# Analysis of Consumer Market Preferences of Electronic Products In 8 Sub-Districts of South Bogor to Predict Demand In PT. Ruma

**Vicianti Nindyantika, Putri Azhardianti, Anggri Inka Putri**

International Marketing, School of Business Management, Universitas Bina Nusantara
Jl. Kebon Jeruk Raya No. 27 Kebon Jeruk, Jakarta Barat 11530, Indonesia
viciantinindyantika@gmail.com

## ABSTRACT

Understanding the factors that influence preference is an opportunity for companies to understand market segments. With market segmentation, marketers can identify potential group and predict customer demand. Understanding the market segment can also make marketers develop strategies of differentiation and positioning formation on the right target market. This study aims to determine the market preference for electronic products based on psychographic segments to predict demand of member PT. RUMA. Methods of data collection using questionnaires distributed to 100 customers by using conjoint and cluster analysis.

**Keywords**: *consumer preference, psychographic segment, electronic goods, consumer demand*

## A. INTRODUCTION

There is an important thing that businesses must do before starting a business, which aims to identify the part of the market that can be best served and most profitable. Companies must design a customer-driven marketing strategy and build good relationships with the right customers.

In determining consumer market segments, marketers must try different segmentation variables, singly or in combination to find the best way to see the market structure. By conducting this workshop, we hope that the participants could gain insights and knowledge regarding the BMC framework and the importance of planning aspects in starting a business.

The existence of different market segments causes each consumer to have different preferences for a product based on their respective segments. Each person can create or rank all situations and conditions ranging from the most preferred to the least preferred of the various goods/services available (Nicholson, 2002).

Data that researchers obtained from PT RUMA regarding consumer preferences in Cikarawang village, Dramaga sub-district, Bogor city for 30 mothers aged 20-30 years when they want to buy bed linen can be seen in the following table:

| No. | Colour | Brand | Model | Payment |
|---|---|---|---|---|
| 1 | 7% | 27% | 0% | 7% |
| 2 | 17% | 20% | 3% | 0% |
| 3 | 10% | 13% | 10% | 0% |
| 4 | 23% | 3% | 17% | 7% |
| 5 | 7% | 0% | 7% | 3% |
| Total | 63% | 63% | 37% | 17% |

Table 1.1 Consumer preferences for purchasing bed linen.
Source: PT. Rekan Usaha Mikro Anda (RUMA), 2015

The above attributes are the attributes used by PT RUMA in its survey. Based on the survey of respondents in Cikarawang village, in total respondents were equally concerned with the color of bed sheets (63%) and the brand of bed sheets (63%) when they wanted to buy a bed sheet. Other preferences were followed by the bed sheet model (37%), and lastly the payment method for buying bed sheets (17%). According to Yin-fah, Syuhaily and Yeoh (2011) understanding the factors that influence preferences is an opportunity for marketers to understand market segments. With market segmentation, marketers can identify potential groups of consumers and their behaviors. Understanding market segments can also make marketers develop differentiation strategies and establish positioning in the right target market. The following are the issues that are the subject of research:

➤ Analyzing the demographic, psychographic, and behavioral segmentation of consumers in eight sub-districts of South Bogor city.

➤ Analyzing the preferences of electronic appliance product market groups based on psychographic segments.

> ➤ Analyzing product demand by PT. RUMA members based on the level of importance of electronic appliance attributes.

The benefits of this research are as follows:

**For the author**

- Adding to the author's insight and experience regarding consumer preferences.

- Improve the ability to identify problems, analyze and conduct research or perform processing to obtain information that becomes a solution to existing problems.

**For the company**

This research is expected to be a material consideration in solving problems related to company policies in offering products that are in accordance with the psychographic segment of consumers. The implications of the research results are expected that the company can:

- Provide information about consumer preferences in the city of South Bogor.

- The research results can be used to determine consumer groupings based on psychographic segments.

- As a clear reference and consideration for the company.

**For other parties**

- This research is expected to add to the existing knowledge and information for parties interested in the issue of consumer preferences as the basis for company segmentation policies.

- The results of the study are expected to provide useful material for the development of research science in the field of consumer preferences.

- These results are also expected to be a reference or even input and information for further research.

## B. OBJECTIVES

The objectives of this research include:

- To classify consumers in South Bogor city based on demographic, psychographic, and behavioral segments.

- To determine market group preferences for electronic products based on psychographic segments.

- To determine consumer product demand based on the level of importance of electronic appliance attributes.

## C. METHOD AND IMPLEMENTATION

The type of research used by the author in this research is descriptive research, with an individual unit of analysis, namely Mapan (PT. RUMA) consumers in the South Bogor area. This study will sample the population of Mapan members from the South Bogor branch totaling 425 people spread across 8 sub-districts, namely in the sub-districts of Tamansari, Ciomas, Cijeruk, South Bogor, Caringin, Ciawi, Sukamaju, and Bojong Gede.  With sampling techniques using probability sampling techniques with simple random sampling methods. Based on the results of the cluster analysis, eight different clusters were formed in 100 consumers of PT RUMA in South Bogor.

The analysis methods used in this research are descriptive statistics, conjoint analysis, and cluster analysis.

1. Descriptive Statistical Method

    According to Sugiyono (2006, p142) descriptive statistics are statistics used to analyze data by describing or describing the data that has been collected as it is without intending to make general conclusions or generalizations.

2. Conjoin Analysis (Conjoint Analysis)

    According to Diana, Heru and Diyah (2010) conjoin analysis is used to help get a combination or composition of the attributes of a product or service, both new and old, that

consumers like the most. According to Santoso (2010, p279) the purpose of conjoin analysis is to find out how a person's perception of an object consists of one or many parts. The main result of conjoin analysis is the form (design) of goods or services, or certain objects that are desired by most respondents. According to Santoso (2010, p282) in conjoin analysis must design stimuli, a combination of attributes (factors) with levels (levels) of attributes referred to as a STIMULI or TREATMENT.

3. Cluster Analysis

According to Hair (2010, p25) cluster analysis is defined as one of the groups in multivariate techniques whose main purpose is to group objects based on their characteristics. This cluster analysis procedure is used to identify groups of cases that are relatively the same based on characteristics that have been selected using algorithms that can organize many cases and make specifications on the number of clusters to be created (Sarwono, 2013, p26).

**D. RESULT AND DISCUSSIONS**

The first cluster is actualizers with a total of 8 respondents, namely those who are interested in the growth and development of their lives, and usually find a way out of problems in various ways. The second cluster is fulfilleds with 18 respondents who have the characteristics of those who buy a product based on product value, product function, and the durability of a product. The third cluster is believers with a total of 8 respondents who have the characteristics of those who like products that already have a brand. The fourth cluster is achievers with 14 respondents who have the characteristics of those who still live traditionally, respect power, and can accept circumstances that have no change. The fifth cluster is security with 8 respondents who are characterized by those who are surrounded by people who have poor economic conditions. The sixth cluster has warm relationships with others with a total of 4 respondents who have the characteristics of those who have many friends in their lives and have a high sense of concern for others. The seventh cluster has

sense of accomplishment with 11 respondents who have the characteristics of those who do not like watching television and like to be the center of attention. And the cluster that has the most respondents is self fulfillment, namely 29 people, whose characteristics are those who prefer watching movies compared to watching television, and can meet economic, educational, and emotional needs. Based on the results of conjoin analysis, there are differences in product selection both from attributes and sub-attributes in several clusters. The results can be seen in Figure 1.3 to 1.5 below:
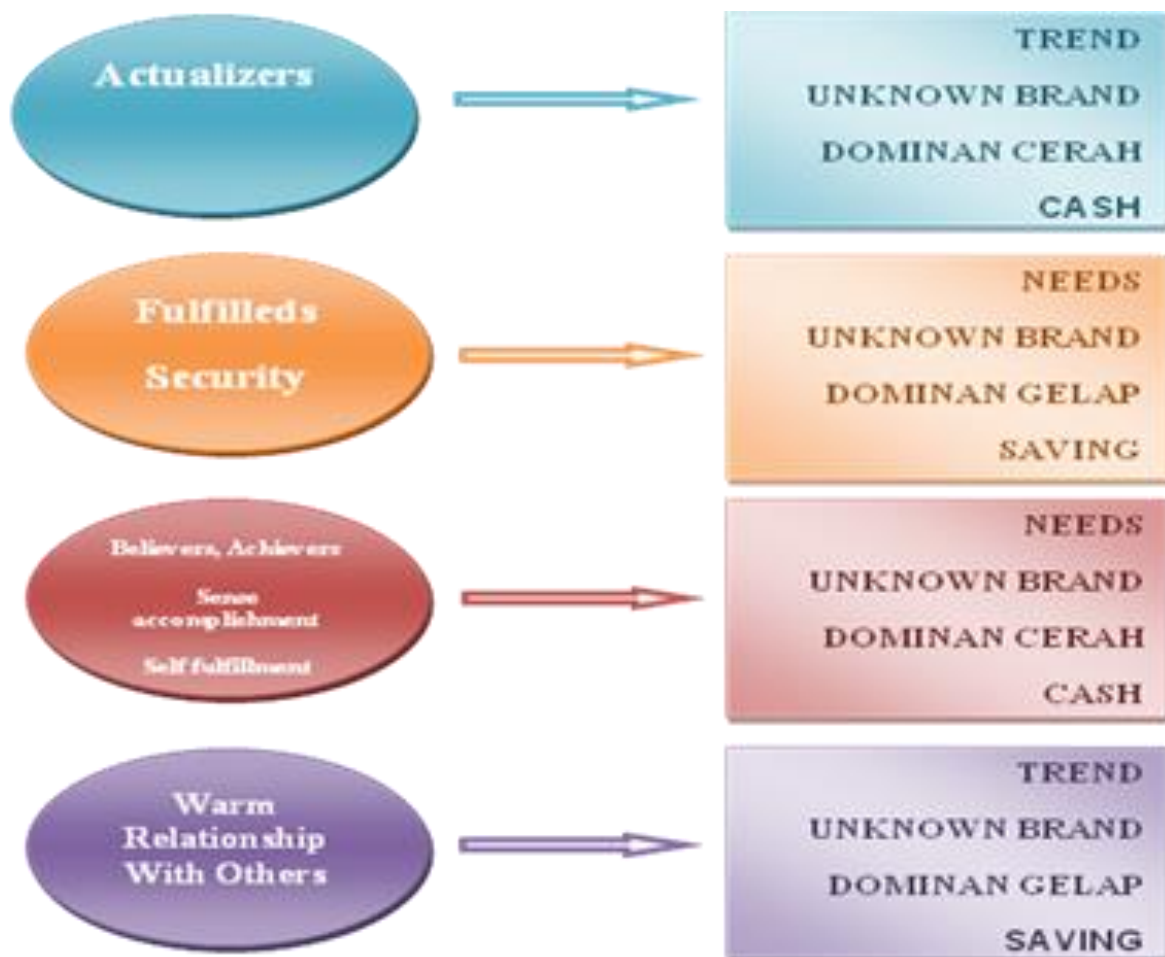


Figure 1.3 Selection of Electronic Device Sub Attributes
Source: Data Processing Results, 2016

Meanwhile, the selection of electronic equipment attributes is divided into 7 groups.



Figure 1.4 Selection of Electronic Equipment Attributes
Source: Researcher, 2016

## E. SUMMARY

Consumer demographics based on age are divided into five groups, namely those aged 18-24 years, 25-30 years, 31-40, 41-50, and more than 50 years. While demographics based on monthly expenses are divided into seven groups, namely class E (Rp. 600,000 and less), class D (Rp. 600,001 - 900,000), class C2 (Rp. 900,001 - 1,250,000), class C1 (Rp. 1,250,001 - 1,750,000), class B (Rp. 1,750,001 - 2,500,000), class A2 (Rp. 2,500,001 - 3,500,000), and class A1 (Rp. 3,500,001 and more). And based on the results of consumer psychographic cluster analysis, eight clusters are formed, namely actualizers, fulfilleds, believers, achievers, security, warm relationships with others, sense of accomplishment, and self fulfillment with different psychographic characteristics in each group.

Of the eight psychographic clusters, it turns out that there are similarities in the selection of sub-attributes, so that it is divided into four groups of sub-attribute selection. Namely group 1 (cluster fulfilleds and security), group 2 (cluster believers, achievers, sense of accomplishment, and self fulfillment), group 3 (cluster actualizers), and group 4 (cluster warm relationship with others). Based on efficiency, combining sub-attributes into four groups makes it easier for companies to divide market groups into four customer characters, so that companies only need to provide four types of products to the four consumer market groups of electronic products. The fulfilleds and security clusters prefer to choose a model based on their needs, choose an electronic appliance brand with a brand that is not well known, a dark dominant product color, and also a payment method by saving first. The believers, achievers, sense of accomplishment, and self fulfillment clusters choose a model of electronic equipment based on their needs, with a brand that is not well-known, and the dominant product color is bright, with a cash payment method. Meanwhile, those who have different attribute choices are the actualizers and warm relationships with other clusters. For actualizers, they choose electronic devices based on models that are trending in the market but with product brands that are not well-known and have predominantly bright colors, by paying in cash. As for warm relationships with others, they also choose electronic devices based on models that are trending in the market with brands that are not well-known, but with predominantly dark colors and payment methods by saving first.

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