

## ANALYSIS OF FACTORS FOR PRODUCT ATTRIBUTES, SATISFACTION AND LOYALTY OF HYPERMARKET CUSTOMERS IN MALANG CITY

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### ABSTRACT

The purpose of this study is to analyze the confirmatory factors of product attribute satisfaction and loyalty of hypermarket customers in Malang City. This research was conducted on giant hypermarket customers in Malang City, using a sample size of 111 respondents. Sampling with Convenience sampling technique. The collected data was analyzed using confirmatory factor analysis. Based on the confirmatory factor analysis test results proved that the indicator of the completeness of various strongest products as a form of product attribute variables. Indicators of product price suitability with the strongest expectations as forming customer satisfaction variables and indicators of the desire to always shop at the strongest giant hypermarket as a form of customer loyalty variables.

**Keywords:** product attributes, customer satisfaction and loyalty.

### 1. INTRODUCTION

Retail business competition is very tight with the presence of hypermarkets such as Carrefour, Giant and Matahari hypermarkets. Giant was first opened in 2002 at Villa Melati Mas Tangerang as a form of cooperation with Dairy Farm with PT. Hero Supermarket Tbk. To date, Giant has 46 Giant hypermarkets and 104 Supermarket outlets spread throughout Indonesia, East Java Province in 10 major cities including Surabaya, Gresik, Sidoarjo, Pasuruan, Probolinggo, Malang, Banyuwangi, Bojonegoro, Madiun, and Kediri. Malang City has 6 Giant hypermarkets namely Giant Dinoyo, Giant Pulosari, Giant Hypermart Mall Olympic Garden, Giant Sawojajar, Giant Kebonsari Sukun and Giant Araya.

In order to keep customers loyal, hypermarket owners need to pay attention to the quality of the products sold. In choosing a product, consumers will consider the attributes of the product. Product attributes are product elements that are considered important by consumers and used as a basis for purchasing decisions. Product attributes include brands, packaging, guarantees, services and so on (Tjiptono: 2008). Meanwhile, according to Simamora (2001) product attributes are the factors considered by buyers when buying products, such as price, quality, packaging, completeness of functions (features), design, after-sales service, and others. If a product has attributes or traits that are in line with what is expected by the buyer, the product will be considered suitable and will be followed by a repeat purchase action by the consumer.

The measurement of product attributes carried out by the previous research is not the same between each other. Garvin (1987), Zeithaml (1988) revealed that product attributes are formed from the performance or appearance of products, features, durability or quality of materials, product and brand prices. Kotler and Armstrong (2006) explain that product attributes are formed from product quality, product features and product design. Gwin (2003) in measuring product attributes using quality, price, variety, assortment and value of the products. Whereas Newman, et al, (2002) use product quality, product shape and packaging, satisfactory after-sales service, and the completeness of various products are the variables that make up the product attributes.

A product can satisfy consumers if it is judged to meet or exceed their desires and expectations (Spreng et.al. 1996). According to Spreng, Mackenzie and Olshavsky (1996), customer satisfaction is measured based on expectations, perceptions of performance, and assessment of the performance of products or services consumed. Fornel et al (1996) uses three items in measuring satisfaction, namely 1) Overall satisfaction (overall satisfaction) is the result of evaluation and current consumption experience derived from habits, constraints and standardization of services; 2) Confirmation of expectation is the level of conformity between customer performance and expectations and 3) Comparison of Ideal is product performance compared to ideal conditions according to customer perception. Maxwell K. Hsu et al. (2010) customer satisfaction is measured based on satisfaction with shopping decisions at Hypermarkets, the choice to shop at Hypermarket is wise, the shopping experience at Hypermarket is pleasant and satisfied with the products and services provided. Dong-Mo Koo (2003) revealed that customers who are satisfied with the decision to buy products in this store, make a wise decision to buy products in this store, and when completing shopping and going out of the store is the right thing

Bloemer and Ruyter (1997) explain that satisfaction is often seen as the basis for the emergence of loyalty. Customer loyalty can be measured by indicators; the willingness of the customer to make the company the first choice, the willingness of the customer to buy the product offered by the customer, the willingness of the customer to invite others to buy, and the willingness of the customer to tell about good things about the company (Foster and Cadogan, 2000). While the indicator of customer loyalty according to Kotler & Keller (2006) is Repeat Purchase (loyalty to product purchases); Retention (Resilience to negative influences regarding the company); referalls (referring to the total firmness of the company). Trang T.M. Nguyen, et al (2007), revealed that loyal customers will consider myself to be loyal to supermarkets, shopping at this supermarket in the next few weeks, shopping in supermarkets is the first choice, going to shop at this supermarket in the future , and will promote this supermarket for family and friends. Sung Jin Yoo and Young Jae Chang (2005) revealed that customer loyalty formed due to favorable wording, repetitive purchase and intention of repurchase. While Chen (2008) identifies the best choices for shopping, loyalty to the hypermarket, the desire to always shop at the hypermarket, the order of shopping choices at the hypermarket, has the character where visitors are served quickly

Based on previous empirical studies related to indicators forming product attribute variables, customer satisfaction and loyalty, it is interesting to conduct a confirmatory factor analysis of product attributes, satisfaction and loyalty of hypermarket customers in Malang City.

## **2. THEORITICAL REVIEW**

### **2.1. Customer' s Loyalty**

According to Griffin (2002), he stated that "loyalty is defined as non random purchase is expressed over time by some decision making units". Based on this definition it can be seen that loyalty is more directed to a behavior, which is indicated by routine purchases, based on decision-making units. Customer's loyalty has an important role in a company, maintaining them means improving company performance, this is the main reason for a company to attract and maintain.

Customer's loyalty can be measured by indicators; the willingness of the customer to make the company the first choice, the willingness of the customer to buy the product offered by the customer, the willingness of the customer to invite others to buy, and the willingness of the customer to tell about good things about the company (Foster and Cadogan, 2000). While the indicator of customer's loyalty according to Kotler & Keller (2006) is Repeat Purchase (loyalty to product purchases); Retention (Resilience to negative influences regarding the company); referalls (referring to the total firmness of the company). Trang T.M. Nguyen, et al (2007), revealed that loyal customers will consider themselves to be loyal to supermarkets, shopping at this supermarket in the next few weeks, shopping in supermarkets is the first choice, going to shop at this supermarket in the future, and will promote this supermarket for family and friends.

Sung Jin Yoo and Young Jae Chang (2005) revealed that customer's loyalty formed due to favorable wording, repetitive purchase and intention of repurchase. While Chen (2008) identifies the best choices for shopping, loyalty to the hypermarket, the desire to always shop at the hypermarket, the order of shopping choices at the hypermarket, has the character where visitors are served quickly

### **2.2. Customer' s Satisfaction**

Tse and Wilton (1988) stated that customer's satisfaction is the customer's response to the evaluation of discrepancies felt after use. Engel (1995) defined customer's satisfaction as a post-purchase evaluation where the alternative chosen is at least equal to or exceeds customer expectations, while dissatisfaction arises when results do not meet customer expectations.

According to Spreng, Mackenzie & Olshavsky (1996), customer's satisfaction is measured based on expectations, perceptions of performance, and assessment of the performance of the product or service consumed. Fornel et al (1996) uses three items in measuring customer's satisfaction, namely 1) Overall satisfaction is the result of evaluation and current consumption experience

derived from habits, constraints and standardization of services; 2) Confirmation of expectation is the level of conformity between customer performance and expectations and 3) Comparison of Ideal is product performance compared to ideal conditions according to customer perception.

Maxwell K. Hsu et al. (2010) customer's satisfaction is measured based on satisfaction with shopping decisions at Hypermarkets, the choice to shop at Hypermarket is wise, the shopping experience at Hypermarket is pleasant and satisfied with the products and services provided. Dong-Mo Koo, (2003) revealed that customers who are satisfied with the decision to buy a product in this shop, make a wise decision to buy a product in this shop, and when they finish shopping and get out of this shop I think I'm doing the right thing.

### **2.3. Product Attribute**

Product attributes have a large influence on buyer perceptions of the product. This is because physical product attributes carry a variety of benefits needed and desired by the buyer. Therefore, every company must be careful in making decisions related to attributes.

According to Kotler and Armstrong (2006), the development of products and services requires defining the benefits offered. These benefits are then communicated and delivered through product attributes such as product quality, product features and product style and design. Meanwhile, according to Simamora (2001) product attributes are the factors considered by buyers when buying products, such as price, quality, completeness of functions, design, after-sales service and others. Dimensionalized product attributes according to Garvin (1987) and Zeithaml (1988), namely: Product performance or appearance, features or characteristics of additional products, product durability, product prices and brands.

## **3. RESEARCH METHOD**

### **3.1. Population and Sample**

The population of this study is customers who shop at Giant Hypermarket in Malang City. The population in this study is an infinite population, which is a very large population size and the number cannot be known with certainty. In these conditions, the size of the sample is determined based on the number of indicators of each variable multiplied by 5. Solimun (2002) states that the determination of the size of the sample size equals 5 to 10 times the number of manifest variables (indicators) of the entire latent variable. Based on these provisions, the sample size used is  $24 \times 5 = 120$  respondents.

After determining the number of samples as many as 120 respondents, then distributed at Giant in Malang City, then carried out sampling with Convenience sampling technique, that is the sample is taken based on spontaneity, meaning anyone who meets the researcher and in accordance with the requirements of the target population, then the person can be sampled. Customers are found when shopping at Giant. To avoid sampling errors, the criteria for the members of the

target population are 1) at least 18 years of age, this is based on the assumption that the respondent is independent in giving answers because they are considered adults, 2) decision makers, meaning that the respondents are truly as a customer who makes shopping decisions at Giant.

### 3.2. Definition of Operational Variable

Variable operational definition is an element of research that tells how to measure a variable that contains indicators that allow researchers to collect relevant data for that variable. Operational definitions of variables and variable indicators are presented in table 1. The following:

**Table 1. Research Variables and Indicators**

Variable	Indicator	Source
Product attribute	Product quality	Garvin (1987), Zeithaml (1988), Newman, et al, (2002), Gwin, (2003)
	Complete range of products	
	Product packaging	
	Product price	
Customer's satisfaction	Meeting expectations	Maxwell K. Hsu et al (2010)
	Matching product quality with expectations	
	Suitability of product prices with expectations	
	Satisfaction with service	
	Satisfaction with comfort	
Customer's Loyalty	The best choice for shopping	Trang T.M. Nguyen, et al (2007) dan Chen (2008)
	The first choice for shopping	
	Loyalty to giant hypermarkets	
	The desire to always shop at giant hypermarkets	
	Recommend to family and friends	

### 3.3. Data Analysis Method

Data analysis used in the study uses confirmatory factor analysis (CFA) techniques. While CFA is used for research where researchers already have knowledge about the structure of the underlying latent variables. Based on empirical theory or research, the person concerned makes a postulate / assumption / reasoning relationship between the measurements observed with the underlying underlying factors, and then tests the structure of this hypothesis statistically. The conclusion is that the CFA model focuses on the underlying latent variables. In other words, this analysis model focuses on the extent to which these observed variables are generated by the underlying latent variables. Thus, the strength of the entire regression path from all of these factors towards all variables observed directly (regression coefficient / factor loadings) is the focus of the analysis. Because it only focuses on the relationship between factors and all



measured variables, especially CFAs called measurement models in the perspective of Structural Equation Modeling (SEM).

## 4. RESULT AND DISCUSSION

### 4.1. Results of Confirmatory Factor Analysis

The measurement results of dimensions or indicator variables that can form latent variables with CFA are explained as follows:

#### Result of Confirmatory Factor Analysis of Product Attribute Variables

Determination of dimensions that can be used as indicators of product attribute variables is based on the factor loading value of each indicator. A summary of the CFA test results on the indicators that make up the product attribute variables is shown in Table 2.

**Table 2. Factors Loading ( $\lambda$ ) Measuring Product Attribute Variables**

Indicators and Variables			FL	CR	p
Product quality	<--	Product attribute	0.740	7.329	0.000
Complete range of products	<--	Product attribute	0.761	7.487	0.000
Product packaging	<--	Product attribute	0.749	7.399	0.000
Product price	<--	Product attribute	0.722	-	

Based on Table 2. it can be explained that the indicators that make up the product attribute variable have a factor loading (FL) value with a significance level of (p) <0.05 and a C.R value that shows a number greater than 2.0. Thus all of these indicators are important indicators as forming product attributes and indicators of completeness of various strongest products as forming product attribute variables.

#### Results of Confirmatory Factor Analysis Variable Customer Satisfaction

Determination of dimensions that can be used as indicators of customer satisfaction variables is based on the factor loading value. A summary of the CFA test results on the indicators that make up the customer satisfaction variable is shown in Table 3.

**Table 3. Factors Loading ( $\lambda$ ) Measuring Variable Customer Satisfaction**

Indicators and Variables			FL	CR	p
Meeting expectations	<--	Customer's satisfaction	0.751	-	-
Matching product quality with expectations	<--	Customer's satisfaction	0.724	7.475	0.000
Suitability of product prices with expectations	<--	Customer's satisfaction	0.820	8.356	0.000
Satisfaction with service	<--	Customer's satisfaction	0.773	7.963	0.000
Satisfaction with comfort	<--	Customer's satisfaction	0.402	4.101	0.000

Based on Table 3 it can be explained that the indicators that make up the customer satisfaction variable have a factor loading (FL) value with a significance

level of (p) <0.05 and a C.R value that shows a number greater than 2.0. Thus all of these indicators are important indicators as forming customer satisfaction and indicators of product price suitability with the strongest expectations as forming variables of customer satisfaction.

### Results of Confirmatory Factor Analysis Customer Loyalty Variables

A summary of the CFA test results on the indicators that form customer loyalty variables is shown in Table 4

**Table 4. Factors Loading ( $\lambda$ ) Measurement of Customer Loyalty Variables**

Indikator dan Variabel			FL	CR	p
The best choice for shopping	<--	Loyalty	0.755	-	-
The first choice for shopping	<--	Loyalty	0.703	7.387	0.000
Loyalty to giant hypermarkets	<--	Loyalty	0.726	7.634	0.000
The desire to always shop at giant hypermarkets	<--	Loyalty	0.801	8.420	0.000
Recommend to family and friends	<--	Loyalty	0.770	8.108	0.000

Based on Table 4 it can be explained that the indicators that make up the customer loyalty variable have a factor loading (FL) value with a significance level of (p) <0.05 and a C.R value that shows a number greater than 2.0. Thus all these indicators are important indicators as forming customer loyalty and an indicator of the desire to always shop at the strongest giant hypermarket as a form of customer loyalty variables.

## 5. DISCUSSION

Product attributes have a large influence on buyer perceptions of the product. This is because physical product attributes carry a variety of benefits needed and desired by the buyer. Therefore, every company must be careful in making decisions related to attributes. Based on the confirmatory factor analysis test, it is proven that the product quality indicators, the completeness of various products, product packaging and product prices are important indicators for forming product attributes and indicators of the completeness of various strongest products as forming product attribute variables.

These results are in accordance with the opinion of Kotler and Armstrong (2006) that the development of products and services requires defining the benefits offered. These benefits are then communicated and delivered through product attributes such as product quality, product features, and product style and design. Meanwhile, according to Simamora (2001) product attributes are the factors considered by buyers when buying products, such as price, quality, completeness of functions, design, after-sales service and others.

These results corroborate Garvin's (1987) study, Zeithaml (1988) reveals that product attributes are formed from the performance or appearance of products, features, durability or material quality, product and brand prices. Kotler and Armstrong (2006) explain that product attributes are formed from product quality, product features and product design. Gwin (2003) in measuring product

attributes using quality, price, variety, assortment and value of the products. Whereas Newman, et al, (2002) use product quality, product shape and packaging, satisfactory after-sales service, and the completeness of various products are the variables that make up the product attributes.

Customer satisfaction is the customer's response to the evaluation of discrepancies felt after use. Engel (1995) defines customer satisfaction as a post-purchase evaluation where the alternative chosen is at least equal to or exceeds customer expectations, while dissatisfaction arises when results do not meet customer expectations. Based on the confirmatory factor analysis test proved that fulfillment of expectations, conformity of product quality with expectations, conformity of product prices with expectations, satisfaction with service and satisfaction with comfort are important indicators as forming customer satisfaction and indicators of product price conformity with the strongest expectations as forming variables of customer satisfaction.

These results corroborate the study of Spreng, Mackenzie & Olshavsky (1996), customer satisfaction is measured based on expectations, perceptions of performance, and assessment of the performance of the product or service consumed. Fornel et al (1996) uses three items in measuring customer satisfaction, namely 1) Overall satisfaction (overall satisfaction) is the result of evaluation and current consumption experience derived from habits, constraints and standardization of services; 2) Confirmation of expectation is the level of conformity between customer performance and expectations and 3) Comparison of Ideal is product performance compared to ideal conditions according to customer perception.

Customer loyalty has an important role in a company, maintaining customers means improving company performance, this is the main reason for a company to attract and maintain. Based on the confirmatory factor analysis test, it is proven that the best choices for shopping, first choice for shopping, loyalty to hypermarkets, the desire to always shop at giant hypermarkets and recommending it to family and friends are important indicators of customer loyalty and indicators of desire to always shop at the strongest giant hypermarket as a customer loyalty variable.

These results reinforce the study of Sung Jin Yoo and Young Jae Chang (2005) revealing that customer loyalty formed due to favorable wording, repetitive purchase and intention of repurchase. While Chen (2008) identifies the best choices for shopping, loyalty to the hypermarket, the desire to always shop at the hypermarket, the order of shopping choices at the hypermarket, has the character where visitors are served quickly

## 6. CONCLUSION

Based on the confirmatory factor analysis test, it is proven that the product quality indicators, the completeness of various products, product packaging and product prices are important indicators for forming product attributes and indicators of the completeness of various strongest products as forming product



attribute variables. Based on the confirmatory factor analysis test proved that fulfillment of expectations, conformity of product quality with expectations, conformity of product prices with expectations, satisfaction with service and satisfaction with comfort are important indicators as forming customer satisfaction and indicators of product price conformity with the strongest expectations as forming variables of customer satisfaction. Based on the confirmatory factor analysis test, it is proven that the best choices for shopping, first choice for shopping, loyalty to hypermarkets, the desire to always shop at giant hypermarkets and recommending it to family and friends are important indicators of customer loyalty and indicators of desire to always shop at the strongest giant hypermarket as a customer loyalty variable.

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