

CHAPTER III

RESEARCH METHOD

3. 1 Type of Study

Type of study that will be used in this research is quantitative method, non-experimental and explanatory (correlational) study to analyze the relationship among CSR and perceived quality on corporate reputation and PWOM, which trust works as moderating variable between corporate reputation and PWOM.

3. 2 Sampling Design

3. 2. 1 Population

Population is a group of individual who has at least one similarity in terms of quality and characteristic that has been determined (Habib, 2014; Cooper & Emory, 1995). In addition, as mentioned in dictionary.reference.com, population is the number of people who live in a place and have a sense of belonging in social, culture, socioeconomic, ethnic, or racial subgroup. The population that will be used for this study is university students in Yogyakarta who have experienced Indomaret and Alfamart's products and service. The decision of population choosing is because most university students in Yogyakarta have been to these retail businesses.

3. 2. 2 Sample

According to dictionary.reference.com, sample is a small part of something, intended to show the quality, style, or nature of the whole. Hadi (2002) in the thesis of Habib (2014) reported that sample is a part of research population that is used to complete the research. In this study, there will be 225 samples, the researcher believe that 225 respondents is adequate number to represent the whole population, however to avoid defect questionnaire and keep the number of sample, then the researcher will spread 256 questionnaire to 256 respondents. The technique uses stratified random sampling. Based on statement from investopedia.com, the best method to be used to analyze specific class or strata of the population for the sample is stratified random sampling, in this research it would be about the customer of Indomaret and Alfamaret.

3. 3 Data Collection Method

3. 3. 1 Literature Study

A literature study adds more data to complete the research. The data obtained from the electronic media like the Internet, journals, and some websites, and from published media, including books and similar research that have been conducted previously by other researchers.

3.3.2 Questionnaire

This study will collect primary data, which are collected from respondents as research subjects. The data collection method of this study is using questionnaire. Questionnaire is a written test for respondents to get an empirical data to solve problem formulation and test the hypothesis (Habib, 2014; Supardi, 2005). The data will be collected directly from respondents through questionnaire. A closed questionnaire will be spread to respondents, which means they will answer the questions based on options given.

The questionnaire contain four parts of question theme:

Part I : The questions will be about CSR

Part II : The questions will be about perceived quality

Part III : The questions will be about corporate reputation

Part IV : The questions will be about PWOM

Part V : The questions will be about trust affecting the relationship between corporate reputation and PWOM

Likert scale is used to analyze all the answers from respondents. Likert scale is a scale that leads respondents to answer the questions based on selection stage provided. It let them express their opinion through number where it is a must for them to show the level of their agreement on each question. This study uses level of agreement from Likert Scale that represents by number 1, 2, 3, 4, and 5 which means:

1. Strongly Disagree (DS)
2. Disagree (D)

3. Neither Agree or Disagree (NAD)
4. Agree (A)
5. Strongly Agree (SA)

3. 4 Instrumentation

The researcher develops a five-part questionnaire for this study. A research that has been done by Perez (2009) showed that CSR link is an important instrument to create customer identification because consumers consider about the role of CSR initiatives (Webb & Mohr, 1999; Forehand & Grier, 2003). Consequently, the originality of CSR identity is able to improve company's attractiveness. In the questionnaire the items were design to examine the role of CSR and perceived quality on corporate reputation and PWOM which trust work as moderating variable.

All variables are conducted with five-point Likert scale which ranged from strongly agree (5) to strongly disagree (1). There are some socio-demographic questions and the coding schemes used in this research, including Gender: a = Male; b = Female. University: a = UII; b = UGM; c = UMY; d = UAD; and e = other. Family background: a = Civil servant; b = Military; c = Entrepreneur; and d = other. Monthly expenditure: 1 = Under Rp1,000,000; 2 = Rp1000,000-Rp2,000,000; 3 = Above Rp2,000,000.

Table 3. 1 Measurements Scale Items

Variable Measurement	Source	Number of Items	Type of Variable
CSR	Guruh Zalzaloh (2014), Napitupulu (2010)	4	Independent
Perceived Quality	HP Kusnara (2013), I Wayan Sudastra	4	Independent
Corporate Reputation	RM Tarigan (2015)	4	Intervening
Trust	TT Setyanto (2011)	4	Moderating
PWOM	Indah Setyawati (2009), Meity Purwaningrum (2008)	4	Dependent

3. 5 Research Variable and Operational

All items used to analyze the variables are adopted from Guruh Zalzaloh (2014) and Napitupulu (2010) for CSR, HP Kusnara (2013) and I Wayan Sudastra for perceived quality, RM Tarigan (2015) for corporate

reputation, TT Setyanto (2011) for trust, and Indah Setyawati (2009) and Meity Purwaningrum (2008) for PWOM. There are some independent variables in this paper, including CSR and perceived quality. One intervening variable is corporate reputation. Trust works as moderating variable, and the last PWOM as the dependent variable.

3. 5. 1 Independent Variable

Independent variable refers to the variable which is able to influence dependent variable in either a positive or a negative direction (Zalzal, 2014; Sekaran, 2000), There are some independent variables in this paper, including CSR and perceived quality.

3. 5. 1. 1 Corporate Social Responsibility

Canadian Centre for Philanthropy claimed CSR as the way company behaves positively and decreasing or even losing the negativity created. It is important factors influenced consumer decision making (Perez, 2009). Perez (2009) also confidently said that actually, responses towards CSR initiatives depend on the degree of consumer identification that the company generates through the messages of its social responsibility (Lichtenstein et al., 2004; Marín & Ruiz, 2007; Sen & Bhattacharya, 2001). The indicators used for CSR in this research are:

1. Customers know that the company works ethically.
2. Customers know company's activities.
3. CSR improve customers' awareness.

3. 5. 1. 2 Perceived Quality

In service context, brand quality takes an important role influencing brand preference, which indicate that it directly influences respondents' brand preference levels, added Liu et al. (2014). Many factors impact to quality make it hard to measure the service quality due to its complexity. It is not necessary for a service provider to serve a quality based on customer expectation (Crosby, Evans, & Cowles, 1990). The indicators used for perceived quality in this research are:

1. Customers feel the good quality provided by the company.
2. Customers feel the company fully pay attention to them.
3. Customers feel all the features of the product are fulfilling their needs.

3. 5. 2 Intervening Variable

Intervening variable is a variable that connects independent and dependent variable, it can make the relationship stronger or even weaker, however the impact can not be measured. Sometimes, it is deemed as a control variable which gives a causal sequence impact (Boston University Metropolitan College). One intervening variable in this research is corporate reputation.

Martin William et al. also suggested that positive corporate reputation creates intellectual relationship with target customer for sustainable profit outcome (Dowling 2004). The same research from Eberle suggested that stakeholders would like to spread the information about the product and give

recommendation to improve the corporate reputation in the view of target consumer when they have heard the positive information about that corporate and sense of belonging has been built among them. The indicators used for corporate reputation in this research are:

1. Customers view the company as having positive reputation.
2. Customers believe that the company is well-managed.
3. Customers realize the competitive advantage of the company.

3. 5. 3 Moderating Variable

Moderating variable is also well-known as the second independent variable which influence the relationship between the first independent variable and dependent variable. The impact to the relationship can increase or decrease the connection between both of the variables (psychwiki.com).

Customer trust refers to the trust owned by customers toward a firm, which is formed based on past experience with a firm that provides customers with many opportunities to evaluate a firm's ability, benevolence, and integrity (Berry, 1999). In the term of interpersonal relations, trust tends to record a perception of a partner's bad behavior, after the fault-finding process (Rempel, Holmes & Zanna, 1985). The indicators used for trust in this research are:

1. How big customers put their trust on the brand and its promises.
2. Customers are loyal and consistent to buy and use the product.

3. 5. 4 Dependent Variable

Dependent variable is the observed variable, it measures the changes caused by the changes in the independent variable. The dependent variable is not manipulated by the researcher, a far from that, it is an outcome of effect of examining antecedents variables (Williams).

It is undeniable that relation between word-of-mouth and customer satisfaction is very close to each other. In the study of Hsu (2011) mentioned that word of mouth is one of behavioral outcomes of customer satisfaction (Donio et al. 2006; Brady and Robertson 2001; Cronin et al. 2000). Positive word-of-mouth is largely created by all parties involved with the organization or community who has sense of belonging (Hennig-Thurau & Walsh, 2003), stable relationship creates a commitment that will result in long-term relationship with long-terms benefits (Anderson & Weitz, 1992). The indicators used for PWOM in this research are:

1. Customers spread the positive information about the product and the company.
2. Customers recommend other to use the product from the company.
3. Customers love to talk about the product and hate the negative information they get.

3. 6 Validity and Reliability Test

In this study, statistical test is used to find the validity of each questions item.

3. 6. 1 Validity Test

The convergent and discriminat validity are used to measure the validity of construct (Yu-Te Tu, 2013; Steenkamp & Van Trijp, 1991). The discriminant validity is a construct that distinct and unique, Hair et al (2010) added that discriminant validity captures phenomenon that other measures do not. Validity test is used to find out whether a data from the questionnaire is valid or not valid (Habib, 2014; Ghozali, 2005). A questionnaire is valid when all the questions in the questionnaire are able to express something measured in the questionnaire. Thus, validity is a measurement of how all questions in the questionnaire can answer all the problems formulation appropriately.

The type of validity is construct validity to measure and correlate score from each item with total score. Total score is a total number from score item. The correlation between score item and total score must be significant based on specific statistic value. A data is valid when score of all items are arranged base on correlation concept of total score.

According to calculation, significance lever r counted on significant level 5%, and then the interpretation will be as follows:

- a. If positive or significance level is less then 0.05, then the data is valid.

- b. If negative or significance level is more then 0.05, then the data is not valid.

Validity test uses tryout data from 30 respondents, which aims to select which questions that can be eliminated to get better questionnaire, before spread the real questionnaire to 225 respondents.

The validity test is base on item analysis that relate the score of each item with variable score (the sum of all items score). Pearson Correlation is used as corelation technic, which is counted by SPSS program version 17. The question item is valid when $r_{\text{counted}} > r_{\text{table}}$. The result of validity test by using this methode can be seen through the table 4. 1 below.

Table 3. 2 Validity Test Result

Variable	Measurement	r_{counted}	r_{table}	Description
CSR	Item 1 (AQ1)	0.666	0.341	Valid
	Item 2 (AQ2)	0.853	0.341	Valid
	Item 3 (AQ3)	0.877	0.341	Valid
	Item 4 (AQ4)	0.771	0.341	Valid
Perceived Quality	Item 1 (BQ1)	0.678	0.341	Valid
	Item 2 (BQ2)	0.789	0.341	Valid
	Item 3 (BQ3)	0.780	0.341	Valid
	Item 4 (BQ4)	0.718	0.341	Valid
Corporate Reputation	Item 1 (CQ1)	0.453	0.341	Valid
	Item 2 (CQ2)	0.752	0.341	Valid
	Item 3 (CQ3)	0.722	0.341	Valid

	Item 4 (CQ4)	0.829	0.341	Valid
PWOM	Item 1 (DQ1)	0.726	0.341	Valid
	Item 2 (DQ2)	0.667	0.341	Valid
	Item 3 (DQ3)	0.712	0.341	Valid
	Item 4 (DQ4)	0.538	0.341	Valid
Trust	Item 1 (EQ1)	0.755	0.341	Valid
	Item 2 (EQ2)	0.843	0.341	Valid
	Item 3 (EQ3)	0.901	0.341	Valid
	Item 4 (EQ4)	0.846	0.341	Valid

Source: Primary Data Proceeded, 2015.

Table 4. 1 shows that $r_{\text{counted}} > r_{\text{table}}$, then the measurements of this research are valid. It means that all measurements used in the instrument which related to CSR, perceived quality, corporate reputation, PWOM, and trust from Indomart and Alfamart customers obviously valid and can be used for this research.

3. 6. 2 Reliability Analysis

Reliability is a tool to measure a questionnaire as an indicator from variable or construct (Habib, 2014 ; Ghozali, 2005). As mentioned by Ghozali (2005) in the journal that has been done by Habib (2014) a, questionnaire is reliable if the respondent gives consistent and stable answer from time to time. If the answer of the indicator is messy, then it is not reliable. Reliability measurement can be done with one shoot or one test. In this study, the test

will be done once and the result will be compared to other questions to measure the correlation between each questions. The tool to test the reliability is *Alpha Cronbach*. A variable is a realiable, if (Ghozali, 2005):

Result of *Alpha Cronbach* > 0,60 = Reliable

Result of *Alpha Cronbach* < 0,60 = Not Reliable

Reliability is the condition when a respondent's response is consistence or stable from time to time. The higher reliability coefficient, the more reliable collected answer. Counting the score of Cronbach's Alpha instrument from each variable tested does reliability test of this research. If *Cronbach's Coefficient Alpha* more than 0.6, then all responses are reliable and can be used as item measurement. If *Cronbachs Coefficient Alpha* is less than 0.6, hence the response is not reliable and cannot be used. The result of reliability test of this research can be seen through table 4. 2.

Table 3. 3 The Result of Reliability Test

Variabel	<i>Alpha Cronbach</i>	Keterangan
CSR	0.671	Reliable
Perceived Quality	0.726	Reliable
Corporate Reputation	0.645	Reliable
PWOM	0.870	Reliable
Trust	0.857	Reliable

Source: Primary Data Proceeded, 2015

Base on the table above, the score of Cronbach Alpha of all variables, which are CSR, perceived quality, corporate reputation, PWOM, and trust more than 0.6. It shows that all answer from respondents is reliable and can be used for the research.

3. 7 Technique of Data Analysis

This study uses two models and techniques, SEM and Simple Regression. SEM is conducted to analyze the relationship among CSR, perceived quality, corporate reputation, and PWOM. Simple Regression is used to examine trust as moderating variable that influence the relation between corporate reputation and PWOM. Questionnaire data were conducted and analyzed using SPSS version 17 and AMOS.

3. 7. 1 Descriptive Analysis

Descriptive analysis in this study is analysis about respondents' questionnaire that describes some research variables which is represented by their answer.

3. 7. 2 Quantitative Analysis

Quantitative Analysis is an analysis that uses numbers. The following analysis is about the calculation of scale and values contained in paper questionnaire that was distributed. Analysis tool in this research is

linear regression which aims to know the impact of independent variable (X) toward dependent variable (Y).

As written in Yu-Te Tu (2013) journal, Hair, black, Babin, Anderson (2010) indicated that structural equation modeling (SEM) is a popular model because it provides a means of assessing theories that is conceptually appealing. AMOS software (version 18,0) will be used to test measurement and structural models that related to the research hypotheses listed. The SEM analysis through two stages, the first one is about the measurement model, whether it is valid and reliable or no, and the second one is to test the relationship between each variable using theory (Lucia Gatti et al., 2012).

3. 7. 3 Inferential Statistical Analysis

Inferential Statistical Analysis focus on the analysis and interpretation to get the conclusion. This analysis is used to examine research hypothesis by using sample collected. The method for this analysis is Structural Equation Modeling (SEM), because there is complicated causal relationship among variables which also have multiple role. SEM is able to explain simultaneously that relationship. The complicated relationship might be between one or more dependent variables with some independent variables, each construction consist of some indicators of variable (Ferdinand, 2002, p. 28).

Furthermore, the uses of SEM as the analysis tool is because the

complicated model or theoretical framework of the research, the limitation of other multidimensional analytical tools which is usually used in quantitative research, such as multiple regression, analysis factor, discriminant analysis, etc. The only weakness of this tool is only able to analyze one relationship at one time. In another word, this technique analysis is only able to examine a variable dependent from some independent variables. However, most of company face more than one dependent variable that must be connected to know its interrelation level (Ferdinand, 2002, p. 26). SEM works as the combination of some multivariate technique.

All data collected from respondents are the sample of this research; Structural Equation Modeling (SEM) with AMOS will analyze the distributed questionnaire. AMOS shows problem measurement structurally and it used to examine hypothesis model. It is because AMOS has capability to estimate the coefficient, accommodate the model which is latent variable and measurement error on dependent and independent variable.

According to Hair et al. (2006:70), SEM will efficiently help researcher to analyze the relationship among variables in statistical equation. Ferdinand (2002, p. 60) stated that SEM is a collection of statistical technique to examine the relationship that relatively simultaneous. Structural model in SEM estimates regression similarity which is different from one and another at the same time. The main

characteristic of SEM is its capability to estimate multiple dependence relationship. In addition, SEM also represents unobserved concept and predict measurement error.

SEM will examine research hypothesis. In this study, there are some relationships that will be examined, such as:

1. The influence of CSR (X1) towards corporate reputation (Y1)
2. The influence of perceived quality (X2) towards corporate reputation (Y1)
3. The influence of CSR (X1) towards PWOM (Y2)
4. The influence of perceived quality (X2) towards PWOM (Y2)
5. The influence of corporate reputation (Y1) towards PWOM (Y2)
6. Trust (Z) moderate the relationship between corporate reputation (Y1) and PWOM (Y2)

Steps to form structural equation model based on Hair (2006, p. 88), as follows:

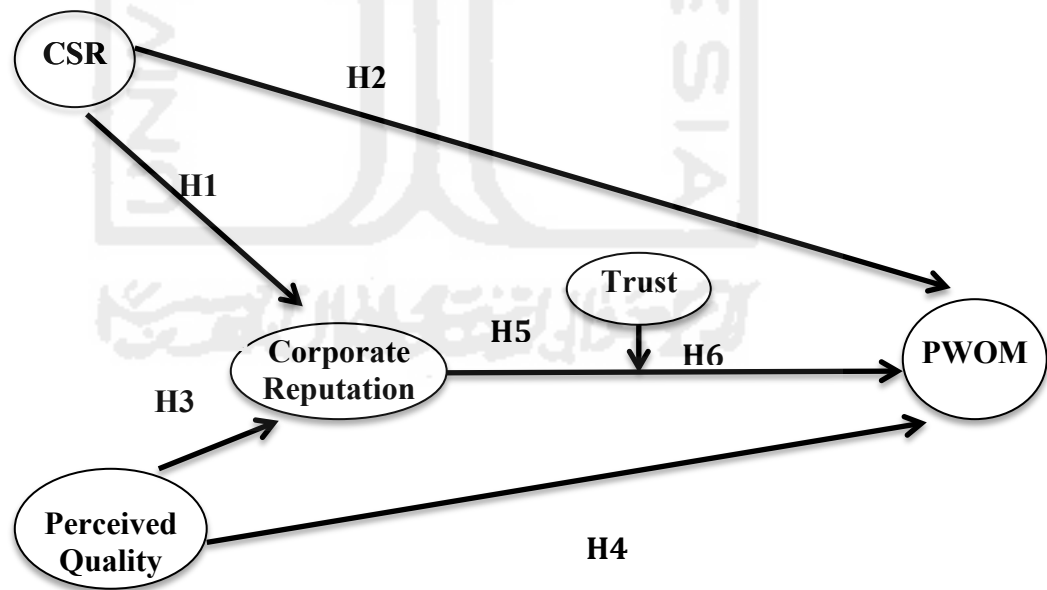
a. Theoretical Model

Literature study is needed to develop and explore the theoretical model in order to justify the model. SEM is used to confirm the model through empirical data. Since SEM is a confirmatory technique, then it is used to examine empirically the new theory or even some theory that has existed, but SEM is mostly used for justifying a theory that has existed and its development.

b. Path Diagram

Theoretical model will be described through path diagram which is easy to understand the relation among variables. In path diagram, an arrow will show relationship between variables. Straight arrow means there is causal relationship and curve means there is relation between each construct. The measurement between each variable is called structural model. Base on the theory, then the framework model used in this study as follows:

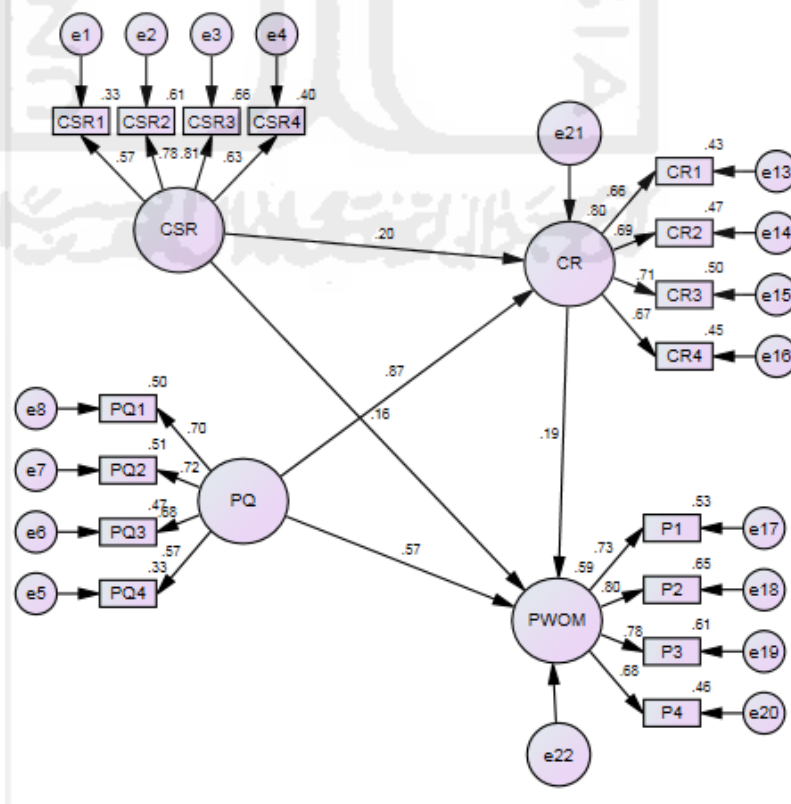
Figure 4. Theoretical Framework



The construction above can be divided into three variable category, the first is exogenous variable which includes CSR (X1) and perceived quality (X2), for the second category is endogen variable which includes

corporate reputation (Y1) and PWOM (Y2), for the last trust (Z) as moderating variable, Exogenous variable is also well known as source variable or independent variable which is not influenced or predicted by another variable in the model. Endogen variable refers to dependent variable which means affected by other variables. Observed variable is used to measure all variables. In SEM, ellipse represents unobservable variable and square represents observable variable, and technique of Confirmatory Factor Analysis forms latent variable. In addition, the measurement process from indicator to variable is called measurement model. Over all, the SEM model that has been made for this study can be seen in figure 5:

Figure 5. The Structural Equation Model



Description:

The model above shows the conversion from path diagram to structural equation and measurement model.

The equation that can be found from path diagram converted is structural equation, to show the causal relationship among various construct.

Endogen Variable = Exogenous Variable + Endogen Variable + Error

c. Goodness of Fit

In this step, goodness of fit test is important to examine the model suitability. There are some suitability index and cut-off value to test whether a model could be accepted or rejected.

1. X²-Chi-square statistic, a model is good or satisfying if the score of chi-square is low. The lower score of X², the better model exist and could be accepted based on the probability cut-off value $p > 0.05$ or $p > 0.10$.
2. The root Mean Square Error of Approximation (RMSEA), shows that goodness of fit can be expected to estimate the model in term of its population (Hair 2006, p. 138). If the score of RMSEA is lower or equal to 0.08, it means that the model is fit and could be accepted based on degrees of freedom.
3. Goodness of Fit Index (GFI) is a non-statistical measurement that has value between 0 (poor fit) and 1.0 (perfect fit). The higher a

score, the better fit it is.

4. Adjusted Goodness of Fit Index (AGFI) is a recommended acceptance level when AFGI has bigger or equal score to 0.09.
5. The Minimum Sample Discrepancy Function is CMIN/DF which is divided with Degree of Freedom. CMIN/DF is chi-square statistic, X^2 divided by its DF, the result will be X^2 relative. If relative X^2 less than 2.0 or 3.0, it indicates the acceptance fit of model and data.
6. Comparative Fit Index (CFI), closer to 1.0, indicates that the highest fit has been achieved (Arbuckle, 1997). The recommended score is CFI \geq 0.95.

Therefore, these index is used to test the goodness fit of the model, it can be seen through table 3. 4 below:

Table 3. 4 Goodness of Fit Criteria

Goodness of Fit Index	Cut-of value
Significance Probability \geq	0.05
RMSEA	\leq 0.08
GFI \geq	0.90
AGFI \geq	0.90
CMIN/DF	\leq 2.00
CFI \geq	0.95

Source: Ferdinand (2002, p. 61)

d. SEM Assumption Model

There are some principles in hypothesis test for assumption model, which relate to parameter prediction, such as

1. Linearity assumption is a willingness to have all relation in the model linear. Linearity testing is used to verify it. In addition, linearity testing use curve fit method with SPSS software. If Sig linier model < 0.05 , then it is fulfilled.
2. Assuming no outliers refer to the observation that come out with extreme value owing to the unique characteristic combination and stand out from other observations.

Outlier appears in four categories as follow:

- 1) Outlier appears because procedure error, for example during log in and coding
 - 2) Outlier appears because special condition, especially when data profile change. However, researcher has some explanation for this situation.
 - 3) Outlier appears because unknown reason.
 - 4) Outlier appears in range of score provided, but when it combines with other variables, the combination will be strange or very extreme, called as multivariate outlier.
3. The assumption of normality distribution, when data analysis spreads normally. The bigger sample size, the more normal distribution area is, even it is not well-distributed to the population,

stated by Dalil Limit Pusat (Central Limit Theorem)

e. Structural Model Test: Hypothesis Testing

After the model has fulfilled all requirements, the next is weight regression test. The test is done towards:

1. Measurement Model Hypothesis

Lambda (**λ**) Parameter is a parameter related to measurement of latent variable base on manifest variable; validity instrument.

Hypothesis examined:

H0 : $\lambda_i = 0$ (not significant)

H1 : $\lambda_i > 0$ (significant)

2. Structural Model Hypothesis

1) Beta (**β**) Parameter is a parameter that influence exogenous variable towards endogen variable in structural model.

Hypothesis examined:

H0 : $\beta_i = 0$ (not significant)

H1 : $\beta_i \neq 0$ (significant)

2) Gama (**γ**) Parameter is a parameter influence endogen variable towards endogen variable variable in structural model.

Hypothesis examined:

H0 : $\gamma_i = 0$ (not significant)

H1 : $\gamma_i \neq 0$ (significant)

This test is similar to T test (partial test) in multiple regression, this test is done by comparing the score of t counted with t table, with specific term as follow:

If t counted $>$ t table means variable is significant

If t counted \leq t table means variable is not significant

Ferdinand (2002, p. 75) explained that t counted is identic with critical ratio which is tested by the score of probability p, if $p < 0,05$ means significant influence and if $p > 0,05$ means not significant.

