

## **CHAPTER III**

### **RESEARCH METHOD**

#### **A. The object and subject of research data**

This research discusses the factors that affecting the whistleblowing intention of employee in higher education. The object of this research is higher education in Manado. Public higher education and private higher education. Meanwhile the subjects in this study are employees who work in higher education areas in the city of Manado, including permanent employees, lecturers and staff.

#### **B. Data Type**

The data used are primary data. The definition of primary data itself is research data that researchers, (Suryono and Chariri in Islamiyah, 2018). Primary data can be divided into questionnaire or interview methods. Primary data is data that refers to information obtained from first-hand researchers related to the variable of interest for specific research purposes. Primary data sources can come from individual respondents and focus groups. The internet can also be a primary data source if the questionnaire is distributed by the internet.

Primary data in this study were obtained using instruments in the form of questionnaires given to respondents. Questionnaire is a set of questions that are arranged in an orderly and structured way to get respondents 'answers about what factors influence students' intention to disclose information at tertiary institutions in Manado. Primary data in this study are respondents' answers about the influence

of personal costs, attitudes and perceptions of the seriousness of fraud that is moderated by organizational commitment to the determination of the facts.

### **C. Sampling Technique**

There are many sampling techniques that are usually used in research. The sampling technique used in this study is convenience sampling technique. According to Sekaran and Bougie in Islamiyah (2018) convenience sampling method is done by considering easy access to information gathering and proximity to researchers. The use of convenience sampling is very suitable with the conditions of the study and its respondents, considering the respondents in this study are employees where ease of access is very important for comfort.

### **D. Data Collection**

The study used a survey method with a questionnaire instrument to collect data. The questionnaire consisted of five parts. All of the part is fulfilled the questions about personal cost, perception about seriousness of fraud, attitude, organizational commitment, and whistleblowing intention in choosing the likert scale from 1(strongly desegree) to 5 (strongly agree). There was one more special section about respondent's personal data which includes name, age, and generation. The questionnaire has been completed with instructions for filling out the questionnaire in a simple and concise manner so that respondents can understand how to systematically fill out the questionnaire.

## **E. Operational Variable**

This study involved six variables consisting of three independent variables, one moderating variable and one dependent variable. The dependent variable is the variable that is the main focus in a study so it can be said that the dependent variable is the main point or reason for the research. The moderation variable is a variable that will influence the independent variable and the results can be strengthened or even weakened. Meanwhile the independent variable is a variable that can affect the dependent variable and it this is the variable that drives the dependent variable. In this study, the independent variable is personal cost, seriousness of fraud and attitude, while the moderating variable is organizational commitment and whistleblowing intention is the dependent variable.

### **1. Dependent Variable**

#### **a. Whsitleblowing intention**

The intention of whistleblowing is one of the beliefs of someone who wants to take reporting action about a fraud that occurs within the organization or agency. The intention of whistleblowing is needed because the development of an age is increasingly developing the evil ideas of someone to commit acts of fraud. Therefore whistleblowing intention is needed from every member in every organization. One of them is a student because basically students are one member of a higher education

## **2. Independent Variable**

### a. Personal cost

Personal costs are perspectives that assess how far and how important a person is in the organization. In this study, personal costs are related to the individual, how the individual views the risk that will be experienced when he makes the decision to take whistleblowing.

### b. Perception about Seriousness of Fraud

Perception of seriousness in cheating can be defined as an effect that might arise from a financial violation from both financial and non-financial aspects. In this study, the measurement of the perception of the seriousness of cheating is measured by applying a quantitative approach.

### c. Attitude

The attitude in whistleblowing is about the extent to which an individual has a favorable or unfavorable evaluation of whistleblowing. It is the amount of belief a person has about the consequences of whistleblowing and subjective evaluation of these consequences.

## **3. Moderating Variable**

### a. Organizational Commitment

Organizational commitment is one's loyalty to the organization through maintaining the goals, organizational values, sadness, or willingness to try to be someone useful from the organization. If a person have this

commitment, he will have the desire to survive in the organization and the desire to realize the goals of the organization.

## **F. Instruments and Data Quality**

Instrument quality test is used to measure whether the instruments used in a study are appropriate and able to measure what must be measured (valid) and whether it is able to measure consistency (reliable). In this research the validity and reliability of all the variables will be tested to ensure that the variables are in accordance with the requirements set. Further explanation of the validity and reliability test is as follows:

### **1. Validity Test**

Validity test is a test of the accuracy of a measuring instrument in measuring something that if you want to investigated. Validity test aims to assess whether a set of measuring devices is appropriate in measuring something that is measured. The process of measuring validity is to link or correlate between factor scores (the sum of item in one factor) and the total factor (the total number of factors).

The level of validity will affect the results of hypothesis testing. If the data tested does not meet the validity criteria, the results of the study cannot be accepted or rejected. Validity test is important in order to know whether the indicator questions presented are in accordance with the Latin construct. Items can be declared valid if the magnitude of  $r$  is  $r$  table and positive (with a significance level of 0.05 or 5%) and vice versa.

## **2. Reliability Test**

In general reliability is defined as something that can be trusted to exist. Reliability test in statistics serves to determine the consistency of a question item (indicator) used by researchers so that the item can be relied on in measuring variables in the study, whether the measurement results can be categorized as consistent or not even if it is repeated with the same questionnaire but in a different time vulnerable. This test is done to ensure that the researcher makes the correct conclusion or not.

To test the reliability level can be taken from the Cronbach alpha value in each variable. If the Cronbach alpha value shows 0.60 or more than 0.60, it is concluded that the reliability is fulfilled.

## **G. Hypothesis Testing and Data Analysis**

### **1. Descriptive Statistics**

Descriptive statistics shows the main picture about the condition of each variable in the study. This study uses three parameters in describing these conditions. The three parameters in question are the range of scores (maximum and minimum), average, and median of inscription (Islamiyah, 2018).

### **2. Classic Assumption Test**

The classic assumption test in regression analysis consists of normality test, multicollinearity test and heteroskedasticity test. This classic assumption test aims to determine whether the data are normally distributed and meet the

requirements of the multicollinearity test and the heteroskedasticity test. If the data meets the entire test, it means that the regression model has fulfilled the feasibility.

**a. Normality Test**

Normality test is useful for determining the data that has been collected whether it is normally distributed and taken from a normal population. The classical model in testing the normality of data is not that complicated. Based on the empirical experience of some statisticians, if the amount of data is more than 30, it can be assumed that the data is normally distributed and is usually said to be a large sample. Normality statistical tests that can be used include Chi-Square, Kolmogorov Smirnov, Lilliefors, Shapiro Wilk, and Jarque Bera.

The normality test used in this study One Sample-Kolmogorov-Smirnov (K-S) statistical test with sig criteria:

- 1) If the sig value  $> 0.05$  then the residue spreads normally, meaning that the normality assumption for the regression model is fulfilled.
- 2) If sig  $< 0.05$ , the residual distribution is not normal, meaning that the normality assumption for the regression model is not fulfilled

**b. Multicollinearity Test**

Multicollinearity or double collinearity test is a linear relationship among independent variables  $X$  in the multiple regression model. If the linear relationship between independent variables  $X$  in the multiple regression model is perfect correlation, then the variable has perfect double collinearity. A good regression model must be able to show no linear relationship between independent  $X$  variables. Assessment criteria for the occurrence of multicollinearity can be done by observing:

- 1) The magnitude of the linear relationship (correlation) between the independent variables  $X$  with the following approaches:
  - a) If the correlation coefficient between variables  $X$  is below 0.90 (90%) then the correlation is weak which means there is no multicollinearity
  - b) If the correlation coefficient among the independent variable  $X$  above is 0.90 (90%), then the strong correlation means that there is multicollinearity.
- 2) Value of Variance Influence Factors (VIF)

The cut off value used to indicate the presence of multicollinearity is a VIF value  $> 10$  or equal to a tolerance value  $< 10$ . Multicollinearity occurs when the VIF value is greater than 10 and vice versa.



### c. Heteroscedasticity Test

Heteroscedasticity test is the variance of the residual inequality for all observations in the regression model. Heteroscedasticity test is conducted to find out the deviation from the classical assumption conditions in the regression model, where in the regression model must meet the condition of the absence of heteroscedasticity.

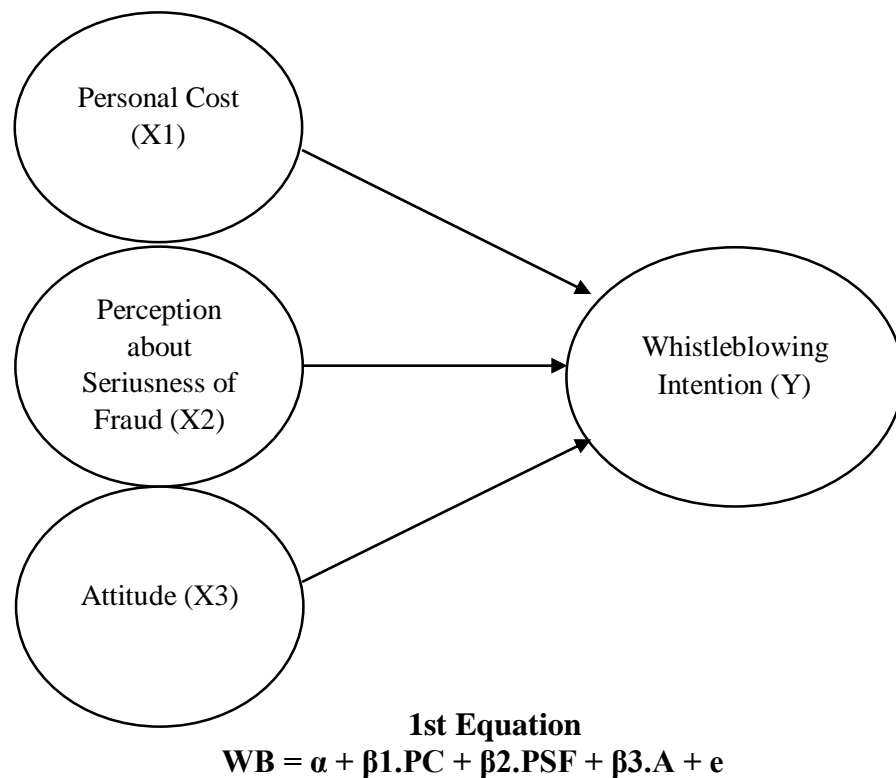
Assessing heteroscedasticity can be done by looking at the plot between the predictive value of the dependent variable with the residue. By looking at the plot distribution chart, if there is a special pattern such as a set point that produces a consistent pattern, it means that there is heteroscedasticity. Conversely, if the pattern formed from a set of dots is not clear, it means there is no heteroscedasticity.

### 3. Multiple Regression Analysis

Multiple regression is an extension of simple linear regression. It is used when we want to predict the value of a variable based on the value of two or more other variables. The variable we want to predict is called the dependent variable (or sometimes, the outcome, target or criterion variable). The variables we are using to predict the value of the dependent variable are called the independent variables (or sometimes, the predictor, explanatory or regressor variables).

Multiple regression analysis is used to determine the effect of personal cost (PC), perception of the seriousness of fraud (PSF), attitude (A) as an

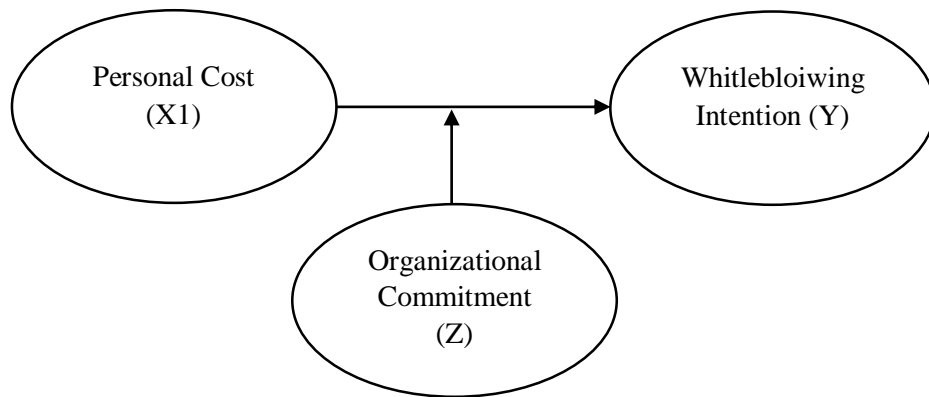
independent variable, and organizational commitment (OC) as a moderating variable on whistleblowing intention (WB) which is the dependent variable. Based on this approach multiple regression equations can be made for each hypothesis shown as follow:



Y : Whistleblowing Intention  
 $\alpha$  : Alpha  
 $\beta$  : Konstanta  
 X1 : Personal Cost  
 X2 : Perception about Seriousness of Fraud  
 X3 : Sikap  
 E : Error

**Figure 3.1**  
**Research Model 1 for Hypotheses 1-3**

The test model used to test this hypothesis is to use multiple regression. This analysis tool is used to test the effect of several independent variables on one dependent variable.



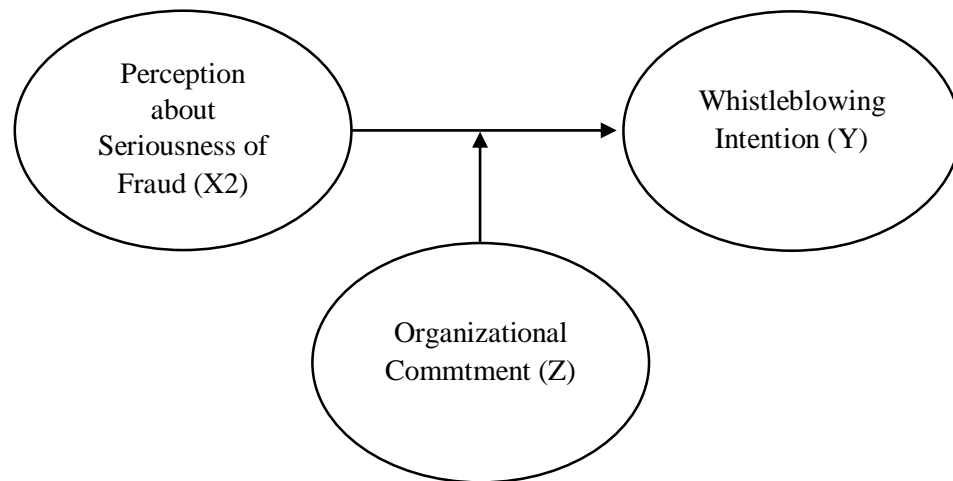
**2nd Equation**

$$\text{WB} = \alpha + \beta_1.\text{PC} + \beta_2.\text{OC} + \beta_3[\text{PC}.\text{OC}] + e$$

Y : Whistleblowing Intention  
 $\alpha$  : Alpha  
 $\beta$  : Konstanta  
 X1 : Personal Cost  
 Z : Komitmen Organisasi  
 E : Error

**Figure 3.2**  
**Research Model 2 for Hypotheses 4**

The equation examines whether the variable of organizational commitment can function as a moderating variable that can strengthen or weaken the relationship between personal cost and whistleblowing intentions.



### 3rd Equation

$$WB = \alpha + \beta_1.PSF + \beta_2.OC + \beta_3.[PSF.OC] + e$$

Y : Whistleblowing Intention

$\alpha$  : Alpha

$\beta$  : Konstanta

X2 : Perception about Seriousness of Fraud

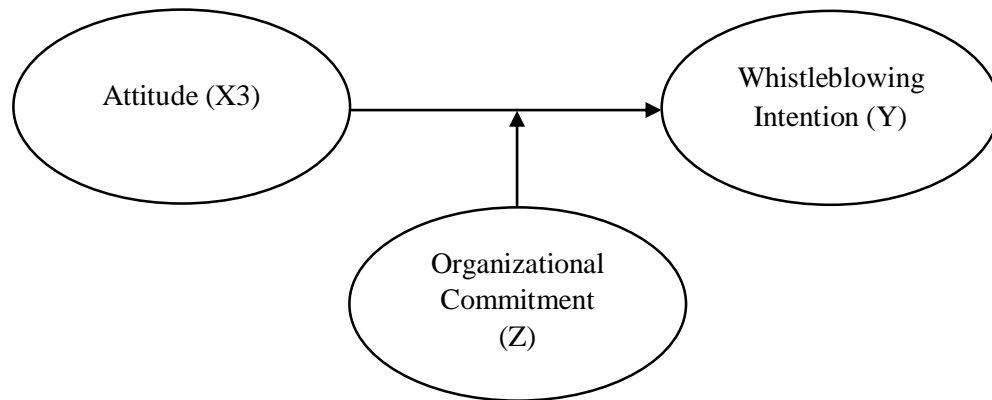
Z : Komitmen Organisasi

E : Error

### Figure 3.3

#### Research model 3 for Hypotheses 5

The equation above examines whether the organizational commitment variable can function as a moderating variable that can strengthen or weaken the relationship of perception of the seriousness of fraud and whistleblowing intentions.



#### 4th Equation

$$WB = \alpha + \beta_1.A + \beta_2.OC + \beta_3.[A.OC] + e$$

Y : Whistleblowing Intention

$\alpha$  : Alpha

$\beta$  : Konstanta

X3 : Attitude

Z : Komitmen Organisasi

E : Error

#### Figure 3.4

#### Research Model 4 for Hypotheses 6

The equation examines whether the organizational commitment variable can function as a moderating variable that can strengthen or weaken the relationship between attitude and whistleblowing intentions.

Furthermore, to determine the effect of the independent variables on whistleblowing intentions, a research hypothesis test was conducted. The types of testing are as follows:

##### a. Coefficient of determination

The coefficient of determination is a general description that states how well the sample regression line matches the data. For

regression with more than two independent variables, adjusted R<sup>2</sup> is used as the coefficient of determination to measure the proportion of variation in the dependent variable that is explained by the regression. The adjustment value R<sup>2</sup> ranges from 0 to 1, if adjusted R<sup>2</sup> = 0, it means that, there is no relationship between PC, PSF, A and OC variables with WB Variables whereas. If the adjusted value R<sup>2</sup> = 1, it means there is a perfect relationship. therefore, the closer to the number one pitch, the stronger.

b. F test

The F test was carried out to determine the effect of all the independent variables together on the dependent variable. This test is performed using a significance level of 0.05 ( $\alpha = 5\%$ ). Hypothesis acceptance is done with the following criteria:

- 1) If the significant value is  $<0.05$ , the hypothesis is significantly supported together with PC, PSF and A variables affecting whistleblowing intention (WB) and OC can moderate the PC, PSF and A variables towards WB
- 2) If the significance value is  $> 0.05$ , then the hypothesis is not supported, which means that together with the PC, PSF, A variables do not affect the whistleblowing intention (WB) and OC can not moderate the PC, PSF and A variables towards WB.

c. T test

T test is used to determine the ability of each independent variable individually (partial) in explaining the behavior of the dependent variable. This test is performed using a significance level of 0.05 ( $\alpha = 5\%$ ). Hypothesis acceptance is carried out with the following criteria:

- 1) If the significant value  $< 0.05$  and the regression coefficient are in the same direction as the hypothesis, then the hypothesis is partially supported by PC, PSF, A variables affecting whistleblowing intentions and OC can moderate the PC, PSF and A variables towards WB.
- 2) If the significance value  $> 0.05$  and the regression coefficient are contrary to the hypothesis, then the hypothesis is not supported, which means that partially PC, PSF, A variables do not affect whistleblowing intention (WB) and OC cannot moderate PC, PSF, and A variables towards WB.

d. Moderate Regression Analysis

Moderation variables are variables that influence the direction between the relationship of the independent variable and the dependent variable. Basically this moderating variable can strengthen and weaken the relationship of the independent variable to the dependent variable. Moderation variables can

affect the independent variable but cannot be influenced. The moderating variable is said to strengthen the independent variable if the results of R square in the second regression are greater than R square in the results of the first regression, and are said to weaken the relation between independent and dependent if the opposite occurs.