

Consumer Behavior in the Dimensions of Marketing Mix and Service Quality: Predicting Predictor and Response Variables

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Abstract: This research aims to determine, analyze and predict the dimensions of marketing mix and service quality on consumer behavior in the next purchases. The research variables are 1) product (X1); 2) price (X2); 3) location (X3); 4) promotion (X4); 5) physical evidence (X5); 6) reliability (X6); 7) responsiveness (X7); 8) warranty (X8), and; 9) empathy (X9). Research analysis is logistic regression analysis to find influence and relation of response variable with one or more predictor variables and response variable that is continuous or categorical. The finding of research, can be concluded that the dimension of marketing mix can predict consumer behavior in next purchase. The dimension of service quality consisting of physical evidence, reliability, responsiveness, and warranty can predict consumer behavior in next purchases, whereas empathy can not predict consumer behavior in next purchases.

Keywords: Dimension of marketing mix, dimension of service quality, consumer behavior, predictions, and response.

I. INTRODUCTION

A company that wants success in influencing consumer responses in a particular market must formulate a combination of marketing strategies appropriately and use marketing techniques that suits for its consumer behavior. One of the key elements in determining a marketing strategy is to know the marketing mix. According to Kotler (2000: 18), the service marketing mix consists of 4 elements: product, price, location and promotion and becomes 7 with additional elements such as: process, people and physical evidence. Service marketing mix is a set of marketing tools used by companies to continuously achieve marketing objectives in their target markets.

Cafe business in Jember Regency grow quite rapidly, along with the increasingly crowded population of Jember and the development of education. Jember Regency is one of the educational base that has relatively a lot of State and Private Universities. Growing business in the field of cafe is shown by the proliferation of cafe business in the area of Jember, there are some homogeneous cafe such as Kolong Cafe, Brother Cafe, Acacia Cafe, and Corakna Café. Some of these cafes are similar in terms of its menu and service offering. The more selective consumers in choosing products and services that they will buy and the proliferation of cafe business in Summersari District, like a cafe that is considered a homogeneous, will certainly provide a competition in the market. According to Tjiptono (in Subagiyo, 2012: 2), tight competition makes entrepreneurs should strive to achieve goals to create and retain customers, because customers are the long-term aspect for the industry. Thus, every industry must be able to understand its consumer behavior in its target market because the viability of the industry as an organization that seeks to meet the needs and desires of consumers depends on it.

Marketing mix and service quality are very important aspects to be considered by every cafe to survive in the market competition, if the application of marketing mix is less attractive and not in accordance with consumer expectation and market condition, then cafe business will lose its market share. Cafe need to evaluate its marketing mix and the service quality in order to attract new customers and retain the old customers. The problem of this research is "Can the dimensions of the marketing mix and service quality predict consumer behavior in the next purchases?"

The purpose of this research is to know, analyze and predict the dimensions of marketing mix and service quality on consumer behavior in the next purchases.

II. LITERATURE REVIEW

The marketing field should be able to optimize the marketing mix element, because the marketing mix is a controlled variable that can be used to reach consumers who are the target market. The marketing mix has 4 important elements; product, price, location, and promotion. Product is a thing that needed and wanted by consumers to meet their perceived needs (Supranto, 2007:11). The five product levels are (Kotler, 2008:175); main products, generic products, expected products, additional products, and potential products. Price is the money a person pays for the right to use the product (Supranto, 2007:12). Pricing procedures to be used here include six stages; estimate the demand for goods, know firstly the reaction in the competition, determine the expected market share, choose a pricing strategy to reach the target market, consider the marketing politics of the company, and choose a certain price. Place is a combination of location and distribution channel, which is related to the way delivery of products and services through strategic location (Lupiyoadi, 2001:61). Promotions are a collection of different intensive tips, mostly short-term and designed to encourage faster or larger purchases of a particular products or services by the consumers. Promotional activities not only serve as a tool of communication between companies and consumers but also as a tool to influence consumers in the purchase or use of service in accordance with the their desires and needs (Lupiyoadi, 2001:108).

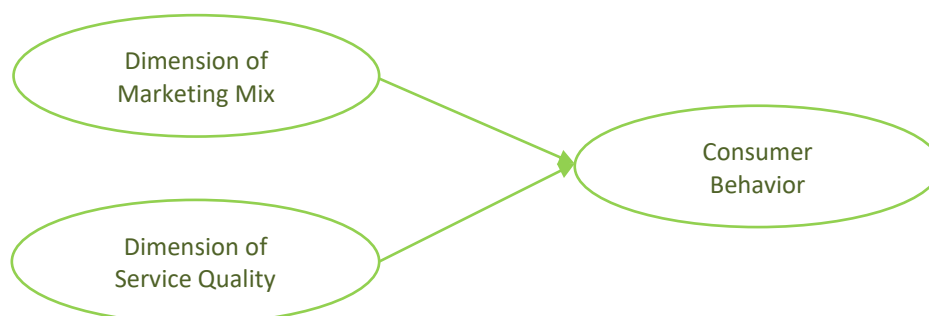
Service quality is often regarded as a relative measure of the good of a product or service consisting of design and conformity quality. Design of quality service is a function of product specification, while the conformity of service quality is a measure of how far a product is able to meet the requirements or quality specifications that have been set. According to Zeithaml (in Tjiptono, 2004:14) the service quality includes five dimensions. Physical evidence, related to physical facilities, employee performance, equipment and technology used in providing services. Reliability is the ability to deliver the promised service performance accurately and definitely. Responsiveness is the ability of employees to help and provide services to the customers responsively. Warranty relate to employees' ability to instill trust in customers, and the employee's knowledge and manners in providing services to consumers, knowledge, courtesy and employee ability will generate trust and confidence in the company. Empathy is the ease of doing relationships, good communication, personal attention and understanding of customer needs. This relates to the attention or concern of employees to customers.

Consumer behavior is defined as the study of unit purchases and exchange processes involving the acquisition, consumption, and disposal of services, experiences, and ideas (Mowen, 2002:6). Consumer behavior is an action directly involved in obtaining, using (consuming and consuming) and depleting products (goods and services) including processes that precede and follow these actions (Supranto, 2007:4). Understanding the consumer behavior requires a model that can clarify how a sufficiently influential purchasing process, where this model emphasizes processes that affect consumer behavior.

Purchasing decisions are a fundamental part of consumer behavior that leads to the purchase of products or services. There are five stages in the purchase decision; 1) introduction of needs; 2) search of information; 3) alternative evaluation; 4) purchase decision, and; 5) post-purchase behavior (Kotler, 2008:179).

Marketing mix as a process that will provide various benefits and value for the producers who will support its business strategy and provide the desire in accordance with the needs of consumers. Service quality will greatly enhance the effort and give real support to consumers's desires.

Conceptual Framework:



III. RESEARCH METHOD

The research design used can be classified as explanatory research, that is research which explain the relationship between variables through hypothesis testing with explanatory research (Tjiptono, 2004:56).

Population is an object that the researcher wants to know the magnitude of its characteristics (Sugiono, 2008:129). The population in this research are all customers of Kolong cafe, Brother cafe, Acacia cafe, and Corakna cafe.

Sampling method using multistage sampling method. The first stage uses purposive sampling. Purposive sampling is to select the sample that has certain considerations and characteristics in the desired amount (Sugiyono, 2008:130). The second stage uses proportional random sampling, is random sampling with the number of samples proportional to the number of members in each subpopulation (proportional) so that each sub-population has the same opportunity to be sampled. Proportional random sampling is done randomly to all customers of four selected cafes, but still in accordance with the criteria in purposive sampling (Arikunto, 2002:112).

Determination of the number of samples in this research refers to Ferdinand (2002:51), which suggests that the sample size depends on the number of indicators used are a number of latent variables. The number of samples is equal to the number of indicators multiplied by 5 to 10. The number of indicators in this research are 20 indicators. So based on the recommendation calculations, then the number of samples in this research is 100 respondents. The number of 100 respondents is distributed based on the sample calculations of each group according to the number of visits received by each café. Kolong café is 37 respondents, Brother Cafe is 28 respondents, Acacia Cafe is 23 respondents, and Corakna Café is 12 respondents.

The variables analyzed in this research are; dimension of marketing mix, such as; 1) product (X1); 2) price (X2); 3) location (X3), and; 4) promotion (X4). Dimension of service quality, such as; 1) physical evidence (X5); 2) reliability (X6); 3) responsiveness (X7); 4) warranty (X8), and; 5) empathy (X9).

Measurement of data by using Likert scale. The rating scale used are strongly agree with the value 5; agree with value 4; quite agree with value 3; disagree with value 2, and; strongly disagree with value 1 (Malhotra, 2003:62). In addition to Likert scale, this research also uses the dichotomy scale to obtain the answers "frequently buy" with the value of 1 and "rarely buy" with the value 0 (Sekaran, 2006: 31). Criteria of "frequently buy", that is a positive attitude shown from the frequency of purchases made by a consumers, while the criteria of "rarely buy", is a lack of positive attitude shown from the frequency of purchases made by a consumers.

Logistic regression is an analytical tool to predict the ability of predictor and response variables that will serve as the predictive information using dichotomous data (nominal or ordinal scale with two sustainable and categorical categories). According to Homster (in Subagiyo, 2012:35), logistic regression (logit) is part of a statistical model called the Generalized Linear Model (GLM) that produces a predictive equation. The logit allows for the prediction of discrete results that are largely dichotomized as dependent variables with various types of independent variables such as continuous, discrete, dichotomous taking two or more possible values. Logit becomes an alternative choice of statistical tools to solve the problem of dichotomous variables rather than grouping factors. Logistic regression equation;

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9 + e$$

IV. FINDINGS

Respondent Characteristics

The most respondent age is the age range 17 – 25 years that is 68% or 68 people, respondents 26 – 36 is 27% or 27 people and age range more than 36 year is 5% or 5 people. The highest number of respondents is male by 86% or 86 people, and women 14% or 14 people.

Instrument Test

Instrument tests conducted in this research are the validity test with Product Moment Pearson's, reliability test with Cronbach's Alpha, and normality test with Kolmogorov-Smirnov. The result of the validity test states that the variable data in the research is valid with the significance below 0.05. The result of the reliability test states that the questioner in

the research is reliable with the limit of 0.6. The result of the normality test states that the data in the research is normal with a significance above 0.05.

Fit Mode Assumption

Hosmer and Lemeshow Test

The fit model can be tested using Hosmer and Lemeshow test. The fit model is known by comparing the Hosmer and Lemeshow > Chisquare tables (at $df = 8$ and $\alpha = 5\%$) and comparing the Hosmer and Lemeshow value signatures (Sig. > 0.05).

Table 1. Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.	α
1	10,308	> 15,50731	0,244	> 0,05

The table 2 shows that logistic regression models are in accordance with the feasibility model, this can be seen from the value of $10,308 > 15,50731$ and $0,244 > 0,05$.

Overall Fit Model

The fit model is by comparing the LogLikelihood number -2 in the initial model (Block = 0) with the Log-Likelihood number in the final model (Block = 1), "if there is a Decrease -2 Log Likelihood", it can be drawn the conclusion that the model shows the fit model.

Table 2. Overall Fit Model

Step	-2 Log Likelihood	Step	-2 Log Likelihood
0	133,750	1	68,363

Based on the analysis, the result shows that logistic regression model has fulfilled the model feasibility assumption, it can be seen from the decrease of LogLikelihood value in the initial model (133,750) with the Log Likelihood number in the final model (68,363).

Logictis Regression Analysis

Logistic regression analysis to know and analyze the dimension of marketing mix consisting of product, price, location, and promotion. As well as knowing and analyzing the dimension of service quality consisting of physical evidence, reliability, responsiveness, warranty and empathy on consumer behavior in the next purchases. Consumer behavior variable in the next purchases (Y) are measured by using dummy values. The value of "1" respondents answered "frequently buy", while the value of "0" respondents answered "rarely buy".

Table 3. The result of Logistic Regression

Dimension	Independent Variable	Block 1 : Method		Sig.	α	Information
		Coefficients B	Exp (B)			
	(Constant)	-17,825				
Marketing Mix	Product (X_1)	0,287	2,188	0,042	< 0,05	Significant
	Price (X_2)	0,485	2,423	0,004	< 0,05	Significant
	Location (X_3)	0,390	2,328	0,039	< 0,05	Significant
	Promotion (X_4)	0,243	1,477	0,367	> 0,05	Not Significant
Service Quality	Physical Evidence (X_5)	0,302	2,306	0,040	< 0,05	Significant
	Reability (X_6)	0,463	2,407	0,007	< 0,05	Significant
	Responsiveness (X_7)	0,441	2,393	0,014	< 0,05	Significant

Warranty (X ₈)	0,363	2,337	0,021	< 0,05	Significant
Emphaty (X ₉)	0,184	1,086	0,414	> 0,05	Not Significant
Nagelkerke R-Square = 0,651		Likelihood Ratio = 65,387			

The result of the equation based on logistic regression coefficient, then the regression equation that can be formed is $\hat{Y}_t = -17,825 + 0,287X_{1t} + 0,485X_{2t} + 0,390X_{3t} + 0,243X_{4t} + 0,302X_{5t} + 0,463X_{6t} + 0,441X_{7t} + 0,363X_{8t} + 0,184X_{9t}$

Hypothesis testing is conducted to determine the independent variables affect the dependent variable significantly. The ability of independent variables to predict the dependent variable can be seen from the significance level of the wald test of each variable "if the significance level is more than 5% then the independent variable does not have the ability to predict the likelihood of the dependent variable, otherwise if the level of significance is less than 5%, then the independent variable has the ability in predicting or influencing the possibility of the dependent variable ". Exponential serves to provide information about the opportunities and possibilities that will occur if independent variables are able to provide the ability to predict.

Likelihood Ratio (LR)

The Likelihood Ratio Test (LR) Test is used to test the hypothesis simultaneously or together, with the greatest significance of 0 (= zero), with df = "degrees of freedom or as many independent variables" following the Chi-square distribution (LikeRatio (LR) > X₂). The value of LR in the logistic model is known to be 65.387 > 14.067 with the level of significance equal to zero, then Ho is rejected and Ha accepted, which means dimension of marketing mix and service quality simultaneously can predict consumer behavior in the purchase.

Determination Coefficient

The use of multiple determination coefficients with R² boundary is 0 < R² < 1, in this logistic model we use functional accuracy measure which is different from regression because the dependent variable is dummy or binary. The size of R² in the logistic method is known from the Nagelkerke R Square value based on the likelihood estimation technique with values varying from zero (0) to 1 (one). Based on the value of Nagelkerke R Square of 0.651 or 65.1%, which means that the dimensions of marketing mix and service quality variables contribute 65.1% while the remaining 34.9% is influenced by other variables

V. DISCUSSION

The results of research conducted on the consumers by using logistic regression analysis, showed that the dimension of marketing mix can predict consumer behavior in the next purchase, but not thoroughly. The products offered are relatively needed by the customers. Customers tend to look for products with variants such as coffee and snack. The offered product will be able to react to customers because customers are looking for the appropriate needs and wants to enjoy the variation of food and beverage serving that relatively the same in some places. Price can predict the existence of consumer behavior in the next purchase, the price offered to the menu in the cafe is relatively in accordance with the comparison obtained. Customers as visitors is very considerate of the issue of the price offered because there are several products and services are relatively the same. Locations can predict consumer interest in next purchases. The location where the offered products and services are located is relatively close and has a strategic location. The location will be an important factor for the customer to visit, if it is strategic, then it will make them easier and can be reached with a relatively short time. Promotion can not predict consumer interest in the next purchases. Promotion offered by some places of service is relatively done at certain times only, not often. This promotional programs is done on the certain day to reach the new customers. If it is done on an ongoing basis then will certainly give a good opinion of new products and services in the place that is often visited.

Several dimensions of service quality have been able to predict consumer behavior in the next purchase or re-purchase, but not thoroughly. Physical evidence can predict consumers' purchase behavior. Physical evidence of the existing service place is relatively in accordance with the desires of the majority of its customers, in the form of space design and comfort while in service. Physical evidence is also an important choice because it will affect the prestige and suitability of the lifestyle behavior of the majority of its customers. Reliability can predict an interest in consumer behavior in the next

purchase. The reliability of the service place is very important attention from its customers, many customers want the menu ordered in accordance with their desire and needs. When the reliability of the service provides the appropriate expectations, then the customer will be loyal to re-use and buy products and services in the same place. Responsiveness can predict the interest of consumer behavior in the next purchase. The responsiveness of the cafe service is highly anticipated by customers who visit to buy variant of menu provided. When customers are unaware of the product offered and request additional new menu then the employee can directly respond to what the customer wants. Of course, customers will be delighted by the responsive responses of employee and will provide a stimulus to the intention of purchasing the service repeatedly. Warranty can predict consumer interest in the next purchase. The warranty offered in the service is related to the menu and other services that customers need when they are in the location. Other non-compliant menus and services will be guaranteed by the service provider's place, there will be a substitute for a new, less appropriate menu and customer service improvements. Guaranteed customers will feel comfortable while enjoying the various menus that have been ordered. Empathy shows that it can not predict consumer interest in the next purchase. The empathy of the services provided may be less or less noticeable to its customers. Customers are focused only on the products and services they receive and are in line with their needs directly. Personal attention received by customers, received less attention from its customers. Customers will continue to purchase the same but relatively low-priced product.

VI. CONCLUSION

Based on the result of research analysis, it can be concluded that dimension of marketing mix consisting of product, price, and location can predict consumer behavior in the next purchase, while promotion can not predict consumer behavior in the next purchase. The dimension of service quality consisting of physical evidence, reliability, responsiveness, and warranty can predict consumer behavior in the next purchases, whereas empathy can not predict consumer behavior in the next purchases.

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