

## Analysis of Marketing Mix's Factors on Purchasing Decision of UHT (Ultra High Temperature) Milk in Hypermart Manado Town Square City of Manado, North Sulawesi Province - Indonesia

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**Abstract:** The research was conducted in the Hypermart Manado Town Square (MANTOS), City of Manado, North Sulawesi. In implementation, the collecting of field data was performed on March up to April 2017. It specifically aims to analyze: marketing mix's factors considered by consumer in purchasing UHT milk in the Hypermart Manado Town Square at City of Manado. Hence, the respondent selection was taken by accidental sampling over 100 respondents. Data, then, was analyzed by factor and multiple regression analysis assisted by SPSS program for windows version 18. As a result, the findings of multiple linear regression shows that several factors influencing consumer's decision in purchasing are milk's brand, affordable price, supporting facility, and advertising content. Therefore, the conclusion is that milk's brand, affordable price, supporting facility, and advertising content are the main factor giving direct and positive impact on purchasing decision of UHT milk in the Hypermart Manado Town Square, City of Manado.

**Keywords:** Purchasing decision, UHT milk, marketing mix

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### I. Introduction

Milk is one of animal protein sources that brings influential necessity for human's body. It believes that milk has a comprehensive and balanced nutritional substance [1]. UHT (*Ultra-High Temperature*) is milk heated under temperature that is not higher than 135°C over 2 seconds as a commercial sterilization process, as soon as it is packed aseptically within sterile package and it can be stored within several months [2]. In addition, the benefit of UHT milk is a longer period of storage at room temperature, which is approximately 6-10 months without any preservatives and it does not have to be put in the refrigerator. This period is longer than storage duration of other products of liquid milk, such as pasteurized milk. Besides, the UHT is a hygienic milk since it is free of all microbes (pathogen/disease agents and decomposer) and spores, so that the microbiological damage is highly minimal, even zero [3].

Milk is also known as one of food materials containing complete nutritional components [4]. In Indonesia, milk has been categorized into food product consumed daily. Indeed, this circumstance becomes such opportunity for producers in manufacturing industry of UHT milk to improve their total of UHT selling product. As the UHT recently has been circulated in market with various brands, some producers are demanded to improve heavily on setting up marketing strategy. Therefore, the marketing mix is considered relevant as one of potentially strategic elements in marketing such products [5].

Marketing mix is part of business strategies providing course in all functions and purposes of an organization. It contains of 4 (four) components usually called as 4P-product, price, place and promotion. By analyzing consumer's response on product, price, promotion, and place, a company may assess which factor has not suited with consumer's demand and need. According to those analysis results, a company can develop and refine the product in order to be more satisfying [6].

This research, hence, aims to identify the influence of marketing mix's factors on purchasing decision of UHT milk in Hypermart Manado Town Square, City of Manado. It is hoped that the finding may provide an input for management to select accurate steps in improving selling volume by bearing in mind several factors influencing consumer's decision in purchasing such products.

## II. Research Method

### Sampling Methods and Data Collection

This research was conducted in Manado as the provincial city of Province of North Sulawesi having potential population and a better income distribution [7]. It was performed in the Hypermart Manado Town Square, considering that this location is located in the biggest mall in the City of Manado. Thus, it was done on March until April 2017. The method used was direct survey toward consumer of UHT milk shopping in the Hypermart Manado Town Square. Moreover, the survey method was data collection using questionnaire as aid tool in primary data collecting taken from the respondent, where total of sampling was 100 respondents [8], and the respondent were chosen by accidental sampling method.

Data used in the research consists of two types, primary and secondary. It is a mix of quantitative and qualitative data. The primary data was taken from interview result filled by 100 respondents in the Hypermart Manado Town Square. In addition, the respondents came from consumers purchasing UHT milk in the Hypermart Manado Town Square. Whereas, the secondary data was gained from literature review of either books or scientific journals.

There were 5 (five) variables measured within the research, consisting of 4 (four) independent variables comprising product (brand, volume variation, nutritional content, package, taste, expired date, composition, and flavor), price (affordable price, price as quality, competitive price), location (strategic, supporting facility, and product set), promotion (promotion media, advertising content, and frequency) and 1 (one) dependent variable, purchasing decision.

## II. Data Analysis

All variables in this research were analyzed by factor analysis to view the connection (interdependency variable), so that it would result classification of various variables and it turned to some variables [9]. One of the procedures to extract data in analysis of factor is principal component analysis [8,10]. Mathematically model of the analysis was set as follows [12] :

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + e$$

Where:

a = constant

$b_1 \dots b_4$  = regression coefficient

Y = variable of purchasing decision

$X_1$  = product variable (consist of  $X_{1,1}$ - $X_{1,7}$ )

$X_2$  = price variable (Consist of  $X_{2,1}$ - $X_{2,3}$ )

$X_3$  = place variable (Consist of  $X_{3,1}$ - $X_{3,3}$ )

$X_4$  = promotion variable (Consist of  $X_{4,1}$ - $X_{4,3}$ )

e = error term

All variables (Y,  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ ,  $X_5$ ) were measured using interval scale 1-5 with agreed/disagreed scale technique [12]. To estimate the coefficient of regression, ordinary least square method was used.. Furthermore, the accuracy of the model was evaluated using  $R^2$ , F test and t test . Completion analysis was conducted using computer with SPSS version 20.0

## III. Results And Discussion

### 3.1. Respondent's characteristic

Specifically, the characteristic in the research is based on sex, age, occupation, monthly income, and education.

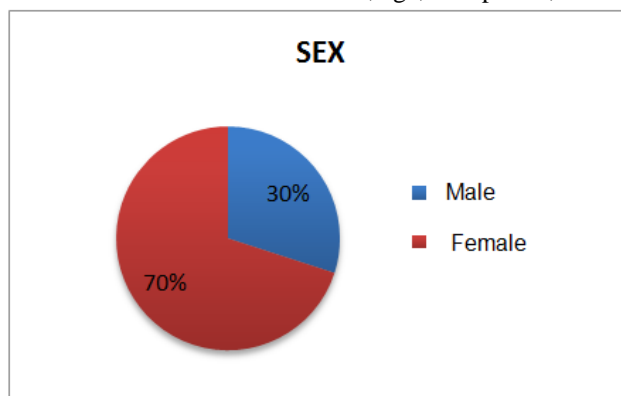
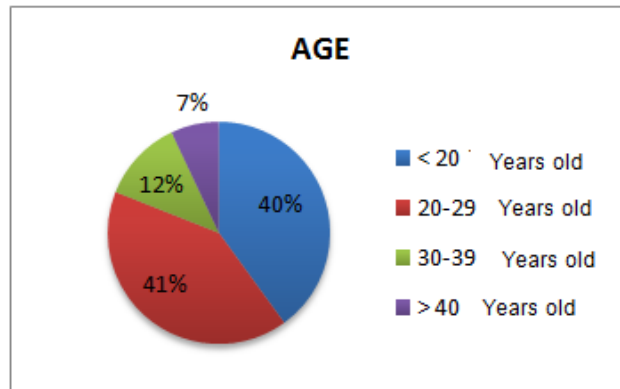


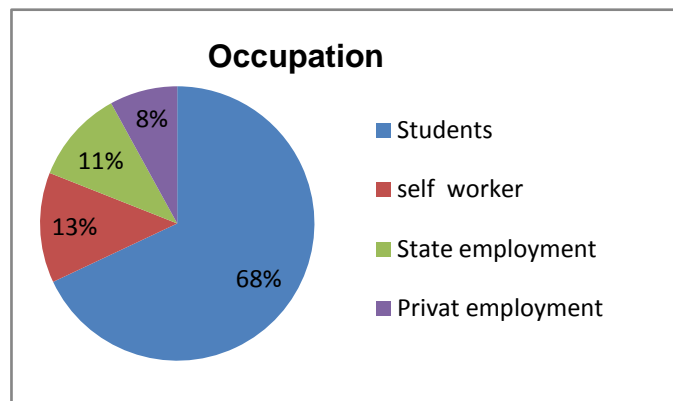
Figure 1. Respondents by Gender Categories

Figure. 1 indicated that the female respondent is higher than the male, of which 70 respondents are female and 30 respondents are male. Hence, it concludes that the female dominates the purchasing and is more visiting consumer than male.



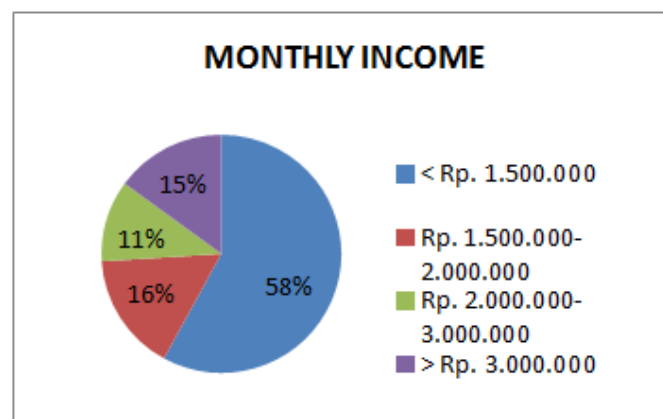
**Figure 2.** Ages of Respondents

At above figure (Fig. 2), later on, the respondent's age of < 20 years old and 20-29 years old are more dominant than the other respondents. This result is indicated that Ultra high temperature milk is more preferred by younger consumer than the older.



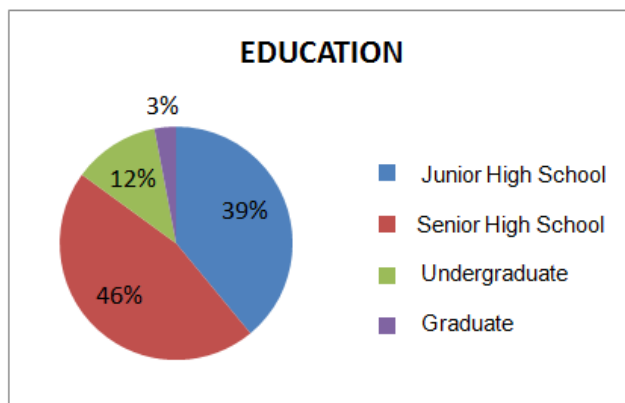
**Figure 3.** Respondents Occupation

Meanwhile, in the occupation factor based on Figure.3, the most dominant respondent's characteristic is student by the total of 68 people. Hence, it can be said that the UHT milk is a suitable solution for students having tight schedule and activity since it is practice, money-saving, and ready to drink product as well.



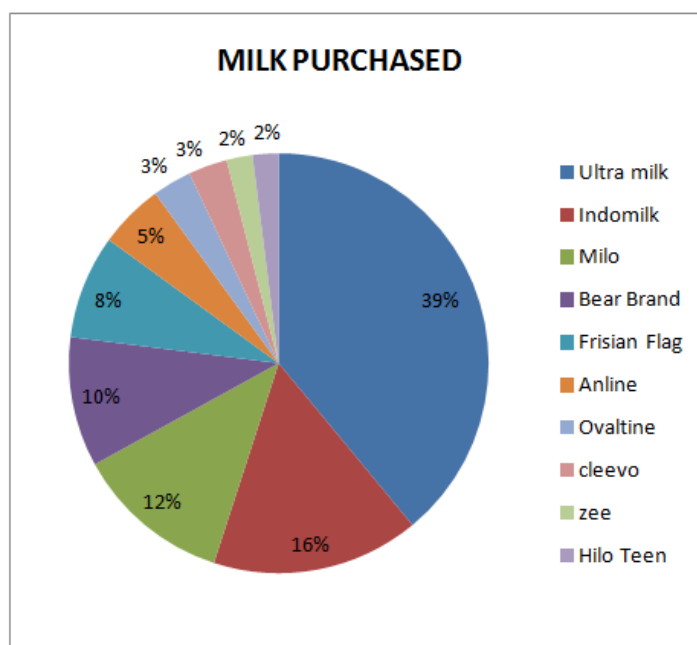
**Figure 4.** Monthly Income of Respondents

From above figure (Fig. 4), it is known that the greatest income over all is < Rp. 1.500.000 of income, as many as 58 people. It is related with mostly respondents are student and they are financially dependent to their parents.



**Figure 5.** Education of Respondents

Further, based on the education factor shown in above figure (Fig. 5), the respondent's characteristic is dominated by Junior (39 people) and Senior High School (46 people). All respondents in the Junior High School is currently continuing their education in the Senior High School. Similarly, mostly respondents graduated from Senior High School are continuing their education to the higher level.



**Figure 6.** Milk Purchased by Respondents

In addition, it can be known from above figure (Fig. 6) that the most dominant of respondent's characteristic is respondent purchasing Ultra milk as UHT brand product, which it is gained 39 percent. It happens since Ultra milk has obtained popularity and wins the consumer's heart. They feel that this milk product has a better taste and the best suited with the consumer's choice.

### **3.2. Factors affecting consumer's purchase decision toward UHT milk**

There were four factors having an impact on buying intention. Based on principal component analysis showed that all of the variables have value more than 0.4. So that all variables could be considered by consumers to purchase ultra high temperature (UHT) milk.

**Table 1.** Result of factor analysis

Variables	Loading			
	1	2	3	4
<b>Product (X1)</b>				
Milk's brand (X <sub>1.1</sub> )	<b>0.800</b>			
Volume variation (X <sub>1.2</sub> )	<b>0.682</b>			
Nutritional content (X <sub>1.3</sub> )	<b>0.519</b>			
Attractive packaging (X <sub>1.4</sub> )	<b>0.706</b>			
Taste (X <sub>1.5</sub> )	<b>0.631</b>			
Milk's ingredient (X <sub>1.6</sub> )	<b>0.639</b>			
Flavor (X <sub>1.7</sub> )	<b>0.645</b>			
<b>Price (X2)</b>				
Affordable price (X <sub>2.1</sub> )		<b>0.709</b>		
Price as quality (X <sub>2.2</sub> )		<b>0.532</b>		
Competitive price (X <sub>2.3</sub> )		<b>0.526</b>		
<b>Place (X3)</b>				
Strategic location (X <sub>3.1</sub> )			<b>0.563</b>	
Supporting facility (X <sub>3.2</sub> )			<b>0.844</b>	
Product's layout (X <sub>3.3</sub> )			<b>0.531</b>	
<b>Promotion (X4)</b>				
Advertising media (X <sub>4.1</sub> )				<b>0.792</b>
Advertising's content (X <sub>4.2</sub> )				<b>0.797</b>
Frequency of advertising (X <sub>4.3</sub> )				<b>0.736</b>

**Milk's brand (X<sub>1.1</sub>)**

According to Table 1, it is known that the most influential product variable on purchasing decision of UHT milk is milk's brand, which the loading factor shows 0,800. This variable, then, is highly considered since consumer tends to choose branded product because of the reliability.

**Affordable price (X<sub>2.1</sub>)**

Following, based on data shown in Table 1, it can be concluded that the affordable price is the most influencing factor in the purchasing decision of the UHT milk, where the value of loading factor is 0,709. It is highly considered since it turns as determining factor of consumer's choice, consequently price can affect consumer in deciding whether or not the product is worth to purchase [6].

**Supporting facility (X<sub>3.2</sub>)**

Still according to on Table 1, it is explained that the most influential place in purchasing decision of the UHT milk is supporting facility at the value of 0.844 of its loading factor. The supporting facility, further, existing in shopping place is greatly deliberated since consumer tends to purchase in the shopping center having wide-ranging of supporting facility.

**Advertising's content(X<sub>4.2</sub>)**

Subsequently, from Table 1, the most determining promotion variable in purchasing decision of the UHT milk is advertising's content of which the value of loading factor is 0,797. It may happen since consumer inclines to see a comprehensive and obvious information of the product derived from the advertising's content.

**Table 2.** Factors affecting consumer's purchase decision on UHT milk

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	SE			
(Constant)	-.048	.606		-.080	.937
X1 (milk's brand)	.401	.111	.321	3.612***	.000
X2 (affordable price)	.229	.096	.214	2.385**	.019
X3 (supporting facility)	.168	.073	.195	2.309**	.023
X4 (advertising's content)	.246	.087	.243	2.825***	.006
R	= 0,879				
R square (R <sup>2</sup> )	= 0,772				
F Sig	= 0,000				

\*\*\* = Level significantly of 0.01 (P<0.01)

\*\* = Level significantly of 0.05 (P<0.05)

As shown in the Table 2 above, it shows that the regression model has 77,2% of determination coefficient (R-Square), meaning that this derived model is able to explain the impact of all dependent variables (X) toward consumers purchase decision to UHT milk (Y) simultaneously of which it gains 77,2% and the rest is 22,8%

explained by other variables not conducted in this research. Thus, from above table, the model of multiple linear regression obtained is as follows:

$$Y = -0,048 + 0,401 X_1 + 0,229 X_2 + 0,168 X_3 + 0,246 X_4$$

Where:

- Y = purchasing decision
- a = constant
- X<sub>1</sub> = product (milk's brand)
- X<sub>2</sub> = price (affordable price)
- X<sub>3</sub> = place (supporting facility)
- X<sub>4</sub> = promotion (advertising's content)

### 3.3. Partial Test (T Test)

#### Product = milk's brand

It is obtained that the product variable (milk's brand) has significantly and positively influenced on the purchasing decision (P<0.01). From above it can be said that the better the milk's brand to the consumer does, the more significant the influence to the consumer's decision in purchasing the product has. It, moreover, is in line with the previous research [13] stating that every changes occurred on such brand's image will lead to the changing of brand's equity in the consumer's mind.

#### Price = affordable price

The table 2 shows that price variable (affordable price) has a significant and positive influence on the purchasing decision (P<0.05) It means also that the more affordable price offered by producer, the greater the consumer's desire to purchase. This is in accordance with what Puryono (2014) conducted arguing that a price influences on purchasing decision since price has vital role in any kind of businesses or marketing. Never is any business well-established without considering price issue. It is greatly significant in business competition among homogenous products [14].

#### Place = supporting facility

Still on table 2, it shows that explicitly, the place variable (supporting facility) holds a significant and positive influence on the purchasing decision (P<0.05) Thus, supporting facility provided in the shopping center can improve the purchasing decision. Similarly, it is in line with the previous research arguing that a consumer is interested either with existing or brand new facility, so his/her purchasing decision will improve as well [15].

#### Promotion = advertising's content

In addition, the table 2 above also depicts that promotion variable (advertising's content) poses a significant and positive impact as well on the purchasing decision (P<0.01) Additionally, it portrays that the better the advertising's content conveyed by producer, the greater the effect in influencing consumer's decision in purchasing such product. Similarly, it is corresponding to the research [16] setting out that the better promotion performed by producer will improve the purchasing decision finally.

## IV. Conclusion

It concludes that some factors influencing consumer in purchasing UHT milk are milk's brand, affordable price, supporting facility, and advertising's content. Those attributes must be improved by producer to maintain consumer satisfaction

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