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THE EFFECT OF BRAND IMAGE AND SERVICE QUALITY ON CUSTOMER SATISFACTION AND LOYALTY OF IPHONE USERS IN SURABAYA

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ABSTRACT

This research aimed to know and learn customer satisfaction and loyalty of iPhone users in Surabaya. The concepts used in this research were brand image and service quality as independent variables and customer satisfaction and customer loyalty as dependent variables. The population of this research was all iPhone users in Surabaya. In addition, the sample used in this research was all users of iPhone type 5, 5s, 6, 6s in Surabaya. There were as many as 240 respondents of iPhone users in Surabaya used as the samples of this research. The data collection technique used was purposive judgment sampling. The data collection used an online questionnaire by sending a link to the respondents. The data were then analyzed by using WarpPLS 6.0. The research findings showed that there was significant and positive correlation among brand image on customer satisfaction, brand image on customer loyalty, service quality on customer satisfaction, service quality on customer loyalty, and customer satisfaction on customer loyalty.

KEY WORDS

Brand image, service quality, customer satisfaction, customer loyalty.

Currently, the development of communication and technology has increased very rapidly. A wide range of products are created to meet the increasingly diverse human needs. One of the main keys in the competition of technology is the company's ability to obtain and manage the information so it can be useful in making decisions in determining the company's strategy (Gans and Stern, 2003). Therefore, a company is required to be more creative in understanding the behavior of society so that the products offered can be accepted by the market. One of the largest communication companies that successfully penetrate the international market is iPhone.

In its development, Apple continues to innovate its products to keep up-to-date and in accordance with the era. Having a comparison, all these devices, from the oldest to the latest, all have experienced specification improvements that will certainly further facilitate the activities of its users.

Table 1 – Data on the Top 5 Vendors, Shipments, Market Share, and Year-Over-Year Changes in the 1st Quarter of 2015-2016

The Top 5 Smartphone Vendors, Shipments, Market Share, and Year-Over-Year Changes in the 1 st Quarter (in millions)					
Vendor	1Q16 Shipment Volumes	1Q16 Market Share	1Q15 Shipment Volumes	1Q15 Market Share	Year-Over-Year Change
Samsung	81.9	24.5%	82.4	24.6%	-0.6%
Apple	51.2	15.3%	61.2	18.3%	-16.3%
Huawei	27.5	8.2%	17.4	5.2%	58.4%
OPPO	18.5	5.5%	7.3	2.2%	153.2%
Vivo	14.3	4.3%	6.4	1.9%	123.8%
Others	141.5	42.3%	159.8	47.8%	-11.4%
Total	334.9	100%	334.4	100%	0.2%

Source: IDC worldwide quarterly mobile phone tracker, April 27, 2016.

According to table 1, sales figures of iPhone decreased by 16 percent. Apple reported that iPhone sales, totaling 51.2 million units in the 1st quarter in 2016, were similar to reports of shipping numbers from IDC. In the same last-year quarter, Apple sold iPhone as much as

61.17 million units. iPhone is the largest supplier for Apple with contribution to revenue reaches up to 68 percent. Revenues earned by this company experienced a very drastic decline with a decline in earnings up to 22.5 percent. It explained that for the first time they experienced a decline in sales since 2007. The decline in profits is also for the first time experienced by Apple Company since 2003. The company considers that the main cause is the strengthening US dollar currency, making global purchasing power decline. Apple is still very strong despite a drop in profits. Its profit in the first quarter of 2016 was recorded at 10.52 billion dollars (IDR 138.4 trillion). The company also has a cash of 233 billion US dollars or equivalent to IDR 3.065 trillion.

LITERATURE REVIEW

Brand Image. According to Schiffman and Kanuk (2010), brand image is a pervasive perception, shaped through experience, and is relatively consistent. Therefore, consumer attitudes and actions towards a brand image is one important element that encourages consumers to purchase a product (Faircloth et al., 2001). The better the brand image attached to the product, it will make consumers more interested to buy because consumers assume that a product with a trusted brand gives more sense of security when using it. According to Kotler and Armstrong (2010) the measurement of brand image can be performed based on the following aspects:

- **Strength.** Strength leads to a variety of physical advantages possessed by related brands that are not found in other brands. The advantage of this brand refers to the physical attributes of the related brand so that it can be regarded as an advantage over other brands. This strength group includes: the physical appearance of the product, the functioning of all facilities of the product, product price, and appearance of supporting facilities of the related product;
- **Uniqueness.** Meanwhile, uniqueness is the ability to distinguish a brand among other brands. This unique impression comes from the product attribute. Unique impression means that there is a differentiation between one product and other products. This unique group includes service variation and differentiation;
- **Favorable.** Favorable leads to the brand's ability to be easily remembered by customers. This favorable group includes the ease of the product brand to be spoken, the ability to keep in the customer's mind, and the suitability between the brand impressions in the customer's mind with the desired image of the company on the related brand.

Service Quality. According to Tjiptono (2007), service quality is the level of excellence expected and control over these advantages to meet customer desires. Service quality is influenced by two things: the perceived service and the expected service. If the perceived service is in line with expectations, the quality of service is perceived as good and satisfactory, but when it exceeds customer expectations it becomes the ideal service quality, (Caruana, 2002). Conversely, if the service received is lower than expected, the service quality is perceived poorly. The good and bad implications of the service quality depend on the ability of service providers to meet their customers' expectations consistently (Sureshchandar et al., 2002).

Parasuraman (1988) suggests that there are five key dimensions of quality service that include:

- **Tangibles:** it includes physical facilities and means of communication;
- **Reliability:** it is the ability to deliver promptly, accurately and satisfactorily the promised services;
- **Responsiveness:** it is the desire of the employees to help the customers;
- **Assurance:** it includes knowledge, ability, courtesy and trustworthiness by customers;
- **Empathy:** it includes the ease in making a connection, personal attention, and understanding of customer needs.

Customer Satisfaction. Customer satisfaction is the estimate of the results of marketing activities in a competitive business world (Szymanski and Henard, 2001). A company may gain success in marketing by offering the quality of the product or service. According to Sondakh (2014) there are five main factors that need to be considered in relation to customer satisfaction that include:

- Product quality. Customers will be satisfied if the results of their evaluation indicate that the products they use are qualified;
- Service quality. Customers will be satisfied if they obtain good service in line with their expectation;
- Emotional. Customers will feel proud and confidence that others will be amazed when someone uses a branded product and tends to have higher satisfaction. The satisfaction gained is not due to the quality of the product but the social value that makes the customer satisfied with a particular brand;
- Price. Products that have the same quality but set a relatively cheap price will give a higher value to its customers;
- Cost. Customers who do not need to spend additional costs or to waste time to get a product or service tend to be satisfied with the product or service.

Customer Loyalty. Customer loyalty has a considerable influence in marketing. Loyal customers will provide many benefits for the company, (Yang and Peterson, 2004). For instance, by the existence of customer loyalty, it will arise positive word of mouth that will grow the interest of new buyers. Other things related to loyalty will affect the intensity of repurchase, complaining behavior and price sensitivity (Gronholdt et al., 2000). Griffin (2002) explains that loyal customers have the following characteristics:

- Make regular repeat purchases;
- Purchase across product and service lines;
- Recommend the product to others;
- Demonstrate immunity to the full of the competition;
- Design and create loyalty.

Research hypotheses:

- There is a significant effect between brand image and customer satisfaction of iPhone users in Surabaya;
- There is a significant effect between service quality and customer satisfaction of iPhone users in Surabaya;
- There is a significant effect between brand image and customer loyalty of iPhone users in Surabaya;
- There is a significant effect between service quality and customer loyalty of iPhone users in Surabaya;
- There is a significant effect between customer satisfaction and customer loyalty of iPhone users in Surabaya.

Figure 1 – Conceptual Framework

METHODS OF RESEARCH

The population of this research was all iPhone users in Surabaya. The sampling technique used was purposive judgment sampling by determining criteria or certain considerations in determining the sample. Respondents were active iPhone users who had been using the product for more than 6 months and are over 17 years old. A total of 240

respondents have filled out the online questionnaire form. The analysis used in this research included:

Descriptive statistics were used by describing the data collected to generalize the data that had been obtained. In this research, the data analysis technique used is by using the average valued from the class interval through the following formula:

$$CI = \frac{HS - LS}{(n)C}$$

Where: CI = Class Interval; HS = Highest score (5); LS = Lowest score (1); (n)C = Number of Classes (5).

Furthermore, from the above formula class interval of 0.8 is obtained. The following is an explanation of the average rating criteria of respondents' answers:

Table 2 – Class Interval

INTERVAL	RATING	SCORE
4,21-5,00	Strongly agree	1
3,41-4,20	Agree	2
2,61-3,40	Neutral	3
1,81-2,60	Disagree	4
1,00-1,80	Strongly disagree	5

Statistical analysis used in this research using WarpPLS 6.0. WarpPLS is used to test validity and reliability, as well as perform hypothesis testing.

RESULTS AND DISCUSSION

Brand Image Variable. Based on the findings of responses obtained on brand image variable, it could be explained that iPhone users had a positive response to the brand image indicator. It was proven from the existing 9 indicators in which only 3 indicators were considered neutral while other indicators provide the agreed response as described in the following table.

Table 3 – Respondents' Response against Brand Image Variable

No	Question Items	Responses					Mean	Category
		1	2	3	4	5		
1	BI1	13	18	50	112	47	3.67	Agree
2	BI2	9	17	39	115	60	3.83	Agree
3	BI3	16	55	94	53	22	3.04	Neutral
4	BI4	13	15	38	114	60	3.80	Agree
5	BI5	16	22	91	84	27	3.35	Neutral
6	BI6	16	36	88	68	32	3.26	Neutral
7	BI7	10	21	51	92	66	3.76	Agree
8	BI8	13	13	44	93	77	3.86	Agree
9	BI9	19	14	39	97	71	3.77	Agree
The average of brand image							3.59	Agree

Service Quality Variable. Based on the findings of responses obtained on service quality variable, it could be explained that iPhone users had a positive response to the indicator of service quality.

Table 4 – Respondents' Response against Service Quality Variable

No	Question Items	Responses					Mean	Category
		1	2	3	4	5		
1	SQ1	13	18	91	83	35	3.45	Agree
2	SQ2	13	21	82	97	27	3.43	Agree
3	SQ3	23	21	93	80	23	3.24	Neutral
4	SQ4	16	23	69	100	32	3.45	Agree
5	SQ5	13	17	61	101	48	3.64	Agree
The average of service quality							3.44	Agree

It was proven by the 5 indicators that there was only 1 indicator considered neutral while other indicators provide the agreed response as described in table 4.

Customer Satisfaction Variable. Based on the findings of responses obtained on customer satisfaction variables, it can be explained that iPhone users had a positive response to customer satisfaction indicators. It was proven by the 5 indicators that there was only 1 indicator was considered neutral while other indicators provide the agreed response as described in the following table.

Table 5 – Respondents' Response against Customer Satisfaction Variable

No	Question Items	Responses					Mean	Category
		1	2	3	4	5		
1	CS1	15	15	35	120	55	3.77	Agree
2	CS2	13	21	68	97	41	3.55	Agree
3	CS3	11	18	72	78	61	3.66	Agree
4	CS4	24	60	98	43	15	2.85	Neutral
5	CS5	15	19	51	113	42	3.61	Agree
The average of customer satisfaction							3.49	Agree

Customer Loyalty Variable. Based on the findings of responses obtained on customer loyalty variables, it could be explained that iPhone users had a positive response to the indicator of customer loyalty. It was proven by the 5 indicators that there was only 1 indicator was considered neutral while other indicators provide the agreed response as described in the following table.

Table 6 – Respondents' Response against Customer Loyalty Variable

No	Question Items	Responses					Mean	Category
		1	2	3	4	5		
1	CL1	15	29	53	92	51	3.56	Agree
2	CL2	17	26	71	76	50	3.48	Agree
3	CL3	8	35	68	87	42	3.5	Agree
4	CL4	16	37	88	61	38	3.28	Neutral
5	CL5	16	25	79	70	50	3.47	Agree
The average of customer satisfaction							3.46	Agree

Validity Test. In this research, the validity test used Pearson correlation test; an item is considered to be valid if it has a correlation significance p-value < 0.05. Validity test was performed on each indicator that will describe the validity of each variable.

Table 7 – Pearson Correlation of Brand Image

Variables	Indicators	Validity		
		Significance	Cut Off	Description
Brand Image	BI1	0.000	0.05	Valid
	BI2	0.000	0.05	Valid
	BI3	0.000	0.05	Valid
	BI4	0.000	0.05	Valid
	BI5	0.000	0.05	Valid
	BI6	0.000	0.05	Valid
	BI7	0.000	0.05	Valid
	BI8	0.000	0.05	Valid
	BI9	0.000	0.05	Valid

Table 8 – Pearson Correlation of Service Quality

Variables	Indicators	Validity		
		Significance	Cut Off	Description
Service Quality	SQ1	0.000	0.05	Valid
	SQ2	0.000	0.05	Valid
	SQ3	0.000	0.05	Valid
	SQ4	0.000	0.05	Valid
	SQ5	0.000	0.05	Valid

Table 9 – Pearson Correlation of Customer Satisfaction

Variable	Indicators	Validity		
		Significance	Cut Off	Description
Customer Satisfaction	CS1	0.000	0.05	Valid
	CS2	0.000	0.05	Valid
	CS3	0.000	0.05	Valid
	CS4	0.000	0.05	Valid
	CS5	0.000	0.05	Valid

Table 10 – Pearson Correlation of Customer Loyalty

Variable	Indicators	Validity		
		Significance	Cut Off	Description
Customer Loyalty	CL1	0.000	0.05	Valid
	CL2	0.000	0.05	Valid
	CL3	0.000	0.05	Valid
	CL4	0.000	0.05	Valid
	CL5	0.000	0.05	Valid

Reliability Test. The reliability test of this research used Cronbach's alpha value, with the considerations that it is said to be reliably if it has an alpha coefficient value > 0.70.

Table 11 – Cronbach's Alpha of Research Variables

Variables	Cronbach's alpha	Cut Off	Description
Brand Image	0.891	0.07	Reliable
Service Quality	0.888	0.07	Reliable
Customer Satisfaction	0.776	0.07	Reliable
Customer Loyalty	0.880	0.07	Reliable

Figure 2 – Hypothesis Testing

Based on Figure 2 above, it can be explained that the hypothesis testing is as the following:

Hypothesis 1. The hypothesis of this research, brand image, has a significant and positive effect on customer satisfaction. The hypothesis is accepted with p-value < 0.05.

Hypothesis 2. The hypothesis of this research, service quality, has a significant and positive effect on customer satisfaction. The hypothesis is accepted with p-value < 0.05.

Hypothesis 3. The hypothesis of this research, brand image, has a significant and positive effect on customer loyalty. The hypothesis is accepted with p-value < 0.05.

Hypothesis 4. The hypothesis of this research, service quality, has a significant and positive effect on customer loyalty. The hypothesis is accepted with $p\text{-value} < 0.05$.

Hypothesis 5. The hypothesis of this research, customer satisfaction, has a significant and positive effect on customer loyalty. The hypothesis is accepted with $p\text{-value} < 0.05$.

DISCUSSION OF RESULTS

The Effect of Brand Image on Customer Satisfaction. Based on the descriptive research findings, the average respondents of this research agree to the questionnaire statements of brand image on customer satisfaction. It means that iPhone users are satisfied with the brand image owned by iPhone to its customers in Surabaya. Brand image has a close correlation to satisfaction. It can be explained because satisfaction can be formed from the company image. Respondents of this research were dominated by the age of 17-25 years old in which this age is the final adolescence. For the age groups, brand image is one of the factors affecting the purchase decision of the product. A good brand image of the product will result in its own pride in using the gadgets. In contrast to the age of 36-45 that belongs to the final adult period that becomes minority of respondents who were not too dependent on a brand or a certain pride but they depended on the ease of use and a more affordable price. Overall, the average respondent gave a positive value about the brand image owned by the iPhone in Surabaya.

The Effect of Service Quality on Customer Satisfaction. Based on the descriptive research findings, the average respondents of this research agree to the questionnaire statements of service quality on customer satisfaction. It means that iPhone users are satisfied with the service given by iPhone to its customers in Surabaya. Service quality has a close correlation to satisfaction. It can be explained because satisfaction is the impact of the services provided by the company. A person is satisfied if the service received is equal or greater than the customer's expectation. Similarly, when the services obtained are lesser than expectations, the customer can be dissatisfied. In this research, the service quality was affected by the respondents' occupations. Respondents were diminished by students in which students are the most sensitive responders to technological progress. The next is self-employed and state-owned/ private employee in which in their scope of work, technology becomes an important and supporting aspect. Thus, the quality of good service becomes sensitive to the field of work. In addition, iPhone is able to provide services that fit the respondents' needs. Thus, the average of the respondents gave a positive value about the service quality provided by iPhone users in Surabaya.

The Effect of Brand Image on Customer Loyalty. Based on the descriptive research findings, the average respondents of this research agree to the questionnaire statements of brand image on customer loyalty. It means that iPhone is considered to have a good brand image by iPhone users in Surabaya so it creates a loyal feeling from its customers. Brand image can directly affect customer loyalty. It can be explained because loyalty is formed from a good image owned by iPhone. Such a good iPhone image may result in significant customer loyalty. Someone feels loyal if the product has more pride than other similar products. The effect of the brand image on customer loyalty can also be explained by the age of the customer. The majority of customers were at the age of 17-25 years old in which this age is the most sensitive age to technological developments compared to other age groups. Thus, it can be explained that the average respondents provide a positive value of brand image in which it positively has impact on iPhone user loyalty in Surabaya.

The Effect of Service Quality on Customer Loyalty. Based on the descriptive research findings, the average respondents of this research agree to the questionnaire statements of service quality on customer loyalty. It means that the iPhone is considered to have provided good service for iPhone users in Surabaya so that it results in loyal feelings from its customers. Service quality can directly and significantly affect customer loyalty. It can be explained because loyalty is the impact of the services provided by iPhone itself. The services provided properly and appropriately can lead to customer loyalty. A person feels loyal if the service they perceived continuously is good and satisfies their needs. The effect

of service quality on customer loyalty can be explained also because the dominant respondents of this research were more to female than male respondents. Although there was not much different, women are more considering the effect of product quality to be purchased than the men do. Women are also more sensitive to the sophistication and certain features of iPhone so that women will be more loyal to iPhone. Overall, the average respondents provide a positive value to the services quality that has a positive effect on iPhone user loyalty in Surabaya.

The Effect of Customer Satisfaction on Customer Loyalty. Based on the descriptive research findings, the average respondents of this research agree to the questionnaire statements of customer satisfaction on customer loyalty. It means that iPhone users will be loyal because the customer is satisfied with the services provided by iPhone for its customers in Surabaya. The service quality has a close correlation to satisfaction. It can be explained because satisfaction is the effect of the services provided by the company. A person is satisfied if the service they receive is equal or greater than their expectation. Customer loyalty is very important for company in which it maintains the continuity of their business and the continuity of their business activities. Moreover, the loyal customers will expand their "loyalty" to other products made by the same manufacturer and ultimately they are consumers who are loyal to a particular manufacturer or company forever. Similarly, when the service obtained is lesser than customer's expectation, they will be not satisfied. Customer satisfaction and loyalty can also be explained by respondents' occupation. In addition to students, respondents with the occupation as entrepreneurs and employees of stated owned/ private also have a considerable amount. For these occupations, the satisfaction derived from iPhone arises because of the ability of iPhone to meet their needs, especially in meeting the needs of technology in carrying out their work. Therefore, obtaining satisfaction will lead to loyalty for the customer. Overall, the average respondents gave a positive value about the service quality provided by the company for iPhone users in Surabaya.

CONCLUSION AND SUGGESTIONS

Based on the results of hypothesis analysis and testing conducted in this research, the following conclusion can be drawn:

- Brand image has a significant and positive effect on customer satisfaction of iPhone users in Surabaya. Thus, it can be explained that creating a good brand image will increase iPhone customer satisfaction in Surabaya;
- Service quality has a significant and positive effect on customer satisfaction of iPhone users in Surabaya. Thus, it can be explained that in the presence of good service quality will increase customer satisfaction of iPhone users in Surabaya;
- Brand image has a significant and positive effect on customer loyalty of iPhone users in Surabaya. Thus, it can be explained that creating a good brand image will increase iPhone customer loyalty in Surabaya;
- Service quality has a significant and positive effect on customer loyalty of iPhone users in Surabaya. Thus, it can be explained that in the presence of good service quality will increase customer loyalty iPhone in Surabaya;
- Customer satisfaction has a significant and positive effect on customer loyalty on iPhone users in Surabaya. Thus, it can be explained that creating customer satisfaction will generate loyalty to iPhone users in Surabaya.

This research has been conducted according to the guidelines of scientific research, but this research cannot be separated from the limitations that include:

- This research was conducted using an online questionnaire so that sometimes the answers or responses given by the respondents are difficult to be controlled to determine whether or not the response obtained according to the real situation;

- At the time of conducting this research, there was a launching of new phone type which then affected the target of the respondents in which the respondents with the latest phone type cannot be the respondent of this research.

Based on the research findings that have been obtained, there are several suggestions as the following:

1. For iPhone, based on the research findings there are several suggestions that can be used for future improvement, among others:
 - Brand image can be improved by providing better service so that the product can be compared better with other competitors, creating more varied products and creating more affordable price so as to expand the segment on the market;
 - The service quality provided by the iPhone can be improved by performing fast services to its customers because the speed of service will increase customer satisfaction at the time of purchasing the product;
 - Customer satisfaction can be improved by creating a product with an affordable price so that the iPhone products are more easily afforded by its customers;
 - Better loyalty to iPhone users can be performed by increasing the interest of customers towards the iPhone products so that customers are not interested to move to other brands.
2. For further research, it is expected to be able to use more variables including dependent, independent and intervening variables so that it can contribute more references about the variables affecting customer satisfaction and loyalty. In addition, it might conduct the research on different companies that can be compared.

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