

CHAPTER III

RESEARCH METHOD

The previous chapter has discussed the literature review of past studies and researches, presented the conceptual model and discussed the hypotheses that are to be analyzed. The content of this chapter will cover the methods chosen to do the analysis such as how the questionnaire was developed, how the sample was selected, how the data was collected and what are the analysis techniques that will be used on the data obtained from the questionnaire.

3.1. Type of Study

This study can be classified as correctional study, means that the researcher wants to define the association of some problems or variables. The objective of this study was to investigate the direct influence in consumer behavior towards counterfeits of sneakers product. This study may help the brand or factory sneakers brand to know what exactly that influencing people to buy fake sneakers rather than the original one.

Data were collected via questionnaire from convenience sample. Convenience sampling is appropriate for this research setting in that study, therefore this study was endeavoring to achieve the research goal of theory application. The survey questionnaires are designed to ask for people consideration and decision towards non-deceptive counterfeit sneakers. The questionnaires were distributed to citizens who have been living in Indonesia especially in Jogjakarta and have already purchased counterfeit sneakers. As many as 220 questionnaires are distributed in person and 100 questionnaire are distributed via e-mail to individuals residing in outside Jogjakarta.

The 300 respondents were characterized in several terms, there were based on gender (male and female), ages (<25, 26-35, and >35), education (junior college, college, graduate school) and the annual income. The method used in the research adopted Nguyen Van Phuong and Tran Thi Bao Toan (2013).

3.2. Research Subject

This study attempted to analyze the association between brand image on consumer behavior, between social influence on consumer behavior, between attitude on consumer behavior, between personal gratification on consumer behavior, and between value consciousness on consumer behavior towards counterfeits sneakers. In this study, the respondents who are 18 years above, and people who have an experience buying fake sneakers.

3.3. Sampling Method

3.3.1. Population

The study takes place in Indonesia and applies to examine the modeling of determinants influence in consumer behavior towards counterfeits of sneakers product by studying brand image, value, social experience, personal gratification, and attitude. Buying fake products nowadays has been addiction for some people, in this context, purchasing fake sneakers is becoming popular rather than purchasing original sneakers. Respondents taken from students of university and people whose age are 18 above and that have stayed in Jogjakarta.

3.3.2. Sampling Design

The samples taken are limited to those whose age are 18 – above. The range of age has been considered for the age of young adult and productive people. The age range is also considered as people who have frequent transaction to purchase fake sneakers. The study is further considered respondents who had never purchased fake sneakers as a part of sample subject. The population survey is mostly taken in a university in Jogjakarta, and some are taken randomly outside the university.

3.3.3. Research Instrument and Data Collection

Data were collected via questionnaire from convenience sample. The questionnaire uses the five variables and 25 question items. Brand image measurements use the measurement from phau et al (2009) and Xuemei Bian et al (2011), including; “I am especially concerned about the impression that I make on others”, “I am rather sensitive to interpersonal rejections”, “The product is a statement of your image benefit self-image”, “This product can make you attract other people’s attention”. Value consciousness measurement sourced from Lichtenstein et al (1993), “I’m very concerned about low prices, but I am equally concerned about product quality”, “when purchasing a product, I always try to maximize the equality I get for the money I spend, “I generally shop around for lower prices on products, but they still must meet certain quality requirements before I buy them”, when I shop, I usually compare the price information for brands I normally

buy”, “I always check prices at the market to be sure I get the best value for the money I spend”. Social influence measurement sourced from Hsu and Shiue (2008) and Van Den Putte et al (2005), including; “my best friends and I relatives buy counterfeit product”, “people in my environment buy counterfeit product”, “people in my society encourage me to buy counterfeit products”, “it is acceptable if someone knows that I buy counterfeit products”, “it is acceptable in my society to buy counterfeit products”. Personal gratification measurement sourced from Ang et al (2001), including; “I always endeavor to have a sense of social recognition”, “I always attempt to have a sense of accomplishment”, “I always desire to enjoy the finer things in life”, “I always chase a higher standard of living”. Attitude towards counterfeit fashion/sneaker products measurement sourced from De Matos et al (2007), including; “I prefer counterfeit market goods”, “there’s nothing wrong with purchasing counterfeit market goods”, “buying counterfeit market goods generally benefits the consumer”, “generally speaking, buying counterfeit market goods is a better choice”. Behavioral intention to purchase counterfeit fashion/sneaker products measurement sourced from De Matos et al (2007), including; “I recommend to friends and relatives that buy counterfeited product, “I intend to purchase counterfeit products, “I think about a counterfeited product as a choice when buying something”, “I buy counterfeit products if I think genuine designer products are too expensive”, “I buy counterfeit products, instead of the designer products, if I prefer specific brands”.

All items were measured a five-point likert scale with 1 representing “strongly disagree” and 5 representing “strongly agree”

Figure 2. Source of measurement scale items

Variables Measurement	Source	Number of Items	Type of Variables
Brand Image	Phau et al (2009) and Xuemei Bian (2011)	4	Independent
Value Consciousness	Lichtenstein et al (1993)	5	Independent
Social Influence	Hsu and Shiue (2008) and Van Den Putte et al (2005)	5	Independent
Personal Gratification	Ang et al (2001)	4	Independent
Attitude	De Matos et al (2007)	4	Mediating
Behavioral Intention	De Matos et al (2007)	5	Dependent

3.4. Research Variables and Operational

3.4.1. Independent Variable

All variables analyzed in this study are adopted from Lichtenstein (1993), Hsu and Shiue (2008), Van Den Putte et al (2005), Ang et al (2001), and De Matos et al (2007). An independent variable is a variable that influences the dependent variable in either a positive or a negative direction (Sekaran, 2000). This study is conducted with independent variables which are value consciousness, social influence, personal gratification, attitude, and behavioral intention.

3.4.1.1. Value Consciousness

Value consciousness is considered as a concern for playing lower prices, subject to some quality constraint (Ang et al., 2001) and expected to have a positive effect on attitude towards counterfeits (Ang et al., 2001; Wang et al., 2005). Typical customers of counterfeit brands were more value conscious and had lower average income compared to those who do not buy fake products. The Indicators used for value consciousness in this research are:

1. The customer concerned about low prices, but they are equally concerned about product quality.
2. When purchasing product, the customer always try to maximize the quality they get for the money they spend.

3. The customers generally shop around for lower prices on product, but they still must meet certain quality requirements before they buy them.
4. When the customer shops, the customers usually compared the price information for brands they normally buy.
5. The customers always check prices at the market to be sure they get the best value for the money I spend.

3.4.1.2. Social Influence

Social influence is the action, reaction, and thoughts of an individual are influenced by other people or groups. Social influence may be represented by peer pressure, persuasion, marketing, sales, and conformity. The expenditure stereotype of a consumer is a representation of his or her social class position. It is a more important determinant of his or her purchasing behavior than just income (Martineau, 1968). The indicators used for social influence in this research are:

1. My best friends and relatives buy counterfeit products.
2. People in my environment buy counterfeit products.
3. People in my society encourage me to buy counterfeit products.
4. It is acceptable if someone knows that I buy counterfeit products.
5. It is acceptable in my society to buy counterfeit products.

3.4.1.3. Personal Gratification

Personal gratification refers to the requirement for a sense of perfection and social perception, and the desire to get the better thing

of life (Ang et al., 2001). Suchlike a trade-off, consumers are willing to purchase fakes regardless the awareness that original and counterfeits are not at the same quality. In 1996, Nill and Shultz II (1996) have planned a model illustrating the process of moral reasoning that customers have to experience when they made the decision to buy a fake product. The indicators used for personal gratification in this research are:

1. The customer always endeavors to have a sense of social recognition.
2. The customer always attempts to have a sense of accomplishment.
3. The customer always desires to enjoy the finer things in life.
4. The customer always chases a higher standard of living.

3.4.1.4. Brand Image

Brand image is how consumer measure your brand in the market. According Aaker, brand is how a brand is perceived by consumers (Aaker, 1996), which represent the set of brand organization in consumer memories. A meaningful brand is more than a product, it is a story, and products are more than just an accumulation of functional benefits. Based on Bian and Mountinho (2011), brand image plays an important role because of its contribution to the consumers deciding whether the brand is the one for them (Dolich, 1969). The indicators used for brand image in this research are:

1. The customer especially concerned about the impression that they make on others.

2. The customers are rather sensitive to interpersonal rejections.
3. The product can bring the statement of the consumer itself.
4. The consumer can attract other people when they bring the product itself.

3.4.2. Dependent Variable

A dependent variable is the variable of the primary interest to the researcher (Sekaran, 2003).

3.4.2.1 Behavioral Intention

Behavioral intention (BI) is defined as a person's perceived likelihood or "subjective probability that he or she will engage in a given behavior" (Committee on Communication for Behavior Change in the 21st Century, 2002, p. 31). BI is behavior-specific and operationalized by direct questions such as "I intend to [behavior]," with Likert scale response choices to measure relative strength of intention. Intention has been represented in measurement by other synonyms (e.g., "I plan to [behavior]") and is distinct from similar concepts such as desire and self-prediction (Armitage & Conner, 2001). Ajzen (1991) argued that BI reflects how hard a person is willing to try, and how motivated he or she is, to perform the behavior.

The indicators used for Behavioral Intention in this research are:

1. The customers recommend friends and relatives to buy a counterfeit product.
2. The customers intend to purchase counterfeit products.

3. The customers think about a counterfeit product as a choice when buying something.
4. The customers buy counterfeit products if they think genuine designer products are too expensive.
5. The customers buy counterfeit products, instead of the designer products, if they prefer specific brands.

3.4.3. Mediating Variable

A mediator variable (or mediating variable, or intervening variable) in statistics is a variable that describes how, rather than when, effects will occur by accounting for the relationship between the independent and dependent variables.

3.4.3.1. Attitude

Attitudes towards behavior are noticed to be better predictor of behavior than attitudes towards products (Penz et al., 2005). The theory also pointed that the opportunities and resources, for example, the accessibility of fake goods to be displayed before purchase behavior can be conducted. Making an unethical decision, for instance, buying fakes, is explained mainly by attitudes without regarding to product class (Wee et al. 1995, ang et al., 2001, Chang 1998). The more favorable customer attitudes are towards counterfeit brands, the higher likely are the opportunities of purchasing (Wee et al., 1995). The indicators used for attitude in this research are:

1. The customers prefer counterfeit market goods.

2. There is nothing wrong with purchasing counterfeit market goods.
3. Buying counterfeit market goods generally benefits the consumer.
4. Generally speaking, buying counterfeit market goods is a better choice.

3.5. Validity and Reliability Test

In this study the function of validity test is to measure and analyze whether each item can explain the variable being observed. The effectiveness of the questionnaire as a measurement tool is the most important factor in determining the quality of the research result. This is because the result of this research is fully dependent on the quality of the data obtained.

In this study the writer took a sample of respondents at 5% of significance level, then the critical value for the validity coefficient is about $r = 0.3$. If the validity coefficient of one item is more than critical value for validity coefficient (0.3), it means the item is considered valid, and vice versa.

The reliability of a measurement indicates the extent to which the measure is without bias or error free (Sekaran, 2003). Reliability test is also designed to find out the consistency of the measurement tools. It can show the result which is relatively consistent if there is re-measurement in the same subject. A reliable measurement tool will provide a reliable result which is also relevant to the variable used. In addition, if the data are really relevant to the real condition, the result of any measurement implemented in the next period will always be similar. Reliability test is conducted with SPSS by putting all questions in SPSS to be analyzed. It uses alpha coefficient from Cronbach to find the value

of alpha Cronbach (α) is ≥ 0.6 . If the question item meets the requirement, it is claimed to be reliable.

3.6. Statistical Tools for Data Analysis

3.6.1. Quantitative Analysis

This research makes use of Structural Equation Modelling (SEM) as the statistical tool to analyze the collected data, to determine the correlation among variables. In particular, this statistic method is used to examine how marketing (trust, commitment, communication, and conflict handling) influence customer loyalty, and how age influence marketing strategy and customer loyalty. In order to minimize bias result, the identity of respondents, errors, incomplete and missing responses are also included.

3.6.2. Structural Equation Modeling (SEM)

This research uses analysis of *Structural Equation Modelling* (SEM). This model is chosen to determine the relationship among the variables which influence brand equity from consumer perception, to examine their impact on consumer brand preference. According to Hair, *et. al.*, (1998) the process of *Structural Equation Modelling* (SEM) consists of the following steps:

3.6.2.1. Model Development Based on Theory

Structural Equation Modelling (SEM) is based on causal relationship where the changing of one variable is assumed to be caused by the changing of other variables. The strong causal relationship between two variables is assumed not to be caused by the analysis chosen, but by the theoretical justification to support the analysis (Ghozali, 2004).

3.6.2.2. Path Diagram and Structural Equation

According to Ghozali (2004), there are two steps that must be taken to make a path diagram and structural equation. They are, arranging the structural model by correlating latent construct (endogenous and exogenous), and create measurement model by correlating endogenous or exogenous latent construct with indicator variable (*manifest variable*).

3.6.2.3. Choosing Input Matrix and Estimation Model

Model in structural equation is different from other multivariate analysis techniques. SEM only takes advantage of data input, and that is variance/covariance matrix or correlation matrix. The data from questionnaire will be converted into variance/covariance matrix or correlation matrix, so that the equation is also stated as *covariance structural analysis*. Covariance matrix has the advantage of giving comparison validity between different population and different sample than that of correlation matrix. The use of correlation is very well suited of which its objective is simply to understand the pattern of construct relationship, but not describe the total variance of the construct (Ghozali, 2004).

3.6.2.4 Structural Model Identification

Identification problem is incapability of proposed model to yield unique estimate. The identification problem can be done by seeing the estimation result, such as: (1) big value of *standard error* for one or more coefficients, (2) incapability of the program to invert *information matrix*, (3) impossible estimation value (negative *error variance*), (4) and high correlation value (>0.90) among coefficient estimates. If there is any

identification problem, so there are three things that have to be taken into account: (1) the amount of coefficient relatively estimated toward covariance or correlation which is indicated by small value of *degree of freedom (df)*, (2) the reciprocal influence among constructs (non-recursive model), (3) failure in determining fixed value on construct scale (Ghozali, 2004).

3.6.2.5 Goodness of Fit Criteria

If offending estimate occurs (negative variance error or non-significant error variance of construct, standardized coefficient close to value of 1.0, and high standard error) the cause of offending *estimate* should be eliminated first. In SEM analysis, there is no statistical test tool to measure or test the model (Hair, *et. al.*, 1998; Joreskog & Sorbom, 1989; Tabachnic & Fidell, 1996, in Ferdinand, 2002). *Fit Index* and *cut of value* are used to test whether the model can be accepted or not, as explained below:

a. Absolute Fit Measure

1. Likelihood Ratio Chi Square Measure

An analysis tool to measure overall fit is *likelihood ratio chi-square statistics*, by taking a minimum sample of 100 respondents. The model which is tested will be considered as good or satisfied if the *chi-square* (χ^2) value is small. Small value of χ^2 means that the model is good ($\chi^2=0$, means that there is no difference, H_0 is accepted) and accepted based on probability with *cut of value* $p>0.05$ or $p>0.10$ (Hulland, *et. Al.*, 1996, in Ghozali, 2004).

Because this analysis objective is to develop and test a model which is suited to and *fit* the data, so it requires insignificant value of χ^2 that test null hypotheses (*estimated population covariance* is not equal than *sample covariance*). Value of χ^2 can be compared with *degree of freedom (df)* to get relative value of χ^2 and it is used to make the conclusion that the high relative value of χ^2 means significant difference between covariance matrix observed and covariance matrix estimated.

Small value of χ^2 that results in the significant level more than 0.05 indicates that there is no significant difference between covariance matrix data and covariance matrix estimated (Hair, *et. Al.*, 1998 in Ghozali, 2004)

2. CMIN/DF (The minimum Sample Discrepancy Function)

The minimum Sample Discrepancy Function (CMIN) divided by its *degree of freedom (df)* will yield CMIN/DF (generally, it is used for a researcher as the indicator to measure fit level of model). CMIN/DF can also be calculated through *chi-square* statistic; χ^2 divided by its *degree of freedom (df)* is relative χ^2 . Value of χ^2 relatively less than 2.0 or even less than 3.0 as the indication of *acceptable fit* between model and data (Ghozali, 2004)

3. GFI (Goodness of Fit Index)

Fit Index can measure the proportion of variance in covariance matrix sample that is stated by estimated matrix covariance population

(Bentler, 1983; Tanaka & Huba, 1989; Ghazali, 2004). GFI is *non-statistical* measurement tool that has value range from 0 (*poor fit*) until 1.0 (*perfect fit*). High value in this index shows “*better fit*”.

4. RMSEA (The Root Mean Square Error of Approximation)

RMSEA is the index that can be used to compensate *chi-square* statistics in big sample (Baumgartner & Homburg, 1996; Ghazali, 2004). RMSEA value shows expected *Goodness of Fit Index* if estimated model is in population (Hair, et. al., 1998). Small value of RMSEA (< 0.08) shows *close fit* of model based on *degree of freedom (df)* can be accepted (Browne & Cudeck, 1993; Ghazali, 2004)

b. Incremental Fit Measure

1. AGFI (Adjusted Goodness of Fit Index)

Tanaka & Huba (1989) and Ghazali (2004) stated that GFI is the analogue of R^2 in multiple regressions. This *Fit Index* can be adjusted toward available *degree of freedom (df)* to test whether the model can be accepted or not (Ghozali 2004, p. 20). The index is found from the equation below:

$$AGFI = 1 - (1 - GFI) \frac{d_b}{d}$$

Where

$$d_b = \sum_{g=1}^G p^{(g)} = \text{Sample moments}$$

$d = \text{degrees of freedom}$

Acceptance level is recommended if AGFI has equal value more than 0.90 (Hair, *et al* in Ghozali, 2004). GFI and AGFI are the criteria that measure the proportion of variance in a covariance matrix sample. Value of 0.95 can be interpreted as *good overall fit* level and range value 0.090-0.95 shows *adequate fit level* (Hulland, *et al.* in Ghozali, 2004).

2. TLI (Tucker Lewis Index)

TLI is *incremental fit index* alternative that compare tested model toward baseline model (Baugartner & Homburg, 1996). The recommended value as the base of model is ≥ 0.90 (Hair, *et. al.*, 1995), and the value close to 1 (one) shows a very good fit (Ghozali, 2004). The index is found from the equation below:

$$TLI = \frac{(\chi^2_{null} / df_{null}) - (\chi^2_{proposed} / df_{proposed})}{(\chi^2_{null} / df_{null}) - 1}$$

Or:

$$TLI = \frac{\frac{C_b}{d_b} - \frac{C}{d}}{\frac{C_b}{d_b} - 1}$$

The C in the equation is the discrepancy of model that is evaluated and d is degree of freedom, meanwhile C_b and d_b is discrepancy and *degrees of freedom* from the *baseline model* that has comparison.

3. NFI (Normed Fit Index)

It is the comparison measurement between *the proposed model* and *the null model*. Value of NFI will be varied from 0 (*no fit at all*) until

1.0 (*perfect fit*). Like TLI, there is no *absolute value* that is used as the standard, but generally recommended as equal or > 0.90 .

3.6.2.6. Model Interpretation

According to Ghozali (2004), when a model is good and accepted, the researcher can conduct a model modification to repair the theoretical explanation or its goodness-of-fit. It requires a lot of consideration before the researcher can modify the first model. The first model needs to be estimated separately (cross-validated), and then the modified model can be accepted.

