

# The Importance of Service Quality in ISP Industry

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**Abstract:** The development of information and technology has made Internet easier to use, either for personal or for business purposes. Internet Services Provider (ISP) companies are trying to win the customers' hearts to entice people to be their customers. The objective of this study is to determine the effect of internet service quality toward customers' satisfaction and loyalty. The sample of case study was taken from PT Link Net Tbk. Research method utilizes the quantitative method with Likert scale for research measurement. Causality design research is a research design that is used to analyze the relationship between one variable with others. To test the hypothesis proposed in this research, the analysis technique used is SEM (Structural Equation Modeling) operated through Lisrel program. The results of this study prove that the quality of Internet services affect to customer satisfaction, customer satisfaction affect to customer loyalty and quality of internet services also directly affects to customers' loyalty. From results of the research, companies who are engaged in the ISP industry has importance to focus their initiatives to improve the quality of internet services so that customers are satisfied with ISP services provided and become loyal customers. This study focuses only on the variable quality of internet services, customer satisfaction and customer loyalty. In the next study can add other variables such as customer trust or relationship quality.

**Keywords:** Internet Service Quality, Customer Satisfaction, Customer Loyalty

## I. INTRODUCTION

Development of technology and information has make Internet can be easier to use, either for personal or for purposes business. Company engaged in Internet Services Providers (ISPs) trying to win the hearts of customers so that customers want to use the ISP company. Therefore, be able to win the competition in the ISP industry, the Company ISP needs to be superior its competitors, one of the factors considered to provide quality Internet services. The quality of Internet services is crucial to customer satisfaction and loyalty. The quality of internet services becoming increasingly vital in determining success or failure of an ISP, where internet service delivers quality Internet service that can effectively provide maximum services to customers and also make ISP to remain competitive in the market (Arifin and Triono, 2012). Good quality services to encourage creation of customer satisfaction and customer loyalty to ISP service from the company. From the results of research in the telecommunications company in Greece, the analysis of research data shows quality of service is main predictor for customer satisfaction and customer loyalty. At the same time, relationship with customer service dimension of customer loyalty proved to be only partially mediated by customer satisfaction, because it shows a strong positive effect to customer loyalty (Santouridis and Trivellas, 2010). In the banking industry, reliability of customer service and technology use positive and significant impact to customer satisfaction and customer loyalty. Also, that convenience of technology and customer satisfaction significant and positive impact on customer loyalty (Ganguli and Roy, 2010) The characteristics of site services in online sales industry has a positive effect to customer satisfaction (Chung and Shin, 2010). Quality of service does not affect to customer loyalty of library services directly. However, it was found that service quality affects customer loyalty library services in one of universities in Indonesia indirectly through customer satisfaction (Bakti and Sumaedi, 2012). Service quality has positive effect to customer satisfaction in delivery service company sea lanes (Mi Jang and Mitroussi, 2013). Quality of service does not affect to customer loyalty of library services directly. This study can be replicated with a larger sample size to test stability of the results in other contexts (Bakti and Soemaedi, 2012). Future studies may explore customer familiarity with web sites related to the evaluation of customer satisfaction characteristics (Mi Jang and Mitroussi, 2013). For inquiry approach a more holistic customer loyalty, future studies may test customer loyalty dimension of the relationship with other dimensions such as trust, customer loyalty and customer satisfaction with different cases (Santouridis and Trivellas, 2010). In this research, research conducted to gauge whether Internet affects service quality and customer satisfaction is customer satisfaction mediate between service quality and customer loyalty. The case studies were selected in this study is Internet Service Provider (ISP) PT Link Net Tbk with a business portfolio of Business to Customer. Research conducted in order to stay focused and not widespread, then some problems will be limited in terms of service quality, customer loyalty and customer satisfaction. The purpose of this study is as follows: to identify and analyze the influence of internet service quality to customer satisfaction in PT Link Net Tbk, to identify and analyze the influence of internet service quality on customer loyalty in PT Link Net Tbk, The benefits and usefulness of research for academics is expected to be a reference, especially for those who want to do

research that focuses on study or same variable, to determine effect of service quality on customer loyalty mediated by customer satisfaction, can be a reference or description for further research. For companies can input for Manager of company in evaluating the services and marketing strategies so as to make initiative in improving quality of internet services to customers. The benefit for the writer is to increase knowledge and insight about importance of service quality, customer loyalty and customer satisfaction.

## **II. HYPOTHESIS DEVELOPMENT**

Customers' satisfaction is keyword for companies who want to win business competition. Most sellers (sellers) strive to provide first class service to their customers since high quality of internet services is believed to improve customers' satisfaction. Efforts to provide quality Internet services using a variety of ways is an important thing for a company to respond to customer needs (Quach et al., 2015). The quality of internet service itself is a key strategy that can be used to help improving customers' satisfaction. Quality internet services to performed companies must understand thoroughly expectations and needs of their customers first. Therefore, companies can improve customer satisfaction by maximizing customer experience enjoyable and minimize or eliminate customer experience less enjoyable. Ease of use and reliability customer service and technology positive and significant impact to customer satisfaction and customer loyalty. Also found that convenience of technology and customer satisfaction significant and positive impact to customer loyalty (Ganguli and Roy, 2010). Technology-based companies can centralize services on the things that want to be perceived by customer and this will have an impact to customer satisfaction and customer loyalty. Service quality positively affects to customer satisfaction. The quality of service does not directly influence quality of relationships, but more influence on dimensions quality of relationships such as trust and commitment. Positive effect to quality of relationship that exists communication with customers, and indirectly affect to customer satisfaction (Mi Jang et al., 2013). All services provided by company have a positive impact to customer satisfaction. Communications made by internet company has positive effect to customer satisfaction more than other factors (convenience shopping, site design, ease of getting information, and security). It can be said that impact quality of internet services that will either positively affects to customer satisfaction (Chung and Shin, 2010). Positive effect to quality of relationship that exists communication with customers and indirectly affect to customer satisfaction (Mi Jang et al., 2013). All services provided by company have positive impact to customer satisfaction. Communications made by internet company has positive effect to customer satisfaction more than other factors (convenience shopping, site design, ease of getting information, and security). It can be said that impact of quality of internet services that will either positively affects to customer satisfaction (Chung and Shin, 2010). Positive effect quality of relationship that exists communication with customers, and indirectly affect to customer satisfaction (Mi Jang et al., 2013). All services provided by company have a positive impact to customer satisfaction. Communications made by internet company has positive effect to customer satisfaction more than other factors (convenience shopping, site design, ease of getting information, and security). It can be said that impact quality of internet services that will either positively affects to customer satisfaction (Chung and Shin, 2010). All services provided by company have positive impact to customer satisfaction. Communications made by internet company has positive effect to customer satisfaction more than other factors (convenience shopping, site design, ease of getting information, and security). It can be said that impact quality of internet services that will either positively affects to customer satisfaction (Chung and Shin, 2010). All services provided by company have positive impact to customer satisfaction. Communications made by internet company has positive effect to customer satisfaction more than other factors (convenience shopping, site design, ease of getting information, and security). It can be said that the impact of the quality of internet services that will either positively affects to customer satisfaction (Chung and Shin, 2010).

### **H1: The quality of internet services has significantly influenced customer satisfaction.**

Customer satisfaction with regard to specific evaluation of overall service provided service providers, so that customer satisfaction can only be judged based on the experience of having experienced process of service delivery. An important concept that must be developed in developing customer loyalty is customer satisfaction. Customers who are satisfied with a service will tend to be a loyal customer and will also deliver positive word-of-mouth to his colleagues. Thus customer satisfaction is one of the formation of customer loyalty (Kim, 2010). The key to retaining customers is provide customer satisfaction which in turn will create customer loyalty. Currently some marketing researchers focused on measuring customer satisfaction. This is evidenced by an increase quality of services of company to improve customer satisfaction will give attention to company whether to improvements in customer satisfaction that contribute to improvement in economic performance of companies (Angelova and Zekiri, 2011). Increase their emphasis on customer satisfaction, calling attention to company whether improvements in customer satisfaction plays a role in the economical performance improvements ISP and respond to customer needs. It is linked to size of customer satisfaction which shows that relationship between customer satisfaction and company's ISP is considered by company is suppression of customer satisfaction.

### **H2: Customer satisfaction significant effect on customer loyalty.**

Effect of very large internet service quality on customer loyalty were disappointed with services provided, customer will complain to internet service provider company. If complaint is not handled properly, it will result disappointed customers, severed ties with company service providers, and customers will tell his disappointment to others. For companies, this condition will result in loss of customers and damage image of company and the end is both material and immaterial losses for company. Therefore, if an error occurs in customer service needs to be resolved. According to Lewis and Spyrapopoulos (2001), the most important benefits quality of internet services is retaining customers, because cost to retain customers is less than cost to find new customers, and longer person becomes a customer, person will be profitable for company. Ganguli and Roy (2006) states how failures are handled services and customer reaction to remedial efforts can influence future decisions about whether customers will remain loyal or will switch to another service provider.

**H3: The quality of internet services significantly influence customer loyalty.**

### **III. METHODS OF THE RESEARCH**

#### **Research design**

An explanation of the results related to issue to be discussed in this study, design of the study is design of causality in order to determining relationship between two or more variables. The study design is a causal research design used to analyze inter-relationship between one variable to another variable (Umar, 2009).

#### **Measurement**

Sugiono according to variable definition (2012) is an attribute or trait or value of other people, objects or activities that have a certain variation defined by researchers to learn and make conclusions. The variable is a character who will be in observation of observed unit and an introduction or an attribute of a group of objects. According to Quach et al. (2015) that there are four dimensions to measure the quality of internet services in the context of the ISP industry. Here is the operational definition of variable quality internet services: (1) network quality (PT Link Net Tbk service rarely suffers network damage, customers can download and upload data quickly, and speed respond to PT Link Net Tbk as soon as click to open website), (2) customer service (customer service staff PT Link Net Tbk has adequate knowledge of the service and is willing to respond to customer inquiries, PT Link Net Tbk customer service staff shows a genuine interest in resolving customer issues, and PT Link Net Tbk's customer service staff has a quick response to customer inquiries), (3) quality of information (PT Link Net Tbk provides quality information (website, brochure, sales agent) related services, PT Link Net Tbk provides timely information, and PT Link Net Tbk provides relevant and trusted product information), and (4) security and confidentiality (PT Link Net Tbk protects the customer's personal data, the customer feels safe in transacting with PT Link Net Tbk, and PT Link Net Tbk have high security features).

Satisfaction can be measured using three parameters, namely the perceived quality, perceived value and customer expectations (Angelova and Zekiri, 2011). Here is the operational definition of variables of customer satisfaction: (1) perceived quality (customers feel the quality of internet access is fast and stable and customers feel the quality of PT Link Net Tbk network that never experienced internet access interruption), (2) perceived value (internet access speed service obtained according to price given and subscribed to PT Link Net Tbk internet service is very helpful in doing work and activities at home), (3) customer expectations (Services provided by PT Link Net Tbk in accordance with customer expectations and customers satisfied with the overall service of PT Link Net Tbk).

According to Quach et al. (2015) that variable customer loyalty is built by three dimensions that include intention to continue subscription, intention to make a complaint and intention to switch to other products or services. Here is operational definition of variable customer loyalty: (1) the intention to continue to subscribe (ISP PT Link Net Tbk is the first choice and subscribers intend to continue subscribing, and subscribers will subscribe and use ISP PT Link Net Tbk for the next three years), (2) intention to make a complaint (If customers are not satisfied with ISP service of PT Link Net Tbk, the customer will not make a complaint in the newspaper, and the customer will contact PT Link Net Tbk customer service if there is any problem with ISP service), (3) intention to move to other competitors (if any) internet connection problems at home, customers will not move to another ISP provider, and customers will still use ISP PT Link Net Tbk although there are other providers are cheaper).

#### **Data Collection and Sample**

In measurement method of this study, researchers used a Likert scale of measurement through method used to measure attitudes, opinions, thoughts of a person or group of social phenomenon. On a Likert scale, methods employed using five alternative answers. The population in this research is PT Link Net Tbk customers who are still into customers. The sample is part of number and characteristics possessed by this population. Measurement sample of population used reference tables developed by experts one of which is according to Hair et al. (1998), that the number of samples =  $n \times 5$ . Samples are prepared using random sampling techniques. The questionnaire will be distributed as:  $24 \times 5 = 120$  respondents. Number of samples, added 10% in anticipation of samples that do not fit the criteria:  $120 + 12 = 132$

respondents. The model used in this study is a model of causality or influence relationships. To test hypothesis proposed in this study, analysis technique used is SEM (Structural Modeling Equation) operated through lisrel program.

IV. RESULT AND DISCUSSION

Prior to study, researchers conducted a pretest with two ways such as validity and reliability test. In variable quality of internet services (Quach, et al., 2015) there are 12 questions to dimensions of network service quality, customer service, quality of information and guarantees of security and confidentiality. Results pretest dimension of network services with a value of KMO = 0.623, pretest results dimension of customer service with value of KMO = 0.668, pretest results information quality dimension to value of KMO = 0.650 and results of pretest dimensions of security and confidentiality with value of KMO = 0.644. Further, variable customer satisfaction (Angelova and Zekiri, 2011) there are 6 questions with results of pretest value of KMO = 0.838. Furthermore, variable customer loyalty (Quach, et al., 2015), there are 6 questions with results of pretest value of KMO = 0.669. Because minimum acceptable value of KMO which must be > 0.5, then all questions are valid and can be used. The results showed that value construct pretest reliability of all indicators have qualified with good reliability. Once research is done, the result in which value of Chi Square / Degree of Freedom = 1.480 RMSEA = 0.053 (good fit), ECVI = 3.43 (good fit). EVCI saturated = 4.58, AIC Model = 449.58 compared to the AIC and AIC Saturated = 600.00 Independence = 6428.58. AIC model is larger than AIC Independence, then value of the small show similarities good. CAIC Model = 694,20 far from CAIC Saturated = 1764.84, and also further from the CAIC Independence = 6521.77, then the smaller value of a good show similarities. Fix Nomed Index (NFI) = 0.95 (> 0.90) showed good fit. Critical N (CN) = 109.47 (<200), the model shows a sample size of data is a marginal fit. Goodness of Fit Index (GFI) = 0.83, the ideal value > 0.90 then showed marginal fit.

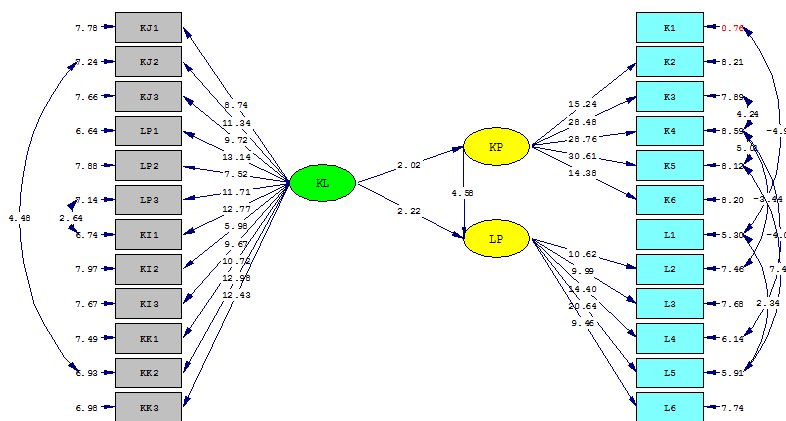


Figure1. Diagram T-Value Path

In this study, there are three hypotheses were tested and based on test results obtained test that the third hypothesis is supported by data.

Table Hypothesis Research Model

Hypothesis	Hypothesis Statement	Value T-	Information
H1	The quality of internet services significantly influence customer satisfaction	2.02	The data support the hypothesis
H2	Customer satisfaction significantly influence customer loyalty	4.58	The data support the hypothesis
H3	The quality of Internet services have a significant effect on customer loyalty	2.22	The data support the hypothesis

In the first test results (H1), it was found that analysis results support hypothesis H1, ie to influence quality of internet services by 2.02 to customer satisfaction. This shows that customer satisfaction is influenced by quality of internet service provided by PT Link Net Tbk. The results of this study reinforce previous research conducted by Mi Jang and Mitrousi (2013), Bakti and Sumaedi (2012) and Santouridis&Trivellas (2010) which says that quality of internet services has a positive effect to customer satisfaction, which means the higher quality then internet service customer satisfaction will be higher or vice versa. In line with Ganguli and Roy (2010) which states that quality of Internet service affects to customer satisfaction.

On the results of testing second hypothesis (H2), it was found that analysis results support hypothesis that there are significant H2 between customer satisfaction to customer loyalty at 4.58. This shows that customer loyalty is influenced by level of customer satisfaction. The higher level of customer satisfaction will increase customer loyalty PT Link Net Tbk. The results of this study confirm previous research conducted by Oliver (1997), Kim (2010), and Santouridis and Trivellas (2010) which says that customer satisfaction has a positive effect to customer loyalty, which means the higher customer is satisfied with services of PT Link Net Tbk then customer loyalty will be higher or conversely the lower customer satisfaction will further lower customer loyalty.

In third hypothesis testing results (H3), it was found that the analysis results support hypothesis H3 that there is significant influence between quality of service as indicated by value of  $t$ -value of 2.22 on customer loyalty. This shows that customer loyalty directly influenced significantly by quality of service. The results of this study reinforce previous research conducted by McMullen and Gilmore (2008), and Bakti and Sumaedi (2012) which says that quality of internet services has a positive effect directly to customer loyalty, which means that higher quality of internet services customer loyalty will be higher or vice versa. Based on the test results the difference in coefficients for model studies it appears that quality of service direct effect to customer satisfaction, with a value of  $t = 2.02 (> 1.96)$ . Furthermore affect customer satisfaction to customer loyalty with value  $t = 4.58 (> 1.96)$ . While direct impact of service quality to customer loyalty with value not just  $= 2.22 (< 1.96)$ . So it could be concluded that customer satisfaction mediates relationship between internet service quality and customer loyalty. The results of this study confirmed previous study conducted by Kim (2010), and Santouridis and Trivellas (2010) which says that customer satisfaction mediates internet service quality and customer loyalty, Network quality which is ability set of technologies and Internet networks designed to ensure a definite level of network performance and stability. In the telecommunications industry, network quality includes quality and signal strength of network itself, number of errors, speed of data download and uploads data. The quality of network into one measure for management in the company to establishing quality of service. So therefore, company must give priority to internet service reliability of quality Internet network. This includes continuously perform preventive maintenance actions and set aside budget or money to routinely carry out preventive maintenance. In addition, companies need to invest in form of latest network technology devices and always updated according to customer requirements. Customer Service, which measures care and attention to the needs of its customers in providing and delivering services, professional assistance and after subscribers. Therefore, companies need to ensure that Human Resources (HR) owned in dealing with customer service, from start to Sales, technician and agent companies is human resources capable of providing excellent service to customers. Companies should regularly provide training to sales, technical and service staff contact center agent regarding how to communicate with customers in a way that makes customer comfortable, how to improve quality of customer service, but in a way that makes customers happy. Quality of information, make ease to customers obtain information related to internet services. Therefore, quality of information is an ISP service quality dimensions. To be able to provide quality information to customers, companies need to regularly provide training and ensure sales, technicians or staff service is truly master knowledge of the products that are currently available, clarity in explaining process of subscription and payment and clarity of information the amount of packet data obtained customers when subscribe to a particular product. Companies also need to regularly update the contents of products listed in the company's website, so if there are customers who want to find information about a product or service can get the latest information. Fourth, the security and confidentiality (security and privacy), ability of ISP in the aspects of information technology to store, maintain and distribute customer data to other parties. Related to security and confidentiality of customer data, companies need to continually ensure that system of internet connection provided to customers really can maintain security and confidentiality of personal data of customers.

## V. CONCLUSION

The results that are concluded from this study is service quality certainly affect to customers' satisfaction in PT Link Net Tbk. The service quality will improve customer satisfaction (the first hypothesis is supported). The results of subsequent research concluded are customer satisfaction affects to customer loyalty. High customer satisfaction will increase customer loyalty (second hypothesis is supported). It was evident that there was a PT First Media Tbk customers who have subscribed for more than five years. The third conclusion from this study is that service quality directly affects to customer loyalty. Quality of service will increase customer loyalty directly PT Link Net Tbk (third hypothesis is supported). It turns out that in the company of ISP PT Link Net Tbk, quality of service greatly affect customer satisfaction and loyalty.

### Research limitations

This study used a questionnaire as a measuring tool for purpose of saving time and energy. However, questionnaire has limitations such as bias in completing questions and answers of respondents. There is a possibility of respondents had not filled with real or just fill based on ideal conditions expected and not a condition exactly is going on. This can lead to measurement used not describe the real variable. In addition, limited number of samples of 132 and variable number of three variables as well as number of analysis led to study could not dig more deeply about other factors that affect customer loyalty.

### Suggestion

Some suggestions are expected to be able to improve customer satisfaction and loyalty, for example by improving quality of service, where quality of services are network quality, quality of customer service, quality of information and quality of security and confidentiality of customer data. PT Link Net Tbk may periodically provide device with latest technology network quality can be fast, stable and reliable. In addition, to improve quality of customer service, PT Link Net Tbk should regularly provide training related to excellent service, face of customer complaints, product knowledge and technical knowledge of Internet network to the parties internal company that directly communicate with customers, such as sales, technicians, service staff of technicians and contact center agent. Policies, rules and clear process also needs to made and enforced in order to simplify and keep all employees who communicate directly or indirectly with customer can follow policies, rules and processes that have been made. Renewing product-related information and communication services either directly or through online media such as websites. Furthermore, always maintain and update Internet network security systems PT Link Net Tbk and socialized to all customers through online media to foster trust customers that Internet connection Tbk PT Link Net safely and reliably. Clearly rules and processes also need to make and enforced in order to simplify and keep all employees who communicate directly or indirectly with customer can follow the policies, rules and processes that have been made. Renewing product-related information and communication services either directly or through online media such as websites. Furthermore, always maintain and update Internet network security systems PT Link Net Tbk and socialized to all customers through online media to foster trust customers that Internet connection Tbk PT Link Net safely and reliably. clear rules and processes also need to make and enforced in order to simplify and keep all employees who communicate directly or indirectly with customer can follow policies, rules and processes that have been made. Renewing product-related information and communication services either directly or through online media such as websites. Furthermore, always maintain and update Internet network security systems PT Link Net Tbk and socialized to all customers through online media to foster trust customers that Internet connection Tbk PT Link Net safely and reliably. Renewing product-related information and communication services either directly or through online media such as websites. Furthermore, always maintain and update Internet network security systems PT Link Net Tbk and socialized to all customers through online media to foster trust customers that Internet connection Tbk PT Link Net safely and reliably.

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