THE EFFECT OF BRAND IMAGE, BRAND TRUST, AND BRAND PERSONALITY TOWARDS CUSTOMER LOYALTY (A STUDY ON SAMSUNG SMARTPHONE USERS IN UNIVERSITAS BRAWIJAYA)

By:
Luqman Aziz M I
NIM 145020703121001

MINOR THESIS

Presented as Partial Fulfillment of Requirements for the Degree of Bachelor of Management

MAJOR IN MARKETING MANAGEMENT
INTERNATIONAL UNDERGRADUATE PROGRAM

FACULTY OF ECONOMICS AND BUSINESS
UNIVERSITAS BRAWIJAYA
MALANG
2021

APPROVAL PAGE

Minor Thesis entitled:

THE EFFECT OF BRAND IMAGE, BRAND TRUST AND BRAND PERSONALITY TOWARDS CUSTOMER LOYALTY (STUDY ON SAMSUNG SMARTPHONE USER IN UNIVERSITAS BRAWIJAYA)

Written by:

Name	: Luqman Aziz M I
Student Number	: 145020703121001
Faculty	: Economics and Business
Department	: Management
Study Program	: Management

Has been examined by the Board of Examiners on May 07, 2021 and certified and eligible to be accepted as a minor

1. Risca Fitri Ayuni, SE., M.M., MBA., CMA
   NIP 198706012019032009
   (Supervisor) ……

2. Raditha Dwi Vata Hapsari, SE., M.M., Ph.d
   NIP 2016078404122000
   (First Examiner) ……

3. Dian Ari Nugroho, SE., M.M., CMA
   NIP 2011068401091001
   (Second Examiner) ……

Malang, June 03 , 2021

Acknowledge by
Head of Undergraduate Program
in Management,

Dr. Dra. Nur Khusniyah Indrawati, M.Si
NIP 196306221988022001

STATEMENT OF ORIGINALITY

Name	: Luqman Aziz Mahardhika Indrajati
Student Number	: 145020703121001
Faculty	: Economics and Business
Program	: Management (International)
Minor Thesis Title	: **"THE EFFECT OF BRAND IMAGE, BRAND TRUST AND BRAND PERSONALITY TOWARDS CUSTOMER LOYALTY (STUDY ON SAMSUNG CELLPHONES USER IN UNIVERSITAS BRAWIJAYA)"**

This is to certify that to the best of author knowledge, the content of this thesis is author's own work. No part of this thesis bas been published or submitted for publication. Author certify that the intellectual content of this thesis is the product of author's own work and that all the assistance received in preparing this thesis and sources have been acknowledged. Author declares that this is a true copy of author's thesis, including any final revisions, as approved by author's thesis committee and graduate studies office, and that this thesis has not been submitted for a higher degree to any other University of Institution

Malang, May 3th 2021

Luqman Aziz Mahardhika Indrajati

CURICULUM VITAE

Name : Luqman Aziz Mahardhika Indrajati

Place and Date of Birth : Tangerang, 09 Agustus 1996

Sex : Male

Religion : Moslem

Address : Jl. Benda Timur V Blok E68/30 Pamulang, Tangsel

Educational Background :

1. Elementary Of SDN Serua 06 (2008)
2. Junior High School of 9 Tangerang Selatan (2011)
3. Senior Highschool of 3 Tangerang Selatan (2014)
4. List as student of Faculty Economic and Business, Universitas Brawijaya : 2015

Organizational Experience :

1. Member of UKM Tennis Meja

Finally, the writer hopes that this report can be much of help for many people, further uses and institutions.

Malang, 02 May 2021

Luqman Aziz Mahardhika Indrajati

PENGARUH CITRA MEREK, KEPERCAYAAN MEREK DAN KEPRIBADIAN MEREK TERHADAP LOYALITAS KONSUMER (STUDY PADA PEMAKAI SAMSUNG SMARTPHONE DI LINGKUNGAN UNIVERSITAS BRAWIJAYA)

Luqman Aziz Mahardhika Indrajati.
Fakultas Ekonomi dan Bisnis Universitas Brawijaya
Luqmanaziz1234@gmail.com

Dosen Pembimbing
Risca Fitri Ayuni, SE, MM, MBA.,CMA

ABSTRAK

Penelitian ini bertujuan untuk mengetahui Pengaruh Citra Merek, Kepercayaan Merek dan Kepribadian Merek terhadap Loyalitas Konsumer studi pada pengguna Samsung Smartphone di lingkungan Universitas Brawijaya. Penelitian eksplanatori ini menjelaskan hubungan dan pengaruh antara satu variabel dengan variabel lainnya melalui pengujian hipotesis. Penelitian ini mengumpulkan sampel 160 responden melalui survei online. Sampel penelitian ini terdiri dari responden menggunakan Samsung Smartphone dan juga Mahasiswa Universitas Brawijaya. Analisis data yang digunakan dalam penelitian ini adalah Analisis Regresi Linier Berganda. Dari hasil pengujian tiga hipotesis, dapat disimpulkan bahwa variabel pengaruh Citra Merek, Kepercayaan Merek dan Kepribadian Merek berpengaruh signifikan terhadap Loyalitas Konsumer. Penelitian ini mengimplikasikan bahwa memerhatikan Citra Merek, Kepercayaan Merek dan Kepribadian Merek dari Samsung Smartphne yang tepat akan meningkatkan keputusan pembelian konsumennya

Kata kunci : *Pengaruh Citra Merek, Kepercayaan Merek dan Kepribadian Merek , Loyalitas Konsumer*

THE EFFECT OF BRAND IMAGE, BRAND TRUST AND BRAND PERSONALITY TOWARDS CUSTOMER LOYALTY (STUDY ON SAMSUNG SMARTPHONE USER IN UNIVERSITAS BRAWIJAYA)

Luqman Aziz Mahardhika Indrajati.
Faculty of Economics and Business, Universitas Brawijaya
Luqmanaziz1234@gmail.com

Supervisor:
Risca Fitri Ayuni, SE, MM, MBA.,CMA

ABSTRACT

This research aims to discover the impact of Brand Image, Brand Trust and Brand Personality towards Customer Loyalty of Samsung Smartphone user in Brawijaya University area. This explanatory research explains the relationship and the influence between one variable and another through hypothesis testing. This research collected sample of 160 respondents via online survey. The sample of this research consists of the respondents are currently use Samsung Smartphone and the students from Brawijaya University. The data analysis used in this research was the Multiple Linear Regression Analysis. From the results of testing seven hypotheses, it can be concluded that the variable of Brand Image, Brand Trust and Brand Personality have a significant influence on the Customer Loyalty. This research implied that proper maintenance of the Brand Image, Brand Trust and Brand Personality of Samsung Smartphone would increase their consumers' Customer Loyalty.

Keywords: *Brand Image, Brand Trust and Brand Personality, Customer Loyalty*

Table of Contents

LIST OF TABLE

LIST OF FIGURE

CHAPTER I
INTRODUCTION

1.1 Background of the Study

Nowadays, the competition in the information and communication technology industry is very tight. This is proven by the growing business in the industry, both for small and large companies. One of them is the industry of mobile phones. The broad market allows this industry to acquire enormous potential. The development of mobile phones today is smartphone. It is a mobile phone with high-level capabilities, sometimes with functions that resemble a computer. There is no factory standard that determines the meaning of a smartphone. For some people, a smartphone is a phone that works with all operating system software that provides standard and basic relationships for application developers. For others, a smartphone is just a phone that presents advanced features such as e-mail, the internet, the ability to read such as e-books, and other media applications. In other words, a smartphone is a small computer that has the ability of a telephone in the whole package (techterms.com, accessed on 2020). Smartphone is the most popular product at the moment. Various types and characteristics offered by vendors (companies) have entered the Indonesian market. Indonesia is a very promising market in the cellular phone industry because of its large population and waste. Each company tries to have an advantage to compete, both in terms of price, quality and try to differentiate its products in order to have its uniqueness and characteristics so that it can cause attraction. Currently, the competion of cellular

phone company (Android smartphone) industry includes Samsung, Oppo, Xiaomi, Realme, Sony, Vivo, and others.

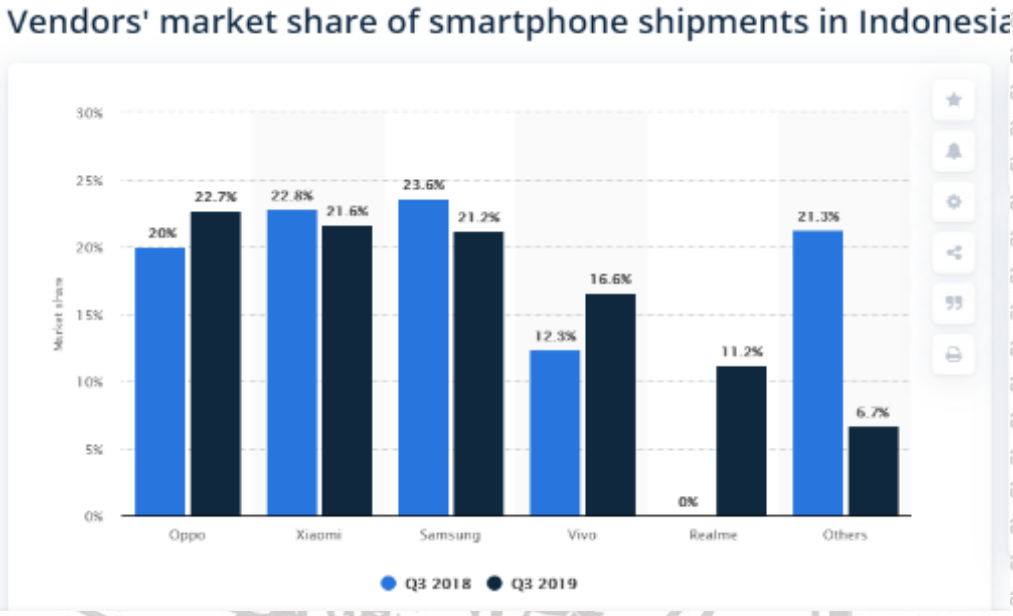


Figure 1.1
Graph of Market Share Smartphone Vendors in Indonesia
Source : Statista.com (accessed on 2020)

The picture above shows that Samsung occupied the first smartphone sales position in the third quarter of 2018 and 2019. Samsung smartphone sales reached 23.6% (Q3,2018) and 21.6% (Q3,2019) of the Indonesian market, then followed by Xiaomi with sales of 22.8% (in the highest year) and then followed by Oppo (22.7%), Vivo (16.6%), Realme (11.2%), and the other brand with the percentage of (21.3%). From this data, it can be interpreted that Samsung dominates Indonesia's market. It can also be inferred that Samsung's brand is becoming the most favorite among the Indonesian people in terms of electronic devices, including a smartphone.

Samsung is a brand from South Korea. It has been named as the second admired global brand in 2019 in the Global Super Brand award category cellphone and

consumer good electronics in a survey conducted by YouGov in 2019. The data were collected between February 2019 and February 2020, while the first brand was Sony and Panasonic was the third. This survey was conducted in various countries throughout the world, including Europe, the Middle East, Latin America, and Asia. Moreover, amidst the Covid-19 pandemic, Samsung remains the first choice in the Indonesian market (CNBC.com, accessed in 2021).

The data above became the reason why the researcher was interested in choosing Samsung as an object of the research. Moreover, Samsung has been attracted to any generation of people. According to the (Yougov.com/accessed in 2019), Samsung has been used by Baby boomers, Generation X, Generation Y, Generation Z, and the Millenials with the Generation Y and Z. It can be inferred the brand that Samsung built throughout the year is already strong among the generation.

The diversification of smartphone became so obvious within Samsung product. They not just focused on single segmentation. For example the Flagship that launched this year, Samsung Galaxy 21+. This product aimed to the high end class that can afford to buy the cost.While, the other product that more cheaper like Samsung M series. Samsung A series is targeted to the low-end class that can also classified to the students that can afford to buy that these serie. Other than that, Samsung also provide the suitable product for the student, college student especially to support their assignment and work. According to the *thinkcomputers.com* (accessed on 2021) Samsung is the top 5 useful smartphone among the students. Furthermore. the branding of particular product Samsung is targeted to the youngsters.

Among the marketing strategies to win the competition, the company is faced with branding the product. To create a strong brand, the company must build a mission and vision of how the brand is becoming a strong brand. Making a positive brand can be achieved with a strong marketing program by highlighting product strengths and differentiating them from other products. A positive brand image in consumers' minds will trigger consumers to refer it to others.

A brand is a name, term, design, symbol, or any other feature that identifies one seller's good or service as distinct from other sellers (American Marketing Association, accessed 2020). According to (Kotler & Armstrong, Marketing Management, 2015), a brand is an idea or image people have in mind when thinking about specific products, services, and activities of a company, both in a practical (e.g. "the shoe is light-weight") and emotional way (e.g. "the shoe makes me feel powerful"). Therefore, it is not just the physical features that create a brand but also the feelings consumers develop towards the company or its product. This combination of physical and emotional cues is triggered when exposed to the name, the logo, the visual identity, or even the message communicated. Brand plays an essential role in the process of consumers choice of the product. A brand is an important link between the producer and the consumer, since it offers many features to the customers that meet customer’s needs through purchase. The brand is the main thing which customer consider while purchasing the product or service. Most customers know to link the brand and loyalty. The brand's role is less significant than other features like price, packaging, technical characteristics in assessing the product or service (Serge, 2000).

Brand image is the perception and belief carried out by consumers, as reflected in the association that occurs in the consumer's memory. If the company succeeds in creating a positive and strong image, the results will be felt in the long run, especially if they can maintain it by consistently delivering and fulfilling the promise attached to the image that was intentionally formed. Brands with a good image will trigger consumers to do word of mouth because consumers trust the brand (Ismail & Spinelli, 2012)Trust is the agents' expectation involvement in a transaction and the risk related to the expectation and behavior (Rai & Srivasta, 2013). According to (Gurviez & Korchia, 2003), there are several things that could be identified from the trust. First, trust and commitment are the most important variables in maintaining long term relationships among partners in the business and industry. Second, explanation from trust and commitment in the relationship between company and consumers complement business theory, especially about transaction cost. Third, the greatest difficulties of constructing the trust concept are cognitive and affective. Several factors, such as brand, trust, commitment, and satisfaction affect the loyalty (Lassoued & Hoobs, 2015). According to Cakmak (2016), brand trust is described as a secure feeling which consumer feels that brand in question will meet their personal expectations. Moreover, trust can reduce the consumer's uncertainty because the consumer knows that brand can be worth trusting and thinks that a dependable, safe and honest consumption scenario is the important link of the brand trust (Chinomona & Maziriri, 2017). Drawing an inference from the above descriptions of brand (Cakmak, 2016) trust, it is arguable to elucidate that when customers have trust in the brand, repeat purchase behaviour

will be created, which leads to commitment to the brand, and the relationship between brand as well as customers can be built up.

Furthermore, to establish long-term consumer brand relationships and satisfy customers' needs, companies position their brands with unique personalities (Wilson, 2011)That is why brand personality attained enormous importance in the successful management of brands. Brand personality is a set of human characteristics associated with a brand. Moreover, (Kotler & Keller, Marketing Management, 2009)define brand personality as the attributes of a particular brand that derives from the mix of human traits. Simultaneously, (Schiffman & Kanuk, 2007)mention that all human characteristics associated with a brand are known as brand personality.

Nowadays, branding is something beyond the simple view. It is a collection of expectations, hopes, and relations from the company's product (Khadka & Maharjan, 2017). A brand connects customers' needs with company's output and investor's hopes (Ulrich, Brockbank, & Johnson, 2007). Renowned brands not only lower the purchase risks and research effort but also affect the consumer's viewing of a product. That is why branding has a high impact on consumer's buying behavior and purchase intentions.

Early research showed that brand image, brand trust, and brand personality have a strong impact on customer loyalty. According to previous research by (Ozdemir, Zhang, Gupta, & Bebek, 2020) affective trust mediates the effect of loyalty, and there is a positive influence. In (Cassia, Ugolini, & Cobelli, 2017)state that brand images have positive effects on loyalty, using b2b object. Lastly, (Garanti & Kissi, 2019)aim to unveil the indirect effects of brand personality on brand loyalty. In

conclusion, it found evidence that stated the relationship of brand image, brand personality, and brand trust towards consumer loyalty.

In order to find out the effect of brand image, brand trust and brand personality on customer loyalty. The researcher believes that it is needed to conduct research on the effectiveness of some of the variables of brand strategies to maximizing profit. The goal is to determine the marketing strategies, branding strategies towards consumer loyalty and improving mobile phone company profitability. Based on the discussed problems and phenomenon above, the researcher proposed research entitled **"The Effect of Brand Image, Brand Trust, and Brand Personality Towards Customer Loyalty (A Study on Samsung Smartphone Users in Universitas Brawijaya)."**

1.2 Problems of the Study

Based on the Background of the study, there are seven problems that neede to be solved:

1. Does Brand Image have a significant effect on the Customer Loyalty of Samsung users in Universitas Brawijaya?
2. Does Brand Trust have a significant effect on the Customer Loyalty of Samsung users in Universitas Brawijaya?
3. Does Brand Personality have a significant effect on the Customer Loyalty of Samsung users in Universitas Brawijaya?

1.3 Objectives of the Study

The objectives in this study are:

1. To identify the effect of Brand Image on Customer Loyalty of Samsung users in Universitas Brawijaya.

2. To identify the effect of Brand Trust on Customer Loyalty of Samsung users in Universitas Brawijaya.
3. To identify the effect of Brand Personality on Customer Loyalty of Samsung users in Universitas Brawijaya.

1.4 Significance of the Study

This significance of study made based on the problem of the study are :

1. For the researcher: Provide results to expand their references to the technology industry and to be used as work in this field industry.
2. For the public and readers: Provide a simple but significant comprehension about the importance of brand image, brand trust and brand personality.
3. For the company : Positive result will help the company increased awareness of importance Brand Image, Brand Trust and Brand Personality toward Customer Loyalty

CHAPTER II
LITERATURE REVIEW

Literature Review is a critical analysis of the research conducted on a particular top ic or question in the field of science", which means that the Literature Review is a critical analysis of research that is being carried out on a specific topic or in the form of a question on a part of science. Literature Review helps us in preparing a frame of mind that is in accordance with the theory, findings, and results of previous research in solving the problem formulation of the research we make. (Hasibuan, 2007)

Literature review contains descriptions of theories, findings and other research materials obtained from reference materials to serve as the basis for research activities. The description in this literature review is directed to develop a clear framework of thinking about problem solving that has been described previously in the formulation of the problem. Literature reviews contain reviews, summaries, and writers' thoughts on several library sources (which can be in the form of articles, books, slides, information from the internet, etc.) on the topics discussed, and are usually placed at the beginning of the chapter. The results of research conducted by other researchers can also be included as a comparison of the research results that will be tested here. All statements and / or research results that are not from the author must be stated at the source, and the procedure for referring to the literature source follows the established rules. (Agusta, 2007)

2.1 Previous Research

Table 2.1 Previous Research

Author	Title	Analysis Technique	Result
Lin, Lobo, & Leckie (2017)	Green brand benefits and their influence on brand loyalty	Quantitative, SEM	The second path is to create a positive green brand image as utilitarian benefits indirectly impact green brand loyalty via green brand image. Finally, self-expressive benefits only impact green brand loyalty via green brand image.
Cassia F, Cobelli N, Ugolini M, (2017)	The effects of goods-related and service-related B2B brand images on customer loyalty	Quantitative, SEM	The results have been inconsistent because they have highlighted that B2B brand image has either direct or mediated effects on loyalty. Drawing on the framework of service transition, this study develops and tests a model that reconciles previous findings.
Shi Xinping, Lin Z, Liu J, Hui Y. K (2018)	Consumer loyalty toward smartphone brands: The determining roles of deliberate inertia and cognitive lock-in	Quantitative, SEM	The results show that the inertia meaningfully and positively enhances consumers' brand loyalty, and the lock-in significantly predicts consumers' deliberate inertia and commitment. The findings significantly advance extant knowledge with the positive effects of deliberate inertia and cognitive lock-in on consumers' brand loyalty.

Table 2.1
Previous Research (Continue)

Author	Title	Analysis Technique	Result
(Garanti Z. Kissi S.P (2018)	The effects of social media brand personality on brand loyalty in the Latvian banking industry The mediating role of brand equity	Quantitave, SEM	The results also reveal that brand equity positively impacts brand loyalty and partially mediates brand personality and brand loyalty relationship. The theoretical model is thus validated and can be used in future research
Ozdemir S, Zhang S, Gupta S, Bebebk G (2020)	The effects of trust and peer influence on corporate brand—Consumer relationships and consumer loyalty	Quantitative, SEM	The study shows that cognitive trust mediates the relationships between the certain corporate brand and consumer constructs, including corporate brand competence and corporate brand communication and loyalty, affective trust mediates the effect of loyalty on corporate brand and consumer relationship constructs, including corporate brand communication, corporate brand liking and corporate brand similarity.

Secondary Data processed, 2021

In order to support the research entitled **"The Effect of Brand Image, Brand Trust, and Brand Personality Towards Consumer Loyalty (A Study on Samsung Smartphone Users in Universitas Brawijaya),"** the researcher reviewed several studies that have been carried out related to this topic. The first research to support this research was a study conducted by Lin, Lobo, & Leckie, (2017) entitled ***"Green brand benefits and their influence on brand loyalty."*** The method and analysis technique used in this study was quantitative with Structural

Equation Model (SEM) technique. The result of this study on the related variables show that the second path creates a positive green brand image as utilitarian benefits have an indirect impact on green brand loyalty via green brand image. Finally, self-expressive benefits only impact green brand loyalty via green brand image. What differentiates the current research and previous research is the object of research. The object of the previous research is a Green Brand while the object of current research is the *Samsung smartphone users* in Universitas Brawijaya.

The second study was conducted by Cassia F, Cobelli N, Ugolini M, (2017) under the title **"The effects of goods-related and service-related B2B brand images on customer loyalty."** This study aimed to determine the effect of goods-related and service-related B2B brand images on customer loyalty. The technique used was quantitative and Structural Equation Model (SEM). Based on the discussion, the results have been inconsistent because they have highlighted that B2B brand image has either direct or mediated effects on loyalty. Drawing on the framework of service transition, this study develops and tests a model that reconciles previous findings. The previous research chooses B2B business as an object, while the current research is *Samsung Smartphone*.

The third study was conducted (Shi, Lin, Liu, & Hui, 2018)entitled **"Consumer loyalty toward smartphone brands: The determining roles of deliberate inertia and cognitive lock-in."** This study aimed to integrate the bias, including consumers' deliberate inertia and cognitive lock-in, with consumers' trust and commitment in perspective. The study empirically analyzed a research model and hypothetical relationships using structural equation modeling with survey data from smartphone consumers. The results show that the inertia meaningfully and

positively enhances consumers' brand loyalty, and the lock-in significantly predicts consumers' deliberate inertia and commitment. The findings significantly advance extant knowledge with the positive effects of deliberate inertia and cognitive lock-in on consumers' brand loyalty.

The fourth study was conducted by Garanti Z. Kissi S.P (2018) with the title "**The effects of social media brand personality on brand loyalty in the Latvian banking industry the mediating role of brand equity.**" The purpose of this study is to draw upon social information processing theory, and its purpose is twofold. First, it aims to examine the relationship among five brand personality traits (responsibility, activity, simplicity, emotionality, and aggressiveness) as to brand equity created on social media in the banking industry of Latvia. The results show that aggressiveness, followed by responsibility and activeness, form positive brand equity on social media. In contrast, emotionality and simplicity do not contribute to the brand equity of banks on social media. The results also reveal that brand equity positively impacts brand loyalty and partially mediates brand personality and brand loyalty relationship. The theoretical model is thus validated and can be used in future research.

The fifth study was conducted by Ozdemir S, Zhang S, Gupta S, Bebebk G (2020) under the title "**The effects of trust and peer influence on corporate brand—Consumer relationships and consumer loyalty.**" The study shows that cognitive trust mediates the relationships between the certain corporate brand and consumer constructs, including corporate brand competence and corporate brand communication and loyalty, affective trust mediates the effect of loyalty on corporate brand and consumer relationship constructs, including corporate brand

communication, corporate brand liking, and corporate brand similarity. Peer influence is found to have a positive moderating effect on corporate brand communication regarding affective trust.

2.2 Branding

In brand marketing, communication or what is known as a brand, is not just a name and logo, a brand is a promise of an organization (work unit) to customers to provide the principle of the brand. The functional benefits not only outweigh the emotional, self-expression, and social benefits, nor do they just keep promises. Brand is a long journey developed based on perception and experience and assessment, customer satisfaction service related to the brand. According to Kotler, brand is a name, term, sign, symbol, design, or a combination of all the elements used to identify a product or service from someone or a seller's group of competitors (Kotler, 2015). Brand functions as a bond emotionally strong between customers and consumers, strategic options and financial power. The strength of the brand or brand has bound customer loyalty to deliver business success, toughness and competitive products. Brands with all their strengths have different meanings with different goals. (MarkPlus, 2009) identifies 6 (six) brand levels, namely:

a. Attributes, namely a brand that is expected to remind an attribute or certain traits.
b. The benefit is brand that has more than a set of attributes but have both functional (durable) and emotionally. A good brand does not only have the power to explain the product to customers but it is also built with consistent product excellence. When customers buy a product, they do not only expect from the brand but also expect the function of the automotive.

c. Brand value is what creates value for producers. The value attached to products is usually interpreted simply but represents the whole of a product. Customers who use the latest gadgets want to show themselves as someone who cares about technology, updated with the latest technology, and increases its prestige with the product used.

d. Culture, which is a brand that represents a certain culture. Suppose that Mercedes represents efficient and high-quality German culture. Honda represents culture Japan is full of technology and dreams for the future. Products manufactured in countries with high culture and high levels of discipline and quality is guaranteed to be more convincing than those produced in culturally, lower quality countries.

e. Personality, which is a brand, can also design certain personalities.

2.3 Brand Image

Brand Image represents the overall perception of the brand and is formed from information and past experience of the brand. The brand's image relates to attitudes in the form of beliefs and preferences towards a brand. Consumers who have a positive image of a brand will be more likely to make purchases (Bian & Moutinho). While according to (Lee, Ko, & Sagas, 2010) brand image is a description of the association and consumer confidence in a particular brand. In management sciences, one can come across numerous definitions, which explain brand image in a narrow and broadway. (Świtała, Reformat, & Gamrot, 2018), at the same time, underline that brand image is an impression made as a consequence of numerous factors (e.g., associations linked with a given brand name, the purchasing experience, the reputation of a given company, forms and measures of

advertising, promotion, etc.), which means that from the perspective of various recipients it is a complex, inhomogeneous and a quite abstract category. Brand image is often linked with brand identity. . (Świtała, Reformat, & Gamrot, 2018) l definition treats brand identity as the configuration of words, images, ideas, and associations creating the total brand image in buyers. Numerous authors, including Pars & Gulsel (2011), also draw the fact that brand identity is shaped consciously by its owners. It aims to determine the meaning, intent and calling of a given brand. In other words, this term constitutes a specific message about a given brand presented by a given company to its recipients using various marketing activities. From a marketing perspective, this term is defined among others by Kotler (2004), who uses it to describe an activity related to shaping the offer and image of an enterprise resulting in a clear and significant position of the brand in the memory of target recipients. In this definition, the author refers to marketing activities aimed at specific associations, that help differentiate the brand from other similar brands functioning on a given market (Kapferer, 2011) perceives positioning in a slightly different aspect; he highlights an important market function of positioning in his approach, referring to stimulation of competitiveness. Brand image can be analyzed through a prism of four key elements: verbal and visual identification, forms of brand promotion, i.e., marketing communication, and the system of behaviors of people (employees) linked to a given brand. These elements create a consistent system of activities, significantly impact brand image, i.e., its identification and perception by surroundings. Simultaneously, it must be emphasized that brand image should be adjusted to the nature of market activities of a given company, i.e., synonymous with its mission and market strategy, legible for consumers, and

interesting for its partners. Additionally, the brand image should be accepted by a broader community of a given company (external and internal), positively distinguishing itself from competitive brands on the market. Regarding the logistics service market (Juga, Grant, & Juntunen, 2010) studied the impact of service quality on outsourcing relationships. They argued that the service provider's image plays a significant role in obtaining customer loyalty.

2.4 Brand Trust

Brand trust has a very large influence on the brand's sustainability because if a brand is no longer trusted by consumers, the product with that brand will be difficult to develop in the market. But on the contrary, if consumers trust the brand, then the product will continue to grow in the market. According to Keller (2008), brand trust is defined as a sense of security possessed by the product user in their interaction with a brand based on the perception that the brand can be trusted and pay attention to the interests and welfare of consumers. According to Guviez and Korchia (2014), several things can be identified from the trust variable, namely: trust and commitment are the most important and strategic variables to maintain long-term relationships between industry partners and businesses. There are some things that can be identified from the trust variable, namely: trust and commitment are the most important and strategic variables to maintain long-term relationships between industry partners and businesses. Explanation of the variables of trust and commitment in the relationship between companies and consumers provides supplements to economic theory, especially regarding transaction costs. An explanation of the variables of trust and commitment in the relationship between companies and consumers provides a supplement to economic theory, especially

about transaction costs. The greatest difficulty in conceptualizing trust is based on cognitive and affective. The research conducted by Tezinde et al. (2014) prove that trust, commitment, and satisfaction will influence relationships with consumers and loyalty

2.5 Brand Personality

A brand that has a brand personality superior and in accordance with the consumer personality of course, will create a bond between brands with these consumers. This is because brand personality can be useful for analysis behavior of a product or brand choice. Kotler & Armstrong (2006: 140) explains the basis the thought of brand personality is that both brands and humans have personalities, and humans as consumers tend choose a brand with the appropriate personality with his personality.

To establish long-term consumer brand relationships and satisfy customers' needs, companies position their brands with unique personalities (Weis & Huber, 2000), and that is why brand personality attained enormous importance in the successful management of brands. Brand personality is a set of human characteristics associated with a brand and Kotler & Keller (2009) define brand personality as the attributes of a particular brand that derives from the mix of human traits. In comparison, Schiffman & Kanuk (2007) explain that all human characteristics associated with a brand are brand personality. According to Kotler & Keller (2015) this BPS consists of 42-item, and these items come up as a result of studying the personality scales from marketers, practitioners, and qualitative researchers. Brand Personality Scale (BPS), through which brand personality can be measured, is valid and reliable. on the dimensionality of the construct.paper,

which more formally identified the dimensions of brand personality, marked a step change in interest in the topic by presenting a rigorously tested, multidimensional measure. The construct was defined as "the set of human characteristics associated with a brand", a definition we adopt throughout our paper. The measurement scale was designed to be generic, applicable to all brands. The five dimensions that emerged from a factor analysis of data from members of the US public asked to assess a number of consumer brands were labelled as (with example measurement traits in parentheses) as: sincerity (honest, genuine and cheerful); excitement (daring, imaginative and up-to-date); competence (reliable, dependable and efficient); sophistication (glamorous, charming and romantic); and ruggedness (tough, strong and rugged). The well-known and established brands that

2.6 Consumer Loyalty

Customer loyalty is the customer attitude and behavior to prefer one brand over all competitor ones, due to satisfaction with the product or services. It encourages consumers to shop more consistently (Peiguss, 2012). Customer loyalty is defined as the willingness of any given customer to purchase the company's goods or services over competitive ones available in the marketplace (Singh & Khan, 2012). Since loyalty is the result of developing past positive experiences with the customers and having them return to the company various times due to these experiences, customers will return to do business with the company; regardless of whether it may not have the best product, price or service delivery. Ghavami & Olyaei (2006) demonstrate that loyalty is more than a repetition of behavior. Customers can demonstrate loyalty to price, brand, company, and other customers. However, customer satisfaction is important to any company and it affect clients

repeatedly coming back to the company due to its service. Therefore, the crucial factors that affected customer loyalty are customer satisfaction, emotional bonding, trust, choice reduction/habit, and company history (Gurviez, Patricia, 2012)Therefore, customer satisfaction with a company's products or services could be considered the key to a company's success and long-term competitiveness. Customer satisfaction is viewed as a central determinant of customer retention. Peiguss (2012) pointed out that satisfaction is not enough because less than half of the company-satisfied customers will come back. The company needs to transfer satisfied customer to loyal customers. It is so important because it costs so much to influence customers to buy and so little to induce a repurchase. Customer loyalty is a result of a positive emotional experience, physical attribute-based satisfaction and perceived value of an experience, which includes the product or services. Oliver (2010) states that loyalty is a customer commitment to endure in depth to subscribe return or make a repurchase selected products/services consistently on future, despite the influence marketing situations and efforts have the potential to cause behavioral change. Kotler and Keller (2012) state that customer loyalty represents a situation that customers consistently spend the entire existing budget to buy a product service from the same seller. Consumer loyalty occurs within several phases according to (Oliver, 2010):

1) Cognitive loyalty or loyalty based solely on brand belief.
2) Affective loyalty or liking or attitude towards a brand based on opportunity using satisfaction regularly.
3) Conative loyalty shows a loyalty condition that contains what the first occurrence shows deep commitment to buy.

4) Action loyalty, where the intent is converted to action.

2.7 Relationship Between Brand Image, Brand Trust, Brand Personality on Consumer Loyalty

According to Kotler and Keller (2015), consumers having positive relation and high satisfaction leads to positive brand image, and positive brand image leads to positive consumer behavior. Brand image is the key factor that compulsive customers to purchase intention (Kotler and Keller, 2015). For the automobile industry, the most important predictor of purchase intention is actual individual behavior (J. Paul Peter, 2008). The term behavior is an action while intention is the plan to purchase a brand in near future (J. Paul Peter, 2008)

Brand trust is consumers' willingness to believe that the brand can perform its stated function or meet consumers' expectations (Chaudhuri & Holbrook, 2001). It is also defined as a consumer's willingness to rely on a brand in the fact of risk because of expectations that the brand will cause positive outcomes, or a feeling of security held by consumers in their interactions with the brand (Ballester & Munuera-Alemán, 2005). (Mengxia, 2007) investigated the influence of brand personality on consumers brand preference, affection, loyalty and purchasing intention. The results of the study show that brand personality has a positive influence on brand preference, affection, loyalty and purchase intention. A brand personality should be shaped to be long-lasting and consistent. Besides, it should also be different from other brands and meet consumer's demands (Kumar et al., 2006). Also a study conducted by Kumar et al. (2006) sorted out the connection between brand personality and brand loyalty, and separately used durable goods (cars), and consumer goods (tooth-pastes) to explore the relationship between brand

personality and brand loyalty. The result shows that brand personality may influence consumers' brand loyalty to consumable goods.

2.8 Hypotheses Model

A hypothesis is a proposition, condition, or principle which is assumed, perhaps without belief, in order to draw its logical consequences and by this method to test its accord with facts which are known or may be determined (Webster's New International Dictionary of English). According to Sekaran (2010), a hypothesis is a tentative yet testable statement predicting what the researcher expects to find their empirical data. Moreover, a hypothesis can be proven and corrected if supported by empirical data (fact on the field). The hypothesis concept is as follows:

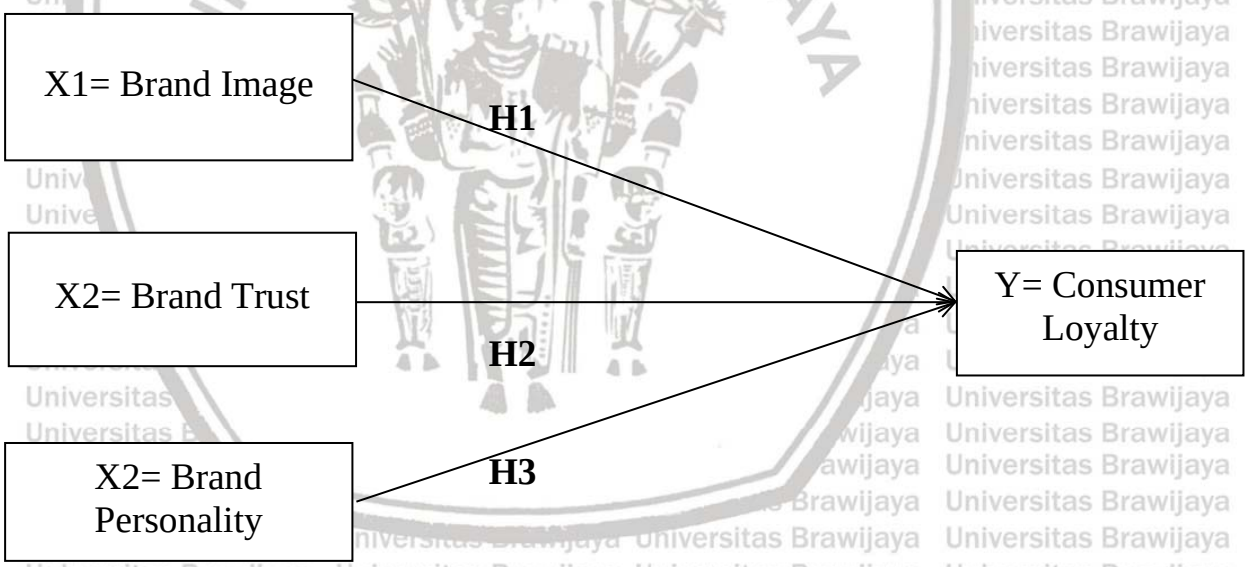


Figure 2.2
Research Hypothesis
Source: Primary data processed, 2021

2.8.1 The Effect of Brand Image on Customer Loyalty

H1: ***X1 Brand Image has a significant effect on Customer Loyalty.***

The brand image represents the overall perception of the brand and is formed from information and past experience of the brand. The brand's image relates to attitudes in the form of beliefs and preferences towards a brand. Consumers who have a positive image of a brand will be more likely to make purchases (Bian and Moutinho, 2011). While according to Lee et al. (2011), brand image is a description of the association and consumer confidence in a particular brand.

2.8.2 The Effect of Brand Trust on Customer Loyalty

H2: ***X2 Brand Trust has a significant effect on Customer Loyalty.***

According to Guviez and Korchia (2014), there are several things that can be identified from the trust variable, namely: trust and commitment which are the most important and strategic variables to maintain long-term relationships between industry partners and businesses. Explanation of the variables of trust and commitment in the relationship between companies and consumers provides supplements to economic theory, especially regarding transaction costs. An explanation of the variables of trust and commitment in the relationship between companies and consumers provides a supplement to economic theory, especially about transaction costs

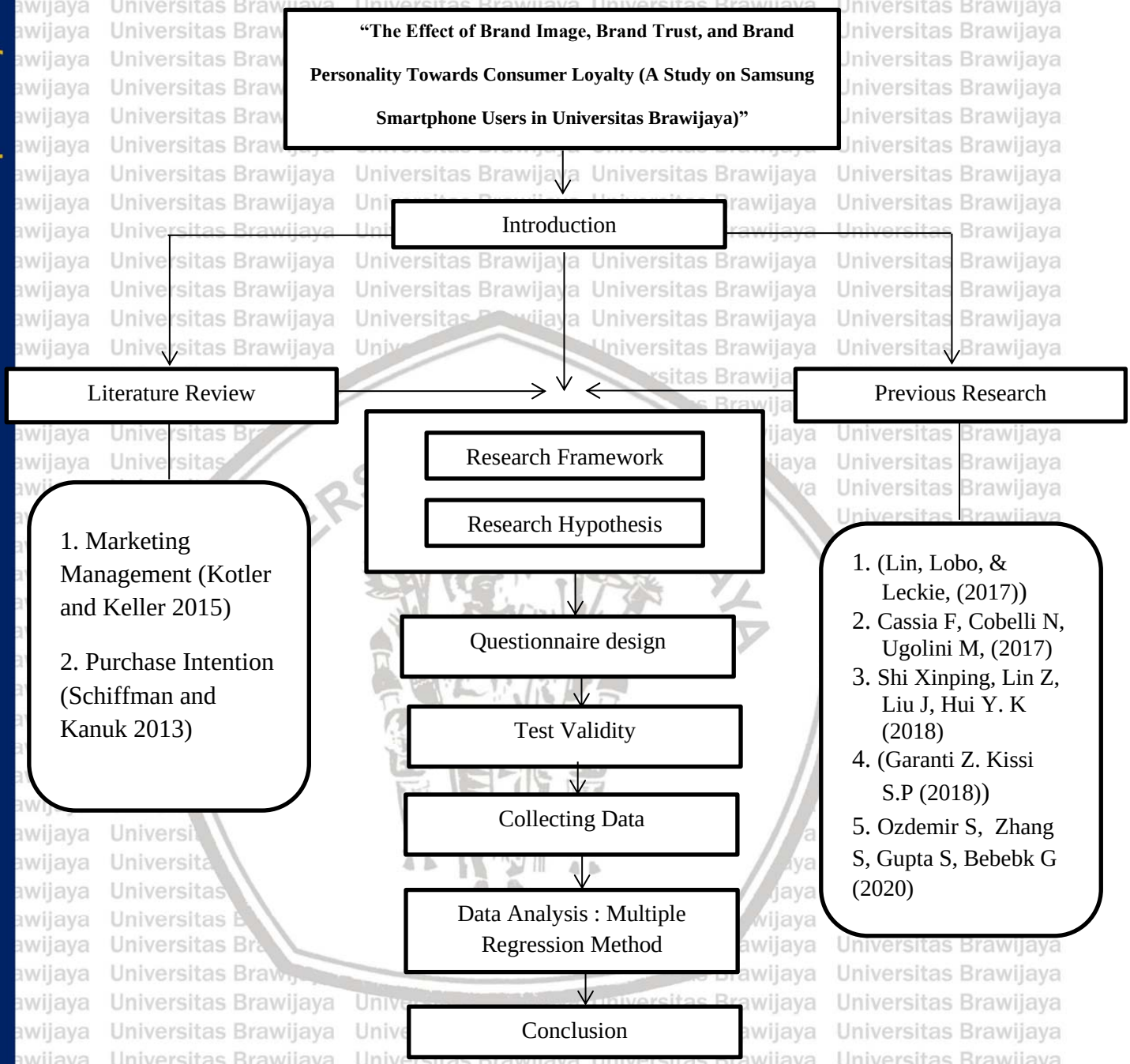
2.8.3 The effect of Brand Personality on Customer Loyalty

H3: ***X3 Brand Personality has a significant effect on Customer Loyalty.***

According to Lin (2010), brand personality contributes to purchase intention. Favorable and promising brand personality helps in product evaluation and purchase intentions.

2.8 Research Framework

The conceptual framework for this research was developed and based on combination models and constructs derived from the literature as shown in Figure 2.3.



Source: Primary data processed, 2021

Figure 2.3
Research Framework

CHAPTER III
RESEARCH METHODOLOGY

3.1 Research Design

Research is an activity to figure out and examine the cause and effect of a phenomenon in everyday life using existing research methods. In a proper study, there needs to be a detailed explanation of the research type. An explanation of this type of research will facilitate the delivery of messages and methods in research. In addition, the selection and determination of the right method will facilitate the achievement of the objectives of a study. According to Sugiyono (2011), a quantitative research method can be defined as a research method that is based on the philosophy of positivism sample and is used to examine the population or a particular sample using the research data, an instrument of research, quantitative data analysis or statistics to test the hypothesis that has been set. Furthermore, according to Singarimbun & Effendi (1995), explanatory research explained the relationship between the variable and the previous study that has been formulated before.

This research used the quantitative method. Research design used in this research is explanatory research. The explanatory research used to understand and became clear to define each variable that investigated dependent variables and the independent variable. The independent variables used for this research are Brand Image, Brand Trust and Brand Personality while the dependent variable of this research is Customer Loyalty.

3.2 Research Location

The research location is the object or place of a study. The research location is also considered as a description of the object of research and sources of data obtained by researchers as material to be tested. The location was chosen to conduct research in the area of Universitas Brawijaya.

3.3 Population and Sample

3.3.1. Research Population

Population is a group of elements to be concluded (Cooper and Schindler, 2008). Meanwhile, according to Sugiyono (2014), the population is a generalization area consisting of objects or subjects with certain qualities and characteristics determined by researchers to be studied and then drawn conclusions. From the two opinions, it can be concluded that the population is the whole object of research that has certain characteristics in accordance with the research to be conducted. In this study, the population is the students of Universitas Brawijaya who use Samsung smartphone.

The number of Samsung smartphone users in Universitas Brawijaya are not known for certain because there are too many and hard to get the exact number of the user. Therefore, researchers examine a portion of the population by taking samples from the population to make it easier for researchers.

3.3.2 Research Sample

Sample are part of populations with relatively similar characteristics can be considered representative populations (Singarimbun, 2001). The technique used in sampling this research is purposive sampling. A sample is part of the number and

characteristics possessed by the population (Sugiyono, 2014). Another definition of the sample put forward by Arikunto (2010) who argues that the sample is part or representative of the population under study. The sample is only part of the population, not the whole population. Based on this understanding, it can be concluded that the sample is part of the population.

This study use samples because when using populations, the numbers would be too large for the ability of researchers but the samples taken must be representative.

3.3.3 Sample Size

If the population is large, the researcher may find it difficult to observe all the population members, possibly due to financial constraints, manpower, and time constraint, so the researcher can use the sample withdrawn from the population. Due to the uncertainty of the population number, the researcher used the sample number determination based on the measurement scale on Roscoe in Sekaran (2003:295). It proposes the following rules of thumb for determining sample size.

A. Sample size larger than 30 and less than 500 is appropriate for most research. This study used approximately 130 samples, which came from question number multiplied by 10. Moreover, the researcher believes that 160 samples are enough to represent Samsung smartphone users in Universitas Brawijaya.

B. When the samples are broken into subsamples (male/female, junior/senior), a minimum sample size of 30 for each category is necessary.

C. In multivariate research (including multiple regression analyses), the sample size should be several times (preferably 10 times or more) as large as the number variables in the research.

D. For simple experimental research with tight experimental controls (matched pairs, and so on.), successful research is possible with samples as small as 10 to 20 in size.

3.3.4 Sampling Technique

The sampling technique is used to determine sample size (Sugiyono, 2014). The sampling technique in this study uses a nonprobability sampling technique. This sampling technique does not provide the same opportunity or opportunity for each element or member of the population to be selected as a sample. The method used is purposive sampling, namely sampling based on the subjective assessment of researchers based on certain characteristics that are considered to have a relationship with population characteristics. Respondents selected by researchers are based on the following criteria:

1) The students of Universitas Brawijaya
2) Currently use the Samsung smartphone

3.4 Data Collection Method

The data collection method is how researchers obtain the information needed in research. There are several data collection techniques that can be done, namely by interview, questionnaire, observation, documentation, and a combination of the three (Sugiyono, 2014). Data collection methods used in this study are:

1. Questionnaire

Questionnaire is a data collection technique that is done by giving a set of questions or statements in writing to respondents to be answered (Sugiyono, 2014). This study carried out an offline questionnaires distribution. Distribution is done

offline by distributing questionnaires to students who currently use Samsung smartphones. The questionnaire results obtained were managed and analyzed by conducting several tests to determine the accuracy and accuracy of the answers given by respondents.

2. Literature Study

Literature study is one part of the data collection techniques in research sourced from various literature sources to support the completeness of research data. In this study, the literature study was sourced from previous research, scientific journals, and books relating to research topics.

3.5 Definitions of Operational Variables

According to Sekaran (2011), an operational definition is to define a concept so that it can be measured by looking at the behavioral, factor, or things dimensions underlying a concept. Meanwhile, according to Indriantoro and Supomo (2011), the operational definition is the determination of construct so that it becomes a variable that can be measured in research. Furthermore, the operational definition explains the method used by researchers to operationalize the construct, making it possible for other researchers to replicate measurements in the same way or develop better construct measurement (Sugiyono, 2014).

3.6. Variable Identification

Research variable is anything in the form of what is determined by the researcher to be studied so that information can be obtained until a research conclusion can be drawn (Sugiyono, 2014). This study used three independent variables and one dependent variable that effect the dependent variable both negatively and

positively. The dependent variable is the variable that is the main factor that applies in the study (Sekaran 2011). Variable items in this study are as follows:

3.6.1 Brand Image (X1)

According to Lin & Lin (2007) brand image makes consumers get to know a product evaluating quality, and can cause purchasing risks (the low one). The brand image provides a guarantee to consumers about the product used. Famous brands will generally be preferred by consumers when making a purchase even though the price offered is quite high. The brand image presents the overall perception of the brand and is formed from information and past experience of the brand (Setiadi, 2010). The brand of the molded must be clear and have advantages when compared to other brands. Basically, the image is formed from perceptions that have been formed. The indicator used in measuring Brand Image level was adopted from Cassia F, Cobelli N, Ugolini M, (2017). The statement items are:

1. The products of Samsung smartphones are of good quality.
2. Samsung smartphone products can be trusted, and their quality can be guaranteed for a long time.
3. Variants of Samsung smartphone products meet the needs of customers from various circles.

3.6.2 Brand Trust (X2)

Brand trust refers to consumers' perception of the ability of a brand to perform in accordance with its promise (Chaudhuri & Holbrook, 2001). According to Esch et al. (2006), brand trust accelerates a level of commitment consumers have with a brand. It implies an attachment as a reflection of buyer-seller relationships at a particular point in time (Persson, 2010). Thus, such relational association seems

to play an important role in consumers' willingness to purchase a brand that they trust, which shows how much they are attached to a particular brand (Esch et al., 2006). Once a company gains consumers' brand trust, their buyers tend to stick to the same brand and purchase products in different categories under it (Mabkhot et al., 2017). Moreover, brand trust, thereby, drives both positive attitudinal and behavioral loyalty toward a brand (Chaudhuri & Holdbrook, 2001) and influences purchasing decisions (Gefen & Straub, 2004). however, focused merely on the impact of brand trust on loyalty and repurchase intention, while its effect may form brand attachment as suggested by Esch et al. (2006). Accordingly, brand trust is a second important factor that is proposed in the current research model that drives consumer behavior via brand attachment. Hence, the following hypothesis is adopted from Xinping Shi, Zhibin Lin, Jonathan Liu, Yan Keung Hui(2018):

1. Smartphone products from Samsung are very suitable for now and for continuous use.
2. Samsung smartphone products can be trusted for quality.
3. The brand of the Samsung smartphone is unmistakable and reliable.
4. I have confidence and trust in Samsung smartphones.
5. The Samsung smartphone brand delivers the quality that they are advertised.

3.6.3 Brand Personality (X3)

Brand personality is a set of human characteristics associated with a brand, and Kotler & Keller (2009) define brand personality as the attributes of a particular brand that derives from the mix of human traits. In contrast, Schiffman & Kanuk (2014) mention that all human characteristics associated with a brand are known as

brand personality. To measure brand personality, Schiffman & Kanuk (2014) have established and proposed a scale for measuring the brand's personality named as Brand Personality Scale (BPS).

1. Samsung smartphone products give a practical and simple impression in use.
2. Samsung smartphone products have a trendy and cheerful impression.
3. Samsung smartphone products have a unique advantage.
4. Samsung smartphone products have a personality that is always innovative at all times.
5. Samsung smartphone products have the advantage of being durable and suitable for individuals with active outdoor activities.

3.6.8 Customer Loyalty

According to Toufani (2016), buying interest arises because of the existence of a positive stimulus about an object that gives rise to consumer motivation for a product. While buying interest, in the perception of Schiffman (2013), is a person's attitude towards objects that are very suitable in measuring the attitudes of certain categories of products, services, or brands. Buying interest is part of the behavior component in consuming. Schiffman and Kanuk (2014) explain that external influences, awareness of needs, product introduction, and alternative evaluation can lead to consumer buying interest. This external influence consists of marketing efforts and socio-cultural factors. The indicator used in measuring purchase intention level was adopted from Cassia F, Cobelli N, Ugolini M, (2017) and Ozdemir S, Zhang S, Gupta S, Bebebk G (2020). The statement items are:

1. For my next purchases, I will consider Samsung as my first choice.
2. I will do more business with Samsung in the next few years than I do right now.
3. I would be willing to pay a higher price for Samsung over other foreign brands.

Table 3.1

Questionnaire Layout

Variable	Items	Source
Brand Image (X1)	1. The products of Samsung smartphones are of good quality. 2. Samsung smartphone products can be trusted, and their quality can be guaranteed for a long time. 3. Variants of Samsung smartphone products meet the needs of customers from various circles.	Cassia F, Cobelli N, Ugolini M, (2017)
Brand Trust (X2)	1. Smartphone products from Samsung are very suitable for now and for continuous use. 2. Samsung smartphone products can be trusted for quality. 3. The brand image of the Samsung smartphone is unmistakable and reliable. 4. I have confidence and trust in Samsung smartphones. 5. The Samsung smartphone brand delivers the quality that they are advertised.	Xinping Shi, Zhibin Lin, Jonathan Liu, Yan Keung Hui(2018)
Brand Personality (X3)	1. Samsung smartphone products give a practical and simple impression in use. 2. Samsung smartphone products have a trendy and cheerful impression. 3. Samsung smartphone products have a unique advantage. 4. Samsung smartphone products have a personality that is always innovative at all times. 5. Samsung smartphone products have the advantage of being durable and suitable for individuals with active outdoor activities.	Schiffman and Kanuk (2014)
Customer Loyalty (Y)	1. For my next purchases, I will consider Samsung as my first choice. 2. I will do more business with Samsung in the next few years than I do right now. 3. I would be willing to pay a higher price for Samsung over other foreign brands..	Cassia F, Cobelli N, Ugolini M, (2017) and Ozdemir S, Zhang S, Gupta S, Bebebk G (2020)

Source: Primary Data Processed, 2021.

3.7 Measurement Scale

According to (Sugiyono, 2015), measurement scale is an agreement used as a reference in determining the length of the short interval contained in the measuring instrument so that the tool, if used in measurement, will produce quantitative data. Using a measurement scale, the values of variables measured with certain instruments can be expressed in numbers to become more accurate, efficient, and communicative.

There are several types of measurement scales; the scale used in this study is the Likert scale. The Likert scale is designed to examine how strongly the subject agrees or disagrees about this scale's statements (Sekaran & Bougie, 2013). Moreover, according to Sugiyono (2015), the Likert scale is useful for measuring the attitudes, opinions, perceptions of a person or group regarding social phenomena. Furthermore, the average of each respondent's answer needs to be found. In order to simplify the assessment of the average, the interval is used to determine the length interval class, then the formula used according to Sudjana (2001: 79) in the book as follows:

Table 3.2
Interpretation of Measurement sclae

Average Interval	Category
1,0 – 1,79	Very weak
1,8 – 2,59	Weak
2,6 – 3,39	Moderate
3,4 – 4,19	Good
4,2 – 5,00	Very Good

Source : Sudjana (2001)

3.8 Research Test Instrument

Data processing is done to test the hypothesis of statistical research with multiple linear regressions as a means of testing. According to Sugiyono (2014), measuring

instrument research is referred to as research instruments. The number of research instruments depends on the number of research variables set for research. In this case, the instrument used is a questionnaire to obtain a truly valid result; it is necessary to test the instrument used, the instruments are valid and reliable.

3.8.1 Validity Test

Validity test is a technique to test wheter the instrument used in a research to obtained data is valid or invalid. There are several types of validity test according to (Sekaran & Bougie, 2013) that is used to test the validity of measurement. Validity test is led to determine the ability of the instrument to measure what is supposed to be measured; the research uses a different term to denote them. The researcher analyses the validity of the research instrument by entering the items of respondents per each variable to put into the calculation of a validity analysis program named SPSS. Testing criteria are done as follows, if the count of r (coefficient) ≥ r table (test 2sides with sig. 0.05), the instrument items significantly correlated to the questions, so the total score is declared invalid and the opposite or invalid if the count r<r table.

3.8.2 Reliability Test

Reliability test shows the extent of the measurement without bias (free error). Reliability test demonstrates the accuracy and consistency of an instrument in doing the measurement (Abdillah & Hartono, 2015. A questionnaire is reliable if one's response to a statement is consistent or stable over time. In SPSS, this test can be analyzed by using:

1. Cronbach's Alpha

Cronbach's alpha is used to measure the lower limit value of the reliability of a construct that can declare the reliability if the value is > 0.6.

3.9 Classical Assumption Test

Classical assumptions test is done to determine the condition of the existing data. To determine the proper analysis models, this study tested whether the regression line obtained is linear, and it can be used for forecasting. The three models are:

3.9.1 Normality Test

According to Ghozali (2011), normality test aims to test whether in the regression model the disturbing variable or residual variable has a normal distribution. The method used to test the normality is the Kolmogorov-Smirnov test. The result's significance of the Kolmogorov-Smirnov is >0.05. Having this number means that the data is normally distributed. If it is less than 0.05, the data is not normally distributed. Therefore, it can detect normality. Principally, the normality of data can be seen by looking at the spread of the data (points) on the diagonal axis on the graph or histogram of the residual. Normal and abnormal data can be described as follows:

1. If the data spread around the diagonal line follows the direction of the diagonal line or histogram chart, it shows that the pattern is normally distributed, and then the model regression meets the assumption of normality.
2. If the data spread far from the diagonal line and does not follow the direction of the diagonal line or histogram graph, it does not show a pattern of

distributed normal, so the regression model does not meet the assumptions of normality.

3.9.2 Multicollinearity

Multicollinearity is a test that is often encountered by a statistical phenomenon in which two or more independent variables in multiple regression models are highly correlated (Sekaran & Bougie, 2013). The common way to identify multicollinearity is by determining the amount of value inflation factor (VIF). The steps to identify multicollinearity assumption are:

1. If the VIF value is smaller than 10 (VIF < 10), there is no multicollinearity problem .
2. If the value < 1, there is no multicollinearity problem.

3.9.3 Heteroscedasticity

According to (Ghozali, 2011), heteroscedasticity test is useful to know whether there was dissimilarity of the variance of residuals some observations with other observations in the regression model. To test whether there is a heteroscedasticity or not, it can be done by looking at whether there is a certain pattern in the scatterplot graph between SRESID and ZPRED where the Y-axis is the residual, and the X axis is the X that has been predicted. If there is a specific pattern on a regular basis on the scatterplot graph, then there is an indication of heteroscedasticity. If there is no clear pattern, there is no heteroscedasticity.

3.9.4 Linear Test

The linearity test is included in the tests carried out to test whether the regression model used is linear or not. As stated by Ghozali (2018) the linearity test is used to see whether the specifications used are correct or not, with the linearity test it will be obtained whether the empirical model should be linear, quadratic or cubic. The linearity test criterion is if sig. > 0.05, it can be concluded that the relationship between variables is linear

3.10 Data Analysis Method

According to Sugiyono (2015), data analysis can be defined as activities that include:

1. Grouping data by variable and respondent type,
2. Tabulating data based on variables from all respondents,
3. Presenting data of each variable studied,
4. Perform calculation to answer the problem formulation, and
5. Perform calculations to test the hypothesis that has been proposed.

Based on the statement above, the method of data analysis conducted in this study is explanatory research with a quantitative approach using multiple regression analysis to find out the relationship between the independent variables and dependent variables. The data was compiled, sorted, edited, classified, and entered into a computer for analysis using SPSS. Data is manipulated using cross tabulation. Multiple regression analysis is used to determine the relationship between dependent and independent variables.

3.10.1. Multiple Regression Model

This model is used to explain the effect of the independent variable on the dependent variable to make the equation of multiple linear regression models. Multiple linear regression models were used to analyze the influence of independent variables consisting of Brand Image (X1), Brand Trust (X2), Brand Personality (X3), to the dependent variable, which is Customer Loyalty (Y). This study used data with an interval scale that measures with a scale. Equation model of multiple linear regression analysis in this study can be formulated as follows:

$$Y = a + \beta 1\ X1 + B\ \beta\ X2 + B\ \beta\ X3 + e$$

Where:

Y = Customer Loyalty

X1 = Brand Image

X2 = Brand Trust

X3 = Brand Personality

a = Constanta β 1,….. β 3 = coefficient regression independent variable

e = error item

3.10.2 Coefficient of Determination

Coefficient of determinant (R2) is essential to measure how far the ability of the model is able to explain variations of the dependent variable. The coefficient of determination is between zero and one. A small value of R2 means that the ability of independent variables in explaining the dependent variable is very limited. When the value is near to point >1(one), it means that the independent variables provide

almost all the information needed to predict the variation of the dependent variable (Ghozali, 2011).

3.11 Hypothesis Test

In this study, the probability score is based on the basic theory that underlies the hypothesis testing, which explained below:

H0: there is no significant influence between the independent variable and the dependent variable

H1: there is a significant influence between the independent variable and the dependent variable

Underlying decision:

1. P (probability) < (level of significance / α) 0.05 resulting H0, H1 is accepted
2. P (probability) > (level of significance / α) 0.05 resulting H0, H1 is rejected F-test or F-table:

1. F count > F table, then it will reject H0 and accept H1
2. F count < F table, then it will accept H0 and reject H1

T-test or T-table:

1. T count > T table, then it will reject H0 and accept H1
2. T count < T table, then it will accept H0 and reject H1

3.12 Dominant Test

To compare which variables give the most influence on Customer Loyalty, this study used standardized beta coefficient. It is the result of an analysis carried out on the variable that has been set.

CHAPTER IV
ANALYSIS, FINDINGS, AND DISCUSSION

4.1 General Descriptions of Samsung

Samsung is one of the largest companies in the technology sector. Samsung Electronics was founded in 1969 in Suwon, Korea. It is a global information technology leader managing more than 200 subsidiaries around the world. The Samsung Company has issued a wide range of products, including equipment household items such as TVs, monitors, refrigerators, and washing machines as well as telecommunication products mobile devices such as smartphones and tablet PCs.

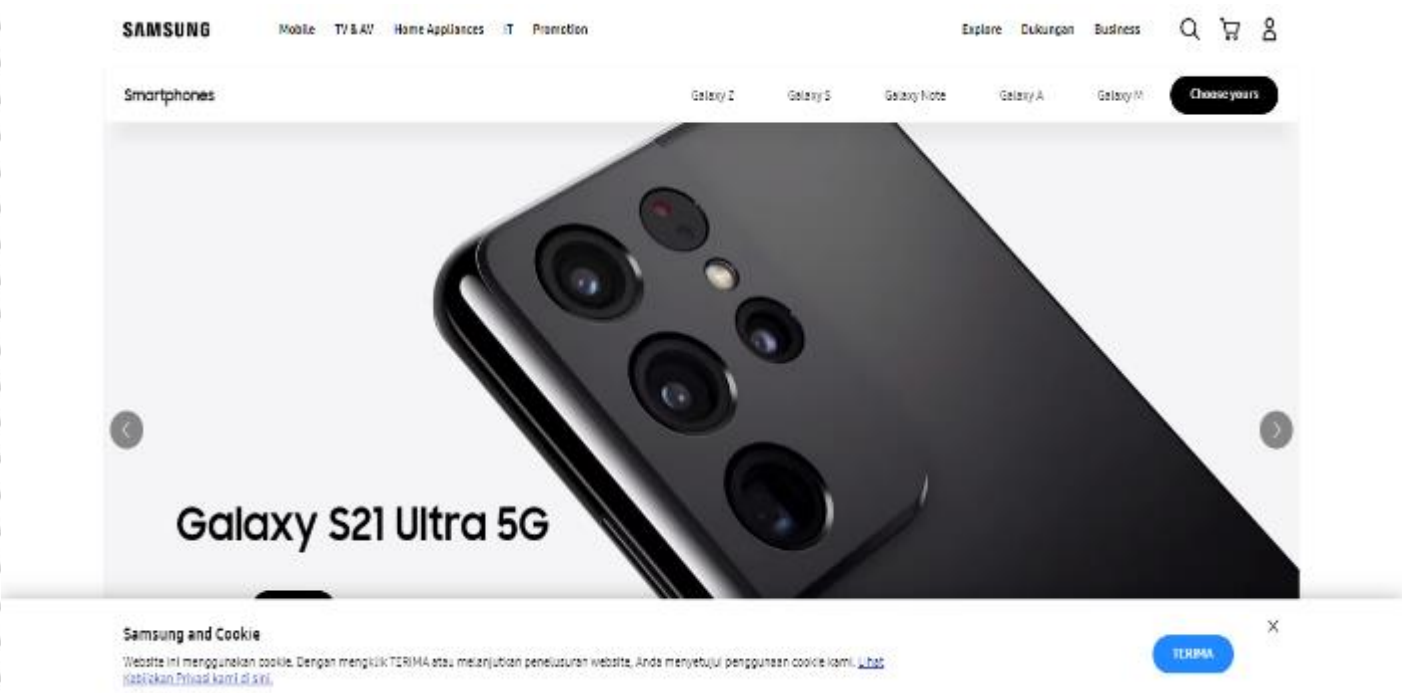
Samsung continues to advance the creation of products and services that add comfort and encourage style a smarter life for customers around the world. The Samsung Vision of 2020 “Inspire the World, Creating the Future”, is the basic principles that guide Samsung Electronics to continue to be the future of the world. By constantly making breakthrough innovation and value creation, Samsung is devoted to improving the global community.

In 2010 Samsung became one of the largest vendors in the telephone market and smartphone. If you look at developments in Indonesia, the Samsung smartphone has increased in the last two years, 2015 - 2016. It shows that Samsung smartphones are popular among Indonesians. According to Susanto (2013), Samsung is a manufacturer that still controls the middle-class android market down with a variety of attractive features at affordable prices. Wide varieties of

smartphone products and various prices have been Samsung speciality. From the series of Galaxy V, Galaxy J, Galaxy A, Galaxy Tab, Galaxy Note, until Samsung's flagship Smartphone product, the Galaxy S.

(www.samsung.com)

Figure 3.1
Website and Samsung Flagship Product



Source: Samsung.co.id

4.2 Respondent Characteristic

This study has been done by distributing research questionnaires to respondents who have met the criteria. It was done by the dissemination of offline surveys, and then obtained an overview of the characteristics of the respondents who were sampled in this study. The number of samples in this study were as many as 160 respondents. Eventually, the researcher decided 160 people as respondents. Characteristics of respondents in this study consisted of gender, age, latest education, occupation, and income per month of the respondent. Respondent data

in this study is needed to find out the background of respondents who can be used as input to explain the results obtained from the research:

4.2.1 Respondents Characteristics Based on Age

Based on the results of the study, a description of respondents based on age can be seen in the following table.

Table 4.1 Respondents Characteristics Based on Age

Age	Frequency	Percentage
<18 Years	2	1.25%
19 Years	13	8.12%
20 Years	45	28.12%
21 Years	36	22.5%
>22 Years	64	40%
Total	160	100

Source: Primary data processed (2021)

Based on Table 4.1 above, it can be seen that there are two respondents (1,250%) aged less than 18 years, 13 respondents (8.125%) are 19 years old, 45 respondents (28.125%) are 20 years old, 36 respondents (25 %) are 21 years old , and two respondents (1.33%) who are > 22 years old.

4.2.2 Respondents Characteristics Based on Gender

Table 4.2 Respondents Characteristics Based on Gender

Gender	Frequency	Percentage
Male	92	57.5%
Female	68	42.5%
Total	160	100

Source: Primary data processed (2021)

Based on the table above, it can be seen that male respondents are 57.5%, while female respondents are 42.50%. Based on this data, most of the respondents were female with 57.5%.

4.2.3 Respondents Characteristics Based on Income

Data on the respondents' characteristics based on income can be seen in the following table:

Table 4.3 Respondents Characteristics Based on Income

Income (Rp)	Frequency	Percentage
<1,000,000	5	3.12%
1,000,000-1,500,000	12	7.5%
1,500,000-2,000,000	70	43.75%
2,000,000-2,500,000	36	22.5%
>2,500,000	37	23.12%
Total	160	100

Source: Primary data processed (2021)

Based on these data, the respondents with income <1,000,000 are 5 people (3.125%), 12 respondents (7.5%) with income of 1,000,000-1,500,000, 70 respondents (43.75%) with income of 1,500,000-2,000,000, as many as 36 respondents (22.5%) with income of 2,000,000-2,500,000, and 37 respondents (23.125%) with income of >2,500,000.

4.3 Description of the Variables

4.3.1 Frequency Distribution of Brand Image Variables (X1)

In the Brand Image variable, there are three question items that are given to the respondents to be answered. Respondents' answers can be seen in Table 4.8. The meaning of numbers (scores) 5, 4, 3, 2, and 1 are as follows:

5: Strongly Agree

4: Agree

3: Neutral

2: Disagree

1: Strongly Disagree

Item	5		4		3		2		1		Total		Average
	F	%	f	%	f	%	f	%	f	%	Total	%	
X1.1	25	15.63	116	72.50	14	8.75	5	3.13	0	0.00	160	100	4.01
X1.2	61	38.13	76	47.50	18	11.25	5	3.13	0	0.00	160	100	4.21
X1.3	59	36.88	72	45.00	23	14.38	4	2.50	2	1.25	160	100	4.14
													4.12

Table 4.8 Frequency Distribution of Brand Image Variables (X1)

Source: Primary data processed (2021)

In Table 4.8, it can be seen that from 160 respondents, an assessment of the Brand Image variable was obtained.The highest item is X2.1 (Samsung smartphone products can be trusted, and their quality can be guaranteed for a long time.) with the average 4.21. The results of the description of the Brand Image variable have an average value of 4.12. This value indicates that the Brand Image is positive

4.3.2 Frequency Distribution of Brand Trust Variables (X2)

In the Brand Trust variable Distribution of Brand Trust Variables (X2). In the Brand Trust variable, there are five question items that are given to respondents to be answered. Respondents' answers can be seen in Table 4.9. The meaning of numbers (scores) 5, 4, 3, 2, and 1 are as follows:

5: Strongly Agree

4: Agree

3: Neutral

2: Disagree

1: Strongly Disagree

Table 4.9 Frequency Distribution of Brand Trust Variables (X2)

Item	5		4		3		2		1		Total		Average
	F	%	F	%	f	%	F	%	F	%	Total	%	
X2.1	33	20.63	107	66.88	14	8.75	5	3.13	1	0.63	160	100	4.04
X2.2	47	29.38	93	58.13	16	10.00	4	2.50	0	0.00	160	100	4.14
X2.3	69	43.13	60	37.50	28	17.50	3	1.88	0	0.00	160	100	4.22
X2.4	48	30.00	77	48.13	30	18.75	5	3.13	0	0.00	160	100	4.05
X2.5	29	18.13	59	36.88	43	26.88	26	16.25	3	1.88	160	100	3.53
													4.00

Source: Primary data processed (2021)

In Table 4.9, it can be seen that from 160 respondents, an assessment of the Brand Trust variable was obtained. The highest item is 4.22 (The brand of the Samsung smartphone is unmistakable and reliable). The results of the description of the Brand Trust variable have an average value of 4.00. This value indicates that the Brand Trust is positive .

4.3.3 Frequency Distribution of Brand Personality

In the Brand Personality variable, there are five question items that are given to respondents to be answered. Respondents' answers can be seen in Table 4.10. The meaning of numbers (scores) 5, 4, 3, 2, and 1 are as follows:

5: Strongly Agree

4: Agree

3: Neutral

2: Disagree

1: Strongly Disagree

Table 4.10 Frequency Distribution of Brand Personality Variables (X3)

Item	5		4		3		2		1		Total		Average
	f	%	f	%	f	%	F	%	f	%	Total	%	
X3.1	51	31.88	88	55.00	16	10.00	5	3.13	0	0.00	160	100	4.16
X3.2	56	35.00	76	47.50	21	13.13	6	3.75	1	0.63	160	100	4.13
X3.3	55	34.38	78	48.75	23	14.38	4	2.50	0	0.00	160	100	4.15
X3.4	60	37.50	79	49.38	16	10.00	5	3.13	0	0.00	160	100	4.21
X3.5	52	32.50	78	48.75	20	12.50	10	6.25	0	0.00	160	100	4.08
													4.14

Source: Primary data processed (2021)

In Table 4.10, it can be seen that from 160 respondents, an assessment of the Brand Personality variable was obtained. The highest item is X3.4 (Samsung smartphone products have a personality that is always innovative at all times) with the value 4.21. The results of the description of the Brand Personality variable have an average value of 4.14. This value indicates that the Brand Personality is positive.

4.3.4 Frequency Variable Distribution of Customer Loyalty (Y)

In the Customer Loyalty variable, there are three question items that are given to respondents to be answered. Respondents' answers can be seen in Table 4.11. The meaning of numbers (scores) 5, 4, 3, 2, and 1 are as follows:

5: Strongly Agree

4: Agree

3: Neutral

2: Disagree

1: Strongly Disagree

Table 4.11 Frequency Distribution of Customer Loyalty (Y)

Item	5		4		3		2		1		Total		Average
	f	%	f	%	f	%	f	%	f	%	Total	%	
Y1	55	34.38	81	50.63	19	11.88	4	2.50	1	0.63	160	100	4.16
Y2	65	40.63	62	38.75	29	18.13	4	2.50	0	0.00	160	100	4.18
Y3	68	42.50	53	33.13	35	21.88	3	1.88	1	0.63	160	100	4.15
													4.16

Source: Primary data processed (2021)

In Table 4.11, it can be seen that from 160 respondents, an assessment of the Customer Loyalty variable was obtained. The results of the description of the Customer Loyalty variable have an average value of 4.16. This value indicates that the Customer Loyalty is positive.

4.4 Validity and Reliability Test

The questionnaire in this study was used as an analytical instrument. Thus, the analysis focuses on the respondent score in each observation. The validity of the respondent score depends on the data collection. The instrument of data collection should fulfill two important conditions, which are valid and reliable.

4.4.1 Validity Test

Validity test is substantial in a study, especially for this study, which used a questionnaire as a data collection tool. The validity test is used to determine the validity between the conceptual and empirical. Validity test is a measure that shows the stage of validation of an instrument. An instrument can be considered valid if it is able to measure whatever the researcher wants to measure or correctly reveal the data from the tested variable. The low or high of instrument validity shows how far the deviation of the collected data from the representation of the related variable.

Validity test can be done by correlating every single factor or variable to the total factors using product-moment correlation (r). Criteria of the test, whether to accept or reject the hypothesis validity, can be done by:

H_0: r = 0, there is no valid data on the level of error (α) 5%

H_1: r ≠ 0, there is valid data on the level of error (α) 5%

Null hypothesis (H_0) is accepted if $r_{test} < r_{table}$, and vice versa, the alternative hypothesis alternative (H_1) is accepted if $r_{test} > r_{table}$.

The validity test is done by using the SPSS program ver. 21.0, product-moment correlation, which resulting value of each question item with a thorough score item of questions is presented in the table below.

Table 4.11 Variables Validity Test

Item	r Count	Sig.	r Table	Result
X1.1	0.807	0.000	0.155	Valid
X1.2	0.722	0.000	0.155	Valid
X1.3	0.792	0.000	0.155	Valid
X2.1	0.720	0.000	0.155	Valid
X2.2	0.704	0.000	0.155	Valid
X2.3	0.676	0.000	0.155	Valid
X2.4	0.764	0.000	0.155	Valid
X2.5	0.583	0.000	0.155	Valid
X3.1	0.690	0.000	0.155	Valid
X3.2	0.737	0.000	0.155	Valid
X3.3	0.670	0.000	0.155	Valid
X3.4	0.736	0.000	0.155	Valid
X3.5	0.749	0.000	0.155	Valid
Y1	0.811	0.000	0.155	Valid
Y2	0.829	0.000	0.155	Valid
Y3	0.785	0.000	0.155	Valid

From Table 4.11 above, the value of questions sig. r is lower than 0.05 (α = 0.05). It means every variable indicator is valid. It can be concluded that the indicators can be applied to measure the research variable.

4.4.2. Reliability Test

Reliability test indicates the consistency or accuracy level of measurement or test to obtain the measurement is relatively consistent with being used for re-measurement/test. The test is also used to perceive the consistency of respondents from time to time. Arikunto (2006) explains reliability as follows: "Reliability indicating that an instrument is trustworthy enough to be used as a data collection tool because the instrument is fair."

Reliability test technique uses the value of the alpha coefficient. The decision-making criteria are considered if the value of the reliability alpha coefficient is higher than 0.6 so that the variable is reliable.

Table 4.12

No.	Variable	Cronbach's Alpha	Result
1	X1	0.647	Reliable
2	X2	0.699	Reliable
3	X3	0.763	Reliable
5	Y	0.732	Reliable

Source: Primary Data Analysis (2021)

Table 4.12 indicates that the value of Cronbach's alpha in all variables is more than 0.6. From the former definition, it can be said that all variables used for observation are reliable.

4.5 Classical Assumptions of Regression

Classic assumptions test should be done to fulfill the use of multiple linear regressions. After calculating the multiple regression using SPSS, then it is continued with the classic regression assumption test with the result below.

4.5.1 Normality Test

Normality test is done to find whether the residue value is scattered normally or not. The procedure of the test was done by using Kolmogorov-Smirnov with the following conditions.

Hypothesis used:

H_0: residual is scattered normally

H_1: residual is not scattered normally

If the value of **sig.** (*p-value*) > 0.05 then H_0 accepted; it means that the normality is qualified.

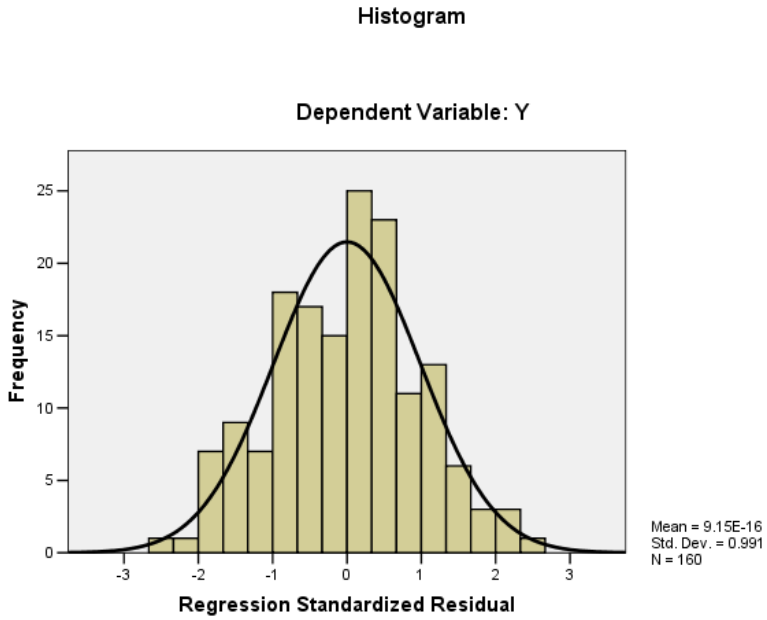
Table 4.13
Normality Test Result
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		160
Normal Parameters(a,b)	Mean	.0000000
	Std. Deviation	1.33754832
Most Extreme Differences	Absolute	.055
	Positive	.038
	Negative	-.055
Kolmogorov-Smirnov Z		.692
Asymp. Sig. (2-tailed)		.724

Source: Primary Data Analysis (2021)

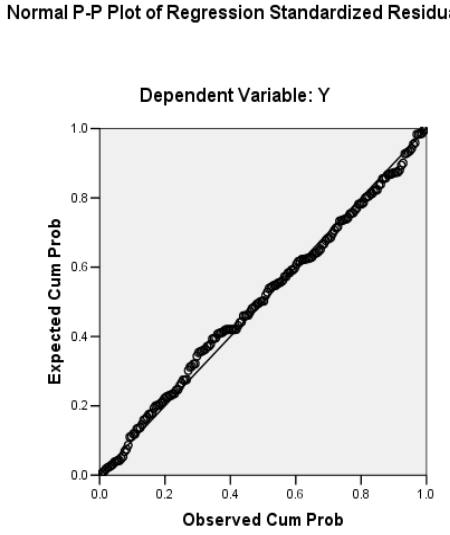
From the calculation results, the sig value is obtained 0.724 (can be seen in Table 4.9) or greater than 0.05; then the H0 requirement is accepted, namely that the normality assumption is met.

Figure 4.1 Histogram



Based on the Histogram Graph test, it was found that the residual frequency mostly collects at a value of 0 or the value of the data distribution is in accordance with normal cake, so it is said that the residuals have spread in a normal distribution.

Figure 4.2
P-P Plot



4.5.2 Multicollinearity Test

Multicollinearity test was done to seek for no strong relation or no perfect linear relation, or it can also consider that there is no relation in each independent variable. The test is done by comparing the value of tolerance resulted from multiple regression calculation. If the value of tolerance is < 0.1, then there is multicollinearity. The multicollinearity result is presented in Table 4.14.

Table 4.14
Multicollinearity Test Result

Independent Variable	Collinearity Statistics	
	Tolerance	VIF
X1	0.388	2.576
X2	0.432	2.316
X3	0.378	2.649

According to Table 4.14, here is the result of each independent variable:

- Tolerance for Brand Image is 0.388
- Tolerance for Brand Trust is 0.432
- Tolerance for Brand Personality is 0.378

The result of the test indicates the value of tolerance is > 0.1. Then it can be concluded the multicollinearity does not occur between the independent variables.

Multicollinearity test can also be done by comparing VIF value with number 10. If VIF value > 10, then multicollinearity occurs. The test result of each independent variable is as follows:

- ♣ VIF for Brand Image is 2.576
- ♣ VIF for Brand Trust is 2.316
- ♣ VIF for Brand Personality is 2.649

The test results show that the overall tolerance value is> 0.1, it can be concluded that there is no multicollinearity between the independent variables. Thus, the assumption test for the absence of multicollinearity can be fulfilled.

4.5.3 Heteroscedasticity Test

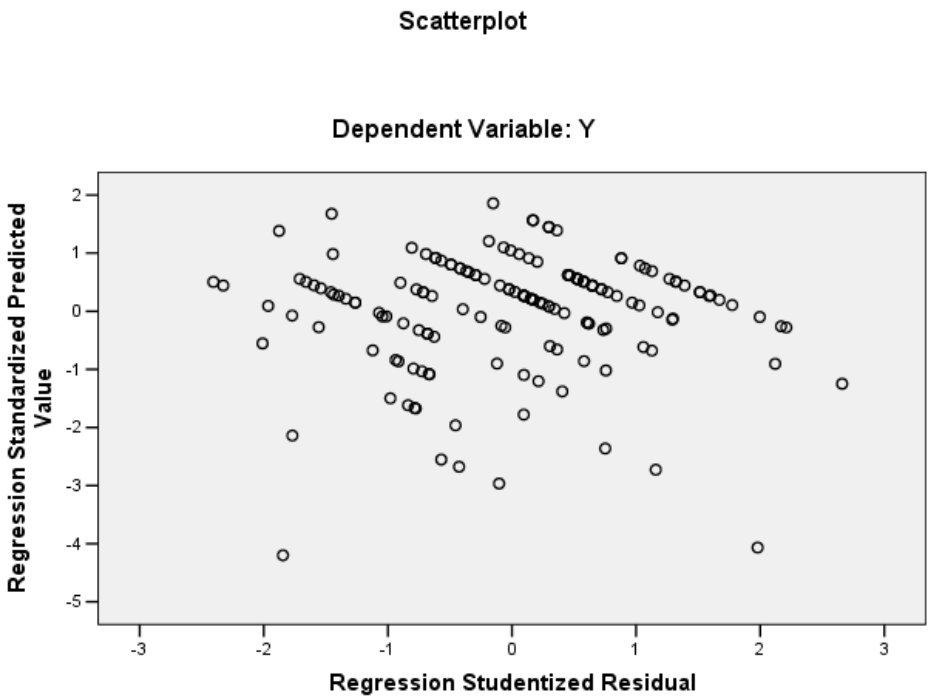
The heteroscedasticity test is used to determine whether there is an inequality in the residual deviation value due to the size of the value of one of the independent variables. Alternatively, there is a difference in the value of the variety with the increasing value of the independent variable. The test procedure was carried out by means of a scatter plot test. The homogeneity test of the remaining variants is based on the following hypothesis:

H0: homogeneous range of residual

H1: the range of remains is not homogeneous

The results of the heteroscedasticity test can be seen in Figure 4.3.

Figure 4.3
Scatterplot



Source: Primary Data Analysis (2021)

From the test results, it is found that the scatterplot display diagram spreads and does not form a certain pattern, so there is no heteroscedasticity. It can be concluded that the remaining has a homogeneous (constant) variety, or in other words, there are no heteroscedasticity symptoms.

By fulfilling all the classical regression assumptions above, it can be said that the multiple linear regression model used in this study is appropriate. It can be interpreted from the results of the multiple regression analysis that has been done.

The second assumption test is the linearity test, where this test aims to determine whether the two variables can correlate linearly or not. The research data can be said to be linearly correlated if the significant value is greater than 0.05. Linearity test was carried out by using the F test using the SPSS program.

4.5.4 Linear Test

The fourth assumption test is the linearity test, where this test aims to determine whether the two variables can correlate linearly or not. The research data can be said to be linearly correlated if the significant value is greater than 0.05. Linearity test was carried out by using the F test using the SPSS program.

Tabel 4.9 Hasil Analisis Statistik Uji Linieritas

Variable	Sig. Deviation from Linierity	Result
X1 → Y	0,089	Linier
X2 → Y	0,066	Linier
X3 → Y	0,069	Linier

Source : Primary data rocessed 2021

Based on the table above, it can be seen that the sig. the independent variable on variable Y is greater than the significant level of 5% or 0.05 and it can be concluded that this variable has a linear relationship

4.6. Multiple Linear Regression Analysis

This regression analysis is used to calculate the amount of influence between the independent variables, namely Brand Image (X1), Brand Trust (X2), Brand Personality (X3) on the dependent variable, namely Customer Loyalty (Y). By using the help of SPSS for Windows ver 21.00, the regression model is obtained as in Table 4.18:

Dependent Variable	Independent Variable	Unstandardized Coefficients	Standardized Coefficients (Beta)	t	Sig.	Result
Y	(Constant)	0.562		0.639	0.524	
	X1	0.258	0.222	2.561	0.011	Significant
	X2	0.264	0.363	4.415	0.000	Significant
	X3	0.167	0.234	2.666	0.008	Significant
R : 0.739 R Square : 0.546 *Adjusted* R Square : 0,537 F Count : 62.425 Sig. F : 0.000					F table : 2.603 t table : 1.975	

Source : Primary data processed (2021)

4.6.1. Regression Equations

The regression equation is used to determine the form of the relationship between the independent variable and the dependent variable. The regression model used is standardized regression because the data used in this study are interval data measured using a Likert scale. The Likert scale is used to measure the attitudes, opinions, and perceptions of a person or group. In standardized regression, the variable size or answer size has been equated. The regression equation obtained based on Table 4.18 is as follows:

Y = 0.222 X1 + 0.363 X2 + 0.234 X3

From the above equation it can be interpreted as follows:

♣ b1 = 0.222, meaning that Customer Loyalty will increase by 0.222 units for each additional unit of X1 (Brand Image). So, if the Brand Image has increased by 1 unit, Customer Loyalty will increase by 0.222 units, assuming the other variables are considered constant.

♣ b2 = 0.363, meaning that Customer Loyalty will increase by 0.363 units for every additional one unit of X2 (Brand Trust). So, if Brand Trust increases by 1 unit, Customer Loyalty will increase by 0.363 units, assuming the other variables are considered constant.

♣ b3 = 0.234, meaning that Customer Loyalty will increase by 0.234 units for each additional one unit of X3 (Brand Personality). So, if Brand Trust has increased by 1 unit Customer Loyalty will increase by 0.234 units, assuming the other variables are considered constant.

4.6.2. Coefficient of Determination (R2)

To find out the contribution of the independent variables (Brand Image (X1), Brand Trust (X2), and Brand Personality (X3)) to the dependent variable (Customer Loyalty), the adjusted R2 value is used. The coefficient of determination is used to calculate the amount of influence or contribution of the independent variable to the dependent variable. From the analysis in Table 4.18, it obtained the adjusted R (coefficient of determination) of 0.537. It means that 53.7% of the Customer Loyalty variables will be influenced by the independent variables, namely Brand Image (X1), Brand Trust (X2), and Brand Personality (X3). In comparison, the remaining 46.3% of the Customer Loyalty variable will be influenced by other variables, which are not discussed in this study.

In addition to the coefficient of determination, a correlation coefficient is also obtained, which shows the magnitude of the relationship between the independent variables, namely Brand Image, Brand Trust, and Brand Personality, with the Customer Loyalty variable, the R value (correlation coefficient) is 0.739.

This correlation value shows that the relationship between the independent variables which are Brand Image (X1), Brand Trust (X2), and Brand Personality (X3) with Customer Loyalty are included in the strong category because they are in the range of 0.6 - 0.8.

4.6.3 Regression Model Testing

The F test or model testing is used to determine whether the results of the regression analysis are significant or not. In other words, it is to test whether the alleged model is appropriate or not. If the result is significant, then H0 is rejected, and H1 is accepted. Meanwhile, if the results are not significant, then H0 is accepted, and H1 is rejected. It can also be said as follows:

H0 is rejected if F count> F table

H0 is accepted if F count <F table

Based on Table 4.18, the calculated F value is 62.425. While the F table (α = 0.05; db regression = 3: db residual = 156) is 2.603. Because F count> F table, namely 62.425> 2.603 or the value of Sig. F (0.000) <α = 0.05, then the regression analysis model is good. It means that H0 is rejected and H1 is accepted, so it can be concluded that the regression model used is good for prediction.

4.7 Hypothesis Testing

4.7.1. t Test (Partial)

t test is used to determine whether each independent variable partially has a significant effect on the dependent variable. It can also be said that if t count> t table or -t count <-t table; the result is significant and means that H0 is rejected and H1 is accepted. Meanwhile, if t <t table or -t count> -t table, the result is not significant and means that H0 is accepted and H1 is rejected.

Based on Table 4:18, the following results are obtained:

♣ t test between X1 (Brand Image) and Y (Customer Loyalty) shows t count = 2.561. While the t table (α = 0.05; residual db = 156) is 1.975. Because t count> t table is 2.561> 1.975 or the sig t value (0.011) <α = 0.05, the effect of X1 (Brand Image) on Customer Loyalty is significant. It means that H0 is rejected and H1 is accepted so that it can be concluded that Customer Loyalty can be significantly influenced by Brand Image or by increasing Brand Image, Customer Loyalty will increase significantly.

♣ t test between X2 (Brand Trust) and Y (Customer Loyalty) shows t count = 4.415. While the t table (α = 0.05; residual db = 156) is 1.975. Because t count> t table is 4.415> 1.975 or the sig t value (0.000) <α = 0.05, the effect of X2 (Brand Trust) on Customer Loyalty is significant at 5% alpha. It means that H0 is rejected, so it can be concluded that Customer Loyalty can be significantly influenced by Brand Trust or by increasing Brand Trust, Customer Loyalty will increase significantly.

♣ t test between X3 (Brand Personality) and Y (Customer Loyalty) shows t count = 2.666. While the t table (α = 0.05; residual db = 156) is 1.975. Because t count> t table is 2.666> 1.975 or the sig t value (0.008) <α = 0.05, the effect of X3 (Brand Personality) on Customer Loyalty is significant at 5% alpha. It means that H0 is rejected and H1 is accepted, so it can be concluded that Customer Loyalty can be significantly influenced by Brand Personality, or by increasing Brand Personality, Customer Loyalty will increase significantly.

4.8. Dominant Test Results

Determining the independent variable that has the most influence on variable Y can be done by comparing the regression coefficient (β) between one variable and another. The independent variable with the most dominant influence on variable Y is the variable with the largest regression coefficient. To compare the regression coefficients for each independent variable, the ranking table is presented as follows:

Table 4.19
Dominant Test

Rank	Variable	Coefficient *βeta*	Result
1	X_1	0.222	Significant
2	X_2	0.363	Significant
3	X_3	0.234	Significant

Source: Primary data processed (2021)

Based on Table 4.19, the Brand Trust variable is the variable that has the largest regression coefficient. It means that the Y variable is more influenced by the Brand Trust variable. The coefficient owned by the Brand Trust variable is positive; this indicates a unidirectional relationship so that it can be concluded that the better the Brand Trust variable, the more Customer Loyalty (Y) increases.

4.9 Discussion

This study begins by conducting pilot research on 30 respondents through a questionnaire, which is then followed by testing its validity and reliability. After the instruments used in this study is declared valid and reliable, the distribution of the questionnaire is continued in accordance with the predetermined number of samples, which is 160 respondents. Subsequently, this study was continued by

testing the classical assumptions, which consist of the normality test, multicollinearity test, and heteroscedasticity test. If the data has met the classical assumptions test, the data is continued with multiple linear analysis, coefficient of determination, F statistical test, and t-test.

4.9.1 The Effect of Brand Image (X1) on Customer Loyalty (Y)

From the results of the research above, it can be seen that the first hypothesis of Brand Image has a significant influence on Customer Loyalty. Brand Image is a representation of the overall perception of the brand and is formed from information and past experience of the brand. The image of the brand relates to attitudes in the form of beliefs and preferences towards a brand. Consumers who have a positive image of a brand will be more likely to make purchases (Bian and Moutinho, 2011). While according to Lee et al. (2011), brand image is a description of the association and consumer confidence in a particular brand. It is in line with the previous research that state the brand image. The vision and mission of Samsung also unconsciously making the image of Samsung as leading innovation in tecnologies in particularly Smartphone. Through they annual press release of his new brand every year, the explained Samsung's strategy to maintain branding. Samsung is making a bold investment in the Research and Development area. Investments amount to approximately 40 billion US dollars per day and with more than 70,000 employees worldwide involved in the Research and Development team. So the image of samsung as innovation leader had already put in mind of Smartphone in general.

4.9.2 The Effect of Brand Trust (X2) on Customer Loyalty (Y)

From the results of the research above, it can be seen that the first hypothesis of Trust has a significant influence on Customer Loyalty and the highest value in terms affecting Customer Loyalty. Brand trust is something portrayed that can be crucial factor affecting to the loyalty of the customer (Guviez and Korchia 2014) so it is in line with the result. Also according to Guviez and Korchia (2014), there are several things that can be identified from the Trust variable, namely: trust and commitment. Those are the most important and strategic variables to maintain long-term relationships between industry partners and businesses. Explanation of the variables of trust and commitment in the relationship between companies and consumers provides supplements to economic theory, especially regarding transaction costs. When consumer does not have trust in the particular product or brand, they will not be loyal customers. So the company must create strategies in order to building a consumer trust toward the brand. For an enterprise or company, consumer confidence toward the brand is an important target to be achieved and have a positive effect on the profits of company

4.9.3 The Effect of Brand Personality (X3) on Customer Loyalty (Y)

From the results of the research above, it can be seen that the first hypothesis of Brand Personality has a significant influence on Customer Loyalty. According to Lin (2010), brand personality contributes to customer loyalty. Favorable and promising brand personality helps in product evaluation and behavioural intention in order to make customers become loyal.

4.10 Research Implication

After conducting research related to brand image, brand trust, and brand personality towards customer loyalty, the results of descriptive statistics and theories contained in this study hopefully can be used as references and additional information for Samsung to develop their strategic management. In this study, several implications could be considered in order to attract more customers to become loyal to the product that they purchased.

Brand image is portrayed and believed one of the crucial factors in terms to increase the loyalty of consumer to continuously uses the product. Once the company has a good image in public, consumers will move to the "trust" position which will increase the level of loyalty of the consumers. Based on the data from Yougov.com (accessed in 2021) collected from October 2020, Samsung is still the most popular brand in terms of consumer electronics brands and the third most famous of all among the category. Moreover, Samsung can still improve to increase their brand image by doing their signature marketing strategies such as collaboration with the famous key opinion leader or influencer.

Based on the result of this study, brand trust has the most significant effect on customer loyalty. It means that once the consumer already trusts the company and also the product, it will be affecting the behavior of the purchase decision of the consumers. These results support the research conducted by Dewi (2010) shows that product attributes affect purchasing decisions. This study result is in accordance with the opinion of Tjiptono (2008: 72), which states that attributes products are product elements that are considered important by consumers and are made as to the basis of decision making. The product attributes to the purchase

decision are very closely related. It is because before making a purchase, consumers place the product attributes as an important consideration in purchasing decision makers.

Brand personality also has a significant effect on customer loyalty. As a theory, this attribute is slightly similar to brand image but more complex. Brand image is an identity that something portrayed to the public. Brand personality is more like the character of the brand that they reflect the brand (Rutter et al., 2019). According to the dimension, the result of this study gets the higher score on sophistication. As we know, Samsung always develops its product by locating many R&D centers in many parts of the world. So, the characteristic of Samsung, especially on sophisticated, is already attached to users' perception

.

CHAPTER V
CONCLUSION AND SUGGESTIONS

Chapter four has explained the results and discussions. This chapter is the final chapter of this study. Chapter five presents the conclusion and suggestion.

5.1. Conclusion

This study was conducted to determine which variables have an influence on Customer Loyalty. In this study, the independent variables used were Brand Image, Brand Trust , and Brand Personality, while the dependent variable used was Customer Loyalty. Based on the calculation of multiple linear regression analysis, it can be seen:

Based on the above conclusions, some suggestions can be put forward, which are expected to benefit the company and other parties. The suggestions given include:

1. As we know, Samsung is popular among smartphone users. They have tight competition with other smartphone brands, such as iPhone. It is expected that Samsung can maintain their good brand image in the market due to competition in this industry.
2. It is expected that Samsung can maintain and improve brand trust, because Brand Trust variable has a dominant influence on Customer Loyalty. Trust has big role in the success of Samsung, which is proved by the data of Samsung as the 2nd Best Brand of Smartphone 2017-present (yougov.com).

It means the level of trust for using this brand is high. Maintenance and innovation is one of the best ways for Samsung to increase brand trust

BIBLIOGRAPHY

Agusta, Y. (2007). Penerapan, Permasalahan dan Metode Terkait. *Jurnal Sistem dan Informatika, 3*, 47-60.

Ballester, E. D., & Munuera-Alemán, J.-L. (2005). Does brand trust matter to brand equity? *Journal of Product & Brand Management, 14(3)*, 187-196.

Bian, X., & Moutinho, L. (n.d.). The Role of Brand Image, Product Involvement, and Knowledge in Explaining Consumer Purchase Behaviour of Counterfeit: Direct and Indirect Effects. *European Journal of Marketing, 45(1)*, 191-216.

Cakmak, I. (2016). The role of brand awareness on brand image, perceived quality and effect on risk in create brand trust. *Global Journal on Humanities & Social Science*(4), 174-183.

Cassia, F., Ugolini, M., & Cobelli, N. (2017). The effects of goods-related and service-related B2B brand images on customer loyalty. *Journal of Business & Industrial Marketing, 32(5)*.

Chaudhuri, A., & Holbrook, M. B. (2001). The Chain of Effects From Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty. *Journal of Marketing, 65(2)*, 81-93.

Chinomona, E., & Maziriri, E. (2017). The Influence of Brand Trust, Brand Familiarity and Brand Experience on Brand Attachment: A Case of Consumers in the Gauteng Province of South Africa. *Journal of Economics and Behavioral Studies, 9*, 69-81.

Garanti, Z., & Kissi, P. S. (2019). The effects of social media brand personality on brand loyalty in the Latvian banking industr. *International Journal of Bank Marketing*.

Ghozali. (2011). *Aplikasi analisis multivariate dengan program SPSS*. Semarang: Badan Penerbit Universitas Diponegoro.

Gurviez, P., & Korchia, M. (2003). Test of a Consumer-Brand Relationship Model Including Trust and Three Consequences. *30th International Research Seminar in Marketing*. La Londe les Maures, France. Retrieved from http://www.watoowatoo.net/mkgr/

Gurviez, Patricia. (2012, September). The impact of CRM on customer retention. *International Centre For Professional Studies (ICPS)*, 13-15.

Hasibuan, Z. A. (2007). *Penelitian Pendidikan.* Bandung: Rosda.

Ismail, A. R., & Spinelli, G. (2012). Effects of brand love, personality and image on word of mouth: The case of fashion brands among young consumers. *Journal of Fashion Marketing and Management, 16(4)*, 386-398.

J. Paul Peter, J. C. (2008). *Consumer Behavior and Marketing Strategy.* Mcgraw-Hill.

Juga, J., Grant, D. B., & Juntunen, J. (2010). Service quality and its relation to satisfaction and loyalty in logistics outsourcing relationships. *Journal of Service Theory and Practice, 20(6)*, 496-510.

Kapferer, J.-N. (2011,). The New Strategic Brand Management. *The New Strategic Brand Management*, pp. 25-41.

Khadka, K., & Maharjan, S. (2017). Customer Satisfaction and Customer Loyalty. *Journal International of Centria University*, 58.

Kotler, P., & Armstrong, G. (2004). *Principles Of Marketing* (2 ed.). Prentice Hall.

Kotler, P., & Armstrong, G. (2015). *Marketing Management* (14th ed.). Prentice Hall.

Kotler, P., & Keller, K. L. (2009). *Marketing Management* (13 ed.). Pearson Prentice Hall.

Lassoued, R., & Hoobs, J. (2015). Consumer confidence in credence attributes: The role of brand trust. *Journal of Food Policy*, 52.

Lee, J. H., Ko, Y. J., & Sagas, M. (2010). The influence of service quality on satisfaction and intention: A gender segmentation strategy. *Journal Sport Management Review*, 54–63.

Mengxia, Z. (2007). Impact of Brand Personality on PALI: A Comparative Research between Two Different Brands. *The International Journal of Brand*.

Oliver, R. L. (2010). Customer Satisfaction. In R. L. Oliver, *Customer Satisfaction* (pp. 12-20). Wiley International.

Ozdemir, S., Zhang, S., Gupta, S., & Bebek, G. (2020). The Effects of Trust and Peer Influence on Corporate Brand-Consumer Relationships and Consumer Loyalty. *Journal of Business Research, 117*, 791-805.

Rai, A. K., & Srivasta, M. (2013). The Antecedents of Customer Loyalty: An Empirical Investigation in Life Insurance Context. *Journal of Competitiveness , 5(2)*, 139-163.

Schiffman, L. G., & Kanuk, L. L. (2007). *Consumer Behavior*. Pearson Prentice Hall.

Sekaran, U., & Bougie, R. (2013). *Research methods for business : a skill-building approach.* West Sussex: Wiley.

Shi, X., Lin, Z., Liu, J., & Hui, Y. K. (2018). Consumer loyalty toward smartphone brands: The determining roles of deliberate inertia and cognitive lock-in. *Journal of Information and Management*, *55*(7), 866-876.

Sugiyono. (2015). *Metode penelitian pendidikan:(pendekatan kuantitatif, kualitatif dan R & D).* bandung: Alfabeta 28.

Świtała, M., Reformat, B., & Gamrot, W. (2018). The influence of brand awareness and brand image on brand Equity-An empirical study of logistics provider. *Journal of Economics and Management, 33(3)*, 97-119.

Ulrich, D., Brockbank, W., & Johnson, D. (2007). Human resource competencies: Responding to increased expectations. In D. Ulrich, W. Brockbank, & D. Johnson, *Human resource competencies: Responding to increased expectations* (pp. 1-16). Wiley.

Wilson, B. (2011, October). An Investigation into Three Consumer Constructs: Explaining the Nature of Relations Influencing Brand Relationship Quality. *Journal of Brand Marketing*.

APPENDIX

APPENDIX 1

KUESIONER PENELITIAN

PENGARUH CITRA MEREK, KEPERCAYAAN MEREK DAN KEPRIBADIAN MEREK TERHADAP LOYALITAS KONSUMEN (STUDI PADA PENGGUNA SMARTPHONE SAMSUNG DI LINKUNGAN UNIVERSITAS BRAWIJAYA MALANG)

KUESIONER

I. IDENTITAS RESPONDEN

Petunjuk Pengisian

Mohon Saudara/i bersedia mengisi daftar isian berikut dengan cara memberikan jawaban atau beri tanda silang (X) pada pilihan yang tersedia sesuai dengan keadaan kebenarannya.

1. Nama :
2. Jenis Kelamin : L/P
3. Umur :
4. Fakultas/Jurusan :FEBFIA FTFKFISIPFILKOMFPFTPFAPETFKHFHFIBFMIPAFPIK

5. Penghasilan :
   a) 1.000.000
   b) 1.000.000-1.500.000
   c) 1.500.000-2.000.000
   d) 2.000.000-2.500.000
   e) >2.500.000

II. KUESIONER PENELITIAN

Beri tanda silang (X) pada salah satu pilihan yang ada di akhir pernyataan berdasarkan pengalaman yang Saudara/i rasakan setelah melakukan pembelian dan menggunakan Samsung Smartphone

SS : Sangat Setuju (5)
S : Setuju (4)
N : Neutral (3)
TS : Tidak Setuju (2)
STS : Sangat Tidak Setuju (1)

***Brand Image* (Citra Merek)**

No	Pernyataan	Pilihan Jawaban				
		STS	TS	N	S	SS
1	Produk dari ponsel keluaran Samsung memiliki kualitas yang baik *					
2	Produk ponsel Samsung dapat dipercaya dan dapat dijamin kualitas nya sejak lama *					
3	Varian Produk ponsel Samsung sangat memenuhi kebutuhan pelanggan dari berbagai kalangan *					

Brand Trust (Kepercayaan Merek)

No	Pernyataan	Pilihan Jawaban				
		STS	TS	N	S	SS
1	Produk Smartphone keluaran Samsung sangat layak dipakai untuk saat ini dan untuk terus menerus *					
2	Produk Smartphone keluaran Samsung dapat dipercaya kualitasnya *					
3	Citra merek dari Smartphone Samsung sudah tidak perlu diragukan dan dapat diandalkan *					

4	Saya memiliki keyakinan dan kepercayaan terhadap Smartphone merek Samsung					
5	Merek Smartphone Samsung memberikan kualitas yang sesuai dengan apa yang mereka iklankan *					

Brand Personality (Kepribadian Merek)

No	Pernyataan	Pilihan Jawaban				
		STS	TS	N	S	SS
1	Produk Smartphone Samsung memberikan kesan praktis dan simple dalam pemakaian *					
2	Produk Smartphone Samsung memiliki kesan trendy dan ceria *					
3	Produk Smartphone Samsung memiliki keunggulan yang unik *					
4	Produk Smartphone Samsung memiliki keunggulan dalam hal tahan banting dan cocok untuk pribadi yang aktif di luar ruangan *					

Customer Loyalty (Loyalitas Konsumen)

No	Pernyataan	Pilihan Jawaban				
		STS	TS	N	S	SS
1	Untuk pembelian selanjutnya, saya percayakan produk smartphone Samsung sebagai pilihan utama saya *					

2	Saya akan melakukan pembelian yang lebih banyak lagi untuk Produk Smartphone Samsung untuk tahun-tahun berikutnya *					
3	Saya rela mengeluarkan dana yang lebih banyak untuk membeli Smartphone Samsung di banding Brand luar lainnya *					

APPENDIX 2

Appendix 2. Frequency Respondent

Frequency Table

Jenis Kelamin

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laki-Laki	92	57.5	57.5	57.5
	Perempuan	68	42.5	42.5	100.0
	Total	160	100.0	100.0	

Usia

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<18	2	1.3	1.3	1.3
	>22	64	40.0	40.0	41.3
	19	13	8.1	8.1	49.4
	20	45	28.1	28.1	77.5
	21	36	22.5	22.5	100.0
	Total	160	100.0	100.0	

Fakultas

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	FAPET	4	2.5	2.5	2.5
	FEB	37	23.1	23.1	25.6
	FH	7	4.4	4.4	30.0
	FIA	16	10.0	10.0	40.0
	FIB	11	6.9	6.9	46.9
	FILKOM	16	10.0	10.0	56.9
	FISIP	14	8.8	8.8	65.6
	FK	11	6.9	6.9	72.5
	FKH	4	2.5	2.5	75.0
	FMIPA	2	1.3	1.3	76.3
	FP	7	4.4	4.4	80.6
	FPIK	2	1.3	1.3	81.9
	FT	23	14.4	14.4	96.3
	FTP	6	3.8	3.8	100.0
	Total	160	100.0	100.0	

Penghasilan atau Uang Saku

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<1.000.000	5	3.1	3.1	3.1
	>2.500.000	37	23.1	23.1	26.3
	1.000.000-1.500.000	12	7.5	7.5	33.8
	1.500.000-2.000.000	70	43.8	43.8	77.5
	2.000.000-2.500.000	36	22.5	22.5	100.0
	Total	160	100.0	100.0	

X1.1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	5	3.1	3.1	3.1
	3.00	14	8.8	8.8	11.9
	4.00	116	72.5	72.5	84.4
	5.00	25	15.6	15.6	100.0
	Total	160	100.0	100.0	

X1.2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	5	3.1	3.1	3.1
	3.00	18	11.3	11.3	14.4
	4.00	76	47.5	47.5	61.9
	5.00	61	38.1	38.1	100.0
	Total	160	100.0	100.0	

X1.3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	1.3	1.3	1.3
	2.00	4	2.5	2.5	3.8
	3.00	23	14.4	14.4	18.1
	4.00	72	45.0	45.0	63.1
	5.00	59	36.9	36.9	100.0
	Total	160	100.0	100.0	

X2.1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	.6	.6	.6
	2.00	5	3.1	3.1	3.8
	3.00	14	8.8	8.8	12.5
	4.00	107	66.9	66.9	79.4
	5.00	33	20.6	20.6	100.0
	Total	160	100.0	100.0	

X2.2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	4	2.5	2.5	2.5
	3.00	16	10.0	10.0	12.5
	4.00	92	57.5	57.5	70.0
	5.00	48	30.0	30.0	100.0
	Total	160	100.0	100.0	

X2.3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	3	1.9	1.9	1.9
	3.00	28	17.5	17.5	19.4
	4.00	60	37.5	37.5	56.9
	5.00	69	43.1	43.1	100.0
	Total	160	100.0	100.0	

X2.4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	5	3.1	3.1	3.1
	3.00	30	18.8	18.8	21.9
	4.00	77	48.1	48.1	70.0
	5.00	48	30.0	30.0	100.0
	Total	160	100.0	100.0	

X2.5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	3	1.9	1.9	1.9
	2.00	26	16.3	16.3	18.1
	3.00	43	26.9	26.9	45.0
	4.00	59	36.9	36.9	81.9
	5.00	29	18.1	18.1	100.0
	Total	160	100.0	100.0	

X3.1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	5	3.1	3.1	3.1
	3.00	16	10.0	10.0	13.1
	4.00	88	55.0	55.0	68.1
	5.00	51	31.9	31.9	100.0
	Total	160	100.0	100.0	

X3.2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	.6	.6	.6
	2.00	6	3.8	3.8	4.4
	3.00	21	13.1	13.1	17.5
	4.00	76	47.5	47.5	65.0
	5.00	56	35.0	35.0	100.0
	Total	160	100.0	100.0	

X3.3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	4	2.5	2.5	2.5
	3.00	23	14.4	14.4	16.9
	4.00	78	48.8	48.8	65.6
	5.00	55	34.4	34.4	100.0
	Total	160	100.0	100.0	

X3.4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	5	3.1	3.1	3.1
	3.00	16	10.0	10.0	13.1
	4.00	79	49.4	49.4	62.5
	5.00	60	37.5	37.5	100.0
	Total	160	100.0	100.0	

X3.5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	10	6.3	6.3	6.3
	3.00	20	12.5	12.5	18.8
	4.00	78	48.8	48.8	67.5
	5.00	52	32.5	32.5	100.0
	Total	160	100.0	100.0	

Y1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	.6	.6	.6
	2.00	4	2.5	2.5	3.1
	3.00	19	11.9	11.9	15.0
	4.00	81	50.6	50.6	65.6
	5.00	55	34.4	34.4	100.0
	Total	160	100.0	100.0	

Y2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00	4	2.5	2.5	2.5
	3.00	29	18.1	18.1	20.6
	4.00	62	38.8	38.8	59.4
	5.00	65	40.6	40.6	100.0
	Total	160	100.0	100.0	

Y3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	.6	.6	.6
	2.00	3	1.9	1.9	2.5
	3.00	35	21.9	21.9	24.4
	4.00	53	33.1	33.1	57.5
	5.00	68	42.5	42.5	100.0
	Total	160	100.0	100.0	

APPENDIX 3

Validity and Reliability

Correlations

Correlations

		X1
X1.1	Pearson Correlation	.807**
	Sig. (2-tailed)	.000
	N	160
X1.2	Pearson Correlation	.722**
	Sig. (2-tailed)	.000
	N	160
X1.3	Pearson Correlation	.792**
	Sig. (2-tailed)	.000
	N	160

**. Correlation is significant at the 0.01 level

Reliability

Case Processing Summary

		N	%
Cases	Valid	160	100.0
	Excluded[a]	0	.0
	Total	160	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.647	3

Correlations

Correlations

		X2
X2.1	Pearson Correlation	.720**
	Sig. (2-tailed)	.000
	N	160
X2.2	Pearson Correlation	.704**
	Sig. (2-tailed)	.000
	N	160
X2.3	Pearson Correlation	.676**
	Sig. (2-tailed)	.000
	N	160
X2.4	Pearson Correlation	.764**
	Sig. (2-tailed)	.000
	N	160
X2.5	Pearson Correlation	.583**
	Sig. (2-tailed)	.000
	N	160

**. Correlation is significant at the 0.01 level

Reliability

Case Processing Summary

		N	%
Cases	Valid	160	100.0
	Excluded[a]	0	.0
	Total	160	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.699	5

Correlations

Correlations

		X3
X3.1	Pearson Correlation	.690**
	Sig. (2-tailed)	.000
	N	160
X3.2	Pearson Correlation	.737**
	Sig. (2-tailed)	.000
	N	160
X3.3	Pearson Correlation	.670**
	Sig. (2-tailed)	.000
	N	160
X3.4	Pearson Correlation	.736**
	Sig. (2-tailed)	.000
	N	160
X3.5	Pearson Correlation	.749**
	Sig. (2-tailed)	.000
	N	160

**. Correlation is significant at the 0.01 level

Reliability

Case Processing Summary

		N	%
Cases	Valid	160	100.0
	Excluded[a]	0	.0
	Total	160	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.763	5

Correlations

Correlations

		Y
Y1	Pearson Correlation	.811**
	Sig. (2-tailed)	.000
	N	160
Y2	Pearson Correlation	.829**
	Sig. (2-tailed)	.000
	N	160
Y3	Pearson Correlation	.785**
	Sig. (2-tailed)	.000
	N	160

**. Correlation is significant at the 0.01 level

Reliability

Case Processing Summary

		N	%
Cases	Valid	160	100.0
	Excluded[a]	0	.0
	Total	160	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.732	3

APPENDIX 4

Classical Assumption Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.739[a]	.546	.537	1.35035	2.015

a. Predictors: (Constant), X3, X2, X1

b. Dependent Variable: Y

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	X1	.388	2.576
	X2	.432	2.316
	X3	.378	2.649

a. Dependent Variable: Y

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		160
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	1.33754832
Most Extreme Differences	Absolute	.055
	Positive	.038
	Negative	-.055
Kolmogorov-Smirnov Z		.692
Asymp. Sig. (2-tailed)		.724

a. Test distribution is Normal.

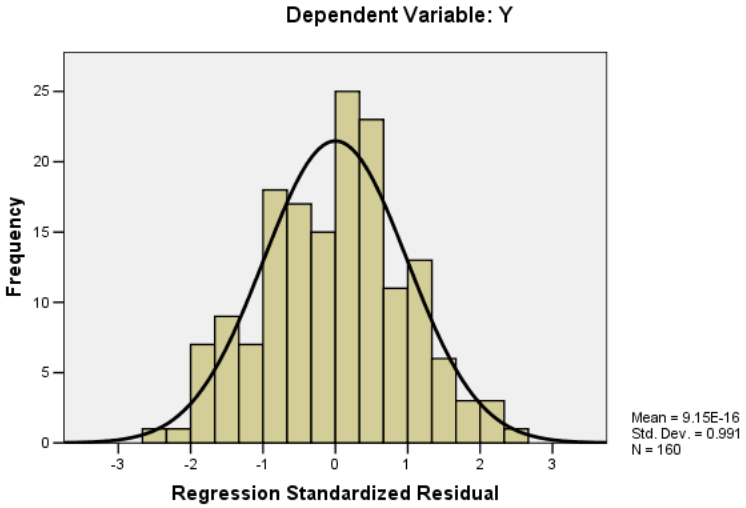
b. Calculated from data.

Coefficients[a]

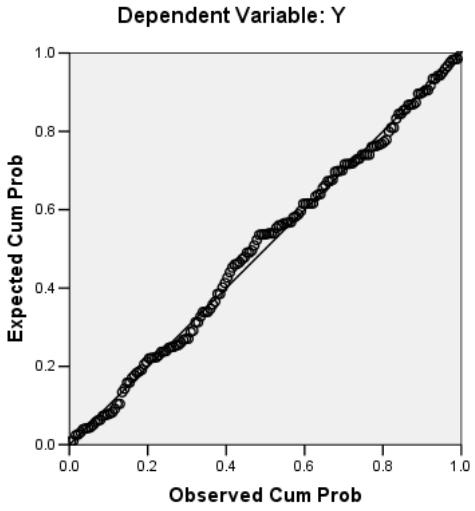
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.089	.513		4.070	.000
	X1	-.005	.059	-.010	-.082	.935
	X2	.004	.035	.015	.127	.899
	X3	-.050	.037	-.177	-1.382	.169

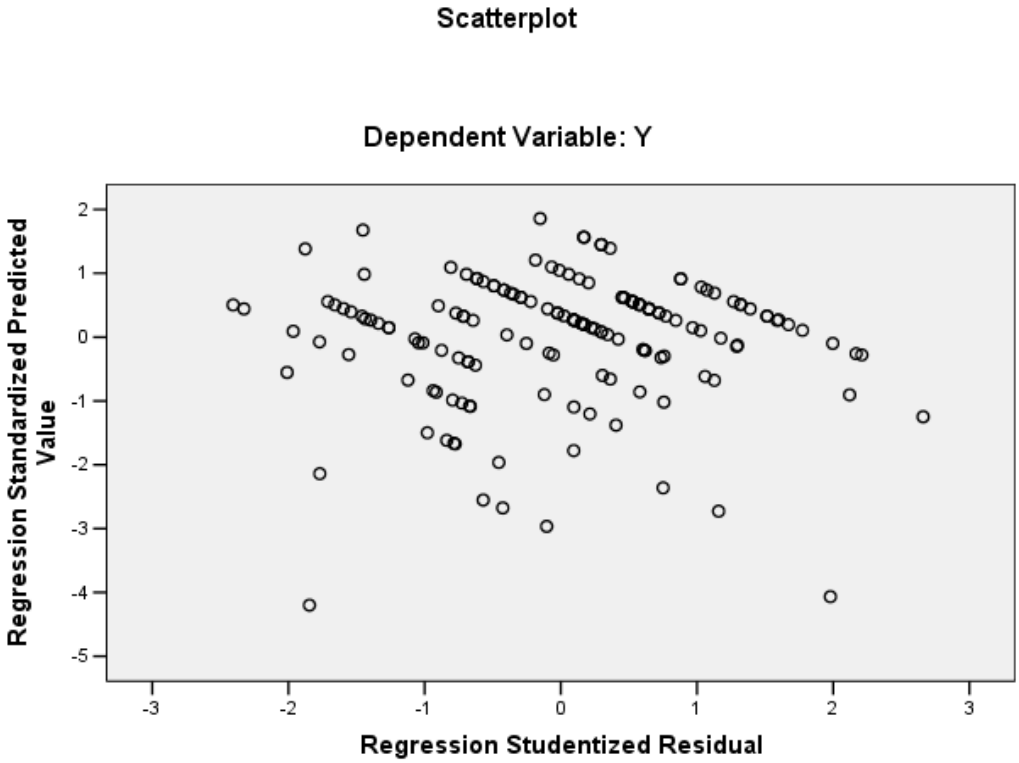
a. Dependent Variable: AbsRes

Histogram



Normal P-P Plot of Regression Standardized Residual




Scatterplot
Dependent Variable: Y
Regression Standardized Predicted Value
Regression Studentized Residual
2
1
0
-1
-2
-3
-4
-5
-3
-2
-1
0
1
2
3

Lampiran 5. Regresi Linier Berganda

Regression

Descriptive Statistics

	Mean	Std. Deviation	N
Y	12.4813	1.98413	160
X1	12.3500	1.70902	160
X2	19.9875	2.72188	160
X3	20.7188	2.78625	160

Correlations

		Y	X1	X2	X3
Pearson Correlation	Y	1.000	.649	.684	.656
	X1	.649	1.000	.699	.743
	X2	.684	.699	1.000	.709
	X3	.656	.743	.709	1.000
Sig. (1-tailed)	Y	.	.000	.000	.000
	X1	.000	.	.000	.000
	X2	.000	.000	.	.000
	X3	.000	.000	.000	.
N	Y	160	160	160	160
	X1	160	160	160	160
	X2	160	160	160	160
	X3	160	160	160	160

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	X3, X2, X1[a]	.	Enter

a. All requested variables entered.

b. Dependent Variable: Y

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.739[a]	.546	.537	1.35035	2.015

a. Predictors: (Constant), X3, X2, X1

b. Dependent Variable: Y

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	341.487	3	113.829	62.425	.000[a]
	Residual	284.457	156	1.823		
	Total	625.944	159			

a. Predictors: (Constant), X3, X2, X1

b. Dependent Variable: Y

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.562	.879		.639	.524
	X1	.258	.101	.222	2.561	.011
	X2	.264	.060	.363	4.415	.000
	X3	.167	.063	.234	2.666	.008

a. Dependent Variable: Y