A THESIS

Presented as Partial Fulfillment of the Requirements

to Obtain the Bachelor Degree in Management Department

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INTERNATIONAL UNDERGRADUATE PROGRAM IN MANAGEMENT

FACULTY OF BUSINESS AND ECONOMICS

UNIVERSITAS ISLAM INDONESIA

YOGYAKARTA

2022

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THE EFFECT OF E-SERVICE QUALITY FROM TELKOM CARE TOWARDS INDIHOME ON CUSTOMER LOYALTY

A BACHELOR DEGREE THESIS

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Defended before the Board of Examiners
On June 17, 2022 and Declared Acceptable

Board of Examiners

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Yogyakarta, June 17, 2022

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DECLARATION OF AUTHENTICITY

Herein I declare the originality of the thesis; I have not presented anyone else's work to obtain my university degree, nor have I presented anyone else's words, ideas, or expression without acknowledgment. All quotations are cited and listed in the bibliography of the thesis.

If in the future this statement is proven to be false, I am willing to accept any sanction complying with the determined regulation or its consequence.

Yogyakarta, June 13, 2022

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ACKNOWLEDGMENT

Assalamualaikum Warahmatullahi Wabarakatuh.

Praise be to Allah, the Lord of the worlds. God is all-forgiving and merciful toall his people. Solawat and greetings to the prophet Muhammad *Shallallahu 'Alaihi Wa Sallam* as the messenger of Allah.

Alhamdulillahi *rabbil'alamin*, the thesis with the title **THE EFFECT OF E-SERVICE QUALITY FROM TELKOM CARE TOWARDS INDIHOME ON CUSTOMER LOYALTY** as a partial requirement to obtain the bachelor's degree in International Undergraduate Program in Management, Faculty of Business and Economics, Universitas Islam Indonesia is finally finished. I would like to thank those who have helped me in completing this research. Because I am sure, without the help and support of them I would not be able to complete this research. For that reason, the researcher would like to address the appreciation to:

1. Allah *Subhanaahu Wa Ta'aal*, for all his blessings and guidance for me in the past, present and in the future.

2. Mr. Jaka Sriyana, SE., M.Si., Ph.D. as the Dean of the Faculty of Business and Economics, Universitas Islam Indonesia, and Mr. Anjar Priyono, S.E., M.Si., Ph.D. as the Head of Undergraduate Program in Management

3. Mr. Abdul Moin, SE., MBA., Ph.D. as the Secretary of International Undergraduate Program in Management, Faculty of Business and Economics, Universitas Islam Indonesia.

4. Mr. Anas Hidayat, Drs., MBA., Ph.D. as the Content Advisor and as one of my favorite lecturers in Management IP that already sacrificed his time, energy, and thought to give the direction of this thesis from the beginning.

v

11. All parties that cannot be mentioned one by one who always support me unconditionally all this time. Thank you.

Wassalamu'alaikum *Warahmatullahi Wabarakatuh.*

Yogyakarta, June 13, 2022

Ilham Hakiki

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ABSTRACT

This study aims to determine the effect of whether *E-S-Qual* has a positive effect on perceived value, whether perceived value has a positive effect on loyalty, whether *E-S-Qual* has a positive effect on loyalty and whether perceived value can mediate the relationship between *E-S-Qual* and loyalty to Indihome customers. This research used primary data obtained by distributing online questionnaires to individual consumers who used Indihome services in Yogyakarta with the total of 115 respondents. The data analysis technique used to test the hypothesis was the Structural Equation Model (SEM) method with the AMOS 22 program.

The results showed that E-S-Qual had a positive and significant effect on perceived value, meaning that the better the E-S-Qual, the higher the customer's perceived value. Perceived value had a positive and significant effect on customer loyalty, meaning that the higher the perceived value of the customer towards Indihome services, the higher the customer loyalty. E-S-Qual had a positive and significant effect on customer loyalty, meaning that the better the E-S-Qual, the higher the customer loyalty. Perceived value was a variable that significantly mediated the relationship between E-S-Qual and customer loyalty, meaning that the better the E-S-Qual, the higher the customer loyalty.

Keywords: E-S-Qual, perceived value, customer loyalty, IndiHome, SEM AMOS

ABSTRAK

Penelitian bertujuan untuk mengetahui pengaruh Apakah *E-S-Qual* berpengaruh positif terhadap persepsi nilai, apakah persepsi nilai berpengaruh positif terhadap loyalitas, apakah *E-S-Qual* berpengaruh positif terhadap terhadap loyalitas dan apakah persepsi nilai mampu memediasi hubungan antara *E-S-Qual* dan loyalitas pada pelanggan Indihome. Penelitian ini menggunakan data-data primer yang diperoleh dengan menyebar keusioner secara online kapada konsumen individu yang menggunakan jasa layanan Indihome di Yogyakarta yang berjumlah 115 responden. Teknik analisis data yang digunakan untuk menguji hipotesis dalam penelitian ini menggunakan metode *Structural Equation Model* (SEM) dengan program AMOS 22.

Hasil penelitian menunjukkan bahwa *E-S-Qual* berpengaruh positif dan signifikan terhadap nilai yang dirasakan, artinya semakin baik *E-S-Qual*, semakin tinggi nilai yang dirasakan pelanggan. Perceived value berpengaruh positif dan signifikan terhadap loyalitas pelanggan, artinya semakin tinggi persepsi nilai pelanggan terhadap layanan Indihome maka semakin tinggi pula loyalitas pelanggan. *E-S-Qual* berpengaruh positif dan signifikan terhadap loyalitas pelanggan, artinya semakin baik *E-S-Qual* maka semakin tinggi loyalitas pelanggan. Perceived value merupakan variabel yang secara signifikan memediasi hubungan antara *E-S-Qual* dan loyalitas pelanggan, artinya semakin baik *E-S-Qual* maka semakin tinggi loyalitas pelanggan.

Kata kunci: *E-S-Qual,* persepsi nilai, IndiHome, loyalitas pelanggan, SEM AMOS

CHAPTER I

INTRODUCTION

1.1. Research Background

The development of technology, information and communication at this time is rapid and fast because it has become a primary need of society and brings a considerable impact from various human aspects, especially internet technology. The internet is a communication that is carried out globally and interactively, besides that the internet also provides information and services that allow opening new markets, products or services, as well as integrating online activities.

In the last decade, the development of information technology has undergone substantive changes in the formation of customer behavior. With the internet, the opportunities for customer to make purchases become wider through various accesses to products / services and increase the ease of making purchases. It is undeniable that the quality of electronic services is a very important issue in order to create loyal customers. In the world of e-commerce, the concept of service quality is known as e-service quality. The other terms, namely electronic service quality and online service quality have the same definition (Putri & Verinita, 2019).

E-Service through online applications can be easily used anytime and anywhere, such as online shopping service applications (e.g. Bukalapak, Lazada, Shopee), hotel & ticket booking services (e.g. booking.com, aladin, traveloka, tickets. com), and even used/preloved sales service applications (e.g. olx, e-Bay, Carrousel). Likewise, state-owned companies such as PT Telkom are not left behind in developing the quality of electronic-based services and one of them is the digital

service IndiHome as one of the largest internet service provider platforms in Indonesia.

These online applications and site-based services try to maintain the quality of their services so that they can build loyal customers to the company and create long-term profits for the company. The term digital service quality is hereinafter referred to as the Electronic Service Quality (E-S-Qual). E-S-Qual can be described as the overall customer perception as well as the evaluation results of the electronic service experience. According to Parasuraman & Malhotra (2000), initially E-S-Qual was divided into 11 dimensions, which were: reliability, responsiveness, access, flexibility, ease of navigation, efficiency, insurance/honesty, security/privacy, price knowledge, site aesthetics, and customization/personalization. However, after re-examination, the E-Core Service Quality scale was obtained, which consists of: (1) efficiency, as a form of ease and speed in accessing the site; (2) fulfillment, as a form of extension of the site's promise about order delivery and item availability being fulfilled; (3) system availability, as proof of the correctness of the technical functions of the site; and (4) privacy, as a level of site security and protecting customer information (Parasuraman, Malhotra, & Zeithaml, 2005).

Research themes related to E-S-Qual have been widely carried out both in the context of developed countries and in Indonesia. The novelty of the research that is built in this research refers to the research gaps that have not been carried out in Indonesia, therefore it is necessary to briefly explain previous studies on E-S-Qual in the public sector in Indonesia. This study examines E-S-Qual which is associated

with customer loyalty with perceived value as a mediating variable. Several previous studies were reviewed as a reference in this research.

Research conducted by Putri & Verinita (2019) found that e-service quality, e-recovery service quality affects perceived value, Perceived value affects loyalty, and perceived value mediates the relationship between e-recovery service quality and loyalty. Meanwhile, Vicramaditya (2021) found that the quality of electronic services and perceived value had a positive and significant direct effect on customer satisfaction and customer loyalty. The results of the research are also strengthened by Jiang et al., (2015) that stated all dimensions of service quality have a significant and positive influence on the perceived value of customers which in turn increases customer loyalty. The results of the mediation test show that the perception of customer value plays a partial mediating role in the effect of ease of use, maintenance, product portfolio, and reliability on customer loyalty, and as a full mediation in the relationship between security and customer loyalty.

The limited empirical studies that examine the dimensions of E-S-Qual in electronic services in Indonesia encouraged the researcher to examine the role of E-S-Qual on customer loyalty. Furthermore, this research aims to identify the relationship among E-S-Qual, perceived value and customer loyalty. Perceived value is a value that is perceived depend on how to evaluate the quality or benefits that will be received from a product compared to the costs or sacrifices inherent in the price. In other words, the perceived value of customers represents a *trade-off* between the perceived quality or benefits in the product relative to the sacrifice's customers feel by paying the price (both products and services)

(Balamuralikrishnan, 2018). Balamuralikrishnan (2018) found that there was a significant effect between E-S-Qual on perceived value in digital companies in India and a population consisting of students in the city of Tiruchirapalli with the sample of 39 respondents using the Pearson correlation and regression test.

Schiffman & Kanuk (2009) defined perceived value as a customer's overall assessment of the utility of a product based on perceptions of what customers receive which represents the trade-off between service benefits and costs incurred by customers in evaluating, obtaining and using the product. In industrial settings that implement online applications, the perceived value of customers does not only come from the product itself, but can also come from websites, internet lines and processes in searching, ordering, and receiving products (Keeney in Chinomona et al., 2014). Understanding and delivering customer value is seen as an effective way to retain customers and to develop and maintain long-term customer relationships. The perception of value to customers has been recognized in marketing research as an important concept in influencing preferences and business progress, (Overby & Lee, 2006). Thus, in a business industry environment that has good electronic quality capabilities, customer can find alternatives to fulfill their needs easily. Therefore, building long-term relationships with customers presents a more difficult challenge for companies implementing electronic-based applications.

Regarding to the relationship between perceived value and customers loyalty, several previous empirical researches have shown that there is a significant effect of perceived value on customer loyalty (Chinomona et al., 2014; Wasim et al., 2017). Chang et al. (2009) argued that customer' perceived value contributes

positively to e-loyalty by reducing the individual's need to seek alternative service providers. Lee et al., (2016) stated that customers who show a sense of loyalty will have a positive impact on service quality. Loyalty is defined as the proportion of customers to choose some specific product or service compared to the total number of purchases made by these customers (Neal, 1994).

The loyalty variable used in this study is conative loyalty, which refers to the customer's intention to return to the site (Oliver, 1997). The ability to reach the stage of being able to build loyalty requires that customers are satisfied with the quality of electronic services and information quality, as well as the perceived value of the site. At this stage, customers intend to return to the site to make future purchases (Pearson et al., 2012).

Although the majority of researches show a positive effect of E-S-Qual on loyalty, several other researches have shown contradictory results, namely research conducted by Brown & Jayakody (2008) which found the quality of electronic services does not directly affect customer loyalty to the site. Service quality positively affects user satisfaction, and information quality positively affects perceived usefulness. Both user satisfaction and perceived usefulness positively affect site loyalty.

Based on the explanation of E-S-Qual, perceived value and customer loyalty, it can be concluded that the quality of electronic facilities needs to be evaluated as the impact of E-S-Qual which will be able to affect customer loyalty, especially in Indonesia Digital Home services (abbreviated IndiHome).

Indonesia Digital Home (IndiHome) is one of the service products from PT Telekomunikasi Indonesia in the form of communication and data service packages such as home telephone (voice), internet (Internet on Fiber or High Speed Internet), and interactive television services (USee TV Cable, IP TV).). Because of this offer, Telkom labels Indihome as three services in one package (3 in 1). Apart from the internet, customers can also have TV and telephone services. Indihome was officially launched in 2015. Indihome is also a program of Telkom's main project, Indonesia Digital Network 2015. In its implementation, Telkom cooperates with a number of telecommunications technology developers to build digital concept houses. Indihome services can only be applied at home where there is a fiber optic network from Telkom (FTTH) and areas where copper cables are still used. Now Indihome provides Dual Play and Triple Play services.

Based on the existing data, the growth in the number of Indihome customers continues to experience significant development. During January-June 2021, Indihome subscribers increased by 285 thousand people or 11.4% to 8.3 million people spread over 496 districts/cities. This increase in Indihome service users occurs because users certainly have a positive perception when using Indihome services. Customers must have several reasons to keep using the product or service they choose. In this case, customers certainly have different levels of loyalty that affect the increase in Indihome service users annually.

The novelty of the research that is built in this research refers to the research gaps that have not been carried out in Indonesia, in this case the limited empirical studies that examine the dimensions of E-S-Qual in electronic services. Thus, it

encouraged the researcher to examine the role of E-S-Qual on customer loyalty and conducting research with the title **The Effect of E-Service Quality from Telkom Care towards Indihome on Customer Loyalty.**

1.2. Formulation of the Problem

Based on the description of the previous background, the problem formulations in this research are:

1. Does E-Service Quality have a positive effect on perceived value for Indihome customers?

2. Does perceived value have a positive effect on loyalty for Indihome customers?

3. Does E-Service Quality have a positive effect on loyalty for Indihome customers?

4. Is perceived value able to mediate the relationship between E-Service Quality and loyalty for Indihome customers?

1.3. Focus of the Research

Based on the formulation of the problem above, the objectives of this research are as follows:

1. Analyzing and explaining the positive effect of E-Service Quality variable on the perception of value for Indihome customers.

2. Analyzing and explaining the positive effect of perceived value variable on loyalty for Indihome customers.

3. Analyzing and explaining the positive effect of E-Service Quality variable on loyalty for Indihome customers.

4. Analyzing and explaining weather perceived value able to mediate the relationship between E-Service Quality and loyalty for Indihome customers.

1.4. The Advantages of The Research

a. Practical Benefits

The results of this research are expected to contribute to providing an overview to policy makers such as the management of PT. Telkom in improving Telkom Care services about strategies to increase customer loyalty by considering several factors such as service quality and perceived value.

b. Theoretical Benefits

The results of this research are expected to contribute to the enrichment of the E-S-Qual literature on digital application users, in this case PT. Telkom which may differ from the private or commercial sector.

CHAPTER II

REVIEW OF RELATED LITERATURE

2.1. Telkom-Indihome

PT. Telekomunikasi Indonesia is the largest full service and network provider company that serves millions of customers throughout Indonesia, with a complete range of telecommunications services that include fixed wireline and fixed wireless, cellular communications, network and interconnection services, as well as internet and data communications services. PT. Telekomunikasi Indonesia also provides various services in the field of information, media, and edutainment, including cloud based and server based managed services, e-Payment services, and IT enabler, eCommerce and other portal services.

One of the products from PT. Telkom is Indihome Service. Indihome Fiber is a Triple Play service consisting of landline telephone, Internet on Fiber or High Speed Internet and Usee TV Cable along with several additional features such as Indihome View, and Trend Micro Internet Security.

2.2. Related Literature Review

This literature review is intended to document and review the results of existing research, supporting explanations on the research topic to be carried out, as well as explanations of concepts, variables, research indicators, measurements and assumptions in the same area. The research also explained the relationship among variables, namely the relationship between e-service quality and customer loyalty, the relationship between e-service quality and perceived value, the relationship between perceived value and customer loyalty and the relationship between e-service quality and customer loyalty through the mediating variable of perceived value.

2.2.1. E-Service Quality

According to Kotler & Keller (2012), service quality is a business strategy that produces products or services that are able to meet the needs and desires of internal customers, namely the speed of service and service friendliness, while external is the completeness of facilities implicitly and explicitly. Service quality in service companies can be in the form of services according to the size applicable to the service and the delivery is the same as what is needed and expected by customers. Good service is a must match between customer expectations and services received by customers. Therefore, companies must make efforts to improve quality services to customers and focus on quality efforts to meet customer needs and desires that have the accuracy of delivery to meet customer desires (Lupiyoadi, 2013). In addition, according to Roderick & Gregory (2008), service

quality is the level of measurement of service quality that is assumed to be related to price developments. Hence, a company that is able to provide a service quality is better than the service quality of its competitors, then the company will be able to win the competition.

As business competition increases, which is very dynamic, it requires companies to innovate in providing services to customers, to retain existing customers and gain new customers by maximizing the services provided by the company electronically via the internet, known as electronic services. In the online context, service quality is also called electronic service quality. According to Rowley (2006), E-service quality or abbreviated as E-S-Qual is an action, business or performance mediated by information technology. Electronic services include elements of e-tailing services, customer support, and service. E-S-Qual is developed based on advances in existing information technology to evaluate the services provided by the internet network.

From these various definitions, it can be concluded that E-S-Qual is an assessment from customers of the service quality of a company or service provider that can be done using the internet network. According to Ladhari (2010), the quality of service in online and offline contexts can be measured by several dimensions, which are:

1. Reliability is the ability of e-tailers to carry out the promised service in a timely and accurate manner.

2. Responsiveness is the speed of response and willingness of e-tailers to help customers.

3. Privacy / security is the protection of personal data information and financial data.

4. Information Quality / Benefit is the suitability of information with the needs and goals desired by customers.

5. Ease of Use / Usability is a business needed by customers in getting access to available information.

6. Site Design is the aesthetic features, catalog structure and content of an application or site.

E-S-Qual can be defined as meeting customer expectations without any service encounters that rely on human-to-human relationships (Pearson, Tadisina, Griffin., 2012). E-S-Qual was first presented by Parasuraman & Malhotra (2000), they interpret the E-S-Qual site as an extension to site efficiency and effectiveness in shopping, purchasing, and delivering products and services. E-S-Qual in E-commerce can be interpreted as an overall customer evaluation and assessment of the advantages and quality of e-services offered in the virtual market scope (Santos, 2003). Rowley (2006) defined electronic service quality (E-S-Qual) as an action, effort or performance whose delivery is mediated by information technology.

E-S-Qual can be described as the overall perception or evaluation of customers on the experience of electronic services from the scope of the online market (Santos, 2003). According to Francis & White (2002), the dimensions of E-

S-Qual are site storage functionality; product attribute description; ownership conditions; delivery; customer service and protection. Ho & Lee (2007) argued that E-S-Qual is information quality, protection, ease of use, availability, customization, community, responsiveness, and delivery fulfilment. Jeong & Lambert (2001) explained that E-S-Qual as a service that can be felt its usefulness, ease of use, and accessibility are the basic dimensions of the quality of services provided. Parasuraman & Malhotra (2000) identified dozens of site features at the perception attribute level and categorized them into 11 E-S-Qual dimensions namely reliability, responsiveness, access, flexibility, ease of navigation, efficiency, insurance/honesty, security/privacy, price knowledge, site aesthetics, and customization/personalization. According to Parasuraman (2005), after a research is done, the E-core Service Quality scale is obtained as follows:

a. Efficiency: The site used by customers is very easy to use, well structured, the site has a good speed capability in accessing and using the site; thus, that customers simply need information that is easy to understand and easy to operate the available site.

b. Fulfillment: The available site must be able to fulfill orders or services that have been promised to customers, in this case the site must have stock, provide what is ordered or what is needed by customers and deliver it on time as promised.

c. System Availability: Having the correctness of the technical functions of the available sites, customers will judge the extent to which the

capabilities of the available sites are able to quickly respond to customer needs.

d. Privacy: The extent to which customers believe that the available sites are safe from interference and that customer's personal information is protected. The available sites must be able to have a level of security for customers' personal information; thus, customers are sure and feel safe in using the sites provided.

2.2.2. Perceived Value

Zeithaml (1988) stated that perceived value is a component that is "received" (benefit) where perceived value includes intrinsic attributes such as how a purchase affects one's feelings and extrinsic attributes such as the reputation of a product or service. When components are "given" (sacrifice), perceived value includes monetary prices and nonmonetary costs (such as time, energy, and effort). Zeithaml (1988) also classified four customer differences in defining value, namely:

1) Value is low price.

2) Value is whatever I want in a product or service.

3) Value is the quality I get for the price I pay.

4) Value is what I get for what I give.

According to Lee, Kim, Chung, Ahn, Lee (2016) the perception of value is very important because it is directly related to customer habitual intentions or habits of profit. The basic functional or usefulness dimensions of perceived value may require an emotional or hedonic dimension. The experiential component of service

or product use is important in determining the perception of value and this component is related to the emotional experience of consumption (Lee et al. ,2016). In the opinion of Zehir, Sehitoglu, Narcikara, & Zehir (2014), perceived value can be summarized as the value of a product determined by customers about its value. Thus, perceived value depends on its ability to meet customer needs or requirements.

Perceived value is one of the important factors so that customers are interested in buying or using the services of a product offered, where customers expect the benefits to be obtained by these customers from certain products or services. Value is a form of comparison between the benefits obtained for the sacrifice of a person, and these benefits are in the form of functional, economic and emotional benefits, while the sacrifices can be in the form of time, cost, risk and energy sacrifices, (Kotler & Keller, 2016).

Based on the various definitions above, it can be concluded that perceived value is an assessment from customers who have an overall assessment of the benefits of the product or service provided based on what customers receive and what customers provide. Thus, customers perceive the value of a product or service based on what they get and what they provide. Manufacturers and service providers can increase the value of customer offerings through some combination of increasing economic, functional, emotional benefits, and can reduce one or more types of costs.

According to Zeithaml (2009), customers express opinions about perceived value in four dimensions, which are:

a. Value is low price means customers perceive low price as the most important value to them, while quality as a value with a lower level of importance.

b. Value is whatever I want in a product or service means customers perceive that value as a benefit or quality received is not merely price or value, but value is something that can satisfy wants.

c. Value is the quality I get for the price I pay means customers perceive that value is something of benefit or quality received in accordance with the amount of price paid.

d. Value is what I get for what I give means customers perceive that the value is based on the number of benefits received compared to the sacrifices incurred both in the form of the amount of money spent, time and effort.

A product or service is more than just a physical good or service, but a product or a set of satisfactions or uses/utilities received by customers. The satisfaction or use includes how the product functions when used, the confidence and pride it offers, and other symbolic uses received as a result of owning or using the product.

Indicators that can be used to measure perceived value are as follow (Wu, Lei et al., 2014):

1. The value obtained by customers, namely a product or service provider can offer good economic value to customers.

2. Good product / service, i.e., the product or service purchased by customers is a good purchase.

3. Time saving, namely when customers make the purchase process of a product or service, customers feel very effective and efficient in the buying process.

4. Ease of using the site, that is, customers find it very easy to make purchase transactions on the products or services offered.

5. Efforts to obtain products or services, namely when customers need the products or services offered. The efforts of these customers are able to obtain products or services which are not so difficult to obtain.

2.2.3. Customer Loyalty

According to Neupane (2015), customer loyalty is a form of responsibility or serious action to re-purchase a product/service continuously in the future, and this will have an impact on repeated shopping activities for the same type of goods, although it is influenced by the environment which has the potential to cause a change in customer behavior. Loyalty is related to customer attitudes that have customer intentions to repurchase and recommend it to their closest people (Sondoh, Omar, Wahid, Ismail, & Harun, 2007).

Loyalty is the true estuary of a series of marketing activities which is not only limited to customer satisfaction but also it is able to reflect the end result of a

process in which internal arrangements play a role (Thakur, 2012). Hurriyati & Ratih (2014) stated that customer loyalty is a very important impetus to create sales, as a form of deep commitment from customers to repurchase. Loyal customers always refuse the products or services offers from other companies. They already have their own devotion for the product or service that they have been used.

Izogo (2017) defined that customer loyalty is a continuous repurchase or ongoing support behavior towards the goods or services that has become customer's choice; thus, recruiting loyal customers becomes important if there are more competing offerings. Understanding customer loyalty includes exploring why customers continue to choose the product or service they choose and other customers choose other product or service offerings from competitors (Moore et al., 2012).

According to Pandey, Tripathi, Jain, & Roy (2019), indicators to measure loyalty are as follow:

1. Spread positive things about the site to friends.

2. Recommend the site to friends.

3. Convince friends to use the site.

4. Considering the site as the top choice for future purchases.

5. Doing more business activities with the site in the next month.

This research develops from researches that had been carried out on previous researchers about the effect of E-Service Quality on customer loyalty with

perceived value as a mediating variable. Several previous researches have been

summarized as shown in Table 2.1.

Table 2.1 List of Journals

No	Name/Year/Title of Book	Variable	Methodology	Conclusion
1	(Zehir et al., 2014) E-S-Quality, Perceived Value and Customer loyalty Relationships in Internet Retailers. *Procedia - Social and Behavioral Sciences,* 150, 1071–1079. https://doi.org/10.1016/j.sbspro.2014.09.120	Independent: E-S-Quality consists of: System availability Efficiency Fulfillment Privacy Mediation: Perceived Value Dependent: Customer loyalty	Factor Analysis, Regression Analysis and Path Analysis The sample was taken as many as 645 retail Internet users in Turkey	There is a strong relationship between E-service Quality with Customer loyalty and Perceived Value acts as a mediator among these relationships
2	(Zehira & Narcikara, 2016) E-Service Quality and E-Recovery Service Quality: Effects on Value Perceptions and Customer loyalty. *Procedia - Social and Behavioral Sciences,* 229(2016), 427 – 443.	Independent: E-Service Quality E-Recovery Service Quality Mediation: Perceived Value Dependent: Customer loyalty	Factor Analysis, Regression Analysis and Path Analysis The sample was taken as many as 645 retail Internet users in Turkey	There is a strong relationship between E-service Quality and E-Recovery Service Quality with Customer loyalty and Perceived Value acting as a mediator between the relationship
3	(Jiang et al., 2015) E-Service Quality and E-Recovery Service Quality: Effects on Value Perceptions and Customer loyalty. *Procedia - Social and Behavioral Sciences*, 229(2016), 427 – 443.	Independent: E-Service Quality consists of: Product Portfolio Care Reliability Security Ease of Use Mediation:	Factor Analysis, Regression Analysis and Path Analysis The sample was taken as many as 235	The five dimensions have a significant and positive influence on the customer's perceived value which in turn increases customer loyalty. The results of the mediation test show that the perception of customer value plays a partial mediating role in the effect

		Perceived Value Dependent: Customer Loyalty	online customers	of ease of use, maintenance, product portfolio, and reliability on customer loyalty, and as a full mediation in the relationship between security and customer loyalty.
4	(Vicramaditya, 2021) Pengaruh Kualitas Elektronik, Kualitas informasi dan persepsi nilai terhadap Loyalitas Pelanggan melalui Kepuasan Pelanggan Ojek Online. *Journal of Business and Banking*, 10(2), 325–341. https://doi.org/10.14414/jbb.v10i2.2379	Independent*:* Electronic service quality Information quality Value Perception Mediation: Customer Satisfaction Dependent: Customer loyalty	Analysis SMART PLS Samples were taken as many as 135 customers who use GrabBike in the Grab app	Electronic service quality and perceived value have a direct positive and significant effect on customer satisfaction and customer loyalty, while information quality has a positive and significant effect on customer satisfaction but negatively and insignificantly affects customer loyalty. The results of the indirect effect test show that the quality of electronic services, the quality of information and the perceived value have a positive and significant effect on customer loyalty through customer satisfaction
5	(Putri & Verinita, 2019) Analisis Pengaruh E-Service Quality, E-Recovery Service Quality Terhadap Loyalitas Melalui Perceived Value Sebagai Variabel Mediasi (Studi Pada Pelanggan Shopee Di Kota Padang). *Jurnal Ilmiah Mahasiswa Ekonomi Manajemen*, 4(4), 733–752.	Independent: E-Service Quality E-Recovery Service Quality Mediation: Perceived Value Dependent: Customer loyalty	Partial Least Square analysis with SmartPLS 3.0 program Samples were taken as many as 150 Shopee customer respondents in the city of Padang	E-service quality, e-recovery service quality affect the perceived value. Perceived value has an effect on loyalty. E-service quality has no effect on loyalty, while e-recovery service quality has an effect to loyalty. E-service quality has no effect on loyalty through perceived value. as a mediating variable. In addition, perceived value mediates the relationship between e-recovery service quality and loyalty.

| 6 | (Hanafi et al., 2017)

Evaluation of e-Service Quality, Perceived Value on Customer Satisfaction and Customer Loyalty: A Study in Indonesia. *International Business Management,* 11(11), 1892–1900. https://doi.org/10.3923/ibm.2017.1892.1900 | Independent: E-Service Quality

Moderation: Perceived Value

Mediation: Customer Satisfaction

Dependent: Customer loyalty | Analysis of *SEM AMOS*

Samples were taken as many as 199 e-commerce customers in Indonesia | All dimensions of digital service quality have a significant effect on customer satisfaction, customer satisfaction has a significant effect on customer loyalty. Customer satisfaction mediates significantly on the relationship between service quality and loyalty and perceived value moderates significantly on the relationship between customer satisfaction and customer loyalty. |

2.3. Research Hypothesis

2.3.1. Relationship of E-S-Qual with Perceived Value

Lee and Overby (2004) identified two types of value from online shopping sites, namely utilitarian and experiential. Utilitarian value is defined as an overall assessment of functional advantage combining four dimensions namely cost saving, service, time saving, and reward selection. Utilitarian values are relevant to the specific task of using online shopping sites such as purchase considerations. Experiential value is defined as the overall representation of the experiential benefits of entertainment, escapism, visual appeal, and interactive activities involved in online shopping activities. The value of online shopping gives rise to various types and the overall value positively affects customer satisfaction and loyalty (Lee and Overby, 2004).

Keeney (1999) revealed that in online retail settings, customer value perceptions come not only from the product itself, internet channels also affect the process of searching, ordering, and receiving products. This means that the quality of the service on the online site (E-S-Qual) affects the value that will be obtained by customers. This is also in line with research conducted by Zehir & Narcıkara (2016) which said that the research was conducted on electronic businesses in Turkey. The objects in the research were the 10 most popular online-based retailers in Turkey with a total distribution of 645 questionnaires, distributed to customers who use these electronic services. With the increase in internet-based retail businesses, the quality of e-retailer services has been recognized as an important factor in determining the success rate of e-commerce businesses. Thus, this research proved that there is a positive influence between digital service quality and perceived value.

Research conducted by Zehira & Narcikara (2016) and Chinomona et al. (2014) proved that there is a positive and significant influence between digital service quality and perceived value. The results are also supported in the research of Widiaputri et al., (2018), which found that the quality of digital services had a significant effect on perceived value. Lasyakka (2015) proved that the influence of digital service quality which includes reliability, website design, security, and customer service has a positive and significant effect on perceived value on the lazada.co.id website.

Based on these several explanations, the following hypothesis is put forward:

H1: E-S-Qual has positive effect on perceived value.

2.3.2. Relationship of Perceived Value with Customer Loyalty

According to Zeithaml (1988), perceived value is the overall customer assessment of the utility of a product based on perceptions of what is received and what is given. Perceived value is currently considered the most significant factor in attracting and retaining customers (Mosavi & Ghaedi, 2012), as well as being a construct to predict customer buyer behavior (Chen and Dubinsky, 2003). Overall, customers make future purchase intentions based on the value gained from their last contact by leveraging the relationship so as to mediate the expectation of future benefits. Therefore, repurchase is possible by building relationships with customers and continuing to provide value; thereby, increasing loyalty.

Research conducted by Zehira & Narcikara (2016) and Zehir et al. (2014) found that perceived value has a positive and significant effect on customer loyalty. The research is supported by research by Yoo & Park (2016) which revealed that there is an influence of the perceived value of mass customization on customer loyalty. Research conducted by Lin, Lobo, & Leckie (2017) specifically examined the role of perceived value in companies that use green branding strategies on customer loyalty, finding that there is a positive and significant influence between perceived value and customer loyalty.

Based on these several explanations, the following hypothesis is put forward:

H2: Perceived Value has positive effect on Loyalty.

2.3.3. E-S-Qual Relationship with Customer Loyalty

E-services are defined as the provision of services over electronic networks, such as the Internet (Rust and Lemon, 2001) and it is a strong source of competitive differentiation in the form of e-commerce and e-governance. Loyalty can come from an online company that provides the best service compared to competitors is a determining factor in customer loyalty (Reichheld and Schefter, 2000).

Quach, Thaichon, & Jebarajakirthy (2016) investigated the dimensions of the service quality of Internet Service Providers (ISPs) and the side effects of customers, customer loyalty in high-tech services. Research data was obtained from new users. The research analysis includes grouping ISP customers based on customer databases and evaluating customer perceptions of the dimensions of internet service quality. Through the use of structural equation modelling, the respondents in this research amounted to 4000 respondents, filling out the questionnaires distributed via email. The respondents' criteria in this research were residential internet users in all regions in Thailand in 2013. This research proved that the dimensions of ISP service quality affect customer behavior loyalty.

This research was conducted by Lee & Wong (2016), research that refers to the state of the mobile trading market which is still relatively in its early stages, but there is hope for mobile internet penetration to grow rapidly in the future. The

research findings proved that efficiency, system availability, compliance, privacy, are factors that affect customer loyalty. Thus, it is hoped that service providers will be able to build m-commerce customer loyalty in Malaysia.

This result is supported by Jiang et al. (2015) which finds that E-Service Quality has a positive effect on customer loyalty. Vicramaditya (2021) also found that E-Service Quality has a positive and significant effect on customer loyalty.

Based on these several explanations, the following hypothesis is put forward:

H3: E-S-Qual has positive effect on Loyalty.

2.3.4. E-S-Qual Relationship to Loyalty through Value Perception

Perceived value is defined as the result between benefits and sacrifices (Monroe, 1990) where quality is a benefit and price is a sacrifice. According to Sweeney and Soutar (2010), the dimensions of customer value perceptions consist of four main aspects, namely.

a. *Emotional value*, i.e. the utility obtained from positive feelings or affective/emotions arising from consuming the product.

b. Social value, i.e. the utility derived from the product's ability to enhance the customer's social self-concept.

c. Quality / Performance value, i.e. the utility obtained from the perception of the quality and expected performance of the product.

d. Price/ Value of money, i.e., the utility obtained from the product due to the reduction of short-run and long-run costs.

Customers tend to feel treated fairly if they feel that the ratio of their returns to inputs is proportional to the ratio of returns to inputs experienced by the company (Oliver and Desarto, 1988). Sirdeshmukh, Singh and Sabol (2002) argued that customer value (perceived value) is a higher goal and customer loyalty is a lower goal because this is a behavioral intention. Thus, customer values regulate the behavioral value of loyalty to service providers as long as the relational exchange provides superior value (Sirdeshmuth et al., 2002).

Cry (2008) defined e-loyalty as the intention and customer to visit or use the site, make a purchase or consider buying from the site in the future where customers will not switch to another site. Loyalty behavior refers to the customer's intention to do more business and recommend to others (Chen et al., 2009; Cpefen, 2002).

Jiang et al. (2015) found that the results of the mediation test showed that the perception of customer value played a partial mediating role in the effect of ease of use, maintenance, product portfolio, and reliability on customer loyalty, and as a full mediation in the relationship between security and customer loyalty. This is confirmed by the Perceived Value research acting as a mediator between E-Service Quality and customer loyalty.

Based on some of these explanations, the following hypotheses were formed:

H4: E-S-Qual has positive effect on Loyalty through Value Perception.

2.4. Research Concept Framework

The research concept framework is based on the idea that E-S-Qual has an effect on Loyalty which is mediated by perceived value. Based on theoretical studies and previous research studies, this research framework can be described as follows:
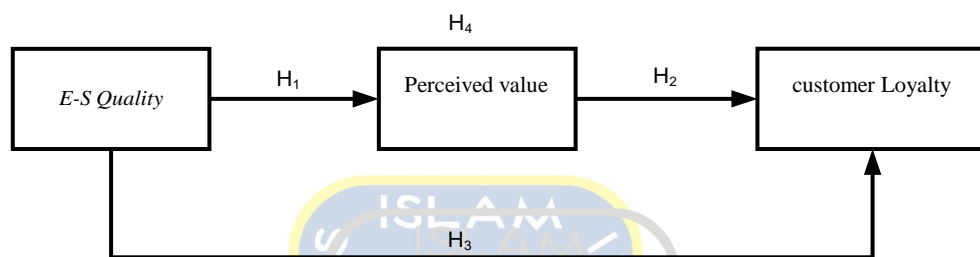
Figure 2. 1 Research Framework

Source: (Zehir et al., 2014).

CHAPTER III

RESEARCH METHODOLOGY

3.1. Population and Sample

1. Population

Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics that are applied by researchers to be studied and then drawn conclusions (Sugiyono, 2017). The population used in this research was individual customers who used the services of Indihome in Yogyakarta.

2. Sample

The sampling technique used in this research was non-probability sampling. Non-probability sampling is a sampling technique used to determine samples where population size is not known with certainty and non-probability sampling is a sampling technique that makes the population does not have the same opportunity to be sampled (Suliyanto, 2018). The type of sampling design used convenience sampling method, namely the technique of determining the sample based on population members that can be met by researchers and are willing to be respondents

as samples. In this research, samples were taken by distributing online questionnaires via google forms to Indihome customers in Yogyakarta. Determination of the number of respondents refers to the opinion of Hair & et al (2014) which stated the research model using the Structural Equation Modeling (SEM) model has an ideal number of samples between 100 to 200 and the sample must also consider the number of indicators in the model of the research. The number of samples can amount to 5-10 of the number of indicators. In this research, there were 23 indicators. Thus, the number of samples was 5 x 23 = 115 respondents.

3.2. Sources and Data Collection Techniques

This research was quantitative research with the data source of primary data. Primary data is the data obtained from sources that are directly related to research and are able to provide information (Sugiyono, 2017). The data in this research were obtained by distributing questionnaires to the object of research. Collecting data in this research used the following:

1. Questioner

According to Creswell in Sugiyono (2017), a questionnaire is a data collection technique in which the participant/respondent fills out a question or statement completely then returns it back to the researcher. This research used a questionnaire. Questionnaire is a way of collecting data by distributing questions to respondents in the hope that they will respond to these questions.

This questionnaire was distributed to 115 respondents through online questionnaire distribution via Google forms.

2. Measurement Scale

To measure the primary data, the researchers distributed questionnaires related to the research variables to the respondents. The scale used in this research was Likert scale. The scale is commonly used to measure attitudes, opinions, and perceptions of a person or a certain group of people by agreeing or disagreeing with certain subjects, objects, or events (Sugiyono, 2017). In this research, the answers to the questionnaire used Likert scale which had ranges from strongly disagree with a score of 1, disagree with a score of 2, neutral with a score of 3, agree with a score of 4 and finally strongly agree with a score of 5. The following is the table of scores for the Likert scale assessment:

Table 3. 1 Likert Scale

No	Category	Scale
1	Strongly disagree	1
2	Disagree	2
3	Neutral	3
4	Agree	4
5	Strongly agree	5

3.3. Identification of Research Variables

The variables in this research were divided into three variables, namely exogenous variables, endogenous variables and mediating variables. The exogenous variable in this research was E-Service Quality at Telkom Care Indihome services. While the endogenous variable was customer loyalty and the median variable was perceived value.

3.4. Operational Definition

1. E-S-Qual

E-service Quality (E-S-Qual) can be described as the overall perception or evaluation of customers on the experience of electronic services from the scope of online market (Santos, 2003). The measurement of E-Service Quality in this research was adopted from Zehir et al. (2014) with 14 question items, namely:

Efficiency

a. The site is well organized.

b. This site makes it easy to find what I need.

c. The information on this site is well organized.

d. This service allows me to complete transactions quickly.

e. This site allows me to access it quickly.

f. The site is easy to use.

g. This site makes it easy to get fast service.

Fulfilment

a. This site quickly delivers what I ordered.

b. This site provides services as promised.

c. The service is honest according to the promise at the beginning.

System Availability

a. This site has never had trouble.

b. The page on this site is quite responsive after I enter my order information.

Privacy

a. This site does not share my personal information with other sites.

b. This site protects information about customers' personal data.

2. **Perceived Value**

The basic functional or usefulness dimensions of perceived value may require an emotional or hedonic dimension, the experiential component of the use of a service or product is important in determining the perception of value and this component is related to the emotional experience during consumption (Lee et al., 2016). To measure the perception of value refers to research (Zehir et al., 2014) which consists of:

a. The cost of the services available on this site is quite economical.

b. The overall value obtained from this site is quite profitable.

c. The services of this site can enhance the Customer's self-social concept.

d. Overall comfort using this site.

3.   Customer Loyalty

According to Neupane (2015), customer loyalty is a form of responsibility or serious action to re-purchase a product/service continuously in the future. This will have an impact on repeated shopping activities for the same type of goods, although it is influenced by the environment which has the potential to cause a change in customer behavior. To measure customer loyalty, the following questions are used (Zehir et al., 2014):

a. Would you recommend this service to someone who asks for your advice?

b. Will you encourage friends and others to do business with this service site?

c. Will you say positive things about this site to others?

d. Will you consider this service site as your first choice for future transactions?

e. Will you be doing more business with this service site in the coming months?

3.5.   Research Instrument Test

1. Validity

The validity test is a test that analyzes the research instrument whether it is in accordance with what is measured; thus, the data obtained can be used by researchers to solve the problem of this research (Cooper & Schindle, 2014). Testing the validity of the question items in this research was carried out using the product moment correlation analysis technique or Pearson correlation by looking at

the output display of the Corrected Item-Total Correlation (r count) of each question item compared to the r table value. If the calculated r value exceeds the r table number, the instrument is declared valid with the following provisions (Ghozali, 2016):

- If r count is positive and r count $> r$ table, the item or variable is valid.
- If r count is positive and r count $< r$ table, the item or variable is invalid.

2. Reliability

The reliability test is one of the instrument tests in terms of the level of reliability. A reliable instrument is free from errors (Cooper & Schindler, 2014). Cronbach's Alpha is the most commonly used method in reliability testing. The higher the reliability coefficient (the closer to number 1), the higher the reliability of the measuring instrument. Conversely, the lower the coefficient (closer to 0), the lower the reliability (Azwar, 2012). Instruments that have Cronbach's Alpha above 0.8, the instrument can be declared very good in reliability, while above 0.6 is still acceptable and less than 0.6. Thus, the reliability is not good (Sekaran & Bougie, 2017).

3.6. Hypothesis Test

The hypothesis in this research was analyzed using the Structural Equation Model (SEM) method. According to Hasanah (2017), SEM is a statistical technique that is able to analyze the pattern of relationships between latent constructs and their indicators, latent constructs with one another, and direct measurement errors. SEM

can be shown as a combination of factor analysis, regression analysis, and path analysis.

Descriptive analysis aims to transform raw data sets into easy-to-understand forms of more concise information. The data collected in marketing research, namely from questionnaires, usually have various values so that it will be difficult and less meaningful to interpret each value obtained. As an alternative, a value that tends to be the central value represents all the data in the questionnaire. The data is usually listed in tabular form and the analysis is based on the data in the table (Sugiyono, 2017). The analysis technique used SEM, operated through the AMOS 23 program. Based on the opinion of Hair et al. (2010), the stages of modelling and analysis of structural equations is divided into six steps as follow:

1. Development of theoretical models.

The first step is to identify the theoretical problems in the research topic, the research topic is studied then connects the variables that have been determined based on the hypothesis and it is supported by a strong theoretical justification.

2. Development of flowcharts and structural equations.

When there is a causal relationship in the first step, the next thing to do is to draw up a path diagram for these relationships. There are two steps, namely compiling a structural model that connects latent variables, both endogenous and exogenous and compiling a measurement model, namely connecting endogenous or exogenous latent variables with manifest variables.

3. Choose the input matrix and estimate the covariance or correlation model.

Initially, the structural equation model was formulated using the variance/covariance matrix input. Covariance matrices have advantages over correlation matrices in providing comparative validity between different populations or different samples. The use of correlation is suitable if the purpose of the research is only to understand the pattern of relationships among variables. Another use is to compare several different variables. Covariance matrices have advantages over correlation matrices in providing comparative validity among different populations or different samples.

4. Assess identification of structural models.

The structural model is said to be good if it has one solution for one parameter estimate. In one model it is possible to have many solutions; thus, the appropriate solution is chosen. The selection of the appropriate solution is often referred to as the identification problem. Related to the problem of identifying structural models, when the estimation process takes place, illogical estimation results are often obtained. To see whether there is a problem or not, it can be identified through the following:

   a) There is a large standard error value for one or more coefficients.

   b) There is an impossible estimate value, for example a negative error variance.

   c) There is a high correlation value (>0.90) among the estimated coefficients.

5. The goodness of fit test

The absolute fit index measures the overall fit of both the structural model and the measurement model together. The measure that underlies the overall measurement is the likelihood-ratio chi-square ($x2$). The high value of 2 relative to the degrees of freedom indicates that the observed covariance or correlation matrix with the predicted one is significantly different and this results in a probability that is smaller than the significance level.

a) Chi Square ($x2$) test measures whether there is a difference between the population covariance matrix and the sample covariance matrix. The tested model will be seen as good if the chi square value is low and has a probability with a cut-off value of p>0.05.

b) RMSEA (The Root Mean Square Error of Approximation) RMSEA is a measure that tries to improve the statistical tendency to reject models with large samples. RMSEA value between 0.05 to 0.08 is an acceptable measure (Hair et.al, 2010). The RMSEA empirical test results are suitable for testing confirmatory models with large sample sizes.

c) GFI (Goodness of Fit Index) GFI is a non-statistical measure whose values ranges from 0 (poor fit) to 1.0 (perfect fit). A high GFI value indicates a better fit value. A GFI value above 90% is recommended for a good-fit measure (Hair et.al, 2010).

d) TLI (Tucker Lewis Index) combines parsimony measures into the index of comparison between the proposed model and the null

model. The TLI value ranges from 0 to 1.0. recommended TLI value is 0.90.

e) CFI (Comparative Fit Index) is the index with the range of 0-1 value, which is getting closer to 1, indicating the highest level of fit. Recommended value is CFI>0.95. The advantage of this index is that its magnitude is not influenced by sample size because it is very good for measuring the level of acceptance of a model. The CFI index is identical to the RNI (Relative Noncentrality Index).

f) PGFI Parsimonious Goodness of Fit Index (PGFI) is the opposite of AGFI, modifying GFI based on the degree of freedom. The PGFI value is 0.60, if the higher value indicates better parsimony.

g) PNFI Parsimonious Normed Fit Index (PNFI) is a model of NFI. PNFI considers the number of degrees of freedom to achieve a match. The PNFI value is 0.60. If the PNFI value is higher, the model is very good.

Brief guideline in the criteria for measuring fit in this research is as follows (Hair et al., 2010):

Table 3. 2 Characteristics Goodness-of-Fit Index

Goodness of Fit Index	Cut-Off Value
Chi-square (X^2)	Expected small
RMSEA	≤ 0.08
GFI	≥ 0.90
TLI	≥ 0.95
CFI	≥ 0.95
PGFI	≥ 0.60
PNFI	≥ 0.60

6. Interpretation and modification of the model.

When the model has been declared accepted, the next step is to consider modifying the model to improve the theoretical explanation or goodness of fit. Modifications of the initial model should be carried out after several considerations. If the model is modified, the model must be estimated with separate data before the modified model is accepted.

CHAPTER IV

RESEARCH RESULTS AND DISCUSSION

4.1. Data Description

In Chapter IV, the results of the research are presented in the form of a general description of the object and a description of the data as well as presenting the results of the research (Evaluation results) which include *Confirmatory Factor Analysis* and *Full Model of Structural Equation Modeling* which are the integral steps in hypothesis testing. Respondents in the research were Indihome customers in Yogyakarta with a total of 115 respondents.

4.1.1. Respondent Description

a. Respondents by Gender

Characteristics of respondents by gender can be seen in the following table:

Table 4. 1 Characteristics of Respondents Based on Gender

Genders	Numbers of people	Percentage
Male	46	40.0%
Female	69	60.0%
Total	115	100.0%

Source: Processed primary data, 2022

Based on the table above, the number of respondents in this research consisted of 46 respondents or 40% were male and 69 respondents or 60% were female with

the total of 115 respondents.

b. Respondents by Age

Characteristics of respondents based on age can be seen in the following table:

Table 4. 2 Characteristics of Respondents by Age

Respondents Age	Number of People	Percentage
13-25 years	27	23.5%
25-40 years	76	66.1%
40-55 years	12	10.4%
Total	115	100.0%

Source: Processed primary data, 2022

The table above explains that from 115 respondents, the largest number were respondents aged 25 to 40 years of 66.1%, while aged 3-25 years of 23.5%, then aged 40 to 55 years of 10.4%.

c. Respondents by Educational Background

In addition to gender and age, this study also presents data on the characteristics of respondents based on education, which can be seen in the following table:

Table 4. 3 Characteristics of Respondents Based on Educational Background

Educational Background	Number of People	Percentage
High school diploma	13	11.3%
Bachelor's degree (S1)	82	71.3%
>= Master's degree (S2)	20	17.4%
Total	115	100.0%

Source: Processed primary data, 2022

This research took samples of Indihome customers in Yogyakarta. Based on the respondent's data, it is dominated by people with the bachelor's degree (S1) of 71.3%, 17.4% of master's degree (S2) and 11.3% of High school diploma.

d. Respondents by Type of Work

This research also classified data related to the respondents' perceived exposure to social media advertisements. The data of respondents exposed to social media advertisements is distributed in the form of the following table:

Table 4. 4 Type of Work

Profession	Number of People	Percentage
Student	27	23.5%
Self-employed	38	33.0%
Private employee	27	23.5%
Civil servant / TNI / POLICE	18	15.7%
Others	5	4.3%
Total	115	100.0%

Source: Processed primary data, 2022

The table above shows that 23.5% of respondents were students, 33.0% were entrepreneurs, 23.5% were private employees, 15.76 % were civil servants/TNI/POLICE and 4.3% were other jobs.

e. Length of time as an Indihome Customer

The following is the frequency of respondents' answers based on their length of time as an Indihome customer.

Table 4. 5 Length of Time as an Indihome Customer

Duration	Number of People	Percentage
< 1 year	26	22.6%
> 2 years	67	58.3%
1 - 2 years	22	19.1%
Total	115	100.0%

Source: Processed primary data, 2022

Based on the table above, it can be concluded that the respondents had become Indihome customers for a long time. The data above shows that 58.3% of respondents had been Indihome customers for more than 2 years. Furthermore, there were 22.6% of respondents who had become customers for less than 1 year and as many as 19.1% of respondents had become customers for more than 2 years.

4.1.2. Description of Statistics

The tabulated data is in accordance with the respondents' answers to the statements in the questionnaire. In data processing, the statements are given a score indicating the level of agreement of the respondents in choosing the answer by being given a score from 1 to 5. The statements are related to E-service Quality (E-S-Qual), perceived value and consumer loyalty.

Respondents' assessments were categorized with the following criteria:

The lowest score is 1.

The highest score is 5.

In this case, the assessment interval for each variable is as follows:

1.00 –1.80 = Very Bad/Strongly Disagree/Very Low

1.81 – 2.60 = Not Good/Disagree/Low

2.61 – 3.40 = Neutral

3.41 – 4.20 = Good/Agree/High

– 5.00 = Very Good/Strongly Agree/Very High

4.1.2.1. E-service Quality Variable

The results of respondents' assessment of the E-service Quality variable are as

follows:

Table 4. 6 E-service Quality Variable Analysis

No	Statement	Average	Rating
1	This Indihome service site is well organized.	4.504	Very Good
2	This Indihome service site makes it easy for me to find what I need.	4.374	Very Good
3	The information provided on this site is well organized.	4.348	Very Good
4	The Indihome service allows me to complete transactions quickly.	4.365	Very Good
5	Access to Indihome internet service allows me to access it quickly.	4.217	Very Good
6	This site is easy to use.	4.357	Very Good
7	This site makes it easy to get fast service.	4.313	Very Good
8	Indihome service system can quickly deliver what I ordered.	4.252	Very Good
9	Indihome provides services as promised.	4.313	Very Good
10	The service of this site is honest according to the initial promise.	4.252	Very Good
11	Indihome has never had any trouble.	4.322	Very Good
12	Indihome is quite responsive when I experience network problems.	4.270	Very Good
13	Indihome does not share my personal information with other parties.	4.278	Very Good
14	Indihome protects information about customers' personal data.	4.226	Very Good
	Average	**4.314**	**Very Good**

Source: Processed primary data, 2022

Based on Table 4.6, it can be concluded that the largest E-Service Quality

assessment was 4.314 out of 115 respondents, which includes very good criteria.

The highest rating for E-Service Quality was 4.504 which stated "The Indihome

service site item is well organized", and the lowest score was 4.214 which stated "Access to Indihome internet service allows me to access it quickly".

4.1.2.2. Value Perception Variables

The results of respondents' assessment of the value perception variable are as follows:

Table 4. 7 Analysis of Value Perception Variables

No	Statement	Average	Rating
1	The cost for the services provided by Indihome is quite economical.	3.948	Good
2	The overall value obtained by this Indihome service is quite profitable.	4.035	Good
3	This Indihome service can improve the Customer's self-social concept.	4.035	Good
4	Overall, using Indihome's services is quite pleasant.	4.043	Good
	Average	**4.015**	**Good**

Source: Processed primary data, 2022

Based on Table 4.7, it can be concluded that the variable assessment on the perception of the largest average value was 4.015, out of 115 respondents who were categorized as good or agree. The highest assessment of perceived value was 3.035, which stated "The overall value item obtained by this Indihome service is quite profitable and this Indihome service can improve the customer's self-social concept". While the lowest assessment of perceived value was 3.948 which stated "The cost for the services provided by Indihome is quite economical".

4.1.2.3. Customer Loyalty Variable

The results of the respondents' assessment of the Consumer Loyalty variable are as follows:

Table 4. 8 Consumer Loyalty Variable Analysis

No	Statement	Average	Rating
1	I would recommend this Indihome service to someone who asks for my advice	4.330	Very high
2	I will encourage friends and others to do business with Indihome services.	4.122	High
3	I will say positive things about this Indihome to others.	4.087	High
4	Considering the Indihome service site as my first choice for future deals.	4.009	High
5	I will be doing more business with this service site in the coming months.	4.087	High
	Average	**4.127**	**High**

Source: Processed primary data, 2022

Based on Table 4.8, it can be concluded that the assessment of consumer loyalty from 115 respondents included high criteria or agrees with an average of 4.127. The highest rating of Consumer Loyalty was 4.330 which stated "I will recommend this Indihome service to someone who asks for my advice" and the lowest score is on the item "Considering the Indihome service site as my first choice for future transactions" with an average of 4.009.

4.2. Structural Equation Model (SEM) Analysis

The purpose of using SEM analysis is one of the considerations because it can analyze simultaneously from the data quality test, confirmatory attributes of latent variables and then structural models, regression coefficient results and testing. The results of the SEM test analysis are described in the following sub-chapters:

4.2.1. Normality test

The normality test is used to test the normal distribution, both multivariate

and univariate using AMOS 22. The limit can be said to be normal if the CR skewness value is not more than ± 2.58. The results of the data analysis are presented in the following table form:

Table 4. 9 Normality Test Results

Variable	min	max	skew	c.r.	kurtosis	c.r.
LO5	2.000	5.000	-.273	-1.194	-.491	-1.074
LO4	3.000	5.000	-.014	-.062	-1.230	-2.693
LO3	3.000	5.000	-.124	-.541	-.987	-2.160
LO2	3.000	5.000	-.054	-.238	-.305	-.669
LO1	3.000	5.000	.039	.169	-.759	-1.661
PN4	3.000	5.000	-.071	-.311	-1.223	-2.676
PN3	3.000	5.000	-.059	-.259	-1.303	-2.853
PN2	3.000	5.000	-.061	-.265	-1.352	-2.959
PN1	3.000	5.000	.093	.405	-1.391	-3.044
E	3.000	5.000	-.498	-2.181	-.922	-2.019
F	3.000	5.000	-.246	-1.075	-1.083	-2.370
SA	3.000	5.000	-.440	-1.924	-.814	-1.783
P	3.000	5.000	-.231	-1.012	-1.068	-2.338
Multivariate					5.451	1.480

Source: Processed primary data, 2022

From the results of the overall CR skewness analysis, there was no value greater than 2.58. Thus, the distribution can be said to be normal.

4.2.2. Outlier Test

Outliers are observations or data that have unique characteristics that look very different from other observations and appear in the form of extreme values, either for a single variable or a combination variable. Multivariate outliers test was carried out using the mahalanobis distance criterion.

Table 4. 10 Outlier Test Results

Observation number	Mahalanobis d-squared	p1	p2
105	26.363	.015	.828
36	25.749	.018	.626
88	25.457	.020	.407
5	24.616	.026	.348
34	23.928	.032	.303
62	23.026	.041	.341
19	21.134	.070	.706
6	21.112	.071	.571
108	20.558	.082	.609

Source: Processed primary data, 2022

The table above is obtained from farthest observations from the centroid (Mahalanobis distance), but the researcher did not distribute it as a whole and only included the top 10 rows out of a total of 115 rows. The results of the Mahalanobis test results were below 34.52 (Chi Square Table). This was supported by the probability value (p1) which was entirely above 0.001 or 0.1%, meaning that the data showed that there were no outliers in this research.

4.2.3. Confirmatory Test

This test consists of a validity test and a reliability test. The validity test of the instrument or the accuracy of the research instrument is the level of the research instrument's ability to reveal data according to the problem to be disclosed or the relationship among variables. Reliability test is an index that shows the extent to which a measurement tool can be trusted or reliable and the extent to which the measurement results remain consistent when measurements are made twice or more on the same symptoms with the same measuring instrument. The results of confirmatory testing have been carried out and are presented in the following table:

Table 4.11 Confirmatory Test Results

Variable	Indicator	Standard Loading (λ)	Standard Error (ε)	CR	AVE	Description
E-Service Quality				0.970	0.758	Reliable
	ES1	0.784	0.150			Valid
	ES2	0.740	0.263			Valid
	ES3	0.732	0.235			Valid
	ES4	0.766	0.204			Valid
	ES5	0.777	0.212			Valid
	ES6	0.768	0.208			Valid
	ES7	0.718	0.272			Valid
	ES8	0.566	0.365			Valid
	ES9	0.684	0.272			Valid
	ES10	0.753	0.217			Valid
	ES11	0.692	0.222			Valid
	ES12	0.809	0.182			Valid
	ES13	0.678	0.212			Valid
	ES14	0.754	0.241			Valid
Perceived Value				0.917	0.779	Reliable
	PN1	0.803	0.221			Valid
	PN2	0.879	0.138			Valid
	PN3	0.707	0.295			Valid
	PN4	0.758	0.240			Valid
Customer Loyalty				0.928	0.783	Reliable
	Lo1	0.661	0.164			Valid
	Lo2	0.600	0.222			Valid
	Lo3	0.809	0.171			Valid
	Lo4	0.784	0.218			Valid
	Lo5	0.741	0.224			Valid

Source: Processed primary data, 2022

The table above is the result of validity and reliability test of the data. An indicator can be said to be valid if the loading factor is 0.5 or ideally 0.7 and a variable is declared reliable if it has construct reliability > 0.50. Based on the analysis data above, all variables and indicators can be declared valid and reliable.

4.2.4. Goodness of Fit (GOF) Model Conformity Test Analysis

Testing the suitability of the model is evaluated through a study of various goodness of fit criteria. For this reason, the first action taken is to evaluate whether the data used can meet the assumptions required in the SEM analysis. If this assumption is met, the model can be tested. Several measurements that are important in evaluating the goodness-of-fit criteria along with the cut of value are as follows:

Table 4. 12 Goodness of Fit Analysis Results

Criteria	Critical Value	Result Model	Conclusion
X^2- Chi-square	Expected Small	70.460	Good
Probability	≥ 0.05	0.167	Good
RMSEA	≤ 0.08	0.039	Good
GFI	≥ 0.90	0.917	Good
AGFI	≥ 0.90	0.873	Marginal
TLI	≥ 0.90	0.983	Good
CFI	≥ 0.90	0.987	Good

Source: Processed primary data, 2022

The table above shows that the Chi-square value was 70.460. The probability value which was greater than 0.05 was 0.167. The probability value met the recommended value standard. Thus, the model is feasible to be used as a tool to confirm the observed data. The RMSEA value of 0.039 was smaller than 0.08; thus, it is said to be good. Furthermore, the GFI value was 0.917 which was above 0.90, the TLI value was 0.983 which was above the recommended value of 0.90, and finally the CFI value was 0.987 which was above the recommended value of 0.90.

Meanwhile, AGFI of 0.873 was still below 0.9 but above 0.8; thus, it can be declared marginal. Based on these results, the model can be said to be marginally feasible.

4.2.5. Hypothesis Testing Results

The test results based on the research model can be described as follows:
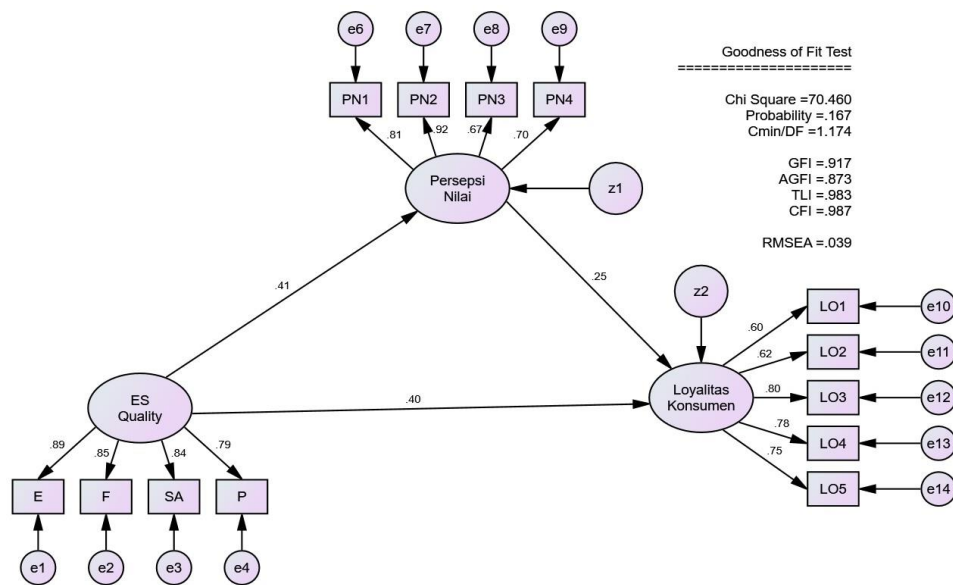
Figure 4. 1 Test Results Based on Research Model

Source: Processed primary data, 2022

Based on statistical analysis using the AMOS version 22 program, the results of hypothesis testing which are tests of causality for each research variable can be seen in the following table:

Table 4.13 Direct Effects between Variables

Source: Processed primary data, 2022

Table 4.14 Indirect Effect (Mediation) between Variables

Relationship	Variable Relationship between Variables			Sobel Test (T-test)	Standardized Estimate	S.E.	Description	C.R	P		Description
	ESQ-> PV-> CL			2.132		0.032	Mediate				
Perception_Value	<---	ES_Quality		0.412			0.130	4.031	0.000		Accepted
Costumer_Loyalty	<---	Perception_Value		0.252			0.056	2.272	0.023		Accepted
Costumer_Loyalty	<---	ES_Quality		0.405			0.077	3.404	0.000		Accepted

Source: Processed primary data, 2022

Based on the data above, it can be concluded that the testing of each hypothesis is as follows:

1. First Hypothesis

The first hypothesis testing aims to prove that E-S-Qual has positive effect on perceived value. Based on the results of the research, the standard regression coefficient was 0.412 with p-value of 0.000 or less than 0.05. This sig means that the effect was positive and significant. Which means that the better the E-Service Quality provided by Indihome, the higher the perceived value. It can be concluded that E-Service Quality had positive effect on perceived value. Therefore, the first hypothesis of this research was accepted.

2. Second Hypothesis

The second hypothesis testing aims to prove that Value Perception has positive effect on Loyalty. Based on the results of the research, the standard

regression coefficient was 0.252 with p-value of 0.023 or less than 0.05. This sig means that the effect was significant and positive. It means that the perception of better value for Indihome services in Yogyakarta also increased consumer loyalty. Thus, it can be concluded that Perceived Value had positive effect on Loyalty. Therefore, the second hypothesis was accepted.

3. Third Hypothesis

The third hypothesis testing aims to prove that E-S-Qual has positive effect on Loyalty. Based on the results of the research, the standard regression coefficient was 0.405 with a p-value of 0.000 or less than 0.05. This sig means that the effect was significant and positive. The better consumer's assessment of E-Service Quality will further increase Consumer Loyalty. Thus, it can be concluded that E-S-Qual had positive effect on Loyalty. Therefore, the third hypothesis was accepted.

4. Fourth Hypothesis

The fourth hypothesis aims to examine the mediating role of perceived value in the relationship between E-Service Quality and Consumer Loyalty. Based on the results of the analysis, the Sobel test value obtained was 2.132 with p-value of 0.032 which was smaller than 0.05. Therefore, it can be said that perceived value was able to mediate the relationship between E-Service Quality and Consumer Loyalty. For this reason, the fourth hypothesis was accepted.

4.3. Discussion

The findings of this research confirmed that improvements in E-Service Quality will assist marketers in understanding Consumer Loyalty and perceptions

of a service's value. This research supported the idea that E-Service Quality activities were considered as drivers of customer value perceptions. The customer's perceived value is a customer assessment carried out by comparing the benefits to be received with the sacrifices incurred to obtain a product/service. However, customer perceived value can also mean the customer's effort to compare the products/services of a particular company with competing companies in terms of E-Service Quality. This finding is in accordance with research conducted by Zehira & Narcikara (2016) and Chinomona et al. (2014) proved that there is a positive and significant influence between digital service quality and perceived value. The results also supported Widiaputri et al., (2018) who found that the quality of digital services has significant effect on perceived value. Lasyakka (2015) proved that the influence of digital service quality which includes reliability, website design, security, and customer service has positive and significant effect on perceived value on the lazada.co.id website.

This research also examined the impact of perceived value on consumer loyalty. The perceived assumption of the customer's perceived value had important impact on the increasing of consumer loyalty. Perceived value or customer value is one of the most important steps to gain a competitive advantage. From the results of comparisons made by customers among providers, customers will judge which company they think provides the best service. The best assessment according to this customer will increase their satisfaction with the company which in turn will encourage them to make repeat purchases to increase customer loyalty. This finding supported research conducted by Zehira & Narcikara, (2016); Zehir et al., (2014)

found that perceived value has a positive and significant effect on customer loyalty. The research was supported Yoo & Park, (2016) which revealed that there is an influence of the perceived value of mass customization on consumer loyalty

However, today's consumers, especially young people, are more brand conscious. They consider innovation in service quality to be very important to increase customer loyalty. E-Service quality is defined as an extension of the ability of a company to facilitate shopping, purchasing, and distribution activities effectively and efficiently. Loyalty that can come from an online company that provides the best service compared to competitors is a determining factor in consumer loyalty (Reichheld and Schefter, 2000). This result is supported by research (Jiang et al., 2015) which found that E-Service Quality has positive effect on customer loyalty. Vicramaditya (2021) also found that E-Service Quality has positive and significant effect on customer loyalty

Finally, the findings of this research indicated that consumers' perceived value is a variable that significantly mediates the relationship between E-Service Quality and consumer loyalty. The quality of online services that are increasingly satisfying will certainly provide value to their customers; thus, their loyalty will be stronger. Sirdeshmukh, Singh and Sabol (2002) argued that consumer value (perceived value) is a higher goal and consumer loyalty is a lower goal because this is a behavioral intention. Thus, consumer values regulate the behavioral value of loyalty to service providers as long as the relational exchange provides superior value (Sirdeshmuth et al, 2002). Research results supported Jiang et al. (2015) which found that the results of the mediation test show that customer value

perceptions play a partial mediating role in the effect of ease of use, maintenance, product portfolio, and reliability on customer loyalty, and as full mediation in the relationship between security and customer loyalty.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

This research examined the effect of E-Service Quality on Consumer Loyalty by mediating awareness of perceived value. In sum, the research results can be explained as follows:

1) E-Service Quality had positive and significant effect on perceived value. This means that the better the E-Service Quality, the higher the perception of customer value.

2) Perceived value had positive and significant effect on consumer loyalty. This means that the higher the customer's perceived value of Indihome's services, the higher the consumer's loyalty.

3) E-Service Quality had positive and significant effect on consumer loyalty. This means that the better the E-Service Quality, the higher the consumer loyalty.

4) Perceived value was a variable that significantly mediated the relationship between E-Service Quality and consumer loyalty. This means that the better the E-Service Quality, the higher the consumer loyalty.

5.2.   Managerial Implications

The implications of this research can be classified into several parts including:

1. Organization/Company

E-Service Quality is a service that continues to improve its innovation, especially those that are still rated the lowest by customers such as Indihome internet service access which allows me to access it quickly. Access speed is the most important thing but is often a major problem in Indihome services, for example during network repair or network development so that it can interfere with customer convenience. For this reason, this speed is a factor that is continuously maintained so that consumers do not feel disappointed because consumers remain loyal in using Indihome's services.

2. Social Media Users

Customers can evaluate and review this service quality assessment as a form of feedback to management. Thus, any complaints will be improved in the future

5.3.   Research Limitations

Based on the researcher's direct experience in the research process, there are several limitations experienced and can be divided into several factors to be considered for future researchers to improve their research because this research itself certainly has shortcomings that need to be corrected in further researches. Some of the limitations in this research are:

1. The number of respondents, which was 115 people, is of course still insufficient to describe the actual situation.

2. The object of research was only focused on social media Instagram and WhatsApp as a medium for retrieving research data, of which there were many other social media that can be used to get research respondents.

3. In the data collection process, the information provided to respondents through questionnaires sometimes did not show the respondent's actual opinion This happened because sometimes there were differences in thoughts, understanding and understanding of each respondent, as well as other factors such as assessment factors in filling out respondents in the questionnaire.

5.4.   Future Research

1. In future research, it is recommended to take more samples. This aims for better data accuracy in the research.

2. Conduct continuous research; thus, future researcher can see and assess any changes in the respondent's behavior from time to time

3. It is hoped that there will be additional variables that may be developed from this research model, for example by adding product quality variables, consumer confidence and other variables.

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APPENDICES

Appendix I. 1 DATA RESPONDENT

No	Jenis Kelamin	Usia	Tingkat Pendidikan	Pekerjaa	Lama menjadi pelanggan Indihome	Efisiensi							Fulfilment			System Availability		Privacy		Persepsi Nilai				Loyalitas				
						ES1	ES2	ES3	ES4	ES5	ES6	ES7	ES8	ES9	ES10	ES11	ES12	ES13	ES14	PN1	PN2	PN3	PN4	Lo1	Lo2	Lo3	Lo4	Lo5
1	Laki-laki	25-40 tahun	S1	Pegawai Swa	6-12 bulan	4	4	4	4	4	3	4	2	5	3	3	3	4	3	5	5	5	5	5	5	5	5	5
2	Perempuan	25-40 tahun	S1	Wiraswasta	> 12 bulan	4	4	4	4	4	3	4	4	4	4	4	3	4	3	5	4	5	5	5	5	5	5	5
3	Laki-laki	25-40 tahun	S1	Pegawai Swa	6-12 bulan	3	3	3	4	2	3	4	4	4	3	3	3	4	3	5	5	4	5	5	4	5	4	5
4	Perempuan	13-25 tahun	S1	0	< 6 bulan	4	4	4	4	4	3	2	2	4	4	3	3	4	3	5	4	5	5	4	4	3	4	4
5	Perempuan	25-40 tahun	S1	PNS / TNI / P	> 12 bulan	3	2	3	3	3	4	5	5	4	4	4	4	4	4	5	4	5	5	5	4	4	3	3
6	Perempuan	13-25 tahun	>= S2	Pelajar / Mah	< 6 bulan	5	5	5	4	3	5	5	4	5	3	4	3	5	5	5	5	5	5	4	4	4	3	4
7	Laki-laki	40-55 tahun	>= S2	Wiraswasta	6-12 bulan	5	5	5	5	5	5	4	5	5	4	5	5	5	5	4	4	4	4	4	4	4	4	4
8	Laki-laki	40-55 tahun	>= S2	Wiraswasta	6-12 bulan	5	5	5	5	5	5	5	5	5	5	4	5	5	5	4	4	5	4	5	4	4	5	4
9	Laki-laki	25-40 tahun	S1	Wiraswasta	> 12 bulan	5	5	5	4	4	5	5	5	5	5	5	5	5	5	4	4	5	5	5	5	4	5	5
10	Laki-laki	13-25 tahun	S1	Pelajar / Mah	< 6 bulan	5	5	5	5	4	4	4	4	4	4	5	4	5	4	4	5	5	5	5	5	5	5	5
11	Laki-laki	13-25 tahun	S1	Pelajar / Mah	6-12 bulan	5	5	5	5	5	4	5	4	4	5	5	5	5	5	5	4	5	4	5	4	5	5	5
12	Perempuan	25-40 tahun	>= S2	Pegawai Swa	> 12 bulan	5	5	5	5	5	5	5	5	5	5	5	4	4	4	3	3	3	3	4	4	4	4	4
13	Laki-laki	40-55 tahun	S1	Lainnya	> 12 bulan	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5
14	Perempuan	13-25 tahun	S1	Pelajar / Mah	6-12 bulan	5	5	5	5	5	5	5	4	5	5	5	5	4	4	5	5	5	5	4	4	3	4	4
15	Laki-laki	25-40 tahun	S1	PNS / TNI / P	6-12 bulan	5	4	4	4	4	4	4	5	5	4	4	5	5	5	5	5	4	4	5	5	4	5	5
16	Perempuan	13-25 tahun	S1	Pelajar / Mah	6-12 bulan	4	3	3	3	3	4	3	4	3	3	3	3	3	3	5	5	4	5	4	4	4	3	3
17	Laki-laki	25-40 tahun	S1	PNS / TNI / P	> 12 bulan	5	4	5	5	5	4	5	5	4	5	5	5	4	5	4	5	5	5	4	4	4	5	5
18	Laki-laki	25-40 tahun	S1	Pegawai Swa	> 12 bulan	5	5	5	5	5	5	4	5	5	5	5	5	4	5	5	5	4	5	4	5	5	4	5
19	Laki-laki	25-40 tahun	S1	Wiraswasta	> 12 bulan	4	3	5	4	4	5	5	5	3	4	5	5	4	4	5	5	4	3	4	4	3	3	4
20	Perempuan	25-40 tahun	>= S2	Wiraswasta	> 12 bulan	5	4	5	5	5	4	5	3	4	5	5	5	5	4	3	3	3	3	4	3	3	3	4
21	Perempuan	13-25 tahun	S1	Pelajar / Mah	6-12 bulan	5	5	5	5	5	5	5	5	4	5	5	5	4	5	5	5	5	5	5	5	5	5	5
22	Perempuan	25-40 tahun	S1	Pegawai Swa	> 12 bulan	4	3	4	5	3	4	4	5	5	4	4	5	5	5	5	4	4	5	5	5	5	5	5
23	Laki-laki	13-25 tahun	S1	Pelajar / Mah	6-12 bulan	5	5	4	4	4	5	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4
24	Perempuan	25-40 tahun	S1	Pegawai Swa	< 6 bulan	5	4	4	4	4	4	4	4	5	4	5	4	5	5	3	4	4	4	4	4	4	4	4
25	Perempuan	25-40 tahun	S1	PNS / TNI / P	> 12 bulan	4	5	5	4	4	5	5	4	5	4	4	5	5	5	4	4	3	4	4	5	5	4	4
26	Perempuan	25-40 tahun	SMA	Wiraswasta	< 6 bulan	4	4	5	4	4	4	5	4	5	4	4	4	5	4	4	3	3	3	4	4	4	5	5
27	Perempuan	25-40 tahun	S1	Lainnya	> 12 bulan	4	4	5	4	4	5	5	4	4	4	4	4	4	3	4	4	3	4	4	4	4	4	4
28	Laki-laki	25-40 tahun	S1	Wiraswasta	> 12 bulan	5	4	4	5	4	4	5	5	5	4	4	5	4	4	4	4	4	5	4	4	4	4	5
29	Laki-laki	40-55 tahun	>= S2	Wiraswasta	6-12 bulan	4	5	4	4	4	4	3	5	3	4	3	5	4	4	4	3	4	4	5	4	5	4	4
30	Perempuan	25-40 tahun	S1	Pegawai Swa	6-12 bulan	4	5	4	3	3	4	4	3	3	5	5	4	4	4	3	3	4	3	5	4	4	4	4
31	Laki-laki	25-40 tahun	S1	Pegawai Swa	< 6 bulan	5	4	4	5	5	4	4	5	5	4	5	4	5	4	4	4	5	3	4	4	5	5	4
32	Perempuan	13-25 tahun	S1	Pelajar / Mah	6-12 bulan	5	4	5	5	4	5	4	5	5	4	5	5	4	4	4	4	3	3	4	5	5	5	4
33	Perempuan	13-25 tahun	S1	Pelajar / Mah	< 6 bulan	4	3	4	4	3	3	4	5	4	4	4	4	3	4	4	4	4	3	5	4	5	4	4
34	Laki-laki	25-40 tahun	SMA	Pegawai Swa	6-12 bulan	5	4	4	5	4	5	5	5	5	4	4	3	4	5	5	4	4	5	4	5	3	4	3
35	Perempuan	25-40 tahun	S1	Pegawai Swa	> 12 bulan	5	5	5	4	4	4	4	5	5	5	4	4	4	4	5	5	5	5	4	5	4	4	5
36	Perempuan	25-40 tahun	S1	PNS / TNI / P	6-12 bulan	5	4	4	3	4	5	5	4	4	5	4	4	4	4	5	5	3	5	4	4	4	5	3
37	Perempuan	25-40 tahun	S1	Wiraswasta	> 12 bulan	4	3	4	4	4	3	3	5	4	4	5	4	4	3	5	5	4	5	4	3	3	3	3
38	Perempuan	40-55 tahun	>= S2	Wiraswasta	> 12 bulan	4	4	5	4	4	4	4	4	4	4	4	4	5	5	3	4	4	4	5	4	5	5	5
39	Laki-laki	25-40 tahun	>= S2	Pegawai Swa	< 6 bulan	5	5	4	5	5	5	5	5	3	4	5	5	4	5	5	5	4	4	4	4	5	4	5
40	Laki-laki	40-55 tahun	>= S2	Pegawai Swa	> 12 bulan	4	3	3	4	5	3	3	4	4	3	4	3	3	4	4	4	4	4	4	4	4	3	3
41	Perempuan	13-25 tahun	S1	Pelajar / Mah	> 12 bulan	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	4	4	4	4	4	3	4
42	Perempuan	25-40 tahun	S1	Wiraswasta	6-12 bulan	4	4	4	3	4	4	4	3	4	4	4	3	3	3	5	5	4	4	4	4	3	3	3
43	Laki-laki	25-40 tahun	S1	Wiraswasta	> 12 bulan	5	5	4	4	5	4	5	5	5	5	5	5	5	4	5	5	5	4	5	4	5	5	5
44	Perempuan	25-40 tahun	>= S2	PNS / TNI / P	> 12 bulan	5	5	5	5	5	5	5	5	5	5	5	5	4	4	3	4	5	4	5	5	5	5	5
45	Laki-laki	13-25 tahun	SMA	Pelajar / Mah	> 12 bulan	5	5	5	5	4	4	4	5	5	5	4	5	4	4	4	4	3	4	5	4	4	5	4
46	Perempuan	25-40 tahun	>= S2	Wiraswasta	< 6 bulan	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	4	4	4	4	4	4	4
47	Laki-laki	13-25 tahun	>= S2	Pelajar / Mah	6-12 bulan	4	4	4	4	4	4	4	4	4	4	4	4	3	4	3	3	4	4	3	3	3	3	4
48	Perempuan	25-40 tahun	S1	Lainnya	> 12 bulan	4	4	4	3	4	4	4	4	4	4	4	4	4	5	4	4	4	3	4	3	4	4	3
49	Perempuan	25-40 tahun	S1	Pelajar / Mah	> 12 bulan	5	4	3	3	4	4	4	5	4	4	3	3	4	5	3	3	3	3	4	4	3	3	3
50	Laki-laki	13-25 tahun	S1	Pelajar / Mah	> 12 bulan	4	4	3	3	4	5	4	3	4	4	4	4	4	3	4	5	3	4	5	5	4	4	4
51	Perempuan	25-40 tahun	S1	Wiraswasta	> 12 bulan	3	3	3	3	3	4	3	3	3	3	4	3	4	3	3	3	3	4	4	3	3	4	3
52	Perempuan	25-40 tahun	S1	Wiraswasta	> 12 bulan	3	4	4	4	3	3	4	4	4	4	3	3	4	3	4	4	2	3	4	3	4	3	4
53	Laki-laki	25-40 tahun	S1	Pegawai Swa	6-12 bulan	4	4	5	4	4	4	4	4	3	3	4	4	4	4	3	4	3	3	4	3	4	3	3
54	Laki-laki	25-40 tahun	S1	Pegawai Swa	> 12 bulan	5	5	3	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5	3	5	5	5
55	Perempuan	25-40 tahun	>= S2	Pegawai Swa	6-12 bulan	4	4	4	3	4	4	4	4	4	4	4	4	4	4	3	3	4	3	4	4	4	4	3

No	Jenis Kelamin	Usia	Pendidikan	Pekerjaan	Lama																								
56	Laki-laki	25-40 tahun	S1	Wiraswasta	> 12 bulan	4	3	3	3	4	4	4	4	4	3	4	3	4	3	4	5	5	5	5	4	3	3	4
57	Laki-laki	25-40 tahun	S1	Wiraswasta	> 12 bulan	4	4	4	4	4	4	4	3	4	3	4	4	4	4	3	3	3	3	3	4	3	4	4	3
58	Perempuan	25-40 tahun	S1	PNS / TNI / P	> 12 bulan	3	3	4	3	3	3	3	4	4	3	3	3	3	3	3	3	4	4	3	3	3	3	3
59	Perempuan	13-25 tahun	S1	Pelajar / Mah	> 12 bulan	5	5	4	5	5	5	5	5	5	5	5	5	5	4	4	5	4	5	4	4	4	4
60	Perempuan	25-40 tahun	S1	PNS / TNI / P	> 12 bulan	5	5	5	5	5	5	5	5	5	5	5	5	4	4	3	3	3	3	4	3	4	3	3
61	Perempuan	25-40 tahun	S1	Wiraswasta	< 6 bulan	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	5	4	4	4
62	Perempuan	13-25 tahun	S1	Pegawai Swa	> 12 bulan	5	5	5	5	5	5	5	4	5	3	4	4	5	5	3	4	4	4	5	4	4	3	3
63	Perempuan	25-40 tahun	S1	Pelajar / Mah	> 12 bulan	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	4	5	5	5	4	4
64	Perempuan	25-40 tahun	S1	Pegawai Swa	> 12 bulan	4	4	4	5	3	4	2	4	4	4	3	4	4	5	4	3	4	3	4	4	4	4	4
65	Perempuan	25-40 tahun	>= S2	Wiraswasta	6-12 bulan	4	5	4	5	4	4	4	4	3	3	4	5	4	4	4	3	3	3	4	4	4	4	4
66	Perempuan	13-25 tahun	S1	Wiraswasta	> 12 bulan	4	4	3	3	4	4	3	3	4	4	4	3	3	3	4	4	4	3	5	4	3	3	4
67	Perempuan	25-40 tahun	S1	PNS / TNI / P	> 12 bulan	4	5	4	5	4	5	4	5	5	4	5	4	4	4	3	4	5	4	4	5	4	4	4
68	Laki-laki	25-40 tahun	S1	Wiraswasta	> 12 bulan	5	5	4	4	5	5	5	4	4	5	4	4	4	4	4	5	4	4	4	5	4	3	4
69	Perempuan	25-40 tahun	S1	Wiraswasta	> 12 bulan	4	5	4	4	4	5	4	4	4	4	4	4	4	3	3	3	3	4	4	4	4	5	4
70	Perempuan	25-40 tahun	S1	PNS / TNI / P	> 12 bulan	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	5	5	5	5	5
71	Perempuan	13-25 tahun	S1	Pelajar / Mah	> 12 bulan	5	4	4	4	5	5	5	3	4	4	3	4	3	4	3	3	4	4	3	4	5	5	4
72	Laki-laki	25-40 tahun	S1	Pegawai Swa	> 12 bulan	4	4	4	4	3	4	4	4	4	4	4	3	4	4	3	3	3	4	4	4	4	4	3
73	Perempuan	25-40 tahun	SMA	Wiraswasta	< 6 bulan	5	3	3	4	3	3	3	4	3	3	3	4	3	3	3	4	4	3	4	4	3	3	3
74	Laki-laki	25-40 tahun	S1	Wiraswasta	< 6 bulan	5	5	3	4	4	4	4	4	5	3	4	4	5	5	3	3	3	3	5	4	5	4	4
75	Perempuan	25-40 tahun	S1	Pegawai Swa	> 12 bulan	4	4	4	5	3	3	4	4	3	3	5	4	4	3	3	3	3	3	4	4	4	3	4
76	Perempuan	25-40 tahun	S1	Wiraswasta	> 12 bulan	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	4	5	4	4	5
77	Perempuan	13-25 tahun	S1	Pelajar / Mah	< 6 bulan	5	5	5	5	5	5	5	5	5	5	5	5	5	4	3	3	4	3	4	3	4	4	3
78	Perempuan	25-40 tahun	S1	Pegawai Swa	6-12 bulan	5	5	5	5	4	4	4	4	4	4	4	4	4	4	3	3	3	3	4	4	4	4	4
79	Perempuan	25-40 tahun	S1	PNS / TNI / P	> 12 bulan	5	5	5	5	5	5	5	5	4	4	5	5	5	5	5	5	5	5	4	4	4	4	3
80	Laki-laki	25-40 tahun	S1	Pegawai Swa	> 12 bulan	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	5	4	4	3	3	4
81	Laki-laki	25-40 tahun	>= S2	Lainnya	> 12 bulan	4	4	5	4	4	4	4	4	4	4	5	4	5	5	3	4	4	4	5	5	5	5	5
82	Laki-laki	25-40 tahun	S1	Wiraswasta	< 6 bulan	5	5	5	5	4	5	4	4	3	4	4	4	4	4	3	4	4	4	4	4	4	5	4
83	Perempuan	25-40 tahun	S1	Wiraswasta	> 12 bulan	5	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
84	Perempuan	13-25 tahun	S1	Pelajar / Mah	> 12 bulan	3	3	3	4	3	4	4	3	3	4	4	3	4	3	3	3	3	4	4	4	3	4	3
85	Perempuan	25-40 tahun	S1	Pegawai Swa	> 12 bulan	5	5	5	5	4	4	4	4	4	5	4	5	4	4	4	4	4	4	4	4	3	3	4
86	Perempuan	13-25 tahun	S1	Pelajar / Mah	< 6 bulan	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	3	4
87	Perempuan	13-25 tahun	S1	Pelajar / Mah	< 6 bulan	4	4	4	4	4	4	2	4	4	4	4	4	4	4	3	3	3	3	4	4	4	4	4
88	Perempuan	13-25 tahun	S1	Pelajar / Mah	< 6 bulan	3	4	3	4	5	3	3	3	4	4	5	4	4	3	3	3	4	4	3	4	3	3	2
89	Perempuan	13-25 tahun	S1	Pelajar / Mah	< 6 bulan	5	5	5	5	5	5	5	5	5	5	5	4	5	5	4	5	5	5	5	5	4	4	4
90	Perempuan	25-40 tahun	SMA	Wiraswasta	> 12 bulan	4	3	4	4	3	3	3	5	4	4	5	4	4	4	4	3	3	3	3	4	4	3	3	4
91	Perempuan	25-40 tahun	S1	Wiraswasta	> 12 bulan	4	4	4	4	4	4	4	3	3	4	4	4	4	4	3	3	3	3	4	4	4	4	4
92	Perempuan	13-25 tahun	S1	Pelajar / Mah	6-12 bulan	5	5	5	5	4	5	5	4	5	5	4	4	4	4	4	4	4	4	4	5	5	4	4
93	Perempuan	25-40 tahun	S1	Pegawai Swa	> 12 bulan	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	3	4	4	4	4	4	4	4
94	Perempuan	25-40 tahun	>= S2	Wiraswasta	< 6 bulan	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5
95	Laki-laki	40-55 tahun	S1	PNS / TNI / P	< 6 bulan	4	5	5	5	4	5	4	4	5	5	4	4	5	5	3	3	3	3	4	4	4	4	4
96	Perempuan	25-40 tahun	S1	Pegawai Swa	< 6 bulan	5	5	5	5	4	5	5	4	4	4	4	4	4	4	3	4	4	4	4	3	4	4	4
97	Laki-laki	40-55 tahun	S1	PNS / TNI / P	< 6 bulan	4	5	5	4	3	3	4	4	4	5	4	4	4	5	4	4	3	4	4	4	3	4	5
98	Laki-laki	25-40 tahun	>= S2	Wiraswasta	< 6 bulan	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5	5	4	4	4	3	3	4
99	Laki-laki	25-40 tahun	SMA	PNS / TNI / P	< 6 bulan	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5	5	4	4	4	4	4	4
100	Laki-laki	40-55 tahun	S1	Wiraswasta	< 6 bulan	5	5	5	5	5	5	5	3	4	5	5	5	5	4	5	5	5	5	5	5	5	5	5
101	Laki-laki	25-40 tahun	S1	Wiraswasta	> 12 bulan	5	5	4	4	4	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
102	Perempuan	13-25 tahun	SMA	Pelajar / Mah	< 6 bulan	5	5	5	5	4	5	5	4	5	5	4	5	4	4	5	5	5	5	5	5	5	4	5
103	Perempuan	25-40 tahun	SMA	Wiraswasta	> 12 bulan	4	4	4	4	4	4	4	3	3	4	4	4	4	4	3	3	3	3	4	4	4	4	4
104	Perempuan	25-40 tahun	S1	Wiraswasta	> 12 bulan	5	5	5	5	5	5	5	4	5	5	5	5	5	3	4	4	4	4	4	4	4	5	5
105	Laki-laki	40-55 tahun	SMA	Pegawai Swa	> 12 bulan	4	3	3	3	3	3	4	4	4	3	4	3	4	3	3	5	5	5	4	3	3	3	4
106	Perempuan	13-25 tahun	SMA	Pelajar / Mah	> 12 bulan	4	3	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	4	4	4	4	4	4
107	Laki-laki	25-40 tahun	>= S2	Pegawai Swa	> 12 bulan	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5
108	Perempuan	25-40 tahun	SMA	PNS / TNI / P	> 12 bulan	4	3	4	5	5	5	5	4	5	5	5	5	5	4	5	4	3	4	4	4	4	3	3
109	Laki-laki	25-40 tahun	>= S2	PNS / TNI / P	> 12 bulan	5	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	4	5	4	3	4
110	Laki-laki	25-40 tahun	S1	Lainnya	> 12 bulan	5	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	5	5	4	4	4	4	5
111	Laki-laki	40-55 tahun	SMA	Wiraswasta	> 12 bulan	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	4	4	4	4	4	4
112	Perempuan	25-40 tahun	S1	PNS / TNI / P	> 12 bulan	5	5	4	5	5	5	5	5	5	5	4	5	5	5	4	4	5	4	4	5	5	5	5
113	Perempuan	25-40 tahun	>= S2	PNS / TNI / P	> 12 bulan	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
114	Laki-laki	25-40 tahun	SMA	Pegawai Swa	> 12 bulan	5	5	4	4	4	4	4	4	4	4	4	4	4	3	3	4	4	4	4	4	3	4
115	Laki-laki	40-55 tahun	S1	Wiraswasta	> 12 bulan	5	5	5	4	4	4	4	4	4	3	4	5	4	3	3	4	3	4	5	4	5	4	4

Appendix II. 1 DATA PROCESSING RESULT
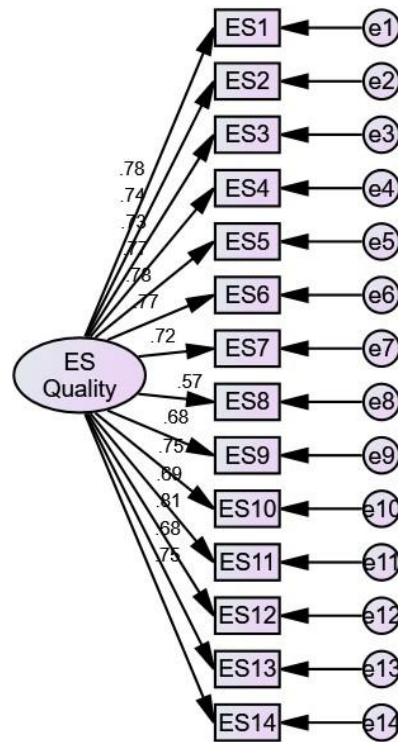
Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
ES1	<---	ES_Quality	1.000				
ES2	<---	ES_Quality	1.154	.135	8.560	***	
ES3	<---	ES_Quality	1.064	.126	8.445	***	
ES4	<---	ES_Quality	1.100	.123	8.940	***	
ES5	<---	ES_Quality	1.163	.128	9.103	***	
ES6	<---	ES_Quality	1.120	.125	8.975	***	
ES7	<---	ES_Quality	1.102	.134	8.253	***	
ES8	<---	ES_Quality	.848	.136	6.240	***	
ES9	<---	ES_Quality	.999	.129	7.773	***	
ES10	<---	ES_Quality	1.091	.125	8.752	***	
ES11	<---	ES_Quality	.925	.117	7.892	***	
ES12	<---	ES_Quality	1.201	.125	9.587	***	
ES13	<---	ES_Quality	.868	.113	7.694	***	
ES14	<---	ES_Quality	1.151	.131	8.757	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
ES1	<---	ES_Quality	.784
ES2	<---	ES_Quality	.740
ES3	<---	ES_Quality	.732
ES4	<---	ES_Quality	.766
ES5	<---	ES_Quality	.777
ES6	<---	ES_Quality	.768
ES7	<---	ES_Quality	.718
ES8	<---	ES_Quality	.566
ES9	<---	ES_Quality	.684
ES10	<---	ES_Quality	.753
ES11	<---	ES_Quality	.692
ES12	<---	ES_Quality	.809
ES13	<---	ES_Quality	.678
ES14	<---	ES_Quality	.754

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
ES_Quality	.239	.048	4.935	***	
e1	.150	.022	6.841	***	
e2	.263	.038	7.012	***	
e3	.235	.033	7.038	***	
e4	.204	.029	6.919	***	
e5	.212	.031	6.872	***	
e6	.208	.030	6.909	***	
e7	.272	.039	7.077	***	
e8	.365	.050	7.341	***	
e9	.272	.038	7.160	***	
e10	.217	.031	6.967	***	
e11	.222	.031	7.141	***	
e12	.182	.027	6.707	***	
e13	.212	.030	7.172	***	
e14	.241	.035	6.966	***	
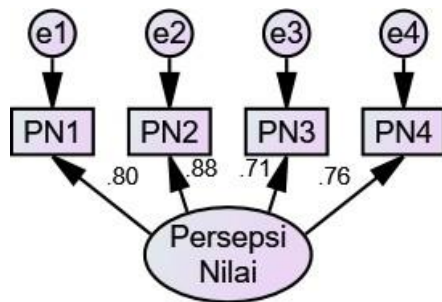
Estimates (Group number 1 - Default model)

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
PN1	<---	Perceive Value	1.000				
PN2	<---	Perceive Value	1.080	.110	9.773	***	
PN3	<---	Perceive Value	.856	.110	7.813	***	
PN4	<---	Perceive Value	.897	.106	8.491	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
PN1	<---	Perceive Value	.803
PN2	<---	Perceive Value	.879
PN3	<---	Perceive Value	.707
PN4	<---	Perceive Value	.758

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Perceive Value	.402	.082	4.917	***	
e1	.221	.040	5.536	***	
e2	.138	.035	3.943	***	
e3	.295	.045	6.500	***	
e4	.240	.039	6.102	***	
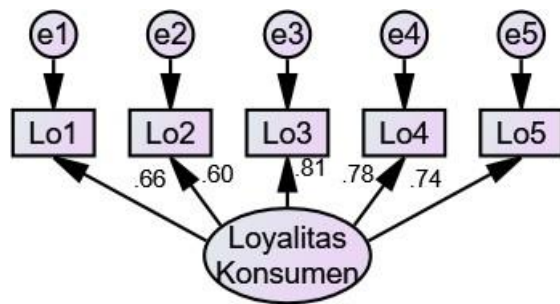
Estimates (Group number 1 - Default model)

Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Lo1 <--- Customer_Loyalty	1.000				
Lo2 <--- Customer_Loyalty	.991	.179	5.538	***	
Lo3 <--- Customer_Loyalty	1.601	.228	7.006	***	
Lo4 <--- Customer_Loyalty	1.654	.241	6.865	***	
Lo5 <--- Customer_Loyalty	1.466	.222	6.591	***	

Standardized Regression Weights: (Group number 1 - Default model)

	Estimate
Lo1 <--- Customer_Loyalty	.661
Lo2 <--- Customer_Loyalty	.600
Lo3 <--- Customer_Loyalty	.809
Lo4 <--- Customer_Loyalty	.784
Lo5 <--- Customer_Loyalty	.741

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
Customer_Loyalty	.127	.034	3.718	***	
e1	.164	.025	6.559	***	
e2	.222	.032	6.836	***	
e3	.171	.034	5.072	***	
e4	.218	.040	5.464	***	
e5	.224	.038	5.969	***	

Frequency Table

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	46	40.0	40.0	40.0
	Female	69	60.0	60.0	100.0
	Total	115	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	13-25 years	27	23.5	23.5	23.5
	25-40 years	76	66.1	66.1	89.6
	40-55 years	12	10.4	10.4	100.0
	Total	115	100.0	100.0	

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	>= S2	20	17.4	17.4	17.4
	S1	82	71.3	71.3	88.7
	High School	13	11.3	11.3	100.0
	Total	115	100.0	100.0	

Type of work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Students	27	23.5	23.5	23.5
	Self-employed	38	33.0	33.0	56.5
	Private employees	27	23.5	23.5	80.0
	Civil servants / TNI / POLICE	18	15.7	15.7	95.7
	Others	5	4.3	4.3	100.0
	Total	115	100.0	100.0	

Length of Time as an Indihome Customer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 1 year	26	22.6	22.6	22.6
	> 2 years	67	58.3	58.3	80.9
	1 - 2 years	22	19.1	19.1	100.0
	Total	115	100.0	100.0	
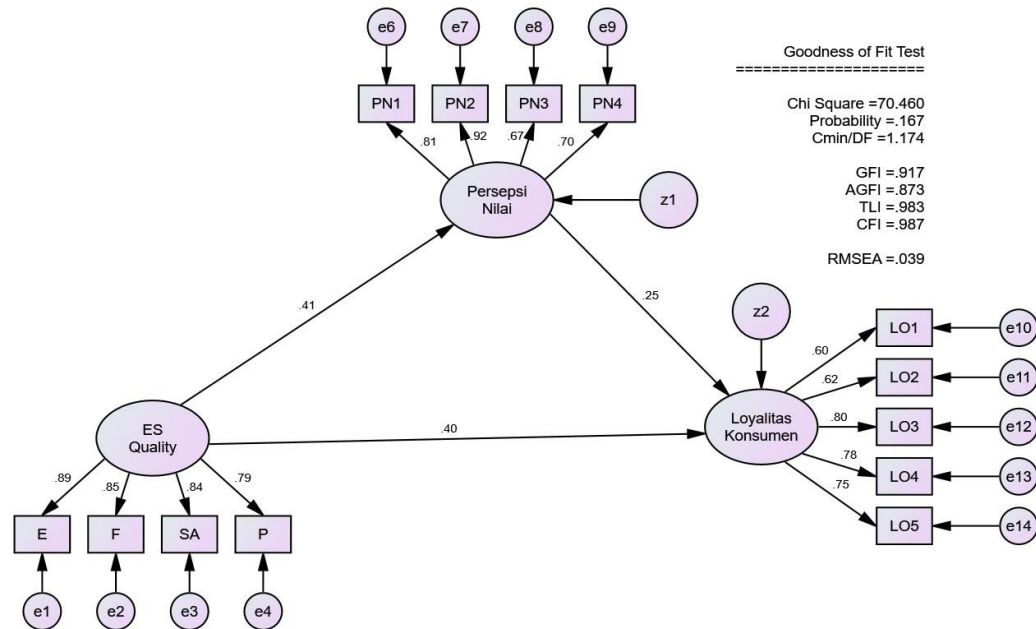
Parameter Summary (Group number 1)

	Weights	Covariances	Variances	Means	Intercepts	Total
Fixed	18	0	0	0	0	18
Labeled	0	0	0	0	0	0
Unlabeled	13	2	16	0	0	31
Total	31	2	16	0	0	49

Assessment of normality (Group number 1)

Variable	min	max	skew	c.r.	kurtosis	c.r.
LO5	2.000	5.000	-.273	-1.194	-.491	-1.074
LO4	3.000	5.000	-.014	-.062	-1.230	-2.693
LO3	3.000	5.000	-.124	-.541	-.987	-2.160
LO2	3.000	5.000	-.054	-.238	-.305	-.669
LO1	3.000	5.000	.039	.169	-.759	-1.661
PN4	3.000	5.000	-.071	-.311	-1.223	-2.676
PN3	3.000	5.000	-.059	-.259	-1.303	-2.853
PN2	3.000	5.000	-.061	-.265	-1.352	-2.959
PN1	3.000	5.000	.093	.405	-1.391	-3.044
E	3.000	5.000	-.498	-2.181	-.922	-2.019
F	3.000	5.000	-.246	-1.075	-1.083	-2.370
SA	3.000	5.000	-.440	-1.924	-.814	-1.783

Variable	min	max	skew	c.r.	kurtosis	c.r.
P	3.000	5.000	-.231	-1.012	-1.068	-2.338
Multivariate					5.451	1.480

Observations farthest from the centroid (Mahalanobis distance) (Group number 1)

Observation number	Mahalanobis d-squared	p1	p2
105	26.363	.015	.828
36	25.749	.018	.626
88	25.457	.020	.407
5	24.616	.026	.348
34	23.928	.032	.303
62	23.026	.041	.341
19	21.134	.070	.706
6	21.112	.071	.571
108	20.558	.082	.609
60	20.236	.089	.585
31	20.203	.090	.466
49	20.007	.095	.412
37	19.828	.100	.358
45	19.677	.104	.302
115	19.451	.110	.279
50	19.362	.112	.218
54	19.345	.113	.149
66	19.333	.113	.097
3	19.091	.120	.094
77	18.314	.146	.232
90	18.154	.152	.211
4	17.945	.160	.209
22	17.859	.163	.170
32	17.661	.171	.169
71	17.364	.183	.201
35	17.190	.191	.197
97	16.896	.204	.238
79	16.771	.210	.219
44	16.557	.220	.235
15	16.527	.222	.184
52	15.613	.271	.546
51	15.396	.283	.582
1	15.210	.294	.604
11	15.166	.297	.548
68	15.062	.304	.527
16	15.053	.304	.452
8	14.737	.324	.556
33	14.714	.326	.491

Observation number	Mahalanobis d-squared	p1	p2
18	14.499	.340	.540
25	14.475	.341	.476
56	14.450	.343	.414
58	14.423	.345	.355
20	14.419	.345	.287
65	14.368	.348	.249
26	14.112	.366	.318
47	14.102	.367	.258
81	13.846	.385	.331
42	13.800	.388	.290
2	13.798	.388	.230
75	13.713	.394	.214
17	13.504	.410	.259
74	13.459	.413	.224
53	13.446	.414	.177
38	13.385	.418	.155
39	13.257	.428	.161
14	13.173	.435	.149
29	13.160	.436	.114
109	13.007	.447	.128
67	12.938	.453	.114
12	12.926	.454	.085
48	12.849	.460	.076
82	12.688	.472	.090
73	12.610	.478	.081
64	12.537	.484	.072
96	12.376	.497	.085
41	12.342	.500	.067
92	11.880	.537	.190
100	11.849	.540	.157
111	11.660	.556	.195
30	11.544	.565	.200
80	11.486	.570	.177
98	11.374	.580	.180
104	11.345	.582	.146
9	10.935	.616	.309
57	10.740	.633	.371
63	10.626	.642	.377
84	10.539	.649	.364
89	10.323	.667	.445
46	10.241	.674	.427
28	10.163	.681	.407
43	9.994	.694	.453
24	9.908	.701	.438

Observation number	Mahalanobis d-squared	p1	p2
59	9.756	.714	.471
95	9.572	.728	.529
102	9.471	.736	.523
114	9.193	.758	.650
76	8.952	.777	.739
10	8.505	.809	.904
72	8.371	.819	.911
55	8.293	.824	.899
110	8.289	.824	.853
99	7.588	.869	.987
112	7.375	.882	.992
13	7.278	.887	.991
69	7.067	.899	.994
23	7.061	.899	.989
107	6.870	.909	.992
93	6.864	.909	.984
86	6.771	.914	.980
27	6.735	.915	.967

Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P	Label
Perceive_Value	<--	ES_Quality	.525	.130	4.031	***	
Customer_Loyalty	<--	Perceive_Value	.128	.056	2.272	.023	
Customer_Loyalty	<--	ES_Quality	.262	.077	3.404	***	
P	<--	ES_Quality	1.000				
SA	<--	ES_Quality	1.050	.105	10.003	***	
F	<--	ES_Quality	.988	.098	10.126	***	
E	<--	ES_Quality	1.019	.096	10.647	***	
PN1	<--	Perceive_Value	1.000				
PN2	<--	Perceive_Value	1.123	.112	10.043	***	
PN3	<--	Perceive_Value	.808	.109	7.423	***	
PN4	<--	Perceive_Value	.827	.105	7.865	***	

			Estimate	S.E.	C.R.	P	Label
LO1	<---	Customer_Loyalty	1.000				
LO2	<---	Customer_Loyalty	1.119	.206	5.423	***	
LO3	<---	Customer_Loyalty	1.740	.267	6.525	***	
LO4	<---	Customer_Loyalty	1.802	.281	6.411	***	
LO5	<---	Customer_Loyalty	1.644	.261	6.300	***	

Standardized Regression Weights: (Group number 1 - Default model)

			Estimate
Perceive Value	<---	ES_Quality	.412
Customer_Loyalty	<---	Perceive Value	.252
Customer_Loyalty	<---	ES_Quality	.405
P	<---	ES_Quality	.793
SA	<---	ES_Quality	.844
F	<---	ES_Quality	.852
E	<---	ES_Quality	.888
PN1	<---	Perceive Value	.805
PN2	<---	Perceive Value	.915
PN3	<---	Perceive Value	.669
PN4	<---	Perceive Value	.701
LO1	<---	Customer_Loyalty	.600
LO2	<---	Customer_Loyalty	.615
LO3	<---	Customer_Loyalty	.799
LO4	<---	Customer_Loyalty	.776
LO5	<---	Customer_Loyalty	.755

Covariances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
e8 <--> e9	.103	.036	2.885	.004	
e10 <--> z1	.084	.028	2.993	.003	

Correlations: (Group number 1 - Default model)

	Estimate
e8 <--> e9	.336
e10 <--> z1	.354

Variances: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
ES_Quality	.250	.050	4.948	***	
z1	.338	.070	4.850	***	
z2	.072	.021	3.374	***	
e4	.148	.023	6.345	***	
e3	.111	.019	5.754	***	
e2	.092	.016	5.621	***	
e1	.069	.014	4.834	***	
e6	.220	.040	5.514	***	
e7	.099	.036	2.786	.005	
e8	.327	.049	6.709	***	
e9	.288	.044	6.549	***	
e10	.165	.025	6.572	***	
e11	.216	.032	6.814	***	
e12	.180	.034	5.377	***	
e13	.226	.040	5.688	***	
e14	.214	.036	5.921	***	

Matrices (Group number 1 - Default model)

Total Effects (Group number 1 - Default model)

	ES_Quality	Perceive Value	Customer Loyalty
Perceive Value	.525	.000	.000
Customer Loyalty	.329	.128	.000
LO5	.541	.210	1.644
LO4	.593	.230	1.802
LO3	.573	.222	1.740
LO2	.368	.143	1.119
LO1	.329	.128	1.000
PN4	.434	.827	.000
PN3	.424	.808	.000
PN2	.590	1.123	.000
PN1	.525	1.000	.000
E	1.019	.000	.000
F	.988	.000	.000
SA	1.050	.000	.000
P	1.000	.000	.000

Standardized Total Effects (Group number 1 - Default model)

	ES_Quality	Perceive Value	Customer Loyalty
Perceive Value	.412	.000	.000

	ES_Quality	Perceive Value	Customer Loyalty
Customer Loyalty	.508	.252	.000
LO5	.384	.190	.755
LO4	.394	.195	.776
LO3	.406	.201	.799
LO2	.313	.155	.615
LO1	.305	.151	.600
PN4	.289	.701	.000
PN3	.275	.669	.000
PN2	.377	.915	.000
PN1	.331	.805	.000
E	.888	.000	.000
F	.852	.000	.000
SA	.844	.000	.000
P	.793	.000	.000

Direct Effects (Group number 1 - Default model)

	ES_Quality	Perceive Value	Customer_Loyalty
Perceive Value	.525	.000	.000
Customer_Loyalty	.262	.128	.000
LO5	.000	.000	1.644
LO4	.000	.000	1.802
LO3	.000	.000	1.740
LO2	.000	.000	1.119
LO1	.000	.000	1.000
PN4	.000	.827	.000
PN3	.000	.808	.000
PN2	.000	1.123	.000
PN1	.000	1.000	.000
E	1.019	.000	.000
F	.988	.000	.000
SA	1.050	.000	.000
P	1.000	.000	.000

Standardized Direct Effects (Group number 1 - Default model)

	ES_Quality	Perceive Value	Customer_Loyalty
Perceive Value	.412	.000	.000
Customer_Loyalty	.405	.252	.000
LO5	.000	.000	.755
LO4	.000	.000	.776
LO3	.000	.000	.799
LO2	.000	.000	.615
LO1	.000	.000	.600

	ES_Quality	Perceive Value	Customer_Loyalty
PN4	.000	.701	.000
PN3	.000	.669	.000
PN2	.000	.915	.000
PN1	.000	.805	.000
E	.888	.000	.000
F	.852	.000	.000
SA	.844	.000	.000
P	.793	.000	.000

Indirect Effects (Group number 1 - Default model)

	ES_Quality	Perceive Value	Customer_Loyalty
Perceive Value	.000	.000	.000
Customer_Loyalty	.067	.000	.000
LO5	.541	.210	.000
LO4	.593	.230	.000
LO3	.573	.222	.000
LO2	.368	.143	.000
LO1	.329	.128	.000
PN4	.434	.000	.000
PN3	.424	.000	.000
PN2	.590	.000	.000
PN1	.525	.000	.000
E	.000	.000	.000
F	.000	.000	.000
SA	.000	.000	.000
P	.000	.000	.000

Standardized Indirect Effects (Group number 1 - Default model)

	ES_Quality	Perceive Value	Customer_Loyalty
Perceive Value	.000	.000	.000
Customer_Loyalty	.104	.000	.000
LO5	.384	.190	.000
LO4	.394	.195	.000
LO3	.406	.201	.000
LO2	.313	.155	.000
LO1	.305	.151	.000
PN4	.289	.000	.000
PN3	.275	.000	.000
PN2	.377	.000	.000
PN1	.331	.000	.000
E	.000	.000	.000
F	.000	.000	.000

	ES_Quality	Perceive Value	Customer_Loyalty
SA	.000	.000	.000
P	.000	.000	.000

Modification Indices (Group number 1 - Default model)

Covariances: (Group number 1 - Default model)

	M.I.	Par Change
e9 <--> e10	4.025	-.039
e7 <--> e13	4.819	-.050
e2 <--> e6	4.613	.036

Variances: (Group number 1 - Default model)

	M.I.	Par Change

Regression Weights: (Group number 1 - Default model)

		M.I.	Par Change
LO4 <---	Perceive Value	6.175	-.205
LO4 <---	PN2	7.638	-.176
LO2 <---	Perceive Value	4.160	.153
LO2 <---	PN4	6.710	.156
LO2 <---	PN3	4.917	.131
F <---	PN1	4.986	.091

Minimization History (Default model)

Iteration	Negative eigenvalues		Condition #	Smallest eigenvalue	Diameter	F	NTries	Ratio
0	e	8		-.641	9999.000	863.359	0	9999.000
1	e	6		-.120	3.248	350.328	20	.341
2	e	3		-.087	.772	183.480	6	.910
3	e	0	394.627	1.018		114.788	6	.589
4	e	0	88.374	.649		93.134	2	.000
5	e	0	74.811	.382		74.200	1	1.188
6	e	0	75.086	.222		70.736	1	1.153

Iteration	Negative eigenvalues		Condition #	Smallest eigenvalue	Diameter	F	NTries	Ratio
7	e	0	83.186		.083	70.463	1	1.064
8	e	0	88.424		.010	70.460	1	1.008
9	e	0	87.647		.000	70.460	1	1.000

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	31	70.460	60	.167	1.174
Saturated model	91	.000	0		
Independence model	13	876.076	78	.000	11.232

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.030	.917	.873	.604
Saturated model	.000	1.000		
Independence model	.176	.328	.216	.281

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.920	.895	.987	.983	.987
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.769	.707	.759
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	10.460	.000	35.578

Model	NCP	LO 90	HI 90
Saturated model	.000	.000	.000
Independence model	798.076	706.578	897.012

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.618	.092	.000	.312
Saturated model	.000	.000	.000	.000
Independence model	7.685	7.001	6.198	7.869

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.039	.000	.072	.670
Independence model	.300	.282	.318	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	132.460	141.140	217.553	248.553
Saturated model	182.000	207.480	431.789	522.789
Independence model	902.076	905.716	937.760	950.760

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	1.162	1.070	1.382	1.238
Saturated model	1.596	1.596	1.596	1.820
Independence model	7.913	7.110	8.781	7.945

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	128	143
Independence model	13	15

SOBEL TEST INDIRECT EFFECT TEST
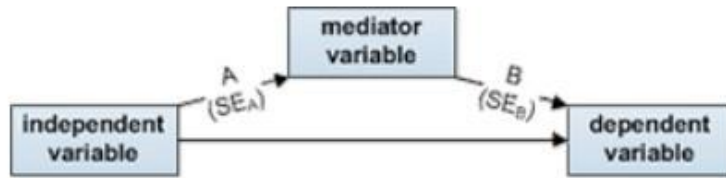
A:	0.412
B:	0.252
SE_A:	0.108
SE_B:	0.098

Calculate!

Sobel test statistic: 2.13225040

One-tailed probability: 0.01649313

Two-tailed probability: 0.03298627