Proceedings of Congress on Economy, Finance and Business

Volume 1, November 2013

ISSN 2309-379X

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8-10 November 2013

CEFB 2013

PERCEPTION OF SERVICE QUALITY, COMPANY IMAGE, TRUST, AND PERCEIVED VALUE TO PREDICT LOYALTY OF CELLULAR NETWORK SUBSCRIBERS

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ABSTRACT

Developing and maintaining relationship with existing customers is more important than acquiring new customers. In a state that has begun to matured market, intensifying competition has led companies to explore ways to maintain the existing customers, which eventually can increase the profitability of the company. Similarly, as the mobile phone industry developed rapidly during the last five years with a very tight competition, conducting an empirical research to testing the predictive power of perceived service quality, company image, and perceived value to measure customer's loyalty is very important. The result of the analysis shows that all of the four predictors namely: service quality, company image, customer's trust, and perceived value on customer's loyalty has a positive effect. However among the four predictors, the significant predictor is only the image of the company. This research is important for cellular phone marketing practitioners in developing products and maintaining customer's loyalty. Company image, which is the most significant predictor for customer's loyalty, becomes the basis for a company's progress determination.

Keywords: service quality, company image, trust, perceived value, customer's loyalty, multiple regression

INTRODUCTION

According to The Jakarta Post (March 1, 2010), the cell phone industry is one of the fastest growing markets for over the last five years. Therefore, it becomes one of the fastest growing business in Indonesia as well as accompanied by very tight competition (President Director of Telkomsel Sarwoto Atmosutarno).

In a highly competitive market condition, the development and maintenance of relationship with existing customers is more important than obtaining new customers (Gummesson, 1994; Grönroos, 1990). Fornell and Wernerfelt (1987) also stated that in a state that has begun to matured markets, intensifying competition has led companies to explore ways to maintain the existing customers, which eventually can increase the profitability of the company.

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Studies have shown that customers who have strong relationship with the company was more profitable because they shopped more regularly (De Wulf, Oderkerken-Schröder, and Iacobucci, 2001), spent more per visit (De Wulf, Oderkerken-Schröder, and Iacobucci, 2001), are willing to pay more for the goods and services they have purchased (Dowling and Uncles, 1997), and the cost of service was cheaper (Rigby et al., 2002 in Grégoire and Fisher, 2006).

Loyal customers could increase company's revenue (Reichheld, 1993), and more likely to purchase additional goods and services (Clark and Payne, 1994 in Gwinner, Gremler, and Bitner, 1998). Loyal customers also tend to reduce customers who were switching (Reichheld and Sasser 1990), and to create new business through the recommendation of word-of-mouth (Zeithaml, Berry, and Parasuraman, 1996; Reichheld and Sasser, 1990): In addition, loyal customers could lead to decrease costs (Reichheld, 1993) because satisfied and loyal customers are needed to lower the cost of service (Reichheld, 1996 in Gwinner, Gremler, and Bitner, 1998) as well as the cost of sales and marketing. Furthermore, costs for starting up the new business could be amortized to customers who have been staying longer (Clark and Payne, 1994 in Gwinner, Gremler, and Bitner, 1998).

Based on the explanation above, this study is limited to cellular phone users. Study on the loyalty of cellular phone subscribers has been conducted by researchers (Aydin and Özer, 2005; Amin, Ahmad, and Lim, 2012; Jahanzeb, Tasneem, and Khan, 2010; Santouridis and Trivellas, 2010; Lee, 2010). The model which is developed in this study is a combination of models that was developed by Aydin and Özer (2005) and Lee (2010). Problem formulation of this study is as follows: Can the perceived service quality, company image, trust, and perceived value be used to predict the loyalty of cellular network subscribers?

THEORITICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

Customer's Loyalty

Customer's loyalty is defined by Oliver (1997: 392) as follows: ". . . a deeply held commitment to rebuy a preferred product / service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational efforts influences and having the potential to cause switching behavior." From the definition, it can be seen that customer's loyalty consists of behavioral and attitude elements. Behavioral element is manifested in the form of purchases which are made repeatedly on the same product. Element of attitude is manifested in the form of customer's commitment deeply to perform the behavioral element. Another point that can be seen from that definition is the loyalty that cannot be easily influenced by situational occasions such as marketing efforts from competitors.

Perceived of Service Quality and Loyalty

The service quality is "the consumer's judgment about the overall excellence or superiority of a service" (Zeithaml, 1988 in Parasuraman, Zeithaml and Berry, 1988: 15). From the definition, it can be seen that the service quality is the result of comparison or judgment or perception that is called often. The compared object is the product (or service). The similar competitive products are used for the comparison. Based on the theory above, we developed a model (instrument) of SERVQUAL, which is conceptualized as the difference between perceptions and

expectations regarding to service performance, which is manifested in five dimensions.

Service quality is not only attracting new customers from competitor, but also creating customer's intention to buy back (Venetis and Ghauri, 2000). Bloemer, Ruyter, and Wetzels (1998) and Aydin and Özer (2005) showed that service quality is positively related to customer's loyalty. Behavioral intentions, such as intention to buy back, recommending network provider, and resistance to change, are depending on the service quality (Cronin et al., 1997, Cronin, Brady and Hult, 2000; Levesque and McDougall, 1996; Zeithaml, Berry, and Parasuraman1996). Moreover, Aydin and Özer (2005) and Kuo et al. (2009) stated that there was a positive relationship between service quality and customer's loyalty. Other study also suggested that there was a positive relationship between perceived service quality and customer's loyalty (Lee, 2010; Aydin and Özer, 2005; Bolton and Drew, 1991). Therefore, the hypothesis can be developed as:

H1: Service Quality is a positive predictor for the customer's loyalty

Company Image and Loyalty

There are several terms that are used to understand about the company image. Those include reputation (Wartick, 1992; Furman, 2010), identity, prestige, goodwill, esteem, and standing (Wartick, 2002). According to Barich and Kotler (1991), the company image was described as "the overall impression made in the minds of public about a firm". Also, Nguyen and Leblacn (2001) stated that the company image was associated with the physical and behavioral attributes of the company, such as business reputation, architecture, variety of goods / services, and the impression of quality that is communicated by the staff who interacts with the company's clients.

According to Fishbein and Ajzen (1975 in Aydin and Özer, 2005), attitudes was functionally related to behavioral intention, which is predicted behavior. Consequently, the company image was an attitude that will affect the behavioral intention like customer's loyalty (Johnson et al., 2001: 224).

Nguyen and Leblanc (2001) also showed that company image was positively associated with customer's loyalty in three sectors (telecommunication, retail and education). For the same relationship between company image and customer's loyalty, Kristensen, Gronholdt and Martensen (2000) also found it for the Danish postal service, and Juhl, Kristensen and Ostergaard (2002) found it for Danish food retail sector. Other study showed a positive and significant relationship between company image and customer's loyalty (Aydin and Özer, 2005; Nguyen and Leblanc, 2001). Therefore, the hypothesis can be developed as:

H2: Company image is a positive predictor for customer's loyalty

Customer's Trust and Loyalty

According to Moorman, Zaltman, and Deshpande (1992: 316), "Trust is defined as a willingness to rely on an exchange partner in whom one has confidence." Emphasis on the definition is the willingness to trust others. Trust occurs when people have confidence in the reliability and integrity of their partner (Morgan and Hunt, 1994: 23; Garbarino and Johnson, 1999: 73). Therefore, trust is based on the willingness to believe in the reliability and integrity of those who believed.

Trust is important to influence commitment between customers and the company (Morgan and Hunt, 1994), and then influence the costumer's loyalty (Gundlach and Murphy, 1993). If each party trusts one another, the behavioral

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intention towards other party in a relationship will be positive. If the intention had been formed, the customer may buy the service given by other party (Lau and Lee, 1999).

Trust plays a significant role in maintaining relationship through partner exchange, refusing short-term service. This is because of a long-term benefit that was expected with existing partner, looking at a high-risk action, which is potentially being prudent because trusting partners means that they would not act opportunistically (Morgan and Hunt, 1994).

Several studies have shown a positive relationship between trust and company, and also customer's loyalty and company (Chaudhuri and Holbrook, 2001; Lau and Lee, 1999; Aydin and Özer, 2005; Lau and Lee, 1999). Therefore, the hypothesis can be developed as:

H3: Trust is a positive predictor for the loyalty of cellular network subscribers

Perceived Value and Loyalty

According to Zeithaml (1988), "Perceived value is the customer's overall assessment of the utility of the product based on perceptions of what is received and what is given." From the definition, it can be inferred that the perceived value is the result of customer's assessment on a product's benefit. It becomes the result of perception on what is received and what is given. Correspondingly, Babin, Darden, and Griffin (1994) also stated that the perceived value is a subjective perception of customers on the value of an activity or object which is considered as benefits and sacrifices.

Perceived value is a key to drive the improvement of customer's loyalty (Lee, 2010). Regarding to that matter, several studies have shown that perceived value is a positive predictor for costumer'a loyalty (Cronin et al., 2000; Kuo et al., 2009; Lai et al., 2009; Lin and Wang, 2006; Wang et al., 2004; Lee, 2010). Therefore, the hypothesis can be developed as:

H4: Perceived value is a positive predictor for the customer's loyalty

Relationships between all these hypothesis are presented in Figure 1.

Figure 1. Relationships between Variables
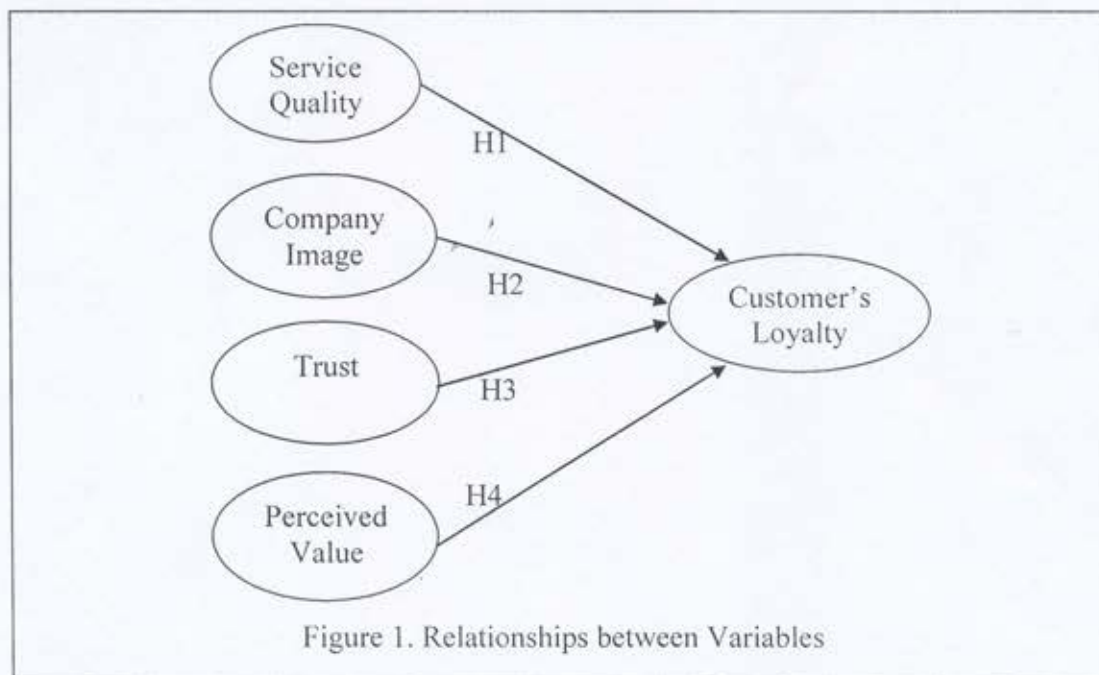
METHODOLOGY

The population of this study are university students as prospective costumers who subscribe cellular network in Campus II, Tarumanagara University, Jakarta. 100 samples were selected from the population with non-random sampling. The size of samples is quite adequate for multiple regression analysis that is used in this study. Regarding to Hair, Jr., et al. (2010) and Tabachnick and Fidell, (2007), this sample size is already sufficient, whereas the ratio between the number of sample and the number of variable in a research should be at least five times multiplied.

All these variables were measured by adapting instruments that have been developed by previous researchers. The instrument was adapted by using Likert scale with score ranging from 1 to 10, which are moving from 'Strongly Disagree' to 'Strongly Agree'. According to Allen and Rao (2000), 10 alternative responses on Likert scale are better, based on the following two reasons. First, it is easier to set covariance between two variables with greater dispersion than the average generally. Second, from the results of the empirical study on several types of scales by Wittink and Bayer (in Allen and Rao, 2000) , it is noted that the ten-scale value for the dependent variable is preferred in the context of academic research and industry.

The perceived service quality variable is adapted from Cronin et al. (1997) and McDougall and Levesque (2000), and also Bloemer, Ruyter and Wetzels (1998). The company image variable is adapted from Bayol et al. (2001 in Aydin and Özer, 2005). The trust variable is adapted from Aydin and Özer (2005). The perceived value variable is adapted from Cronin et al. (1997) and Zeithaml (1988). Finally, the customer's loyalty variable is adapted from Cronin et al. (1997) and Brady and Robertson (1999) as well as Narayandas (1996 in Aydin and Özer, 2005).

The name of variables and indicators are as follows:
a. The costumer's loyalty variable has indicators number 1 to 5,
b. The company image variable has indicators number 6 to 10,
c. The costumer's trust variable has indicators number 11 to 15,
d. The service quality variable has indicators number 16 to 20, and
e. The perceived value variable has indicator number 21.

Convergent validity of each indicator in each variable is tested by correlation coefficient between the correlation coefficient per indicator with its corrected-item total-correction. Each indicator is valid if it has a minimum coefficient of 0.2 (Cronbach, 1990; Rust and Golombok, 1989).

The reliability of each variable is tested by using Cronbach's Alpha. The instrument is considered reliable if it has Cronbach's Alpha coefficient at least 0.7 (Rust and Golombok, 1989).

In this research, the hypotheses are tested through multiple regression analysis by using PASW 19 software.

RESULTS

In this section, the result of an empirical study consisting the subject descriptions and hypothesis testing are presented. The subject descriptions include sex and age, as well as network providers that are being subscribed by the respondents. There are 253 users as research subjects consisting of 117 male (46.2%), 135 female (53.4%), and 1 person (0.4%) does not mention the gender.

Validity and Reliability

The Cronbach's Alpha coefficient for loyalty variable is 0.800. So, it is considered reliable due to the coefficient is greater than 0.7. The coefficients of validity ranges from 0.447 to 0.730, so it is considered valid due to the coefficient is greater than 0.2.

The Cronbach's Alpha coefficient for company image variable is 0.865. So, it is considered reliable due to the coefficient is greater than 0.7. The coefficients of validity ranges from 0.546 to 0.750, so it is considered valid due to the coefficient is greater than 0.2.

The Cronbach's Alpha coefficient for customer's trust variable is 0884. So, it is considered reliable due to the coefficient is greater than 0.7. The coefficients of validity ranges from 0.481 to 0.829, so it is considered valid due to the coefficient is greater than 0.2.

The Cronbach's Alpha coefficient for service quality variable is 0.914. So, it is considered reliable due to the coefficient is greater than 0.7. The coefficients of validity ranges from 0.708 to 0.850, so it is considered valid due to the coefficient is greater than 0.2.

THE RESULT OF HYPOTHESES TESTING

The result from simple correlation analysis between variables are presented in Table 1. It can be seen that all independent variables (image, trust, quality, and value) have positive and significant correlation with loyalty as dependent variable. The highest correlation coefficient is 0.707, which is between image and loyalty variables. The lowest correlation coefficient is 0.549, which is between value and loyalty variables.

Table 1. Correlation coefficient between variables

		LOYALTY	IMAGE	TRUST	QUALITY	VALUE
LOYALTY	Pearson Correlation	1	.707	.656	.607	.549
	Sig. (1-tailed)		.000	.000	.000	.000
	N	253	247	250	249	253
IMAGE	Pearson Correlation	.707	1	.811	.690	.599
	Sig. (1-tailed)	.000		.000	.000	.000
	N	247	247	245	243	247
TRUST	Pearson Correlation	.656	.811	1	.816	.710
	Sig. (1-tailed)	.000	.000		.000	.000
	N	250	245	250	247	250
QUALITY	Pearson Correlation	.607	.690	.816	1	.723
	Sig. (1-tailed)	.000	.000	.000		.000
	N	249	243	247	249	249
VALUE	Pearson Correlation	.549	.599	.710	.723	1
	Sig. (1-tailed)	.000	.000	.000	.000	
	N	253	247	250	249	253

**. Correlation is significant at the 0.01 level (1-tailed).

The result from multiple regression analysis related to hypothesis testing is presented in Table 2. Table 2a indicates that multiple correlation coefficients between loyalty and value, image, service quality and trust is 0.742. The coefficient of

determination is 0.551, which means that 55.1 percent of the variation of loyalty can be explained through the variation of value, image, service quality, and trust.

Table 2a. Regression Model Summary Statistics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.742[a]	.551	.543	1.12308

a. Predictors: (Constant), VALUE, IMAGE, QUALITY, TRUST

Table 2b. Results Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	366.560	4	91.640	72.655	.000[a]
	Residual	298.930	237	1.261		
	Total	665.490	241			

a. Predictors: (Constant), VALUE, IMAGE, QUALITY, TRUST
b. Dependent Variable: loyalty

Table 2c. Regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.098	.373		2.945	.004		
	IMAGE	.519	.079	.496	6.562	.000	.331	3.020
	TRUST	.136	.097	.135	1.398	.163	.202	4.941
	QUALITY	.094	.082	.092	1.150	.251	.294	3.406
	VALUE	.085	.067	.083	1.261	.209	.433	2.308

a. Dependent Variable: loyalty

From Table 2b, it can be seen that F value is 72.655 with significance of 0.000 or less than 0.05. It means that the variation of loyalty can be explained together by the variation of image, trust, quality and value, that are all significant. It also means that this model can be used to predict loyalty because at least one of the partial regression coefficients is significant.

In table 2c, it can be seen that the partial regression coefficient of company's image is the most significant. In contrast, the partial regression coefficient of customer's trust, service quality, and perceived value are not considered significant. From another statistical method, only the company's image is viable for use in predicting customer's loyalty. Nevertheless, all signs of partial regression coefficients are positive.

DISCUSSION

All hypotheses that were previously developed are consistent with the results of this study, based on the result from multiple regression analysis and that from simple correlation analysis. In the context of simple correlation analysis, every independent variable has positive correlation and also significant with the dependent variable. In the context of multiple regression analysis, all result of partial regression coefficients are positive which describe the relationships between each independent variable and the dependent one. However, only the intercept and partial regression coefficient of company's image is significant, while the partial regression coefficients for the other

independent variables (trust, service quality, and perceived value) are not. This means that the company's image is the most important factor for both increasing the number of loyal customers and attracting new customers.

From these explanations, it can be seen that the partial regression coefficients of three independent variables which are not significant, are related to the problem of statistical analysis used, especially with regard to the multi collinearity assumptions that did not surpass, of which the summary are presented in Table 3.

Table 3. Collinearity Statistics

.	Collinearity Statistics	
	Tolerance	VIF
Image	.331	3.020
Trust	.202	4.941
Quality	.294	3.406
Value	.433	2.308

Table 3 above shows the number of four VIF (Variance Inflation Factor) coefficients, of which the sum of those (3.020 + 4.941 + 3.406 + 2.308) equals to 13.68. The average of those VIF coefficients is 13.68 divided by four, so it equals to 3,421. Based on these two results, we can conclude that the problem in multiple regression model which is used to test the empirical truth of the four hypotheses in this study, is known as multi collinearity (The sum of VIF is greater than 10, and the average of four VIF is greater than 1). The regression coefficients of the independent variables (trust, service quality, and costumer's perceived value) are not significant due to the existence of collinearity.

CONCLUSIONS AND RECOMMENDATIONS

It can be concluded that all hypotheses are inline and strengthened by the theory, although only the independent variable of company's image is considered significant. For more detail, the conclusions of this study are as follows:
- Service quality is a positive predictor for customer's loyalty (Hypothesis 1),
- Company image is a positive predictor for costumer's loyalty (Hypothesis 2),
- Customer's trust is a positive predictor for customer's loyalty to the cellular network provider (Hypothesis 3), and
- Customer's perceived value is a positive predictor for costumer's loyalty (Hypothesis 4).

Based on the analysis and discussion in the previous section, there are some suggestions provided for future study. The addition of other independent variables need to be considered, such as costumer's satisfaction. Besides, the role of mediation and moderation variables need to be considered as well.

Related to the problem of multi collinearity in regression model used, other analysis, either principal component analysis or non-parametric regression analysis are also considered to be used.

For cellular network marketing practitioners, these results can be used as input for the development of products and services, as well as for maintaining customer's loyalty. Company's image as a highly significant variable for determining customer's loyalty is the basis for any cellular network marketing practitioners in order to achieve greater progress in the future.

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