CHAPTER III

RESEARCH METHOD

A. Research Method

1. Research Object / Subject

Participants of this research are accounting undergraduate students in the third and fifth semester of Universitas Muhammadiyah Yogyakarta. This research needs 150 participants, each of cell consist of 30 participants. These students still or have already taken management accounting, management control system and audit material subject in the lecture. So, participants already know about the activities in the internal management of companies or organizations and any kind of fraud or wrongdoings. There are advantages and disadvantages using the undergraduate student as participants in this experimental research.

The advantages in choosing the undergraduate students as participant are help to reach the high internal validity of this experimental research, because students do not have any working experience yet and many factors such as reward, retaliation and etc. do not influence the participant yet, so the answer from students as participant can purely collected because of the condition that is manipulated by researcher. Moreover, to get the data from the undergraduate student is easier than choosing practitioner as a participant in this research.

The disadvantages in choosing undergraduate student as a participant are the different level of knowledge of each participant. So, it will influence to understanding the manipulated case and the answer of participants. Moreover, the proximity factor will affect the neutrality of participant's answers.

2. Type of Data

This research uses primary data. Primary data is data that collected directly by the researcher using manipulated experiment case or questionnaire, the participant will be asked some questions then respondents will answer the questions.

3. Experimental Method

This research used experimental method with 2 x 3 between subjects. Based on the book from Utami (2016) stated that experimental research is a type of research that emphasizes the aspects of causal relationships between research variables. Dictionary of Merriam Webster explains that experiment is operation or procedure that used under controlled conditions to discover new laws, test hypotheses, or describe established laws. Experimental research conduct by actively manipulating the research object and then observing the results of manipulation. Specifically, this research classified into Randomization Experiment that all variables are fully controlled by the researchers by randomizing the subject into the process of the manipulated

condition in the experimental research. Experimental design of this research is conduct by randomly choosing accounting undergraduate class in third or fifth semester, a researcher explains the purpose and process of research, each of subject/participants get the first case and answer sheet that has been shared then will get the second case and answer sheet after the first phase has finish, participants ask to take decision whether to report the wrongdoing or not.

B. Operational Definition of Research Variable

1. Dependent Variable

Whistleblowing intention is an act of individual or group to report an unethical action or wrongdoing (Miceli, 1985). Whistleblowing in this study refers to individual intention as an employee of an organization to report wrongdoing that conducts by individuals or group in internal of the organization. The individual intention to report the act of wrongdoing is a dependent variable. The dependent variable in this research will be measured by asking participants about their intention to report wrongdoing after reading a case.

The case of whistleblowing intention in this research is compilation and modification from researches were conducted by (Putri, 2016) and (Seifert, Sweeney, Joireman, & Thornton, 2010) with 5 Likert Scale from strongly disagree until strongly agree.

2. Independent Variable

Horizontal equity is a condition that describes the similarity of degree or people's position with the peers who should normatively be treated equally. Equal treatment means that equal salary and daily relationships. In the context of this study, horizontal equity is achieved when an individual's salary is the same as the salary of his peers. In some conditions and phase of the experiment, participants were told that some of the other participants were receiving a salary that was twice as high as their own. The researcher has a limitation on the ability of employee salary (research funding), it was considered more cost effective to use fictitious peers rather than actually paid peers. Participants were debriefed on the experimental purpose of this deception following the experiment. The case of horizontal equity in this research is compilation and modification which comes from research by (Matuszewski, 2010) with 5 Likert Scale from strongly disagree until strongly agree.

C. Experimental Manipulations and Procedures

The experimental design (Table 1) is adapted from Matuszewski (2010). Participants told that has a peer and they are in the department of finance with the same educational background, years of experience, job description, duties, and workload. In each of phase, participants received private information about their own salary and peers' salary. Participants informed that Head of Department expected them to do their very best performance, but Head of Department do some wrongdoing and known by participants. During two phases, participants received a salary based on their performance that paid by the Head of Department. Participants divided into five groups/cells, one cell consists of 30 people (more/less). Each of the cells is in different condition. In the story of the case, participant and peer paid by amount minimum regional salary of Yogyakarta City.

Participants will compare with imagined peers into three conditions. Those conditions are relative salary changes from inequitable to equitable, relative salary changes from equitable to inequitable and relative salary remains equitable. This experiment will be set by some treatments (summarized in Table 1). Each participant had information about his/her own salary, as well as the salary of his/her peers.

TABLE 3.1
Experimental Design

Horizontal Equity Variable	Participant Salary Variable		
	No change	**Increased**	**Decreased**
Increased Relative salary changes from Inequitable to Equitable	**Cell 1** Participant is told his salary is half as much as peers' salary, then is told peers get a salary decrease so the salaries are equal Salary Changes Participant: Rp 1.700.000 → Rp 1.700.000 Peer: Rp 2.700.000 → Rp 1.700.000	**Cell 2** Participant is told his salary is half as much as peers' salary, then participant gets a salary increase so the salaries are equal Salary Changes Participant: Rp 1.700.000 → Rp 2.700.000 Peer: Rp 2.700.000 → Rp 2.700.000	(not tested)
Decreased Relative salary changes from Equitable to Inequitable	**Cell 3** Participant is told salaries are equal, then is told peers get a salary increase so his salary is half as much as peers' salary Salary Changes Participant: Rp 1.700.000 → Rp 1.700.000 Peer: Rp 1.700.000 → Rp 2.700.000	(not tested)	**Cell 4** Participant is told salaries are equal, then participant gets a salary decrease so his salary is half as much as peers' salary Salary Changes Participant: Rp 2.700.000 → Rp 1.700.000 Peer: Rp 2.700.000 → Rp 2.700.000

(continued on the next page)

TABLE 1 (continued)

No Change	**Cell 5**		
Relative salary remains Equitable	Participant is told all participant have the same salary, with no changes Salary Changes Participant: Rp 1.700.000 → Rp 1.700.000 Peer: Rp 1.700.000 → Rp 1.700.000	(not tested)	(not tested)

1. **Dependent Variable**

The dependent variable—change in whistleblowing intention—was calculated as the difference between the whistleblowing intention in the first and second phase of each cell of the experiment. Each of cells has the same case of wrongdoing but in a different condition that treated/manipulated (Independent Variable). Following Matuzewski (2010) whistleblowing intention percentages for each half of the experiment were calculated as the proportion of intention to report the wrongdoing. The participants will read the wrongdoing case then assess whether to disclose the wrongdoing or not. This research will use one-way analysis of variance test to calculate the data.

2. **Independent Variable**

Salary changes were used to operationalize the horizontal equity variable. The possible levels of this variable are Increased (from inequitable to equitable), Decreased (from equitable to inequitable), or No Change (equitable). In the Increased condition (Cells 1 and 2), in first phase participants told that the participants authorize to receive a salary of Rp1.700.000, while the peer would receive Rp2.700.000. In the second phase, participants then told everyone would be receiving the same salary amount (Rp1.700.000 in Cell 1 and Rp2.700.000 in Cell 2).

In the Decreased condition (Cells 3 and 4), participants initially told that everyone was authorized to receive the same salary (Rp1.700.000 in Cell 3 and Rp2.700.000 in Cell 4). After the two phases, these participants then told that their authorized salary was now 50 percent less than the salary of half of the peer because the peer received an increase to Rp2.700.000 in Cell 3, while participants received a decrease to Rp1.700.000 in Cell 4. In the No Change Horizontal Equity (Cell 5) participants were initially told that everyone was authorized to receive the same salary (Rp1.700.000), and there are no changes in salary in the two phases.

The participant salary variable (No Change, Increased, or Decreased) was used to manipulate the payment of each participant. In the No Change condition (Cells 1 and 3), participants told that peers received a salary change when horizontal equity is changing. Participants told that peers received a decrease from Rp2.700.000 to Rp1.700.000 in Cell 1, and an increase from Rp1.700.000 to Rp2.700.000 in Cell 3. In the Increased condition (Cell 2), the own salary of participant was increased from Rp1.700.000 to Rp2.700.000 and they were told the salary of the peers was held constant at Rp2.700.000, and in the Decreased condition (Cell 4), the own salary participant of was decreased from Rp2.700.000 to Rp1.700.000, while they told the salary of the peers was held constant at Rp2.700.000.

D. Data Quality Testing

1. Manipulation Check

To measure the success of manipulation in this research, the researcher uses three questions in the second phase of the case study. These three questions are proposed in form of multiple choice which asks for salary condition of a participant in the first and second phase of the case. It means that whether the salary in the first and second phase increases or decrease and compare with peers' salary. The data from a participant can be processed if success to pass the manipulation check.

2. Homogeneity of Variance

In this research, to process the data is using one-way ANOVA. In one way ANOVA homogeneity of variance is needed to determine the validation of assumption for ANOVA, namely whether the five participant groups have the same variance (homogeny) can accept or not.

E. Hypothesis Testing and Data Analysis

The way to process the data of this research using one-way analysis of variance. The ANOVA-Test will use to know difference mean between two groups of data. The difference means indicate the intention to report wrongdoing.

1. **Analysis Tools**

This research uses quantitative data. The research data is the answers of participants based on the case. SPSS 15.0 will be used in this research to process the data into the output, then it needs to be analyzed by the researcher.

2. **One Way Analysis of Variance**

According to the Hand Book of Univariate and Multivariate Data Analysis and Interpretation by (Ho, 2006) The one-way analysis of variance (ANOVA) is an extension of the independent t-test. It is used when the researcher is interested in whether the means from several (> 2) independent groups differ. For example, if a researcher is interested in investigating whether four ethnic groups differ in their IQ scores, the one-way ANOVA can be used.

In this study, researcher is going to examine the influence of horizontal equity towards whistleblowing by each of cell's variance. It is known that as one-way ANOVA, because the research focus on one dependent variable that examines with another five groups (independent variable).