



ANALYSIS OF THE EFFECT OF SERVICE QUALITY, PRODUCT QUALITY AND BRAND IMAGE ON CUSTOMER SATISFACTION AND ITS IMPLICATIONS ON CONSUMER LOYALTY PT. SHARP ELECTRONICS INDONESIA (CASE STUDY AT KARAWANG SHARP DIRECT SERVICE STATION)

Lise Tiasanty¹, Arifin Sitio²

¹ Student of Master Management, Mercu Buana University (UMB), Jakarta Indonesia

² Lecture of Master Manajement, Mercu Buana University (UMB), Jakarta Indonesia



Abstract:

This study aims to determine whether there is an influence between service quality, product quality and brand image on customer satisfaction and its implications for consumer loyalty at PT. Sharp Electronics Indonesia (study case in Karawang' s Sharp Direct Service Station). The research method used was a survey method by distributing questionnaires to 182 respondents who had purchased 32-inch Sharp television LCD products residing in the Karawang' s Sharp Direct Service Station area and recorded in the Sharp Customer Care Center database. The tool used to analyze data is the Statistical Package for Social Studies (SPSS) program ver.22. The result in this study are (1) Service Quality has positive and significant effect on Customer Satisfaction, (2) Product Quality has positive and significant effect on Customer Satisfaction, (3) Brand Image has positive and significant effect on Customer Satisfaction, (4) Service Quality has positive and significant effect on Consumer Loyalty, (5) Product Quality has positive and significant effect on Consumer Loyalty, (6) Brand Image has positive and significant effect on Consumer Loyalty, (7) Customer Satisfaction has positive and significant effect on Consumer Loyalty at PT. Sharp Electronics Indonesia especially at Sharp Direct Service Station (SDSS) Karawang. Positive correlation coefficient with a strong level of interpretation.

Keywords: Service Quality; Product Quality; Brand Image; Customer Satisfaction; Customer Loyalty.

Cite This Article: Lise Tiasanty, and Arifin Sitio. (2019). "ANALYSIS OF THE EFFECT OF SERVICE QUALITY, PRODUCT QUALITY AND BRAND IMAGE ON CUSTOMER SATISFACTION AND ITS IMPLICATIONS ON CONSUMER LOYALTY PT. SHARP ELECTRONICS INDONESIA (CASE STUDY AT KARAWANG SHARP DIRECT SERVICE STATION)." *International Journal of Engineering Technologies and Management Research*, 6(6), 197-212. DOI: <https://doi.org/10.29121/ijetmr.v6.i6.2019.408>.

1. Introduction

At present the level of business competition in various industrial sectors is very high, including in the electronics sector. As a result, business people must continue to innovate both on their

products or services to maintain and increase their market share. One of the business people in the electronic industry sector that has a large market share in Indonesia is PT. Sharp Electronics Indonesia (PT. SEID), which is a multinational company from Japan. The product category that has the dominant market share in Indonesia is LCD television. If in 2016 the market share of Sharp brand LCD televisions is only 14.5%, then in 2017 it rises to 18.0% and in 2018 it rises again to 22% [26].

The increase in market share is most likely related to the increase in Sharp customer satisfaction levels both on service quality, product quality or brand image which ultimately has an impact on consumer loyalty to buy sharp products. Nevertheless, based on the results of an internal survey of PT. SEID to consumers who live in the Sharp Direct Service Station area of Karawang for the period March-September 2018, it turns out that the ratio of the level of customer satisfaction tends to decrease. In addition, based on internal report data, it is also known that there are still consumer complaints related to LCD television by 31% compared to other product categories.

Based on the above explanation, it is known that the sales of Sharp LCD televisions tend to increase, but in terms of the level of consumer satisfaction tends to decrease. In order to find out more about the occurrence of this phenomenon, researchers conducted a pre-survey of 34 consumers of PT. SEID in Karawang Sharp Direct Service Station (SDSS Karawang) which has 32 inch LCD television products to find out what are the main factors that influence consumer satisfaction and how the impact on consumer loyalty of PT. SEID.

Based on the results of the pre-survey it is known that the service quality of the company consisting of dimensions of reliability, responsiveness, assurance, empathy and tangibility still cannot provide maximum customer satisfaction. This is indicated by the statement of an average of 48% of consumers who expressed dissatisfaction. In addition, the company has not been able to provide quality products that can provide maximum customer satisfaction, especially in the dimensions of durability, conformity with specifications, features, aesthetics and performance, as indicated by an average statement of 56% of consumers expressing dissatisfaction. Likewise the brand image of the company has not maximally occupied a strong position in the eyes of consumers, especially related to the brand personality dimensions, brand behavior and attitudes, brand associations and brand benefits and competencies as indicated by an average statement of 44% of consumers who disagree. Meanwhile, the brand identity dimension is quite strong in the eyes of consumers as indicated by an average of 71% of consumers who agree to the brand image. Nevertheless, brand image needs to be improved to increase consumer confidence in Sharp products.

The results of previous studies that strengthen this research are as follows: first, research by Mosahab [14], who found that service quality has an effect on customer satisfaction and customer loyalty. Second, research by Shahroudi et al, [18] who found that brand image influences consumer satisfaction, but brand image does not affect consumer loyalty. Third, research by Widyananto, et al, [7] found that product quality had an effect on consumer satisfaction. Based on the background, pre-survey results and previous research results, the authors need to conduct further research to determine the effect of service quality, product quality and brand image on customer satisfaction and its implications for consumer loyalty.

The aim of research that be conducted are to know as below:

- 1) The influence of the quality of service on the customer satisfaction of PT. SEID at SDSS Karawang?
- 2) The influence of product quality on customer satisfaction PT. SEID at SDSS Karawang?
- 3) The Influence the brand image on consumer satisfaction PT. SEID at SDSS Karawang?
- 4) The Influence the quality of service on the customer loyalty of PT. SEID at SDSS Karawang?
- 5) The influence of product quality on consumer loyalty PT. SEID at SDSS Karawang?
- 6) The influence of brand image on consumer loyalty at PT. SEID at SDSS Karawang?
- 7) Te influence of customer satisfaction on consumer loyalty PT. SEID at SDSS Karawang?

Service Quality: One important aspect that must be safeguarded by the company to maintain the existence of its business is the quality of service. According to Kotler (2012: 284) mentions five dimensions of service quality that must be met, namely: "Tangibles, Empathy, Reliability, Responsiveness, and Assurance". According to Tjiptono (2011: 68) there are eight dimensions of service quality and can be used as a framework and strategic planning and analysis, namely: performance, additional features, reliability, conformity with specifications, durability, and aesthetics. Based on the previous explanation, it can be concluded that service quality is the totality of the characteristics of goods and services that show their ability to satisfy customer needs, both those that appear clear and hidden with dimensions that include reliability, responsiveness, assurance, empathy and tangibility.

Product Quality: According to Tjiptono & Chandra (2011: 83), quality reflects all dimensions of product offerings that produce benefits (benefits) for customers. The quality of a product in the form of goods or services is determined through its dimensions. The dimensions of product quality according to Tjiptono & Chandra (2011: 85) are: 1) Performance, related to the basic operating characteristics of a product; 2) Durability, which means how long or the age of the product in question lasts before the product has to be replaced. The greater the frequency of consumer use of the product, the greater the product power; 3) Compliance with specifications, namely the extent to which the basic operating characteristics of a product meet certain specifications of the consumer or not finding product defects; 4) Features, are product characteristics that are designed to enhance product functions or increase consumer interest in products; 5) Reliability, is the probability that the product will work satisfactorily or not in a certain period of time. The less likely the damage is, the product is reliable; 6) Aesthetics, related to how the product looks; 7) the impression of quality, often said to be the result of the use of measurements made indirectly because there is a possibility that consumers do not understand or lack information on the product concerned; 8) Services, including speed and convenience to be repaired, as well as the competence and hospitality of service staff.

Based on the explanation above, it can be concluded that product quality is a quality that reflects all dimensions of product offerings that produce benefits for customers in the form of goods and services that are determined through dimensions which consist of performance, durability, conformity with specifications, features and aesthetics.

Brand Image: According to Kotler and Armstrong (2014: 233) the definition of Brand Image is a set of beliefs about a brand. Brand image is a picture or impression caused by a brand in the

customer's mind. Brand image dimensions according to Keller (2013:97) are as follows: Brand Identity, Brand Personality, Brand Association, Brand Attitude and Behavior, Benefits and Advantages of Brand. Thus, it can be concluded that brand image is a set of beliefs about a brand or an image or impression that is generated by a brand in the customer's mind with dimensions that include brand identity, brand personality, brand associations, brand attitudes and behavior, and brand advantages and benefits. Placement of brand image in the minds of consumers must be done continuously so that the brand image that is created remains strong and can be received positively.

Customer Satisfaction: According to Tjiptono (2012:301), consumer satisfaction is a situation shown by consumers when they realize that their needs and desires are in accordance with what is expected and fulfilled well. Kotler states that Customer Satisfaction is the response of the behavior shown by the customer by comparing between the performances or the results that are felt as expected. If the results are felt below expectations, the customer will be disappointed, less satisfied or even dissatisfied, but vice versa if it is in line with expectations, customers will be satisfied and if performance exceeds expectations, customers will be very satisfied (Kotler, 2014: 150). Kotler also identified 4 ways to measure customer satisfaction, namely 1) Complaint and Suggestion Systems. The company makes a system of criticism and suggestions to improve performance so far to meet customer satisfaction, 2) Customer Satisfaction Survey. Conduct research on consumer satisfaction with company products or services within a certain period of time, 3) Ghost Shopping. Companies can hire people who can be used as potential buyers to measure and report on the weaknesses and strengths of products, both goods or services of companies and competitors, 4) Lost Customer Analysis. Companies can contact consumers who have stopped using the company's goods or services and have moved to other company products or services to find out the reasons for switching and to find out the loss of consumers. Thus it can be concluded that consumer satisfaction is a situation shown by consumers when they realize that their needs and desires are in accordance with what is expected and fulfilled well. The dimensions used to measure the level of customer satisfaction are: 1) Level of needs and desires fulfilled based on experience, 2) Suitability of reality with specifications offered, 3) Feelings after using the service.

Consumer Loyalty: According to Kotler and Keller (2012:207), loyalty or loyalty is defined as a strong commitment to buy or subscribe to certain products or services in the future. According to Griffin in Ruth Hurriyati (2010: 130) loyal customers have the following characteristics: 1) Make regular purchases or repeat purchases. Customers who have purchased a product or service twice or more; 2) Buy outside the product line or service (purchase between product lines). Buy all the goods or services offered and they need them. They buy regularly, relationships with these types of customers, are strong and last long and make them unaffected by competing products; 3) recommend products or services to others. Buy goods or services offered and what they need, and make purchases regularly. In addition, they encourage other people to buy the company's goods or services. 4) Showing immunity from the attractiveness of similar products or services, or in other words not easily affected by competitors' attraction. Thus it can be concluded that consumer loyalty is a commitment held in depth to buy or support a product or service that is preferred in the future even though the influence of the situation and marketing effort has the potential to cause customers to switch to the dimensions of customer loyalty, namely: a). Make

regular purchases or repeat purchases. b). Buy outside the product / service line, c). Recommend to others, d). Demonstrates immunity from attractiveness of similar products from competitors.

Based on theoretical studies as explained above, the following is the research framework as follows:

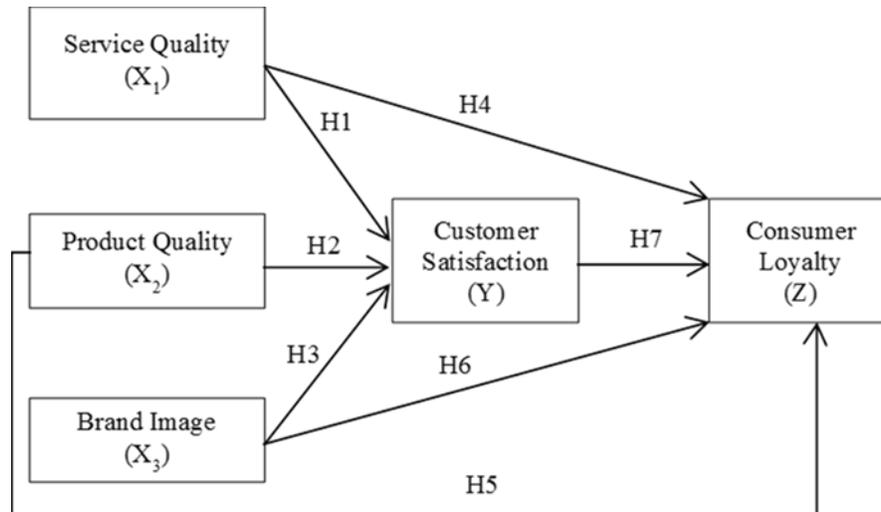


Figure 1: Thinking Framework

Based on the theoretical review of the literature review, the results of previous studies and the above frame of mind, the following are hypotheses the authors compiled:

- H.1: Service quality variables have a positive and significant effect on customer satisfaction.
- H.2: Product quality variables have a positive and significant effect on customer satisfaction.
- H.3: Brand image variables have a positive and significant effect on customer satisfaction.
- H.4: Service quality variables have a positive and significant effect on consumer loyalty.
- H.5: Product quality variables have a positive and significant effect on consumer loyalty.
- H.6: Brand image variables have a positive and significant effect on consumer loyalty.
- H.7: Variable customer satisfaction has a positive and significant effect on consumer loyalty.

2. Material and Methods

Type of Research: The type of research used is a type of survey research. Survey research method is a quantitative research method used to obtain data that happened in the past or present, about beliefs, opinions, characteristics, behavior, variable relationships and to test several hypotheses about sociological, and psychological variables from samples taken from certain populations, techniques for collecting data with observations (interviews or questionnaires) that are not exhaustive, and research results tend to be generalizable (Sugiono, 2017: 48). The research variable consisted of independent variables (service quality, product quality, and brand image), dependent variable (consumer loyalty) and intervening variables (customer satisfaction).

Variable Scale: In this study, the measurement scale used is the Likert scale. Likert scale is a scale used to measure attitudes, opinions and perceptions of someone or a group of people about social phenomena, Sugiyono (2017:158). Data were obtained using structured quantitative data, using a 1-5 Likert scale, from very agree (very satisfied) to disagree (not satisfied). This study

examines "The Effect of Service Quality, Product Quality and Brand Image on Customer Satisfaction and Its Implications on Consumer Loyalty of Sharp Electronics Indonesia (a case study at Karawang's Sharp Direct Service Center).

Population and Samples: The population in this study were consumers of PT. Sharp Electronics Indonesia, which is located in the Sharp area, Karawang Direct Service Station (SDSS Karawang), which has a LCD television with a 32 inch Sharp brand that is listed in the Customer Care Center database of 344 consumers with a sample of 182 respondents (using slovin formula with 95% accuracy percentage) and 5% allowance). The type of data uses primary data and data collection methods with interview techniques and questionnaires by using simple random sampling technique.

Data Analysis Method: Data analysis method uses descriptive analysis method, hypothesis test using t-test and analysis of the coefficient of determination, and path analysis to determine the relationship between research variables. The data processing technique uses version 22 of Statistical Package for Social Studies (SPSS) software.

3. Result and Discussion

Result

Based on the results of the study it was found that respondents' characteristics were as follows: 1) Respondents were male 51.1% and female types 48.9%, 2) Respondents aged 41 to 50 years 45.1%, ages 20 to 30 years 28.6%, age > 50 years 13.7% and age 31-40 years 12.6%, 3) Education of respondents graduating Diploma / Bachelor / Post-graduate 80.8% and high school / vocational education 14.8%, 4) Employment of respondents is self-employed/private employees 64.3%, civil servants 20.9% and housewives ladder 14.8%.

3.1. Hypothesis Testing

Test Validity and Reliability: Validity test uses a confidence level of 95%, where $df = n - 2$. The value of n in this study is 182, so the value of $df = 180$ and the value of $r_{table} = 0.122$. Based on the validity test, the results show that on all research variables, each indicator in each dimension is known that $r_{Calculate} > r_{Table} 0.122$, then all research variables namely service quality, product quality, brand image, customer satisfaction and consumer loyalty are declared valid. Meanwhile, the reliability test uses the Cronbach Alpha statistical test. Based on the results of the test it is known that in all research variables both dependent and free variables, Cronbach's Alfa number > 0.60 . Therefore, this research variable can be declared reliable and the items in the feasible variable are used as a measuring instrument.

Coefficient Determination: The coefficient of determination (R^2) model 1 is between the independent variables of service quality (X_1), product quality (X_2) and brand image (X_3) on the variable customer satisfaction (Y), obtained a number 0.607. This explains that the contribution provided by the service quality variable (X_1), product quality (X_2), and brand image (X_3) on customer satisfaction (Y) is 60.7% while the remaining 39.3% is influenced by other factors that are not examined. Thus, it can be concluded that the coefficient value of 0.607 is close to one (1), which means the influence of variable service quality, product quality and brand image on strong

customer satisfaction. Meanwhile, the coefficient of determination (R²) model 2 which is between the independent variables of service quality (X1), product quality (X2) and brand image (X3) and Consumer Satisfaction (Y) as intervening variables towards the variable consumer loyalty (Z) is obtained number 0.646 (adjusted R Square). This explains that the contribution provided by the service quality variable (X1), product quality (X2), brand image (X3) and consumer satisfaction (Y) on consumer loyalty is 64.6% while the remaining 35.4% is influenced by factors others not examined. Thus it can be concluded that the coefficient value of 0.646 is close to one (1), which means the influence of variable service quality, product quality, brand image and customer satisfaction on strong consumer loyalty.

Partial t-test Test Model 1: The following are the results of the partial t-test model 1 to determine the effect of service quality (X1), product quality (X2) and brand image (X3) on customer satisfaction (Y) as the table below:

Table 1: Parsial t-Test Result X1, X2, X3 against Y (Model 1)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-1.002	2.369		-.423	.673
X1 Service Quality	.190	.036	.286	5.342	.000
X2 Product Quality	.073	.033	.129	2.238	.026
X3 Brand Image	.366	.043	.518	8.580	.000
F	21,089				.000

a. Dependent Variable: Ycustomer Satisfaction

Source: Primary Data, processed 2019

From the table above, it is known that the results of the t test using $\alpha = 5\%$ (nk) show that the value of t table is 5% (182-5) = 1,973, as follows: 1) Service Quality variable has t count of 5.342 so it can be concluded that t count > t table or 5.342 > 1.973 or H₀ refused H_a accepted. This means that service quality has an effect on consumer satisfaction. 2) Product Quality Variables have a t count of 2.238, so it is concluded that t count > t table or 2.238 > 1.973 or H₀ is rejected H_a accepted. This means that product quality has an effect on consumer satisfaction. 3) Brand Image has a t count of 8.580, so it is concluded that t count > t table or 8.580 > 1.973 or H₀ is rejected and H_a is accepted. This means that brand image affects consumer satisfaction.

Partial t-test Result Model 2. The following are the results of the partial t-test model 2 to determine the effect of service quality (X1), product quality (X2), brand image (X3) and Consumer Satisfaction (Y) on consumer loyalty (Y) as shown below:

Table 2: Partial t-test Result X1, X2, X3 dan Y against Z (model 2)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-2.070	3.128		-.662	.509
X1 Service Quality	.265	.051	.287	5.237	.000
X2 Product Quality	.106	.044	.134	2.410	.017
X3 Brand Image	.151	.067	.153	2.250	.026

Y	Customer Satisfaction	.551	.099	.396	5.567	.000
F		29,999				.000

Source: Primary Data, processed 2019

From the table above, it is known that the results of the t test using $\alpha = 5\%$ (nk) show that the table t value is 5% (182-5) = 1,973 as follows: 1) Service Quality variables have a t count of 5.237, so it is concluded that t count > t table or 5.237 > 1.973 or H0 refused Ha accepted. This means that service quality has an effect on consumer loyalty. 2) Product Quality Variables have t count of 2.410, so it is concluded that t count > t table or 2,410 > 1.973 or H0 is rejected Ha accepted. This means that product quality has an effect on consumer loyalty. 3) Brand Image Variables have t arithmetic 2,250, so it is concluded that t count > t table or 2,250 > 1,973 or H0 is rejected Ha accepted. This means that brand image influences consumer loyalty. 4) Variables of Consumer Satisfaction have obtained t count of 5.567, so it is concluded that t count > t table or 5.567 > 1.973 or H0 is rejected Ha accepted. This means that customer satisfaction affects consumer loyalty.

3.2. Path Analysis

Path Analysis Result Model 1: The following is the result of Path Analysis Result Model 1, to know the influence of service quality (X1), product quality (X2) and brand image (X3) on customer satisfaction as below table:

Table 3: Summary Path Analysis Result Test Model 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.783 ^a	.613	.607	1.44194

Source: Primary Data, processed 2019

Based on the results of path 1 analysis test on table 3 above, it is known that the amount of R Square (R2) is 0.613 where the number is used to see the influence of service quality, product quality, and brand image on customer satisfaction is 61.3%. This means that the influence of service quality, product quality, and brand image has a simultaneous influence of 61.3% on customer satisfaction. While the remaining 38.7% is influenced by other variables outside of these variables. In addition, from table 3 it is also known that with the amount of R square (R2) of 0.613, the residual value is: $= \sqrt{(1-0,613)} = 0.622$.

Then based on table 1 the beta values of each variable are known so that the equation is obtained as follows: $Y = \beta_{yx1}X1 + \beta_{yx2}X2 + \beta_{yx3}X3 + \epsilon_1$ or $Y = 0.286X1 + 0.129X2 + 0.518X3 + 0.622$. In addition, it is also known that the sig value of variables X1, X2, X3 towards Y is smaller than the significance value in this study, which is 0.05 so that Ho is rejected and H1 is accepted. This means that the variable quality of service, product quality and brand image have a significant effect on customer satisfaction and show a unidirectional relationship.

Path Analysis Test Result Model 2. The following is the result of Path Analysis Result Model 2, to know the influence of service quality (X1), product quality (X2), brand image (X3), customer satisfaction (Y) on consumer loyalty (Z) as below table:

Table 4: Summary Path Analysis Result Test Model 2

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.809 ^a	.654	.646	1.90277

Source: Primary Data, processed 2019

Based on path 2 analysis test, it is known that the amount of R Square (R²) is 0.654 where the number is used to see the influence of service quality, product quality, brand image and customer satisfaction on consumer loyalty by 65.4%. This means that service quality, product quality, brand image and customer satisfaction have a simultaneous influence of 65.4% on consumer loyalty. While the remaining 34.4% is influenced by other variables outside of that. In addition, from table 4 it is also known that with the amount of R square (R²) of 0.654, then the residual value is as follows: $= \sqrt{1 - 0,654} = 0.588$.

Then based on table 2, it is known that the beta value of each variable is obtained as follows: $Z = \rho_{zx1}X1 + \rho_{zx2}X2 + \rho_{zx3}X3 + \rho_{zy}Y + \epsilon_2$ or $Z = 0.287X1 + 0.134X2 + 0.153X3 + 0.396Y + 0.588$. In addition, it is also known that the sig value of variables X1, X2, X3, Y towards Z is smaller than the significant value in this study which is 0.05 so that Ho is rejected and H1 is accepted. This means that the variables of service quality, product quality, brand image and customer satisfaction have a significant effect on consumer loyalty and show a unidirectional relationship.

Path Analysis Result Model 1 and 2. The following is the effect of each variable based on the results of the model 1 and 2 path analysis as shown below:

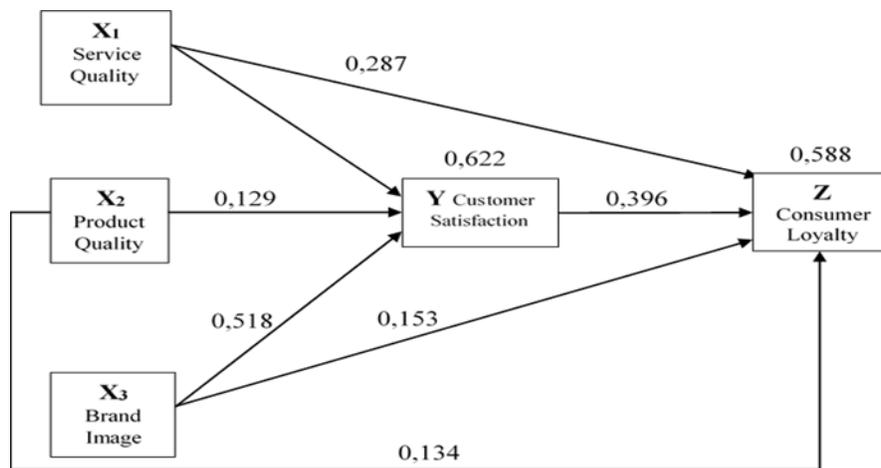


Figure 2: Path Analysis Result Model 1 dan 2

Based on Figure 2 above, in model 1 it is known that variable X1 Service Quality influences Y variable Customer Satisfaction with beta value of 0.286, variable X2 Product Quality influences Y variable Customer Satisfaction with beta value of 0.129 and X3 variable Brand Image has an effect on variables Y with a beta value of 0.518. Meanwhile, in model 2, it is known that the variable X1 Service Quality influences the variable Z Consumer Loyalty with a beta value of 0.287, variable X2 Product Quality affects the variable Z Consumer Loyalty with a beta value of 0.134, X3 variable Brand Image affects the variable Z Loyalty Consumers with beta values of 0.153 and Y variable Customer Satisfaction affect the variable Z with a beta value of 0.396.

Direct and Indirect Effects. Furthermore, the direct, indirect and total effects of these variables are as follows:

Table 5: Direct, Indirect and Total Effect

Model Path	Hypothesis	Variable Effect	Direct		Total	%
			Effect	Indirect Effect		
1	H1	X1-Y	0,286		0,286	28,6
	H2	X2-Y	0,129		0,129	12,9
	H3	X3-Y	0,518		0,518	51,8
2	H4	X1-Z	0,287	0,113	0,397	39,7
	H5	X2-Z	0,134	0,051	0,185	18,5
	H6	X3-Z	0,153	0,205	0,358	35,5
	H7	Y-Z	0,396		0,396	39,6

Source: primary data, processed 2019

Based on table 5, it is known that in model 1, brand image has the strongest influence on customer satisfaction by 51.8%. Meanwhile in model 2, service quality has the strongest influence on consumer loyalty by 39.7% and the subsequent influence of consumer satisfaction is 39.6%, the effect of brand image is 35.5% and the effect of product quality is 18.5%.

4. Discussion

Effect of Service Quality on Consumer Satisfaction

Based on descriptive statistical data it is known that the average value (mean) of service quality variables is 4.20 which means that the average respondent expressed satisfaction. The lowest average value is 3.47 in the 11th questionnaire about the seriousness and concern of the officers when serving consumers and the highest average value of the respondent's answers is in the 6th question item which is 4.48 about the explanation of officers after repairs is easy to understand. Based on table 1, the results of the partial test t-test model 1 above, it is known that the service quality variable has a t count of 5.342 and t table 1.973. Therefore, $t \text{ count} > t \text{ table}$ or $5.342 > 1.973$ or H_0 is rejected H_a accepted, which means that service quality has an effect on customer satisfaction. Thus it can be concluded that hypothesis 1 is proven correct. Testing hypothesis 1 proves that service quality variables have a positive and significant effect on customer satisfaction.

Then based on the results of path analysis 1 model in table 1, it is known that service quality has a strong coefficient value and significant influence on customer satisfaction with a beta value of 0.286 and shows a unidirectional relationship between the two variables of the five dimensions namely reliability, responsiveness, assurance, empathy and tangible. This illustrates that PT. SEID continues to improve the quality of service to consumers. Meanwhile, service quality is defined as the totality of the characteristics of goods and services that show its ability to satisfy customer needs, both those that appear clear and hidden with dimensions that include responsiveness, assurance of empathy and tangibility (Tjiptono & Chandra (2011: 232-233). If service quality rises, customer satisfaction will also increase and vice versa. If consumer satisfaction wants to be improved, the quality of service must also be improved and vice versa. Therefore, to improve customer satisfaction, the quality of service needs to be improved. This

research supports previous research Hussain (2015), found that the five dimensions of service quality had a significant impact on customer satisfaction.

Effect of Product Quality on Consumer Satisfaction

Based on descriptive statistical data it is known that the average value of the product quality variable is 4.07, which means that the average respondent is satisfied. The lowest average value is 3.85 in the 19th questionnaire about good sound quality in accordance with the specifications and the highest value of the respondent's highest answer is in the first question item namely 4.36 about the product easy to operate. Based on table 1, the results of partial test t test model 1 above can be seen that the product quality variable has t count 2.238 and t table 1.973. Therefore, t count > t table or $2.238 > 1.973$ or H_0 is rejected H_a accepted, which means that product quality has an effect on customer satisfaction. Thus it can be concluded that hypothesis 2 is proven correct. Testing hypothesis 2 proves that product quality variables have a positive and significant effect on customer satisfaction.

Then based on the results of path analysis 1 model in table 1 it is known that product quality has a strong coefficient value and a significant effect on customer satisfaction with beta values 0.129 and shows a unidirectional relationship between the two variables of the five dimensions, namely performance, durability, conformance, feature and aesthetic. This illustrates that PT. SEID improves product quality to consumers. Product quality is defined as a quality that reflects all dimensions of product offerings that produce benefits for customers in the form of goods and services that are determined through dimensions that consist of performance, durability, conformity with specifications, and aesthetics (Tjiptono & Chandra (2011: 83). Thus, product quality is one of the factors that determine customer satisfaction with products or services produced by the company. The higher the level of product quality provided by the company, the higher the customer satisfaction with the products or services produced by the company. This study supports by previous research, Widyananto's et all (2014), found that product quality has a positive influence on customer satisfaction PT Jayatama Selaras.

Effect of Brand Image on Consumer Satisfaction

Based on descriptive statistical data it is known that the average value of the brand image variable is 4.18, which means that the average respondent agrees. The lowest average value is 3.8 in the 7th questionnaire about Sharp is a company that prioritizes product quality and the average value of the highest respondent answers is in the first question item which is 4.64 about Sharp brand identity (logo and color) easy to remember and recognize. Based on table 1 the results of the partial test t test model 1 above can be seen that the brand image variable has a t count of 8.580 and t table 1.973. Therefore, t count > t table or $8.580 > 1.973$ or H_0 is rejected H_a accepted, which means that the brand image affects consumer satisfaction. Thus it can be concluded that hypothesis 3 is proven correct. Testing hypothesis 3 proves that the brand image variable has a positive and significant effect on customer satisfaction.

Then based on the results of path analysis 1 model in table 1 it is known that brand image has a strong coefficient value and significant effect on customer satisfaction with beta value 0.518 and shows a unidirectional relationship between the two variables of the five dimensions, brand identity, brand personality, brand attitude and behavior, brand association, and brand benefits & competence. Brand image is defined as a set of beliefs about a brand or an image or impression

that is generated by a brand in the customer's mind with dimensions that include brand identity, brand personality, brand associations, brand attitudes and behaviors and brand advantages and advantages (Keller (2013: 97). Thus, brand image is one of the factors that determine customer satisfaction with products or services produced by the company. This study supports previous research by Upamannyu et al (2014), found that there is a significant influence between the benefits of brand image on satisfaction and loyalty both direct and indirect customers.

Effect of Service Quality on Consumer Loyalty

Based on descriptive statistical data it is known that the average value (mean) of service quality variables is 4.20, which means that the average respondent expressed satisfaction. The lowest average value is 3.47 in the 11th questionnaire about the seriousness and concern of the officers when serving consumers and the highest average value of the respondent's answers is in the 6th question item which is 4.48 about the explanation of officers after repairs is easy to understand. Based on table 2, the results of partial test t-test model 2 above can be seen that the service quality variables have t count 5.327 and t table 1.973. So it can be concluded that $t \text{ count} > t \text{ table}$ or $5.237 > 1.973$ or H_0 is rejected H_a accepted, which means that service quality has an effect on consumer loyalty. Thus it can be concluded that hypothesis 4 is proven correct. Testing hypothesis 4 proves that service quality variables have a positive and significant effect on consumer loyalty.

Then based on the results of path analysis model 2 in table 2, it is known that service quality has a strong coefficient value and significant influence on consumer loyalty with beta value 0.287 and shows a unidirectional relationship between the two variables of the five dimensions namely reliability, responsiveness, assurance, empathy and tangible. Furthermore, based on table 3, it can be seen that service quality variables have a direct influence on consumer loyalty variables of 0.287 and have an indirect effect on consumer loyalty variables of 0.113 through the variable customer satisfaction. Thus, the indirect relationship of service quality variables to consumer loyalty requires mediating variable customer satisfaction. Nevertheless, service quality has the strongest total influence on consumer loyalty at 0.397. Service quality is defined as the totality of the characteristics of goods and services that show their ability to satisfy customer needs, both those that appear clear and hidden with dimensions that include reliability, responsiveness, assurance, empathy and tangibility (Tjiptono & Chandra (2011: 232-233) Thus, service quality is one of the factors that determine consumer loyalty to products or services produced by the company. This study supports previous research Mosahab, (2010), found that service quality has an effect on customer satisfaction and loyalty.

Effect of Product Quality on Consumer Loyalty

Based on descriptive statistical data it is known that the average value of the product quality variable is 4.07, which means that the average respondent is satisfied. The lowest average value is 3.85 in the 19th questionnaire about good sound quality in accordance with the specifications and the highest value of the respondent's highest answer is in the first question item namely 4.36 about the product easy to operate. Based on table 2, the results of the partial test t test model 2 above can be seen that the product quality variable has a t count of 2.410 and t table 1.973. Therefore, $t \text{ count} > t \text{ table}$ or $2,410 > 1,973$ or H_0 is rejected H_a accepted, which means that product quality has an effect on consumer loyalty. Thus it can be concluded that hypothesis 5 is

proven correct. Testing hypothesis 5 proves that product quality variables have a positive and significant effect on consumer loyalty.

Then based on the results of path analysis 2 model in table 2, it is known that product quality has a strong coefficient and significant influence on consumer loyalty with beta value 0.134 and shows a unidirectional relationship between the two variables of the five dimensions, namely performance, durability, conformance, feature and aesthetic. Furthermore, based on table 3, it can be seen that product quality variables have a direct influence on consumer loyalty variables of 0.134 and have an indirect influence on consumer loyalty variables of 0.051 through the variable customer satisfaction. Thus, the indirect relationship of service quality variables to consumer loyalty requires mediating variable customer satisfaction, however, based on table 3 it can be concluded that the product quality variable has a relationship or direct influence that is stronger than the indirect effect through the variable customer satisfaction. Product quality is defined as a quality that reflects all dimensions of product offerings that produce benefits for customers in the form of goods and services that are determined through dimensions that consist of performance, durability, conformity with specifications, features, and aesthetics (Tjiptono & Chandra (2011: 83) Thus, product quality is one of the factors that determine consumer loyalty to products or services produced by the company. This research supports previous research by Ishaq et al (2014), finding perceived value, company image and product quality has an impact on customer satisfaction and customer loyalty.

Effect of Brand Image on Consumer Loyalty

Based on descriptive statistical data it is known that the average value (mean) of brand image variables is 4.18, which means that the average respondent agrees. The lowest average value is 3.8 in the 7th questionnaire about Sharp is a company that prioritizes product quality and the average value of the highest respondent answers is in the first question item which is 4.64 about Sharp brand identity (logo and color) easy to remember and recognize. Based on table 2, the results of the partial test t test model 2 above can be seen that the brand image variable has t arithmetic 2,250 and t table 1,973. Therefore, t count > t table or 2,250 > 1,973 or H₀ is rejected H_a accepted, which means that the brand image affects consumer loyalty. Thus it can be concluded that hypothesis 6 is proven correct. Testing hypothesis 3 proves that the brand image variable has a positive and significant effect on consumer loyalty.

Then based on the results of path analysis model 2 in table 2 that brand image has a strong coefficient value and a significant effect on consumer loyalty with beta value 0.153 and shows a unidirectional relationship between the two variables of the five dimensions namely brand identity, brand personality, brand attitude and behavior, brand association, and brand benefits & competence. Furthermore, based on table 3, it can be seen that the brand image variable has a direct influence on consumer loyalty variables of 0.153 and has an indirect influence on consumer loyalty variables of 0.205 through the variable customer satisfaction. Thus, the indirect relationship of service quality variables to consumer loyalty requires mediation of variable customer satisfaction, however, based on table 5 it can be concluded that the brand image variable has an indirect relationship or indirect effect that is stronger than the direct influence through the variable customer satisfaction. Brand image is defined as a set of beliefs about a brand or an image or impression that is generated by a brand in the customer's mind with dimensions that include brand identity, brand personality, brand association, brand attitude and

behavior, and brand excellence and profitability (Keller (2013: 97) Thus, brand image is one of the factors that determine consumer loyalty to the products or services produced by the company. This study supports the previous research of Upamannyu et all (2014), found that there was a strong enough influence between the benefits of brand image on satisfaction and customer loyalty both directly and indirectly.

Effect of Consumer Satisfaction on Consumer Loyalty

Based on descriptive statistical data it is known that the average value (mean) of the variable customer satisfaction is 4.27, which means that the average respondent expressed satisfaction. The lowest average value is 3.91 in the fourth questionnaire about satisfaction with the quality of Sharp products that are in line with expectations and the average value of the highest respondent answers is in the first question item which is 4.62 about satisfaction contacting Sharp Customer Care Center (Toll Free Call Center, SMS and web-chat). Based on table 2, the results of partial test t test model 2 above can be seen that the variable customer satisfaction has a t count of 5.567 and t table 1.973. Therefore, t count > t table or $5.567 > 1.973$ or H_0 is rejected H_a accepted, which means that customer satisfaction has an effect on consumer loyalty. Thus it can be concluded that the hypothesis 7 is proven to be true. Testing of hypothesis 7 proves that the variable customer satisfaction has a positive and significant effect on consumer loyalty.

Then based on the results of the path analysis model 2 in table 2, it is known that consumer satisfaction has a strong coefficient and significant effect on consumer loyalty with a beta value of 0.396 and shows a unidirectional relationship between the two variables, namely the level of needs and desires fulfilled, reality and specifications and handling complaints.

Furthermore, based on table 3, it can be seen that the variable customer satisfaction has the strongest direct influence on consumer loyalty by 0.396 compared to the direct effect of service quality variables, product quality and brand image on the variable consumer loyalty. Thus it can be concluded that on the results of the model 2 path analysis, the variable customer satisfaction is a variable that has the strongest direct influence on customer loyalty PT. SEID.

Consumer satisfaction is defined as the situation shown by consumers when they realize that their needs and desires are in accordance with what is expected and fulfilled well. The dimensions used to measure the level of customer satisfaction are: 1) Level of needs and desires fulfilled based on experience, 2) Suitability of reality with specifications offered, 3) Feelings after using these services (Kotler & Keller (2012: 207). Thus, customer satisfaction is one of the factors that determine consumer loyalty to products or services produced by the company. This research supports previous research Koduah et all, (2016), found that collateral (knowledge and politeness of employees and their ability to inspire trust and confidence) to be the driving force significant from customer loyalty.

5. Conclusions and Recommendations

Conclusions

Based on the results of this study, it can be concluded that Service Quality has a positive and significant effect on Consumer Satisfaction, Product Quality has a positive and significant influence on Consumer Satisfaction, Brand Image has a positive and significant influence on

Consumer Satisfaction, Service Quality has a positive and significant effect on Loyalty Consumer, Product Quality has a positive and significant influence on Consumer Loyalty, Brand Image has a positive and significant influence on Consumer Loyalty, Consumer Satisfaction has a positive and significant influence on Consumer Loyalty

Recommendations

Based on the results of this study, it is recommended that PT. Sharp Electronics Indonesia to do the following: 1) Increase the availability of spare parts for LCD televisions according to consumer needs. 2) Improve the ability or skill of officers in carrying out the speed and accuracy in the improvement of consumer LCD television products. 3) Improve the sound quality (audio) of LCD TV television products according to the needs and expectations of consumers. 4) Improve the features of LCD TV television products with more complete and diverse features. 5) Add color variations to LCD television products. 6) Improve the image of the brand as a brand that prioritizes product quality. 7) Increase consumer satisfaction with the quality of LCD products. In further research, it is recommended to use other variables that affect consumer satisfaction and loyalty such as product prices, selling ability, and others. Research is recommended for similar companies to get comprehensive research results.

References

- [1] Areeba Imtiaz Hussain. "The Impact of Service Quality and Its Dimensions on Customer Satisfaction: A Case of Commercial Banking Sector of Karachi", *International Journal of Business Management*, vol 3, issue 11, 2015, 13.
- [2] Canalini Yosep, Paulus Kindangen dan Ferdinand Tumewu. The Influence of Service Quality on Customer Satisfaction in Gran Puri Hotel Manado, *Scientific Periodical Journal of Efficiency* Volume 16 No.01, 2016, 82-83.
- [3] Diposurmarto, Ngadino S. *Research and Applied Methodology*. Jakarta: Wacana Media, 2012, 69.
- [4] Giovany. *Variety of Research and Processing Models with SPSS / Editor*. Yogyakarta: Andi Offset, 2017, 138.
- [5] Griffin, Jill. *Customer Loyalty, Grow and Maintain Customer Loyalty*. Translation Dwi Kartini Yahya. Jakarta: Erlangga, 2010, 130
- [6] Ghozali, Imam. *Multivariate Analysis Application with IBM SPSS 23 Program* (8th edition). Semarang: Badan Penerbit Universitas Diponegoro, 2016, 95.
- [7] Ignatius Herobe Widyananto dan Adi Nurmahdi Sirhan. Analysis of the Effect of Product Quality, Distribution and After-Sales Service on Customer Satisfaction Plastic Packaging Company PT. Jayatama Selaras. *Jurnal MIX: Jurnal Ilmiah Manajemen* vol.4 no.3, 2014, 295.
- [8] Kotler, Philip, dan Armstrong. *Basic of marketing volume I*, 12th Edition. Jakarta: Erlangga, 2012, 284
- [9] Kotler, Philip. & Gary Armstrong. *Principle of Marketing*, 15 the edition. New Jersey: Pearson Prentice Hall, 2014, 150, 233.
- [10] Lovelock, Christopher, Jochen Wirtz, & Jacky Mussry. *Marketing Services* 7 edition. Jakarta: Erlangga, 2011, 74.
- [11] Muhammad Ishtiaq Ishaq, Dr. Mazhar H. Bhutta, Dr. Asad Afzal Hamayun, Rizwan Qaiser Danish, Nazia Munazer Hussain. "Role of Corporate Image, Product Quality and Customer Value in Customer Loyalty: Intervening Effect of Customer Satisfaction", *Journal of Basic and Applied Scientific Research*, 2014.
- [12] Nischay Kumar Upamannyu., Shilpa Sankpal (2014). "Effect of Brand Image On Customer Satisfaction & Loyalty Intention And The Role Of Customer Satisfaction Between Brand Image And Loyalty Intention", *Journal of Social Science Research*, Vol.3, No.2, 2015, 283.

- [13] Pratama, H.F. The Effect of Quality of Service Officers on Satisfaction of Visitors in Historical Attraction of Fort Marlborough, Bengkulu City: Riau University Journal, 2013.
- [14] Rahim Mosahab, PhD. Service Quality, Customer Satisfaction and Loyalty: A Test of Mediation, International Business Research: Vol.3 No.4, 2010, 77.
- [15] Riduwan & Kuncoro A Engkos, How to Use and Use Path Analysis. Bandung: Alfabeta, 2017, 1-3.
- [16] Sari, P.M. Effect of Service Quality of Tour Packages on Customer Satisfaction at PT. Pekanbaru's Naifah Duta Utama Tours & Travel. Riau University Journal, 2013.
- [17] Suyoto T. Effect of Service Quality, Product Quality and Price Evaluation on Darmawangsa Quick Chicken's Customer Satisfaction, Surabaya. Surabaya: Katolik Widya Mandala University Journal, 2012.
- [18] Shahroudi, Kambiz & Naimi, Seyedeh Safoura. "The Impact of Brand Image on Customer Satisfaction and Loyalty Intention (Case Study: Consumer of Hygiene Products)", International Journal of Engineering, vol.3, 2014, 60.
- [19] Sugiyono. Educational Research Methods (Quantitative, Qualitative Approach and R & D). Bandung: CV. Alfabeta, 2017, 23,48,158.
- [20] Tjiptono, Fandy. Marketing Strategy, 2nd Edition. Yogyakarta: Andi Offset, 2012, 301.
- [21] Tjiptono, Fandy. Marketing Strategy. Yogyakarta: Andi Offset, 2015,105.
- [22] Tariq Khalil Bharwana, Mohsin Basir dan Muhammad Mohsin 2013, Impact of Service Quality on Customer Satisfaction: A Study from Service Sector especially Private Colleges of Faisalabad, Punjab, Pakistan, International Journal of Scientific and Research Publications Volume 3 No. 5, 2013.
- [23] Tjiptono.F., Chandra. G., & Andraiana. Strategic Marketing. Yogyakarta, 2008, 225.
- [24] Tjiptono, F., & Chandra.G. Service, Quality and Satisfaction (ed 3), Yogyakarta: Andi Offset, 2011,.68,83-85,
- [25] Zeithaml. P., Service Quality a Conceptual Framework for Understanding e-implication for Future Research and Managerial Practice. New York: Msi Monograph, 2009, 1.
- [26] SWA Magazine: 32/Swa24/XXXIII/16-29Nov2017 (one of famous and credible marketing magazine in Indonesia).

*Corresponding author.

E-mail address: lisetiasanty76@ gmail.com/arifin.sitio@ mercubuana.ac.id