THE DOMINANT FACTORS OF PURCHASE SITUATION TOWARD WHITE CIGARETTE

(A CASE STUDY AT PRESIDENT UNIVERSITY)

By

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THESIS ADVISER

RECOMMENDATION LETTER

This thesis entitled **"THE DOMINANT FACTORS OF PURCHASE SITUATION TOWARD WHITE CIGARETTE: A CASE STUDY AT PRESIDENT UNIVERSITY"** prepared and submitted by Marcel Tirtaatmadja in partial fulfillment of the requirements for the degree of Bachelor Degree in the Faculty of Economics has been reviewed and found to have satisfied the requirements for a thesis fit to be examined. I therefore recommend this thesis for Oral Defense.

Cikarang, Indonesia, March 15, 2012

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APPROVAL SHEET

The panel of examiers declare that the thesis entitled **"THE DOMINANT FACTORS OF PURCHASE SITUATION TOWARD WHITE CIGARETTE: A CASE STUDY AT PRESIDENT UNIVERSITY"** that was submitted by Marcel Tirtaatmadja majoring in Marketing from the Faculty of Economics was assessed and approved to have passed the Oral Examinations on March 14, 2012

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DECLARATION OF ORIGINALITY

I declare that this thesis, entitled **"THE DOMINANT FACTORS OF PURCHASE SITUATION TOWARD WHITE CIGARETTE: A CASE STUDY AT PRESIDENT UNIVERSITY"** is, to the best of my knowledge and belief, an original piece of work that has not been submitted, either in whole or in part, to another university to obtain a degree.

Cikarang, Indonesia, March 15, 2012

Marcel Tirtaatmadja

ABSTRACT

This research is about identified and analyzed the dominant factor which is purchase situation of white cigarette choice of President University's students. Business competitions faced by the companies are getting tight than ever. Because of that, company should have a good marketing strategy and also have to maintain their customers.

This research was designed to using quantitative research, which involves analysis of numerical data in attempt to explain the behavior observed. This research use questionnaires to collect the data. Likert scale is use to measure the data, it is by collect entire statement that has connection with investigated problems.

Based on the analysis, the researcher found that President University's students mostly the male are smoker. Most of them are kretek cigarette smoker. Only few of them consumed white cigarette. Because of that, the researcher does the research why the students choose kretek cigarette rather than white cigarette, whereas the kretek cigarette is more dangerous.

One of the factor why they are smoking white cigarette is because they want to minimize the negative risk and influence by their friends. Smoking makes them create higher confidence level and personal appearance. Maybe it is one of the way for them to associate with their friends. All of cigarettes are dangerous, either mild or not. But, in their mind the word 'mild' is still okay for them, is not too harmful.

The researcher suggest to President University's students who are smokers, smoking is not good for health, which white or kretek are the same. Don't look the 'mild' or 'soft', cigarette is dangerous for health.

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First of all, I want to say thank to Jesus Christ for all of His blessing, so I can finish and complete this thesis with title “The Analysis of Dominant Factors toward Purchase Decision of A Mild of President University Students in Cikarang”, as one of requirements to accomplish Bachelor Degree for Faculty of Economics in President University.

Through this thesis, I would like to give my special thanks for people who have supported me, give advices and guidance, from the first time I start this thesis until finish it:

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TABLE OF CONTENTS

CHAPTERS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

1.1. Background of Study

The term cigarette, as commonly used, refers to a tobacco cigarette but can apply to similar devices containing other herbs, such as cloves or cannabis. A cigarette is distinguished from a cigar by its smaller size, use of processed leaf, and paper wrapping, which is normally white, though other colors are occasionally available. Cigars are typically composed entirely of whole-leaf tobacco.

As fast as the growth of economic in Indonesia, the population also increased. Nowadays, people not only focus on fulfill their primary needs, but also the secondary and tertiary needs. The changing of lifestyle in big cities, especially Jakarta, Bandung, Surabaya, Medan, etc have completely change customer's perception about some products.

Many decades ago, cigarette has been existed and as the time goes by cigarette business has developed until now. People tend to buy cigarette in because of many factors. Cigarette consumption in Indonesia is very large. Despite this size, cigarettes are the second needs for people after rice.

The government wants to reduce tobacco consumption by raising the cigarette excise slowly. According to Central Bureau of Statistics (BPS), besides to buying rice, the income of the poor people in Indonesia is spent to buy cigarette. For buying rice, the poor people in the cities spend 25.44% from the income, while 32.81% of the villagers spent. As for cigarette, poor people in cities spend 7.7% and 6.3% in the village.

Partly due to favorable taxation compared to "white" cigarettes, kreteks are by far the most widely-smoked form of cigarettes in Indonesia, where about 90% of smokers usually smoke kreteks. In Indonesia, there are hundreds of kretek manufacturers, including small local makers and major brands. One of them is Sampoerna, originate from Indonesia.

Kretek cigarettes are made of a mixture of tobacco and clove. The word "kretek" comes from crackling sound that arises when a cigarette burn. Tobacco has been present in Indonesia since 1600 when tobacco was brought to the island of Java by the Portuguese traders. Tobacco (in Javanese) phonologically closer to the word "Tumbaco" in Portuguese. Originally, cigarettes in Indonesia only made at home, hand-rolled and wrapped in corn husk.

The difference between white cigarette and kretek cigarette is the white cigarettes are made by the pure tobacco, while the kretek cigarette mixed by tobacco and cloves. Most of the smokers choose one of the types.

1.2. Company Profile

The conceptual plan of President University was first formulated in September 1997 by **Mr. S. D. Darmono, the President Director of PT Jababeka Tbk.** and **Prof. Donald W. Watts**, who was the **President of Bond University,**

Queensland and Vice Chancellor of Curtin University, Western Australia. The goal of their proposed University was to create an institution of learning which would prepare future leaders of industry and society by giving them the skills and experience necessary to excel upon graduation.

The university officially began in 2001, offering a Bachelor of Engineering degree. At that time, the institution was called the School of Engineering based in Cikarang, Bekasi. On 16 April 2004, the Ministry of Education granted President University official status as a full fledged university.

Although still a young University, President University (PresUniv) is growing at a tremendous rate every year. There are now around 3,500 students attending President University from Indonesia as well as many other countries. President University has expanded its course offerings and now offers 32 different majors in subjects ranging from Industrial Engineering to Public Relations.

President University is located in Jababeka Education Park in Kota Jababeka, surrounded by Jababeka Industrial Estate with more than 1,500 national as well as multinational companies such as Unilever, Mattel, Samsung, Mulia, ICI Paints, and others. It's location also allows students to make use of world-class facilities such as the Jababeka Golf & Country Club and the President Executive Club.

1.3. Problem Identification

During my 10 months period of internship in PT HM Sampoerna Tbk, the researcher found out that kretek cigarette more in demand than white cigarette. For example of white cigarette that Sampoerna produced is Marlboro and the kretek cigarette is Dji Sam Soe. Those brands are so famous in Indonesia. But again, kretek cigarette is one of the most favorite cigarettes beside white cigarette in Indonesia, whereas the kretek cigarette is more dangerous for health than white cigarette.

White cigarette is not just only manufactured in only one company. There are two main competitors from others companies such as Djarum and Gudang Garam. But again, Sampoerna still becomes the leader among competitors.

From the residence in Indonesia that consumed the tobacco, 97% are smokers. The majority of smokers are 88% that consumed the kretek cigarette. This survey is from *Lembaga Demografi Fakultas Ekonomi Universitas Indonesia (www.tobaccofreeunion.org/assets/Technical%20Resources/Economic%20Reports/Tobacco%20Taxes%20In%20Indonesia%20-%20ID.pdf)*

Because of this result, the researcher wants to do research to find out the dominant factors which affect people smoking white cigarette.

1.4. Statement of the Problem

This research is meant to identify and analyze the purchase situation of white cigarette. The statement of this problem in this research is:

What is the dominant factor of purchase situation that President University's students choose white cigarette rather than kretek cigarette?

1.5. Research Objectives

The objective of this research is:

To identify and analyze the dominant factor of purchase situation toward white cigarette choice of President University's students.

1.6. Significance of the Research

1.6.1. Theoretical Significance

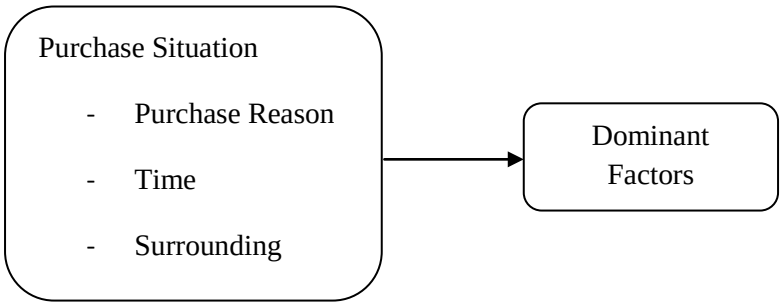
The research is done in order to implement the theory and knowledge that the researcher has learnt in class. Moreover, the research will hopefully improve our knowledge about consumer behavior in real practice.

1.6.2. Practical Significance

This research is done in order to give the researcher an evaluation on what the dominant factors that influence the customer's purchase decision and also to provide clues and recommendations for PT HM Sampoerna Tbk.

1.7. Theoretical Framework

Figure 1.1 – Various Variables that Influence the Purchase Decision



Source: Perreault & McCarthy, Basic Marketing pp.156 and Constructed by the Researcher

1.8. Limitations of the Study

The research is case study, in which the object of this research is President University student, male only, and will be limited especially for President University students who are white cigarette smoker and live in the President University student housing. This study focused on analyzing and measuring the dominant factor which is purchase situation of white cigarette choice of President University's student.

CHAPTER II

LITERATURE REVIEW

This chapter will discuss the theories about purchase situation. This theory will be used for identifying The Dominant Factors of Purchase Situation of White Cigarette Choice of President University Students.

2.1. Model of Buyer Behavior

Many behavioral dimensions influence consumers. Most marketing managers think that buyer behavior is not as simple as the economic-buyer model suggests. A product that one person sees as a good value—and is eager to buy—is of no interest to someone else. So we can't expect to understand buying behavior without taking a broader view.

2.1.1 Purchase Situation

Needs, benefits sought, attitudes, motivation, and even how a consumer selects certain products all vary depending on the purchase situation. So different purchase situations may require different marketing mixes—even when the same target market is involved. One of the most important objectives of the purchasing function is the development of a supplier network, since a firm's ability to produce a quality product at reasonable cost and in timely manner is mainly influenced by its suppliers' capabilities (Hahn, Watts, Kim 1990).

The purchasing situation includes the social and physical stimuli present in the environment where the consumer makes the purchase. Consider the differences in the purchasing environment for buying fresh vegetables at a supermarket versus at an outdoor farmers' market. In some cases the purchasing environment is similar to the shopping environment, but they are seldom identical (J.Paul Peter & Jerry C. Olson, Consumer Behavior & Marketing Strategy, pp.276-277). In most self-service stores, for instance, consumers pay for the products they have

selected at a checkout counter at the front of the store or at one of several cash register locations around the store.

In some stores, the purchasing environment is designed to be quite distinct from the shopping environment. For instance, the central checkout counter at one trendy music store was designed to look like a giant piano keyboard with black and white keys. In other retail environment may be a separate room used exclusively for the purchase transaction. This is where the salesperson and customer(s) retire to negotiate the final details of the purchase and write the check.

Sometimes the shopping environment intrudes into the purchasing environment. For instance, checkout lines at grocery stores usually include displays of products such as magazines, gum, and candy items, film and cigarette to stimulate impulse purchases. The information acquisition and purchase environments also may overlap.

Marketers are particularly interested in influencing two behaviors in purchasing situations: funds access and the final transaction. For instance, most grocery stores and other retail stores have streamlined and transaction procedures in the purchasing situation by installing scanner equipment to speed up the checkout process.

- **Purchase Reason**

  Why a consumer makes a purchase can affect buying behavior. For example, a student buying a pen to take notes might pick up an inexpensive Bic. But the same student might choose a Cross pen as a gift for a friend. A customer's approach to purchasing a product or service is influenced by their situation - whether they have money and how important, frequent, risky or urgent the purchase is to them in their situation.

  Imagine the difference between someone with plenty of money who can afford to make a mistake when buying as opposed to someone who has

scraped her last few pounds together. They might both be buying the same product but their financial situation suggests that their approach to buying will be very different. Customers make more of an effort, and become more involved, if the purchase is relatively important to them - particularly if they have no previous experience of buying such a product or service.

On the other hand, if the item being purchased is low value and frequently bought, like a jar of coffee, it follows that the buyer will spend less time and effort and will have less involvement with the purchase. (http://www.multimediamarketing.com/mkc/buyerbehaviour/)

- **Time**

Time influences a purchase situation. When consumers make a purchase—and the time they have available for shopping—will influence their behavior. The time necessary to learn about a product or service and to travel to purchase it, as well as the time spent in a store, can be important costs to the consumer. The nature of the purchase situation and the problem-solving processes that consumers use are typically different when they are shopping on the Internet rather than at a store. Most consumers are well aware that convenience food stores usually charge higher prices than supermarkets. Many convenience food stores are very profitable, for most consumers purchase from them at least occasionally. (J.Paul Peter & Jerry C. Olson, Consumer Behavior & Marketing Strategy, pp.461)

- **Surroundings**

Surroundings can affect buying behavior. Surroundings may discourage buying too. For example, some people don’t like to stand in a checkout line where others can see what they’re buying—even if the other shoppers are complete strangers.

Surroundings are the area around a given physical or geographical point or place. The exact definition depends on the field. Surroundings can also be

used in geography (when it is more precisely known as vicinity or vicinage) and mathematics, as well as philosophy, with the literal or metaphorically extended definition.

In thermodynamics, the term (and its synonym, environment) is used in a more restricted sense, meaning everything outside the thermodynamic system. Often, the simplifying assumptions are that energy and matter may move freely within the surroundings, and that the surroundings have a uniform composition. (Wikipedia Meaning and Definition)

CHAPTER III

METHODOLOGY

3.1. Research Method

The researcher used quantitative analysis in doing this research. The process of measurement is central to quantitative research because it provides the fundamental connection between empirical obeservation and mathematical expression of quantitative relationships. Quantitative research uses data that are structured in the form numbers or that can be immediately transported into numbers (Ross, 1999; cited in President University 2010).

Quantitative method use number to prove or disprove a notion or hypothesis. The process to measurement is central to quantitative is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationship (Thesis Guidelines, 2010). In quantitative research, concept and variable of the study are being limited by guiding the research to a controlled setting, more systematic and structures in a research design (Krisyantono, 2006:57).

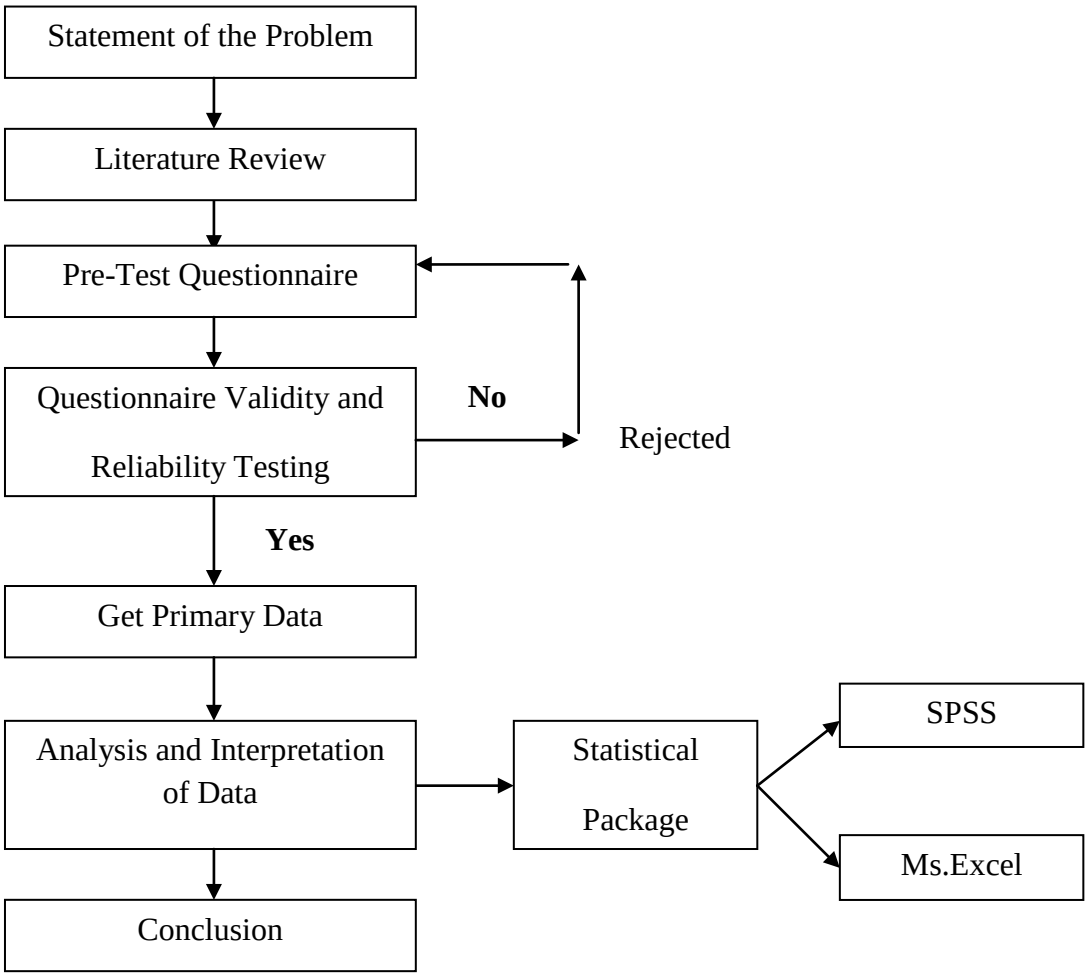
In collecting data, the researcher used primary data by using Likert Scale questionnaire. The consideration of using primary data is the sources of data availability. Researcher can gather information and measure what researcher wish as well as accuracy and consistency of data.

The essential of factor analysis is to describe, if possible, the covariance relationships among many variables in terms of a few underlying, but unobservable, random quantities called *factors*. Basically, the factor model is motivated by the following argument: Suppose variables can be grouped by their correlations. That is, suppose all variables within a particular group are highly correlated among themselves, but have relatively small correlations with variables in a different group. Then it is conceivable that each group of variables represents

a single underlying construct, or factor, that is responsible for the observed correlations.

3.2. Research Framework

Figure 3.1 Research Framework



Adjusted by Researcher

The framework explain that the researcher using primary data, which should been collected from questionnaires. The researcher will discuss the analysis of dominant factor of purchase situation. After the factor were collected, the researcher does pre-test and check the validity and reliabiity of the questionnaires. Before measuring validity and reliability testing, the data should be transfered first from ordinal to interval value using Successive Interval Method Software, then input and calculate using SPSS. If it is not valid and reliable, means that it has to be rejected. If it is valid and reliable, the researcher should make the real questionnaires and share it to the respondents, and after that calculate the analysis.

3.3. Research Place and Time

This research is across sectional studies. Cross sectional studies is a study can be done in which data gathered just once, perhaps over period of days, weeks or months, in order to answer research question.

The pre-test questionnaire was conducted from November 17-18. 2011 and February 27-29, 2012 in President University.

Researcher starts to spread the questionnaire for collecting data on November 22-23, 2011. The survey conducted from March 2-7, 2012 in President University.

3.4. Research Instrument

3.4.1. Data Collection

a. Observation

At the beginning of this research, researcher found the white cigarette consumer in President University. After observe in President University campus, researcher do the research to analyze the variable which is purchase situation of white cigarette choice as their cigarette.

b. Questionnaire

The researcher used questionnaire to collect the data. Questionnaire used is Likert. Scale questionnaire with scoring 1-5. In Cooper & Schindler study (2006, pp.370), the Likert scale, develop by Rensis Likert, is the most frequently used variation of summated rating scale.

The figure and rating scale of Likert scale is shown below:

Table 3.1

Likert Scale

Scale	Rating
1	Strongly Disagree
2	Disagree
3	Moderate
4	Agree
5	Strongly Agree

Source: Burns and Bush (2003)

3.5. Statistical Package

Researcher used two kind of computer software to analyze the data:

a. SPSS (Statistical Package for Social Science) version 16.0 – factor analysis

b. Microsoft Excel 2007

Researcher use Microsoft Excel 2007 to transform the ordinal data from questionnaire into interval data.

3.6. Sampling Design

3.6.1. Size of the Population

Population is a generalization region consisting of the object / subject that has certain quality and characteristics that is set by the researcher to learn and then get the conclusion (Sugiyono, 2009). According to Encyclopedia of Educational Evaluation in Arikunto, population is a set (collection) of all elements possessing one or more attributes of interest. Population in this research is President university students which is the smoker of white cigarette. The researcher used university students because they are teenager that still have tendency to try or move to another product which is interesting to them. Because of that, the researcher wants to know what are the variables that causes them to decide buy the brand that they use.

The researcher only concern with male students because the majority of the smokers in Indonesia are male, the foundings by *Lembaga Demografi Fakultas Ekonomi Universitas Indonesia*. This organization found out that the percentages of smokers in Indonesia are mostly male with 63% of total sample. Female smokers grab 4.5% of the total of sample and the rest are non-smokers.

3.6.2. Sample Technique

The technique of determining sample in this research is based on purposive sampling. Purposive sampling, also known as judgmental, subjective, or subjective sampling, is a type of non-probability sampling technique. Non-probability sampling technique focuses on sampling where the units that are investigated are based on judgment of the researcher[1].

Unlike the various sampling technique that can be used under probability sampling, the goal of purposive sampling is not randomly select units from

[1] 2011. Purposive Sampling: an Overview. Laerd Dissertation, [internet] 21 November. Available at: http://dissertation.laerd.com/articles/purposive-sampling-an-overview.php

population to create a sample with the intention to make generalizations from the sample to the people interest.

Ariola. Et. Al (2006) in her book Principles and Methods of Research (eds.); 2006 explain to find the sample size population when it is not possible to study an entire population; a smaller sample is taken using a random sampling technique. For factor analysis, according to Hair et al[2] (2010), a sample should preferably more than 100 for factor analysis to be proceeding. Based on this theory, the researcher will take 100 samples from total population. It usually takes no more than 12-25 cases to reveal the major difficulties and weaknesses in a pretest questionnaire (Sheatsley, 1983).

3.6.3. Characteristics of Respondents

The total respondent in this research are 100 students from President University which are white cigarette consumers. The questionnaire use English because there are variance of nationality in President University and English speaking environment is compulsory.

3.6.4. Research Variable

Based on theory the consumer problem-solving process (Perreault & McCarthy, 2002), the researcher choose 3 variable that might represent the characteristics of the product. Each variable will be represented by 5 questions to measure the dominant factor of product.

[2] Hair J.F., Black,W.C., Babin,B.J & Anderson, R.E. 2010. *Multivariate Statistics: A Global Perspective.* Singapore: Prentice Hall

Table 3.2

Questionnaire Variable

QUESTION	
PURCHASE REASON	
1	I purchase this cigarette because I am addicted
2	I purchase this cigarette because I think it is not too dangerous
3	I purchase this cigarette because I like the taste
4	I purchase this cigarette to build my confidence
5	I purchase this cigarette because it looks cool
TIME	
6	I purchase this cigarette everyday
7	I purchase this cigarette when I run out of stock
8	I purchase this cigarette when I hang out with friends
9	I purchase this cigarette during more than a year
10	I purchase this cigarette when I just want to smoking
SURROUNDINGS	
11	I purchase this cigarette because of references from my friends
12	I purchase this cigarette because it is a lifestyle now
13	I purchase this cigarette because it is a cigarette for youth
14	I purchase this cigarette because I am influenced by my friends
15	I purchase this cigarette because most of my friends smoke white cigarettes

3.7. Validity and Reliability

In a study should have called the test instrument in which the researchers will measure the variables that exist to obtain valid data. “By using a valid and reliable instrument in collecting data, it is expected that research result will be valid and reliable” (Sugiyono, 2007:348).

The researcher concluded that the two test instruments fulfilled the requirements to obtain the result valid and reliable research. According to Singarimbun (1996 : 122) “Validity is the extent to which measuring tool to measure what you want to measure.” Added by Arikunto (2002:144), “Validity is a measure that shows the level of validity or the validity of an instrument.”

Researcher concludes that validity is a measurement instrument that has a level of accuracy in its function. Furthermore, in order to obtain consistent data and can be trusted, the researcher used a measurement tool in the same symptoms so the researcher used a reliability test.

Reliability means to have properties that can be trusted. A measuring instrument is said to reliable when used many times by the same researchers or other researchers who still provide the same result and will provide accurate results for reliable measured unchanged (Grace, 2007:17).

According to Sugiyono (2007:216) if the indicator started to study the end result is relatively the same. Validity and reliability in the study was conducted using software SPSS (Statistical Package for Social Science) by using Cronbach’s Alpha.

Basically coefficient Cronbach’s Alpha is the average of all coefficient halved (split-half) that enable made of measuring instrument used. A reliable instrument can be said reliable if it has reliability coefficient of 0.6 or more. If the value obtained under 0.6 then measuring instrument which is made not reliable.

According to Ghozali (2005:44), if the value of alpha less than 60% means there are few respondents answer identify inconsistent and should be viewed one by one. Respondent's answer item that is not consistent should be discarded from analysis and alpha will increase.

3.7.1. Validity Test

Validity testing of each item use item analysis, that is correlate the scores of each item with total score which is the sum of each score point. In giving interpretation to the coefficient of correlation, items that have positive correlation with the criterion (total score) and a high correlation, indicating that the item also has a high validity (Masrun in Sugiyono, 2009). The researcher took 30 respondents for pre-test questionnaire, so the minimum requirement to of validity is if r=0.306. If the correlations between the items with total score less than 0.306, the item in the instrument is declared invalid.

Table 3.3

Critical Values for Pearson's r

N = Number of Pair	Significant of Level	
	5%	10%
15	0.482	0.412
16	0.468	0.400
17	0.456	0.389
18	0.444	0.378
19	0.433	0.369
20	0.423	0.360
25	0.381	0.323

30	0.349	0.296
35	0.325	0.275
40	0.304	0.257
45	0.288	0.243

Source: Huber, Peter. J. (2004)

Table 3.4

Testing for Valid Question

Q Number	r Computation	r Table	Remarks
1	0.713	0.306	Valid
2	0.639	0.306	Valid
3	0.636	0.306	Valid
4	0.616	0.306	Valid
5	0.665	0.306	Valid
6	0.491	0.306	Valid
7	0.568	0.306	Valid
8	0.427	0.306	Valid
9	0.482	0.306	Valid
10	0.150	0.306	**Invalid**
11	0.345	0.306	Valid
12	0.248	0.306	**Invalid**
13	0.638	0.306	Valid

14	0.507	0.306	Valid
15	0.444	0.306	Valid

Source: SPSS 16.0 and Primary Data

From the table above, the researcher found out that there are 2 invalid statements, which are statement 10, 12. The result from r computation shows that the value of r computation of statement number 10 and 12 are less than 0.306. It means, for the next questionnaire statement 10 and 12 will not be inserted.

3.7.2. Reliability Analysis

Reliability is an indicator of items' consistency of test statement in doing the measurement functions together. The measure of reliability refers to consistency or confidence of the measuring results, which implies the measurement accuracy. This method will result in the coefficient of reliability for total variables. The coefficient gets closer to 1 which is means the reliability also stronger. The results of reliability test of each variable for 30 respondents in this research can be seen as follow:

Table 3.5

Reliability Test of White Cigarette

Variable	Cronbach's Alpha	Remarks
Purchase Reason	0.897	Reliable
Time	0.664	Reliable
Surroundings	0.673	Reliable

Source: Statistical Products and Solution Services and Primary Data

Based on the conclusions that can be taken from the table above, the result of the analysis of reliability based on Cronbach's Alpha is greater than 0.6 indicates that 30 respondents gave consistent answer. So, based on these results can be seen that all of the variable have Cronbach's Alpha greater than 0.6. This means the

respondents who answers to the variable is reliable, these figures show that there is a high reliability.

3.8. Method of Processing Data

The researcher use factor analysis in analyze the data. Factor analysis is a statistical method used to describe variability among observed, correlated variables in term of potentially lower number of unobserved, uncorrelated variables called factor. In another words, it is possible, for example, that variations in three and four observed variables mainly reflect the variations fewer such unobserved variables. Factor analysis search such joint variations in response to unobserved latent variable. The observed variables are modeled as linear combinations of the potential factors, plus “error” terms.

The information gained about the interdependencies between observed variables can be used later to reduce the set of variables in a dataset (Pohlmann, 2004). Factor analysis originated in psychometrics, and is used in behavioral science, social science, marketing, product management, operation research, and other applied science that deal with large quantities of data.

KMO and Bartlett’s Test

KMO is a test that determines whether partial correlations among observation variables are high enough. Conventionally, KMO lower than 0.6 suggests that partial correlations are not high enough and the variables won’t ‘factor’ well.

Bartlett's test of sphericity tests whether the correlation matrix is an identity matrix, which would indicate that the factor model is inappropriate. Bartlett's test of sphericity is a test statistic used to examine the hypothesis that the variables are uncorrelated in the population. In other words, the population correlation matrix is an identity matrix; each variable correlates perfectly with itself ($r = 1$) but has no correlation with the other variables ($r = 0$).

Anti Image Matrices

The anti-image correlation matrix contains the negatives of the partial correlation coefficients, and the anti-image covariance matrix contains the negatives of the partial covariance. Most of the off-diagonal elements should be small in a good factor model.

Factor Extraction

Eigen Value

Eigen value is used in extracting the factor in factor analysis method. This kind of value shows the communality value for variables that represent the factor. The numbers of factors is determined by the percentage of total variance produced. In order to measure the number of factor, the Eigen Value must be more than 1.

Loading Factor Value

Loading factor shows the contribution proportion of latent variable, which according to statistic significance of the coefficient of correlation is the size used to determine the degree of correlation. Variable that has higher loading shows that the influence is bigger on latent variables. Relying on that loading factor value, the manifest variables grouping can be performed, variable that has lower than 0.6 loading factor value will not be considered in the latent variable.

3.9 Limitation

Some problems encountered during the research period are as follows:

1. This research is limited only for students who live in President University student housing.
2. The research is limited only to male students who live in President University student housing.
3. The research is limited only to white cigarette smoker.

CHAPTER IV

ANALYSIS OF DATA AND INTERPRETATION OF RESULTS

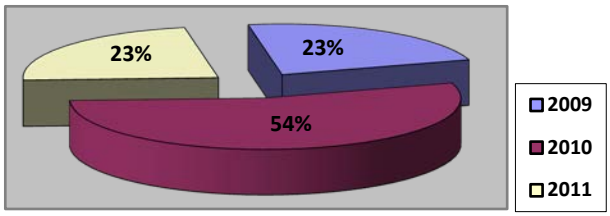
4.1. Correspondents Profile

In this research, the researcher distributed 120 copies of questionnaire to the students of President University. The researcher used only 100 valid questionnaire based on minimum sample for factor analysis. The respondents are the consumer of white cigarette. The questionnaire consists of three parts. Each part is divided based on variable which is used in the research.

The first part contains the statement of the respondents about the purchase reason; second part is about time; the third part is about surroundings. To gain insight about the characteristic of students who were respondents in this study, the respondents classify the characteristic of respondents by age and batch. The respondent obtained data concerning the characteristic of the respondents were as follows:

Figure 4.1

Grouping Respondents by Batch

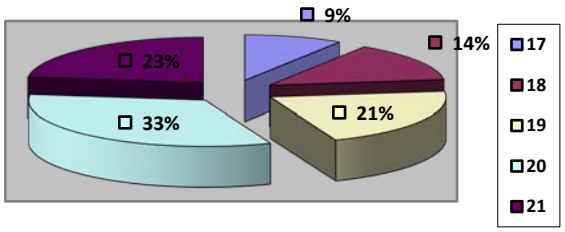


Source:Microsoft Excel 2007

Based on the figure 4.1 above, the first grouping respondents by age has 54% points, it shows the most respondents are come from batch 2010. Followed by batch 2009 and 2011, has 23% respondents. It means that in male area of President University student housing mostly populated by batch 2010.

Figure 4.2

Grouping Respondents by Age



Source: Microsoft Excel 2007

Based on the figure 4.2 above, the most respondents are from age 20. And 23% are from age 21. Age 19 has 21% points. Last but not least are age 18 has 14% points. And the last are from age 17 which is 9% points. It means that the most respondents that consumed white cigarette are from age 20.

4.2. Data Collecting

Correlation Matrix

Factor analysis is a technique to identify and divide factors or variables which have the same characteristics into several variable groups. Factor analysis also conducts reduction or deleting to decrease number of variables.

After deleting the invalid statements based on comparison between r computation and r table, the researcher have to do reduction of variable. The table below is the fixed questionnaire after the researcher did reliability and validity testing.

Table 4.1

Fixed Questionnaire

QUESTION	
PURCHASE REASON	
1	I purchase this cigarette because I am addicted
2	I purchase this cigarette because I think it is less dangerous for health as compared to kretek cigarettes
3	I purchase this cigarette because I like the taste
4	I purchase this cigarette because I feel confident
5	I purchase this cigarette because it looks cool
TIME	
6	I purchase this cigarette everyday
7	I purchase this cigarette when I run out of stock
8	I purchase this cigarette when I hang out with friends
9	I have consumed this cigarette for more than a year
SURROUNDINGS	
10	I purchase this cigarette because of references from my friends
11	I purchase this cigarette because it is a cigarette for youth
12	I purchase this cigarette because I am influenced by my friends
13	I purchase this cigarette because most of my friends smoke white cigarettes

Reduction of variable can be done in several steps. The researcher decide which factors are appropriate to be used in next analysis is by using KMO and Barlett's Test.

Table 4.2

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.668
Bartlett's Test of Sphericity	Approx. Chi-Square	521.057
	df	78
	Sig.	.000

Source: SPSS 16 and Primary Data

From the table above, the value of KMO MSA (Kaiser-Meyer-Olkin Measure of Sampling Adequacy) is greater than 0.5. Based on theory if value of KMO MSA is greater than 0.5, the researcher can continue the analysis. It also means that sampling technique in the study can be applied.

The next step is evaluating Anti-Image Matrics to decide which factors are appropriate to be included in the next analysis. There are 3 variables in this research, which are purchase reason, time, and surroundings with details as follow:

Statement 1-5 : Purchase Reason

Statement 6-9 : Time

Statement 10-13 : Surroundings

Table 4.3

Anti-Image Matrices

PURCHASE REASON		**MSA**
1	I purchase this cigarette because I am addicted	0.614
2	I purchase this cigarette because I think it is less dangerous for health as compared to kretek cigarettes	0.762
3	I purchase this cigarette because I like the taste	0.612
4	I purchase this cigarette because I feel confident	0.709
5	I purchase this cigarette because it looks cool	0.601
TIME		**MSA**
6	I purchase this cigarette everyday	0.658
7	I purchase this cigarette when I had already run out	0.737
8	I purchase this cigarette when I hang out with friends	0.660
9	I have consumed this cigarette for more than a year	0.535
SURROUNDINGS		**MSA**
10	I purchase this cigarette because of references from my friends	0.685
11	I purchase this cigarette because it is a cigarette for youth	0.717

12	I purchase this cigarette because I am influenced by my friends	0.682
13	I purchase this cigarette because most of my smoke white cigarettes	0.777

Source: SPSS 16.0 and Primary Data

Mueller et al (1978) states that if MSA (Measure of Sampling Adequacy) Value is less than 0.5, the variable must be deleted and it is not an appropriate factor to be entered in the next step of analysis.

From the table above, all the statements have MSA value grater than 0.5. It means, all the statement can be entered to the next step which is factor analysis.

Factor Extraction

The extraction of manifest variable is very important to figure out the latent variable. Principal Component Analysis is used to generate the last factor extraction statistic. By relying final statistic, there are three components can be identified which are communality, eigen value, and cumulative percent of extracted factors.

Eigen value is use to determining how many latent variables that will be generated, which means that if the eigen vaue is more than 1, so it is considered as significant. The community of variables shows the variance proportion of the variance, which can be explained in generated factors. The range of community of variable is between 0 to 1. The bigger value, the better it is because the variable become easier to explained by generate factor.

Based on Total Variance Explained table, there are 4 values that are shown as follow: Communality shows the variance proportion of variable toward the whole factors. Eigen value must more than 1, it shows the total variance on each factors. The first factor has the biggest eigen value which is 4.138. Based on the calculation, there are 4 factors that have eigen value exceed more than 1

percentage of variance, which show us the component number 1 is the highest percent variance, with the value is 31.831%.

The total variance is strong, which is 64.502%. It means that 35.498% of variables cannot be presented or become the error of this study. Some factors that is difficult to be interpreted because there are too many manifests that have exceeding values in more than one factor. Therefore, rotated component matrix is needed to go on the next process.

Table 4.4

Component, Eigen Value, % Variance, Cumulative %

Component	Eigen Value	% Variance	Cumulative %
1	4.138	31.831	31.831
2	1.731	13.361	45.148
3	1.372	10.551	55.698
4	1.144	8.803	64.502

Source: SPSS 16.0 and Primary Data

Rotated Component Matrix

Rotated component matrix is use to get simpler factor structure which will make the variables interpretations become easier. From extraction result interpretation of matrix start from the left side (factor 1) to the right side (factor 4)

In the study orthogonal Varimax is used in rotated component methodology. Orthogonal Varimax is used to rotate the beginning factor from extraction result, so at the end, it will create the rotated result where one column closer to zero. The rotated component matrix can be seen below:

Table 4.5

Manifest Variable and Factor Value

Factor	Manifest Variable	Factor Value
1	S2	0.623
	S6	0.893
	S10	0.621
	S12	0.827
2	S1	0.771
	S3	0.867
	S4	0.758
3	S5	0.790
	S9	0.822
4	S7	0.762
	S8	0.767

Source: SPSS 16.0 and Primary Data

4.3 Interpretation of the Result

Based on factor analysis calculation, 13 statements that have been analyzed can extracted into 4 latent variables that influence the respondents. There latent variables show 64.502%. It means that there is 35.498% variance that is not explained by 4 latent variables.

4.3.1 Data Interpretation

Factor analysis consists of latent variable and manifest variable, where latent variable are constructed by manifest variables.

a. 1st factor

The first factor has 31.831% percentage variance, which also means the most influencing factor for customer to choose white ciggarate. Variable that constructed this factor are:

Table 4.6

1st Factor

No	Variable	Explaination	Factor Value
1	S2	I purchase this cigarette because I think it is less dangerous for health as compared to kretek cigarettes	0.623
2	S6	I purchase this cigarette everyday	0.893
3	S10	I purchase this cigarette because of references from my friends	0.621
4	S12	I purchase this cigarette because I am influenced by my friends	0.827

Source: SPSS 16.0 and Primary Data

The first factor consist of S2, S6, S10, and S12 as the manifest variables. From the manifest variable, customers thought that by smoking white cigarette, they can have healthier life than smoking kretek cigarette. Customers are influenced by their friends in choosing white cigarette. Customers also buy cigarette every day. From the manifest variable, the researcher concludes that the latent variable is **"people minimize the negative risk and friend's influences have a crucial role in choosing white cigarette".**

b. 2nd Factor

The second factor has 13.361% percentage of variance value, which means the second dominant factors why customers choose white cigarette as their cigarette. This factor is constructed by several variables which are:

Table 4.7

2nd Factor

No	Variable	Explanation	Factor Value
1	S1	I purchase this cigarette because I am addicted	0.771
2	S3	I purchase this cigarette because I like the taste	0.867
3	S4	I purchase this cigarette because I feel confident	0.758

Source: SPSS 16.0 and Primary Data

The second factor consist of S1,S3, and S4. From the manifest variables, customers buy a white cigarette because they feel addicted to it. The taste also became the important thing before they purchase the white cigarette. The customers also thought that cigarette can boost up their confidence level. From all these manifest variables, the latent variable is **"Taste, addiction, and create higher confidence level"**

c. 3rd Factor

The third factor has 10.551% percentage of variance value, which means the third dominant factors why customers choose white cigarette as their cigarette. Variables that formed this factor are consisting of:

Table 4.8

3rd Factor

No	Variable	Explanation	Factor Value
1	S5	I purchase this cigarette because it looks cool	0.790
2	S9	I have consumed this cigarette for more than a year	0.822

Source: SPSS 16.0 and Primary Data

The third dominant factor is created by 2 manifest variables, which are statement number 5 and 9. From the statements above, the researcher conclude that the latent variable is **"long term usage to create higher personal appearance"**

d. 4th Factor

The fourth factor has 6.988% percentage of variance value, which means that this is the fourth most dominant factors why customers choose A Mild as their cigarette. This factor is formed only by one variable, which are:

Table 4.9

4th Factor

No	Variable	Explanation	Factor Value
1	S7	I purchase this cigarette when I run out of stock	0.762
2	S8	I purchase this cigarette when I hang out with friends	0.767

Source: SPSS 16.0 and Primary Data

The fourth factor consists of S7 and S8 as manifest variables that are from attitude. The two manifest variables can be grouped into latent variable, which is **"social interaction affect purchase repetition of cigarette"**.

4.3.2 Latent Factors

Based on the data calculation and research, the researcher summarized that customer choose A Mild as their cigarette is influenced by four factors, which are:

Factor I : **People minimize the negative risk and friend's influences have a crucial role in choosing white cigarette.**

Factor II : **Taste, addiction, and create higher confidence level**

Factor III : **Long term usage to create higher personal appearance**

Factor IV : **Social interaction affect purchase repetition of cigarette**

CHAPTER V

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

This research is conducted to 100 male respondents which are the smoker of white cigarette. According to the data and analyze it, the most dominant factors that influence President University's male students choose white cigarette is **people minimize the negative risk and friend's influences have a crucial role in choosing white cigarette.** This dominant factor has 31.831 percent of variance with 4 dominant statements as manifest variable.

From the manifest variables that construct latent variable, customers feel safer to consume the white cigarette rather than kretek cigarette. They think it is less dangerous for them as compared to kretek cigarettes. Customers bought the white cigarette everyday. The reference from friends also makes the customers to buy the product. And they mostly influenced by their friends too.

From the percent of variance, the least dominant factor is **social interaction affect purchase repetition of cigarette** with 6.988 percent of variance. The result of this research related with theory states needs, benefits sought, attitudes, motivation, and even how a consumer selects certain products all vary depending on the purchase situation. So different purchase situations may require different marketing mixes—even when the same target market is involved (Hahn, Watts, Kim 1990).

5.2 Recommendation

According to research founding, the researcher would like to give recommendation which is from the founding of the research the most dominant factor is people minimize the negative risk and friend's influences have a crucial role in choosing white cigarette. Company should be able to grab this trend by capturing youth community. Community is a group of individual which share the same point of interest. It means if company wants to increase word of mouths, company has to approach as many youth community as possible.

APPENDICES 1

Age :

Batch :

Major :

You are required to give a thick (√) on the available space:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

QUESTION		1	2	3	4	5
PURCHASE REASON						
1	I purchase this cigarette because I am addicted					
2	I purchase this cigarette because I think it is less dangerous for health as compared to kretek cigarettes					
3	I purchase this cigarette because I like the taste					
4	I purchase this cigarette because I feel confident					
5	I purchase this cigarette because it looks cool					
TIME						
6	I purchase this cigarette everyday					
7	I purchase this cigarette when I run out of stock					
8	I purchase this cigarette when I hang out with friends					
9	I have consumed this cigarette for more than a year					
10	I purchase this cigarette when I just want to smoking					
SURROUNDINGS						
11	I purchase this cigarette because of references from my friends					
12	I purchase this cigarette because it is a lifestyle now					

13	I purchase this cigarette because it is a cigarette for youth					
14	I purchase this cigarette because I am influenced by my friends					
15	I purchase this cigarette because most of my smoke white cigarette					

Appendices 2

Cronbach’s Alpha

Variable I

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.897	.902	5

Variable II

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.664	.670	5

Variable III

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.673	.680	5

Appendices 3

Validity Testing

R table: 0.306

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
VAR00001	47.9667	52.585	.713	.737	.841
VAR00002	48.0333	51.757	.639	.807	.844
VAR00003	48.2667	53.720	.636	.715	.845
VAR00004	48.1333	53.085	.611	.789	.846
VAR00005	48.1667	55.178	.665	.697	.846
VAR00006	47.6000	56.179	.491	.649	.853
VAR00007	48.1333	54.740	.568	.758	.849
VAR00008	47.8333	56.006	.427	.626	.856
VAR00009	48.2667	55.926	.482	.728	.853
VAR00010	47.6333	59.620	.150	.637	.870
VAR00011	47.5333	57.430	.345	.750	.860
VAR00012	47.4667	57.223	.284	.534	.864
VAR00013	47.7667	53.013	.638	.732	.845
VAR00014	48.1000	54.369	.507	.682	.852
VAR00015	47.7667	54.944	.444	.567	.856

Appendices 4

KMO & Bartlett's Test and Communalities

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.821
Bartlett's Test of Sphericity	Approx. Chi-Square	381.180
	df	78
	Sig.	.000

Communalities

Communalities

	Initial	Extraction
VAR00001	1.000	.683
VAR00002	1.000	.697
VAR00003	1.000	.744
VAR00004	1.000	.733
VAR00005	1.000	.598
VAR00006	1.000	.772
VAR00007	1.000	.718
VAR00008	1.000	.571
VAR00009	1.000	.552
VAR00010	1.000	.386
VAR00011	1.000	.570
VAR00012	1.000	.699
VAR00013	1.000	.646

Extraction Method: Principal Component Analysis.

Appendices 5

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.292	40.708	40.708	5.292	40.708	40.708	3.881	29.857	29.857
2	1.712	13.173	53.881	1.712	13.173	53.881	2.649	20.380	50.237
3	1.364	10.491	64.371	1.364	10.491	64.371	1.837	14.134	64.371
4	.965	7.422	71.793						
5	.716	5.505	77.298						
6	.693	5.332	82.630						
7	.488	3.755	86.385						
8	.399	3.072	89.457						
9	.354	2.723	92.180						
10	.332	2.556	94.736						
11	.285	2.193	96.929						
12	.211	1.625	98.554						
13	.188	1.446	100.000						

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component		
	1	2	3
VAR00001	.790	.172	-.170
VAR00002	.803	.108	-.200
VAR00003	.781	.139	-.338
VAR00004	.822	-.238	.025
VAR00005	.739	.154	-.170
VAR00006	.268	.415	.727
VAR00007	.581	.547	.285
VAR00008	.254	.709	-.062
VAR00009	.625	-.039	-.400
VAR00010	.379	-.036	.491
VAR00011	.584	-.409	.247
VAR00012	.596	-.534	.241
VAR00013	.696	-.377	.137

Extraction Method: Principal Component Analysis.

a. 3 components extracted.