. Good service quality is one of the factors that must be done by a company so that the company can survive. Good service quality will also affect customer trust in the company. Customers who feel the quality of the product or service are good will give a positive response to the services provided, so they have high loyalty to the company. Often times, customers are disloyal due to services that are not as expected and felt by customers.

Mowen & Minor (2002) states that loyalty is a condition in which customers have a positive attitude towards a brand, have a commitment to the brand, and intend to continue their purchases in the future. One of the ways to increase customer loyalty is to provide good service, which is expected to encourage customers to make transactions again.

This is also supported by research by Marina et al. (2014) and Ngo & Nguyen (2016) found that service quality has a significant and positive effect on customer loyalty. So that the hypothesis can be formulated as follows:

H1: Service Quality has a significant effect on Consumer Loyalty
Good service quality will certainly form a positive value to customers, namely a satisfaction. Improving service quality at a company will also be accompanied by increased customer satisfaction. Satisfied consumers will certainly be a positive capital for a business organization.

According to Tjiptono (2015) service quality is a measure of how good the level of service provided is in accordance with consumer expectations. If the quality of service is high, it will lead to high satisfaction as well. Research conducted by Lusiah et al. (2019), Farooq et al. (2018) and Ngo & Nguyen (2016) showed that service quality has a positive and significant effect on customer satisfaction. Based on this research, customer satisfaction is created because customers feel their needs have been met. So that the hypothesis can be formulated are:

H2: Service Quality has a significant effect on Customer Satisfaction

Customer satisfaction is one of the things that measure a company in measuring whether the products or services provided by the company are in accordance with the needs and desires of consumers. Currently, consumer satisfaction is prioritized so that companies do not lose their customers or customers so that these consumers do not switch to other goods or services. Consumers or customers who are satisfied with the products or services provided by the company, tend to repurchase, which means that customer satisfaction forms loyalty.

Kurniawati & Tjiptodjojo (2015) and Ngo & Nguyen (2016) in their research on customer loyalty obtained the results that there is a positive and significant effect of customer satisfaction on customer loyalty. So that the hypothesis obtained is as follows:

H3: Customer Satisfaction has a significant on Consumer Loyalty

Companies that provide maximum service quality to their consumers will form a positive value in the eyes of consumers. This means that consumers are satisfied with the services provided by the company. If the company has provided good quality service, consumers or customers are satisfied, it will form loyalty to consumers. Consumer loyalty is needed by companies to survive and become a strategy in dealing with competitors of similar companies.

Ngo & Nguyen (2016) research found that customer satisfaction plays a role in mediating the effects of service quality on customer loyalty. A research by Saputra (2013) found that high service quality can increase customer loyalty through customer satisfaction. The existence of perfect mediation shows that service quality can affect customer loyalty indirectly mediated by customer satisfaction.

H4: Customer Satisfaction significantly mediates the effect of Service Quality on Customer Loyalty

![Figure 1. Hypothesis Model](image-url)
4. Method

This type of research is explanatory research with the aim of analyzing the influence between variables. The service quality variable is measured using the five SERVQUAL dimensions. Consumer satisfaction is measured by indicators of product or service suitability with consumer expectations, service conformity with expectations, and no consumer complaints. Loyalty variable is measured by indicators: repurchase, resistance to the influence of other brands, and providing recommendations to others. The research population is IndiHome customers in Semarang City. The sampling method is nonprobability sampling by accidental sampling. A total of 100 IndiHome respondents in Semarang City were used as research samples. A questionnaire in the form of a Google form was used to collect data. The measurement scale is Likert. The data analysis used linear regression analysis with SPSS software to prove the effect of independent variables on the dependent variable. The Sobel test was conducted to prove the significance of customer satisfaction in mediating the effect of service quality on customer loyalty (Preacher et al., 2007; Preacher & Hayes, 2008; Sobel, 1982). The Sobel test is performed using the Sobel Test Calculator application (Preacher & Leonardelli, 2001).

5. Results and Discussion

Following are the results of research that has been conducted to determine the effect of service quality variables (X) on customer loyalty (Y):

Table 1 Correlation and Determination Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Path</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SQ → CL</td>
<td>.695a</td>
<td>.483</td>
<td>.478</td>
<td>2.274</td>
</tr>
<tr>
<td>2</td>
<td>SQ → CS</td>
<td>.764a</td>
<td>.583</td>
<td>.579</td>
<td>2.072</td>
</tr>
<tr>
<td>3</td>
<td>CS → CL</td>
<td>.834a</td>
<td>.695</td>
<td>.692</td>
<td>1.746</td>
</tr>
</tbody>
</table>

Note: SQ = Service Quality; CL = Customer Loyalty; CS = Customer Satisfaction

Based on the test results in table 1, it is known that the correlation value of service quality on IndiHome customer loyalty in Semarang City is 0.695. This value is in the interval between 0.60 - 0.799 which indicates that service quality has a strong correlation with customer loyalty. Service quality gives 48.3% influence on customer loyalty and the remaining 51.7% is influenced by factors other than service.

The correlation coefficient of service quality on IndiHome consumer satisfaction in Semarang City is 0.764 and is in the range 0.60 - 0.799. That is, there is a strong correlation of service quality on customer loyalty. Service quality has an effect of 58.3% on customer satisfaction, while the remaining 41.7% is due to factors other than service quality.

The correlation coefficient of the variable customer satisfaction on customer loyalty results in a value of 0.834, in the interval 0.80 to 0.100, so it produces a very strong correlation. The effect that customer satisfaction can give to IndiHome customer loyalty is 69.5% and the remaining 30.5% is influenced by factors other than customer satisfaction.

Table 2 Results of the Inter-variable Effect Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Path</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>SQ → CL</td>
<td>.176</td>
<td>.018</td>
<td>.695</td>
<td>9.569</td>
</tr>
<tr>
<td>2</td>
<td>SQ → CS</td>
<td>.196</td>
<td>.017</td>
<td>.764</td>
<td>11.714</td>
</tr>
<tr>
<td>3</td>
<td>CS → CL</td>
<td>.821</td>
<td>.055</td>
<td>.834</td>
<td>14.951</td>
</tr>
</tbody>
</table>

Note: SQ = Service Quality; CL = Customer Loyalty; CS = Customer Satisfaction
The results of the regression analysis show that the regression coefficient for the service quality variable (X) on customer loyalty (Y) is 0.176. The t test value is 9.569 which is greater than the t table (1.98) and produces a significance value of 0.00. This means that service quality has a positive and significant impact on customer loyalty. Hypothesis 1 is accepted.

The regression coefficient for service quality (X) on customer satisfaction (Z) is 0.196 and the value is positive. The value of T test for the effect of X on Z is 11.714, which means it is greater than the t table (1.98) and produces a sig value. 0.00. This indicates that service quality has a positive and significant impact on customer satisfaction. Hypothesis 2 is accepted.

The regression coefficient of the effect of customer satisfaction on customer loyalty is 0.821. The t test value is 14.951 which is greater than the t table value (1.98) and a significance value of 0.00. Customer satisfaction has a positive and significant effect on customer loyalty. Hypothesis 3 is accepted.

Sobel test is used to prove whether customer satisfaction mediates the effect of service quality on customer loyalty. The results of the regression analysis and the Sobel Test are shown in Table 2.

### Table 3. Results of Regression Analysis on the Effect of Service Quality and Customer Satisfaction on Customer Loyalty

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized coefficients</th>
<th>Standardized coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>-0.288</td>
<td>1.052</td>
<td>-0.274</td>
<td>.785</td>
</tr>
<tr>
<td>Service Quality</td>
<td>0.035</td>
<td>0.022</td>
<td>0.140</td>
<td>1.629</td>
</tr>
<tr>
<td>Customer Satisfaction</td>
<td>0.716</td>
<td>0.084</td>
<td>0.727</td>
<td>8.487</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Loyalitas Pelanggan

![Figure 2. Sobel Test Results](image)

The results of the service quality regression test (X) on customer loyalty (Y) obtained the number 0.176 with std. error 0.018. When regressed simultaneously, the value of the customer satisfaction variable (Z) on customer loyalty (Y) is 0.716 with std. error 0.084. Based on the sobel test, the resulting t test is 6.425 which is greater than the t table (1.98). So it can be concluded that customer satisfaction significantly mediates the effect of service quality on customer loyalty. Hypothesis 4 is accepted.

Based on the research results, the variable service quality is a factor that has a significant effect on customer loyalty through customer satisfaction. The quality of service is good if the company is able to provide continuous quality improvement on products and processes to meet customer desires, while poor service quality will cause complaints to customers. Good service quality fulfills several indicators including the existence of tools that facilitate the service process, officers have the ability and expertise to use tools, respond quickly, precisely, and carefully, put customer interests first, have clear service standards, understand specific customer needs, serving and respecting every customer and not discriminating. Customer satisfaction occurs when the product is in accordance with consumer expectations, the services provided are in accordance with what consumers expect, and complaints from consumers can be resolved properly. Customers are loyal when customers make repeat purchases, are not influenced by other brands and are willing to recommend products to others.
Respondents rated IndiHome's service quality as good. Service quality can be a determinant for consumers to remain loyal to the brand. The services provided must be optimal and increase over time. Service quality indicators that are considered good by customers still need to be evaluated and improved so that they are more optimal. Service quality variables that are considered good include the presence of tools (websites, applications and customer service) that make it easier for customers to file service complaints, officers are capable and expert in using tools to help the service process, officers are friendly and polite, officers serve, appreciate and not discriminatory in performing services, and the officers provide comfortable operating time. However, there are several indicators that need to be improved because the value is still below average, such as inaccuracy in conveying information related to complaints, not being fast, precise and careful in providing services, service costs that suddenly change, and not prioritizing customer interests. 

The results of this study are in accordance with the statement of Polyorat et al. (2010) that service quality is identified as a determinant of customer loyalty. The higher the quality of service provided, the more likely customers will be loyal to the company. This shows that if IndiHome provides optimal service quality, it will create customer loyalty. The results of this study also support the research results of Marina et al. (2014), which states that service quality affects customer loyalty of full-service airlines.

Besides affecting customer loyalty, good service quality also affects customer satisfaction. The results of the study support the statement Tjiptono (2015) which states that service quality has a close relationship with customer satisfaction. This shows that if IndiHome provides optimal service quality, it will create satisfaction for its customers. The results of previous research conducted by Lusiah et al. (2019) on online transportation, also stated that quality has an effect on online transportation consumer satisfaction.

Customer satisfaction can be created because the needs and desires of consumers are met. If customer satisfaction has been fulfilled, the consumer will agree to remain loyal to IndiHome. Therefore, IndiHome still needs to optimize indicators that are considered good by consumers, such as complaints that are well resolved. The reason that consumers are less loyal to IndiHome is because IndiHome products and services are still not in accordance with consumer expectations.

Customer satisfaction has a significant effect on customer loyalty. Tjiptono (2015) states that creating satisfaction provides several benefits including creating customer loyalty and word of mouth recommendations that can benefit the company. The results of this study support the research of Kurniawati & Tjiptodjojo (2015) which found that customer satisfaction has a positive and significant effect on customer loyalty.

Based on the results of the mediation test using the Sobel Test, it shows that customer satisfaction partially mediates the effect of service quality on customer loyalty. Partial mediation implies that the independent variable is able to directly influence the dependent variable without going through or involving the mediator variable, as well as a significant relationship between the mediator and the dependent variable. Service quality has a close relationship and affects customer satisfaction which in turn increases loyalty.

This research supports previous research conducted by Saputra (2013) at Bank BNI46 Surabaya. His research concluded that high service quality can increase customer loyalty through customer satisfaction. Perfect mediation occurs where service quality affects customer loyalty indirectly mediated by customer satisfaction. If a company provides quality service to its customers well, consumers will feel that their needs and wants have been met. From this, the customer will not submit a complaint to the company. The absence of complaints from customers due to satisfied customers can create a sense of loyalty or loyalty to the product or company.

6. Conclusions and Suggestions

Currently, internet service is one of the main needs of modern society. This study aims to investigate the mediating effect of consumer satisfaction on the effect of service quality on IndiHome customer loyalty. This study concluded that service quality has a significant effect on customer loyalty and customer satisfaction. Customer satisfaction also has a significant effect on customer loyalty. Customer satisfaction significantly mediates the effect of service quality on customer loyalty. Consumer satisfaction provides a partial mediating effect.
Several suggestions can be taken into consideration in an effort to increase IndiHome customer loyalty in the city of Semarang, as follows: (1) IndiHome needs to handle complaints quickly so that customers are satisfied with the services provided; (2) IndiHome needs to handle complaints carefully, such as fixing the source of problems or disturbances that are often complained of by customers so that there are no recurring complaints; (3) IndiHome needs to fulfill the services and expectations of its products as desired by subscribers so that customers will no longer complain so that they are satisfied with the services provided.

References


