

Earnings Management Behaviour: The Role of Pressure on Behaviour Performance

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ABSTRACT

Manuscript type: Research paper.

Research aims: This study aims to examine the impact of pressure on behaviour performance in the context of earnings management. Three specific key points were tested: whether pressure affects earnings management behaviour; whether pressure has an interaction effect with ethical orientation on earnings management and whether pressure has an interaction effect with professional commitment on earnings management behaviour.

Design/ Methodology/ Approach: This study employs a laboratory experiment which involves 102 undergraduate students as samples. The independent variable, pressure, is manipulated as follows: (1) no pressure is given and (2) pressure is given. The other two independent variables are ethical orientation and professional commitment which are measured by using the 5-point Likert scale. The dependent variable, earnings management behaviour, is measured by using the 7-point Likert scale.

Research findings: The results reveal that there is a relationship between individual ethical orientation and earnings management behaviour. The results also find that participants with a higher level of professional commitment are less likely to engage in earnings management. Moreover, it is observed that pressure has an effect on earnings management behaviour. In particular, there is an interaction

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effect between pressure and earnings management factors such as ethical orientation and professional commitment.

Theoretical contribution/ Originality: By investigating the effect of pressure on earnings management behaviour and by examining the interaction effect between pressure and ethical orientation and professional commitment, this study adds to current literature. While prior studies examined the elements of pressure causing individuals to engage in earnings management behaviour, this study examines whether pressure, in the form of legal consequences and written justifications, could potentially reduce earnings management behaviour.

Practitioner/ Policy implication: The results of this study are beneficial to the management of organisations in recognising factors that may influence managers to perform earnings management. The results of this study can alert policy makers on the use of pressure, which comes in the form of legal consequences and written justifications, for minimising earnings management behaviour. Finally, the outcome of this study also benefits academicians such that they may want to consider reviewing other ethical orientations and professional commitment components in their accounting syllabi so as to increase ethics and professionalism among accounting students.

Research limitation: The participants of this research are students who had limited working experiences.

Keywords: Earnings Management Behaviour, Ethical Orientation, Pressure, Professional Commitment.

JEL Classification: M41

1. Introduction

Earnings management behaviour can be affected by multiple factors. Elias (2002) and Greenfield, Norman, and Wier (2008), for instance, confirmed that two factors can affect earnings management: professional commitment and ethical orientations. They noted that individuals with low level of professional commitment tend to manipulate the earnings when compared to individuals with higher levels of professional commitment. It was added that a relativistic person is more likely to get involved in earnings management actions than one who is idealistic. Nonetheless, previous studies which looked at the effects of ethical orientations on behaviour had produced different results. Earlier studies (see, Allmon, Page, & Roberts, 2000; Douglas, Davidson, & Schwartz,

2001; Forsyth & Berger, 1982; Forsyth & Nye 1990; Marques & Azevedo-Pereira, 2009) mentioned that the concept of relativism and idealism are not related to behaviour. It was argued that other factors such as greater job demands (Allmon et al., 2000), consequences of actions (Forsyth & Nye, 1990) and pressure (Forsyth & Berger, 1982) may have some effect on earnings management.

In particular, studies such as Jones (1991) and Gomaa, Hunton, Vaassen, and Carree (2011) noticed that pressure, which refers to a certain application of force, may also affect decision making. For instance, Jones (1991) stated that when decision makers take an action or make a decision that hinges on ethics, they would consider the consequences of their decision on other people within the organisation. This view to foresee the possible consequences put a certain kind of pressure on the decision makers and it can influence them to be more aware and thoughtful of their actions before making any decision (Jones, 1991). Pressure can come in various forms, for example, in the form of legal consequences and making justifications for a decision. This pressure may influence their respective actions (Gomaa et al., 2011). These two forms of pressure can also be used by organisations to maximise the performance outcomes of the individuals involved. According to Ashton (1990), pressure can create attention and efforts that causes the individual to give his/her best efforts in making good decisions for the organisation he/she works in.

Studies looking at pressure on earnings management behaviour, especially about its interaction effect on other earnings management behaviour factors are limited and yet understanding these issues is critical. Thus, this study aims to fill in the gap by giving attention to three aspects of earnings management behaviour. First, it aims to examine the impact of pressure, ethical orientation and professional commitment on earnings management behaviour. Second, it aims to test the combined effect of pressure and ethical orientation on earnings management behaviour. Third, this study aims to test the combined effect of pressure and professional commitment on earnings management behaviour.

A laboratory experimental design was employed for this study to test the hypotheses formulated. It was held in the Management Business Faculty of the Batam Polytechnic, Indonesia. A total of 102 participants were recruited to confirm the hypotheses. The results of this study confirm the findings of previous studies which state that participants who were oriented towards relativism tend to manipulate

earnings more than those who were oriented towards idealism. This study also supports the outcome which states that participants with low professional commitments were more inclined towards managing earnings than those with high professional commitments. Similarly, participants who received information on the legal consequences of the decision and the instruction to provide written justifications for their decision (pressure treatment) were less likely to manage earnings as compared to those who did not receive similar pressure treatments. In the current study, participants who received information on the legal consequences of the decision and the instruction to provide written justifications for their decision were classified as “participants with pressure treatment” while the participants who did not receive the said information and instruction were classified as “participants with no pressure treatment”. The results of this study also show that there was an interaction effect between pressure treatment and ethical orientation and professional commitment.

This paper is organised as follows. Section 2 reviews prior literature and develops the hypotheses. Section 3 explains the methodology employed. Section 4 analyses the data, Section 5 discusses the findings and Section 6 concludes with suggestions for further research.

2. Literature Review and Hypotheses Development

2.1 Earnings Management

The use of judgement to make decisions provides management with the opportunity to manage earnings. This is the reason why a firm’s financial reporting may not accurately reflect the firm’s underlying economics (Healy & Wahlen, 1999). In that regard, earnings management may mislead and affect the stakeholders’ interest. In an organisation, managers can increase or decrease their current reported earnings without corresponding it to the increase or decrease of the long-term economic profitability of the firm (Fischer & Rosenzweig, 1995; Rosenzweig & Fischer, 1994). This is achieved through the manager’s manipulation of accounting policies, judgments or their timing/selection of operating decisions (Healy & Wahlen, 1999; Jooste, 2013). Earnings management occurs when changes are made to the accounting methods used or through some specific operating decisions (Fischer & Rosenzweig, 1995; Jooste, 2013; Rosenzweig & Fischer, 1994).

According to Greenfield et al. (2008), evidence on the relationship between earnings management, idealism and relativism, professional

commitment and pressure is still limited. Many previous studies (Elias, 2002; Fischer & Rosenzweig, 1995; Johnson, Fleischman, Valentine, & Walker, 2012; Jooste, 2013; Rosenzweig & Fischer, 1994) tend to look at the ethical problems of earnings management and not specifically on how earnings management is affected. Thus far, few have ventured into looking at pressure and earnings management.

2.2 *Ethical Orientation*

Besides being limited, studies looking at ethical orientation had also produced mixed results. Douglas and Wier (2000), Liu (2013), Singhapakdi, Vitell, and Franke (1999) for instance, found that ethical orientation has an impact on behaviour or ethical judgement. Other studies by Allmon et al. (2000), Douglas et al. (2001) and Marques and Azevedo-Pereira (2009) found the opposite. In one study, Elias (2002) suggests that attention be paid to the individual's ethical orientation if the objective of a firm is to reduce the occurrences of earnings management. In that regard, it is necessary for more studies to look at the relationship between ethical orientation and earnings management decision, especially under different contexts and conditions.

There are two categories of ethical orientation or ethical ideology: individual idealism and individual relativism. The term, idealism, describes an individual's attitude towards the consequence of an action and how the individual's attitude affects the welfare of others. In contrast, the term relativism refers to the extent to which the individual rejects the universal moral principles and rules (Elias, 2002; Forsyth, 1980). It appears that high idealistic individuals believe that it is always wrong to follow a path that causes undesirable consequence to others whereas individuals with high relativism believe that moral actions depend on the nature of the situation and the individuals involved (Forsyth, 1980; 1992). The ethical orientation of the individual has been noted to have a significant relationship with earnings management behaviour (Greenfield et al., 2008; Elias, 2002). Relativistic individuals, it was noted, tend to be involved in earnings management behaviour whereas idealistic individuals tend to question the illegal actions performed (Elias, 2002; Greenfield et al., 2008; Liu, 2013). Based on this, the hypothesis formulated is as follows:

- H₁: Participants with relativism orientation tend to manage earnings more than participants with idealism orientation.

2.3 Professional Commitment

Previous studies (Elias, 2006; Hall, Smith, & Langfield-Smith, 2005; Nasution & Östermark, 2012; Smith & Hall, 2008) defined professional commitment as the attachment individuals develop due to their professions. An individual who has high professional commitment will do the best for his/her profession and this individual will be labelled as a professional when he/she is competent and responsible in doing his/her work (Bommer, Gratto, Gravander, & Tuttle, 1987). Professional commitment involves the individual's belief in and the acceptance of the goals and values of the profession (Elias, 2006).

Previous studies by Aranya, Lachman, and Armenic (1982), Aranya, Pollock, and Armenic (1981), Jauch, Glueck, and Osborn (1978), Lachman and Aranya (1986) and Smith and Hall (2008) had confirmed that professional commitment is related to work behaviour. In a separate study, Elias (2006) found that accounting students who have lower level professional commitment are more likely to engage in questionable actions. These accounting students also tend to engage in earnings management practices (Greenfield et al., 2008). In comparison, individuals with high professional commitment exert a considerable effort, on behalf of their profession and their desire, so as to maintain membership in the profession (Aranya et al., 1981; Elias, 2008; Nasution and Östermark, 2012). Based on this, the hypothesis formulated is as follows:

- H₂: Participants with lower professional commitment tend to manage earnings more than participants with higher professional commitment.

2.4 Pressure

Two forms of pressure were applied in this study namely, written justifications and legal consequences. The first of these, justification, is one form of pressure that has an effect on the characteristics of the decision setting. This is because the decision maker has to justify his/her decision to others, possibly to receive favourable evaluations from external or internal parties who observed his/her decisions (Curley, Yates, & Abrams, 1986). The accuracy and consistency of the decision will increase when individuals know that they will be required to justify the decisions made to another person (Ashton, 1990).

The second form of pressure, legal consequence, is the outcome feedback resulting from a decision made. Legal consequence is one form of pressure types used in sanctions. It is a feedback that is given based on the decision maker's prior decision. A study by Shafer, Morris, and Ketchand (1999) found that a formal sanction can influence the auditor's independent behaviour. In another study, Farmer, Rittenberg, and Trompeter (1987) suggested that legal consequence (litigation) has an effect on their subjects' willingness to allow the use of a "novel" accounting treatment.

Previous studies (Craft, 2013; Selart & Johansen, 2011) noted that pressure such as sanctions and stress can have some effects on decision making. A study by Sweeney, Arnold, and Pierce (2010) confirmed that the perception of ethical pressure has an impact on intention to engage in the decision making behaviour. Legal consequences, punishment and other ethical consequences are important factors to be considered by the decision maker. A study by Gurley, Wood, and Nijhawan (2007) observed that among the three variables comprising moral values, probability of getting caught and valence of the outcome on ethical decision making, it is the presence of punishment that promotes positive ethical decision making. It seems that this variable gives more credence to people's moral values. Based on this, Gurley et al. (2007) then suggested that punishment is an important factor for a decision maker to consider when making an ethical choice. A legal consequence can also act as a type of self-punishment should the individual decide to observe an unethical behaviour and make an illegal decision. In this regard, any information concerning the legal consequence can influence the decision of the individual; it can convince the individual into doing the right thing or into performing the proper behaviour when required (Allmon et al., 2000).

Information about the legal consequence and the requirement to provide written justifications for the decision made can thus, raise the individual's awareness that earnings management is "an illegal decision". This will then cause them to make the right decision instead. A strong social stigma associated with the label "illegal" can compel people to comply with the moral force behind the law (Bommer et al., 1987). Therefore, it can be said that legal consequences and written justifications may make the individual choose the ethical decision which then leads to a reduction in earnings management tendencies. In that regard, Elias (2002) suggested using pressure as a testing factor on

earnings management. Based on this, the third hypothesis formulated is thus as follows:

H₃: Participants who did not receive legal consequence information and justification instruction tend to manage earnings when compared to participants who received legal consequence information and justification instruction.

2.5 Ethical Orientation and Pressure

As mentioned earlier, the cause-effect relationship between the idealism and relativism orientation and behaviour is still debatable and outcomes have so far, been inconsistent. This is because there are other variables that could affect earnings management behaviour. For instance, great job demands (Allmon et al., 2000), consequences of actions (Forsyth & Nye, 1990) or pressure (Forsyth & Berger, 1982) can also affect earnings management behaviour. In their study, Allmon et al. (2000) found that the demands of multiple tasks can overwhelm an individual thereby causing the individual to switch his/her ethical orientation. Another study by Forsyth and Nye (1990) noted that ethical orientations can also interact with the consequence of actions. This observation was further endorsed by Forsyth and Berger (1982) who stated that pressure by confederates can make students' behave in ways that may not be consistent with their ethical orientations, whether in terms of idealism or relativism. Peterson (2003) thus, suggested that ethical pressure has a relationship with relativistic moral beliefs. Consequently, relativistic individuals tend to judge moral actions according to situations.

Decisions to manage earnings may depend on the pressure faced by the decision makers. This pressure may reduce the earnings management tendency of relativistic individuals. In addition, the pressure of knowing what the legal consequence of the decision is, can also affect the individual in reconsidering the decision taken in managing earnings. At the same time, the requirement to justify the decision made could also convince the individual to take decisions which abide by universal values. Based on that, the hypothesis formulated is as follows:

H₄: Participants with relativism orientation and who receive legal consequence information and justification instruction have less tendency to manage earnings when compared to participants with relativism orientation and did not receive similar information and instruction.

2.6 Professional Commitment and Pressure

Lord and DeZoort (2001) found that professional commitment is related to the pressure of social influence whereby any social pressure can cause an auditor to make a decision that conflicts with his/her commitment. This observation is endorsed by Nasution and Östermark (2012) and Dezoort and Lord (1994) who noted that auditors tend to compromise their professionalism when faced with pressure. Based on this, it is hypothesised that professional commitment will interact with legal consequence and justification instruction. It is further hypothesised that individuals with low professional commitment are more likely to manage earnings. However, the presence of the legal consequence information can make them aware of the effect of their decision, thereby causing a reduction in the tendency to manage earnings. The requirement to justify their decision will also have the same effect on the decision makers because they would need to think carefully before embarking on earnings management. Thus, the fifth hypothesis formulated is as follows:

H₅: Participants with low level professional commitment and who received legal consequence information and justification instruction have less tendency to manage earnings compared to participants with low level professional commitment who did not receive similar information and instruction.

3. Methodology

3.1 Variables

As mentioned earlier, two variables are involved in this study. The dependent variable is the earnings management decision. Greenfield et al.'s (2008) management scenario was adapted to measure the earnings management of this study. The adapted management scenario explains that a public listed manufacturing company can propose to delay the maintenance of certain equipment until the following year. In this scenario, the participants acting as the executive vice president of the company were asked to decide whether to support or oppose the proposal to delay all maintenance scheduled during the last two weeks of December until March of the following year. The cost of the maintenance will be about the same, but the current year's income will be increased because no expenses will be incurred during December of the year. Such an action influences the earnings management behaviour.

The three independent variables applied and tested in this study encompass: (1) Ethical Orientation (Idealism/Relativism), (2) Professional Commitment (High/Low) and (3) Pressure (Pressured/Not Pressured). This study uses the hypotheses of H₁ to H₃ to test the direct effect of each variable with earnings management behaviour. The hypotheses of H₄ and H₅ were used to test the combined effects between Ethical Orientation and Pressure and the effect between Professional Commitment and Pressure on earnings management behaviour.

The first independent variable, Ethical Orientation, was measured by the Ethical Position Questionnaire (EPQ) that was developed by Forsyth (1980) and which consists of 20 questions: ten on idealism and ten on relativism. Table 1 shows that the EPQ instrument contains adequate consistency (Cronbach's alpha of 0.77 for idealism, 0.91 for relativism) hence, it was applied.

The second independent variable, Professional Commitment, was measured by fifteen items that were developed by Aranya et al. (1981). The reliability test of these items also carried adequate consistency (Cronbach's alpha = 0.80) thus, it was applied.

Table 1. Cronbach's Alpha Test

Variable	Cronbach's Alpha
Idealism	0.767
Relativism	0.909
Professional Commitment	0.804

The third variable, Pressured/Not pressured, was the only variable that was manipulated. It is the only treatment given in the experiment. Participants who received information about the legal consequences of the proposed decision and the instruction to provide written justifications for their decision were categorised as "participants with pressure treatment" whereas the participants who did not receive the said information and instruction were categorised as "participants with no pressure treatment". The current study also adopted the case study procedure that was developed by Gomaa et al. (2011).

The research instrument used in this study was pilot tested on students who were not selected to participate in the experiment. Further to that, a discussion was held with some accounting lecturers and university internal auditors so as to confirm the instrument's validity.

Based on the input gathered from the discussion, the instrument was modified and refined before it was used in the real experiment. The modification focused on the treatment given to the scenario. Greenfield et al. (2008) had used a personal benefit treatment but the current study used the writing justification and legal consequence as treatment, which were adapted from Gomaa et al. (2011). The research instrument is attached in the Appendix.

3.2 Participants

The participants of this study were 102 part time students majoring in management accounting. They were in the last semester of their undergraduate studies hence, considered as well exposed to the discipline of accounting procedures. These selected students were also gainfully employed thus, they have both work experience as well as knowledge of the accounting discipline. Taking their background knowledge and experience into consideration, these students were thus, selected as the participants of the experiment. They thus acted as the substitute for the executive vice president of a publicly held manufacturing company. Previous studies (Belski, Beams, & Brozovsky, 2008; Elias, 2006; Farag & Elias, 2012; Fischer & Rosenzweig, 1995; Greenfield et al., 2008; Jooste, 2013; Kaplan, 2001; Shawver & Clements, 2014) have proved that such students are suitable as experimental samples.

In the context of this study, each participant was randomly assigned to one of the two groups, i.e. (1) Group 1 which comprised of participants with pressure treatment; and (2) Group 2 which comprised of participants with no pressure treatment. Two participants did not complete the task and so they could not proceed to the next level of the study. Ultimately, they were excluded and this affected the number of participants. Hence, in total, 51 participants did not receive pressure while 49 participants received pressure. The participants had voluntarily participated in the experiment and all were debriefed after the experiment.

3.3 The Experiment

The experimental treatment was displayed through the Web Pages and all the participants were randomly assigned to either Group 1 or Group 2. They were required to sign in with their assigned ID and password. The procedures are further explained below.

Step one: Participants opened the website of the experiment material. They logged in using their assigned ID number and password. There was information on the website stating that they would be acting as an executive vice president of a publicly held manufacturing company. They were shown an earnings management scenario which explained that the company proposed to delay the maintenance until the following year. The participants were given a question related to the scenario in order to assess their understanding of the case. Participants who answered correctly would proceed to the next step.

Step two: Participants received some questions which either support the proposal or oppose the proposal of delaying the maintenance until the following year. Participants were asked to rate their choice from 'strongly oppose' to 'strongly support' the postponement, based on a 7-point Likert scale. Participants with pressure treatment received additional information of legal consequences and instruction to write justifications for their decisions (their answer) before they select their choices.

Step three: Participants were given questions about ethical orientations, level of professional commitment, demographic information and second and third manipulation checks. The questions on the ethical orientation were given in the last stage to ensure the construct validity of the experiment. If the questions were given earlier to the participants with pressure treatment, it could influence them to be bias when rating their decision on the proposal to delay maintenance thereby, reducing the effectiveness of the pressure treatment.

Step four: The experiment ended with a debriefing which explained the previous simulation.

3.4 Manipulation Checks

Manipulation checks of the participants were conducted through three questions. The first question or check was administered in step one while the second and third checks were administered at step three of the experiment. The questions asked were aimed at fulfilling specific goals as illustrated below.

The first question was to ensure that the participants understood the case, that maintenance expenses were not incurred in December of the present year. The results gained from the question indicate that all the participants answered the question correctly.

The second question was to make participants in the pressure treatment group be aware of the litigation risks involved if the earnings were manipulated. The results gained from the questions indicate that three participants did not answer the question correctly.

The third question was to ensure that the participants understood the need to provide a written justification for the decision made. The results gained from the last manipulation check indicate that two participants did not answer the question correctly. Consequently, the total number of participants involved in the study dropped to 95 students¹ with only 44 in the group subjected to pressure treatment and 51 not subjected to pressure treatment.

4. Findings

4.1 Descriptive Statistics

As stated above, this study aims to: test the main effect of the independent variable on earnings management behaviour thereby, also testing the combined effect between pressure and ethical orientation and the combined effect between pressure and professional commitment on earnings management.

Participants were classified into two ethical orientations by comparing their idealism and relativism scores. Those with equal scores between idealism and relativism were excluded in the data analysis (six subjects were found having the same idealism and relativism score).

The median split was used to classify the participants into low or high professional commitment. This procedure resulted in 44 participants being classified into low professional commitment and 42 participants being classified into high professional commitment (three participants have the median score of 53 and were excluded in the data analysis). An independent sample t-test shows that the score gap between subjects with low professional commitment and high professional commitment was significant ($M_{\text{high}} = 58.98$ vs $M_{\text{low}} = 46.14$, $t(86) = 11.36$, $p < 0.000$).

The demographic information of the final sample of 86 participants is shown in Table 2. There are 17 males and 69 females. Although

¹ This study conducted statistical test on the groups which include and exclude participants who failed the manipulation test. Independent sample t-test shows no difference is found in earning management behaviour (*Mean Difference* = 0.96, $p > 0.05$), Idealism (*Mean Difference* = 0.27, $p > 0.05$), Relativism (*Mean Difference* = 0.77, $p > 0.05$), and Professional Commitment (*Mean Difference* = 0.18, $p > 0.05$). The results of the hypotheses testing also show similar results.

Table 2. Demographic Information of Final Sample

Mean (Std. Deviation):	
Work Experience (Years)	1.80 (1.52)
Age (Years)	21.60 (1.28)
Sample in each category:	
Gender (Male/ Female)	17/ 69
Pressure (no pressure/ Pressure)	46/ 40
Professional Commitment (Low/ High)	44/ 42
Ethical Orientation (Idealism/ Relativism)	50/ 36

gender was imbalanced here, Shawver and Clements (2014) had argued that there is no difference between genders in earnings management decision. This was also observed in the Indonesian context by Kogin and Rudiawarni (2015) and Santoso and Rakhman (2013). In that regard, the dominance of women in this study is not considered as having any impact on the result. The average age of the participants were 21.60 years old with their ages ranging from 19 to 27 years. The average work experience among them was 1.8 years. Most of the students have been working between one to three years, some with about five years and a few had seven years working experience.

The descriptive statistics variable is shown in Table 3. Here, the dependent variable, earnings management behaviour, was measured using a 7-point Likert scale. The mean response for the group with no pressure treatment was 3.80 (*S.D.* = 1.75) while the mean response for the group with pressure treatment was 2.35 (*S.D.* = 1.05). The two

Table 3. Descriptive Statistics Variables

Variables	No Pressure	Pressure
Earnings Management Behaviour	Mean (3.80) S.D. (1.75)	Mean (2.35) S.D. (1.05)
Idealism	Mean (37.96) S.D. (7.16)	Mean (38.40) S.D. (5.61)
Relativism	Mean (33.17) S.D. (6.23)	Mean (34.95) S.D. (5.50)
Professional Commitment	Mean (52.37) S.D. (7.47)	Mean (52.45) S.D. (9.25)

independent variables, professional commitment and ethical orientation, were measured using a 5-point Likert scale. The mean response of the professional commitment for the group with no pressure treatment was 52.37 (*S.D.* = 7.47) while for the group with pressure treatment was 52.45 (*S.D.* = 9.25). The mean response of those oriented toward idealism but with no pressure treatment was 37.96 (*S.D.* = 7.16) while for the group with pressure treatment was 38.40 (*S.D.* = 5.61). Finally, the mean response of those oriented toward relativism but with no pressure treatment was 33.17 (*S.D.* = 6.23) while for the group with pressure treatment was 34.95 (*S.D.* = 5.50).

4.2 Test of Hypotheses

The data collected from the participants were then analysed using the analysis of variance (ANOVA) which was aimed at testing the main effect and the interaction hypotheses. The results of the ANOVA are presented in Table 4.

From the hypotheses formulated for this study, H_1 posits that participants oriented toward relativism tend to manage earnings more than

Table 4. Mean, Standard Deviation and Results of ANOVAs for Earnings Management Behaviour

Panel A. Mean and Standard Deviation					
Ethical Orientations		Professional Commitment		Pressure	
Idealism	Relativism	Low	High	No	Yes
Mean 2.32	Mean 4.25	Mean 3.68	Mean 2.55	Mean 3.80	Mean 2.35
S.D. (0.999)	S.D. (1.680)	S.D. (1.789)	S.D. (1.214)	S.D. (1.746)	S.D. (1.051)
Panel B. Results of ANOVAs					
Source			F	Sig.	
Ethical Orientations (EO)			22.203	0.000	
Professional Commitment (PC)			4.559	0.036	
Pressure (P)			23.612	0.000	
EO*PC			0.195	0.660	
EO*P			8.245	0.005	
PC*P			19.514	0.000	
EO*PC*P			1.567	0.214	

those oriented toward idealism. Results show that ethical orientation has an effect on earnings management behaviour. Analysis shows that participants oriented toward relativism support earnings management behaviour ($M_{\text{relativism}} = 4.25$, $S.D. = 1.680$ vs $M_{\text{idealism}} = 2.32$, $S.D. = 0.999$) more than those oriented toward idealism thus, H_1 is supported.

Hypothesis 2 states that participants who have lower professional commitment tend to manage earnings more than those who have higher professional commitment. Table 4 shows the significant main effect of professional commitment which indicates that participants with lower professional commitment tend to manage earnings more thereby, supporting H_2 ($M_{\text{low}} = 3.68$, $S.D. = 1.789$ vs $M_{\text{high}} = 2.55$, $S.D. = 1.214$).

Hypothesis 3 predicts the effects of pressure on earnings management behaviour. The results shown in Table 4 confirm the significant main effect of pressure, showing that participants who received pressure treatment were less inclined towards earnings management behaviour when compared to those who did not receive pressure treatment ($M_{\text{no pressure}} = 3.80$, $S.D. = 1.746$ vs $M_{\text{pressure}} = 2.35$, $S.D. = 1.051$).

Hypothesis 4 predicts the interaction effect between ethical orientation and pressure. This study argues that participants who were oriented toward relativism will have a different behaviour under different pressure conditions. In this study, the ANOVA results shown in Table 4 confirm the significant interaction effect between ethical orientation and pressure. A contrast analysis was also performed to test the hypothesis. Panel B in Table 5 demonstrates the result which indicates that participants oriented toward relativism have a lower tendency to manage earnings when they received legal consequence information and written justification instructions, unlike participants with the same ethical orientation but did not receive similar pressure treatment (*Mean difference* 3.750, $p < 0.05$). This result supports H_4 .

This study also predicts the significant interaction effect between professional commitment and pressure. Hypothesis 5 states that participants with low level professional commitment have a lesser tendency to manage earnings when they received legal consequence information and written justification instructions when compared to participants with low level professional commitment who did not receive similar pressure treatment. Table 4 suggests a significant interaction effect between professional commitment and pressure. The contrastive analysis shown in Panel B of Table 5 illustrates the significant result thereby, confirming H_5 (*Mean difference* 4.500, $p < 0.05$).

Table 5. Mean, Standard Deviation and Contrast Results for Earnings Management Behaviour

Panel A. Mean and Standard Deviation				
Pressure	Idealism Orientations		Relativism Orientations	
	Low Professional Commitment	High Professional Commitment	Low Professional Commitment	High Professional Commitment
No Pressure	Mean 3.25 S.D. (0.71)	Mean 2.07 S.D. (0.92)	Mean 5.50 S.D. (0.79)	Mean 3.50 S.D. (1.76)
Pressure	Mean 2.00 S.D. (0.88)	Mean 2.36 S.D. (1.08)	Mean 2.25 S.D. (1.26)	Mean 3.00 S.D. (1.07)

Panel B. Contrast Results for Hypotheses 4 and 5				
Contrast	Value of contrast	SE	Df	Sig.
Relativism in pressure group vs. relativism in no pressure group (H ₄)	3.750	0.774	78	0.000
Low professional commitment in pressure group vs. low professional commitment in no pressure group (H ₅)	4.500	0.710	78	0.000

5. Discussion and Implication

The results of this study suggest that ethical orientation has an impact on earnings management behaviour thereby, confirming the findings of previous studies done by Elias (2002) and Greenfield et al. (2008). These scholars had argued that the individuals oriented toward relativism were more likely to engage in earnings management than those who were oriented toward idealism. The current study also found a negative impact of professional commitment on earnings management behaviour. These results are similar to those of Elias (2006, 2008) and Greenfield et al. (2008) which revealed that individuals with low level professional commitment tend to engage in questionable actions or earnings management.

The primary contribution of this study is noted in the findings which indicate that pressure plays a significant role in earnings management behaviour. From the findings, it can be noted that participants

who felt pressured with information about legal consequence and written justification instructions were less likely to engage in earnings management when compared to those participants who did not receive such treatment. This study had also specifically noted the interaction effect between pressure and ethical orientation and professional commitment. Under pressure, participants oriented toward relativism have a lesser tendency to manage earnings when compared to those with no pressure treatment. Moreover, participants with low level professional commitment were less inclined to manage earnings when they received pressure as compared to those who did not. This study also confirms some of the findings of previous studies which found that pressure such as litigation risk (Farmer et al., 1987), formal sanctions (Shafer et al., 1999), punishment (Craft, 2013; Gurley et al., 2007), stress (Selart & Johansen, 2011), perceived ethical pressure (Sweeney et al., 2010) and social pressure (Nasution & Östermark, 2012) have an impact on judgment and decision-making. Therefore, it can be said that this study has contributed to new knowledge as it provides evidence showing the effect of the interaction between ethical orientation, professional commitment and pressure in the earnings management context.

This study employed two forms of pressure – legal consequence and written justification instructions to act as variables. The first, legal consequence, was one of the three types of consequences suggested by previous research (Farmer et al., 1987; Shafer et al., 1999). The other two types of consequences were punishment imposed by professional organisations such as the AICPA Professional Ethics Division or the State CPA Societies as well as adverse peer-review outcomes (Shafer et al., 1999). It appears that legal consequence can serve as a feedback information for decision makers to make choices when making any particular earnings management decisions. Based on this, decision makers will be informed of the consequence of their choice should that choice be categorised as unethical.

The second form of pressure is written justification which was a form of pressure that could affect the characteristics of the natural decision setting. This is because the decision maker has to justify his/her decisions to others, possibly to be judged on his/her competency (Curley et al., 1986). Generally, earnings management behaviour is not acceptable and is judged as unethical. The requirement for the written justification of a decision made can cause decision makers to make more publicly acceptable decisions thereby, avoiding earnings management behaviour. Further, the requirement to justify choices will also increase

the effort of the decision maker in making good decisions and producing good results (Ashton, 1990). The accuracy and consistency of the decision making will tend to increase as time passes because the decision maker is more alert to the need that he/she would be required to make justifications for his/her decision to another person (Ashton, 1990).

6. Conclusion

The research findings gained from this study showed that participants under pressure treatment have a lesser tendency to manage earnings than those who did not receive pressure treatment. The research findings also implied that participants oriented toward relativism and have low level professional commitment were less likely to indulge in earnings management when they received pressure treatment.

The results obtained from this study may be helpful to managers, practitioners, academicians, researchers and policy makers in many ways. In the first instance, the findings help the management to be more aware of the factors that may influence managers in performing earnings management. With that knowledge, the management can be expected to review the firms' policies and procedures as a measure to look for ways that can minimise unethical actions within the organisation.

From the perspective of the practitioners, the findings gained can enable them to be more conscious of their professional commitment and to increase their desire to uphold their professional integrity.

In terms of academia, the importance of the ethical orientation on earnings management behaviour should alert academicians such as business or accounting lecturers in reviewing their syllabi so as to enhance the discipline as well as professionalism of students. Academicians may also need to consider the value of increasing students' ethical awareness by providing more case illustrations of appropriate decision making choices.

For the benefit of researchers, it is recommended that the concept of pressure be included in future studies on earnings management so as to derive at a more comprehensible and balanced output depicting the factors that can minimise earnings management behaviour within the accounting field.

Where policy makers are involved, the outcome of this study would have highlighted to them that pressure on decision makers may reduce earnings management behaviour. In that regard, policy makers should consider taking relevant steps to review current policies and if

need be, impose meaningful penalties on the performance of earnings management. Strict enforcement is also necessary because any failure to enforce the law negates whatever penalty that may have been imposed on non-compliance. Thus, policy maker may also require firms and companies to justify their non-compliance of any accounting standards or any deviation made from the usual business practices.

The results of this study are not without limitations. This study had used students to proxy for the executive vice president of a public listed company thus, the outcome may not be fully authentic. Nonetheless, the use of students as proxy had been accepted by previous studies although these proxies may not have the necessary experience of an accounting professional. In that regard, future studies may consider using business managers or accountants as their participants in their experimental designs. This practice would bring participants closer to real life situations. Further, as this is only an exploratory study looking at the role of pressure in performing earnings management, future studies may consider using the quantitative approach so as to confirm the results derived from this study.

References

- Allmon, D.E., Page, D., & Roberts, R. (2000). Determinants of perceptions of cheating: Ethical orientation, personality and demographics. *Journal of Business Ethics*, 23(4), 411-422. doi: 1006087104087
- Aranya, N., Lachman, R., & Amernic, J. (1982). Accountants' job satisfaction: A path analysis. *Accounting, Organizations and Society*, 7(3), 201-215. doi: 10.1016/0361-3682(82)90001-0
- Aranya, N., Pollock, J., & Amernic, J. (1981). An examination of professional commitment in public accounting. *Accounting, Organizations and Society*, 6(4), 271-280. doi: 10.1016/0361-3682(81)90007-6
- Ashton, R.H. (1990). Pressure and performance in accounting decision settings - Paradoxical effects of incentives, feedback, and justification. *Journal of Accounting Research*, 28, 148-180. doi: 10.2307/2491253
- Belski, W.H., Beams, J.D., & Brozovsky, J.A. (2008). Ethical judgments in accounting: An examination on the ethics of managed earnings. *Journal of Global Business Issues*, 2(2), 59-68.
- Bommer, M., Gratto, C., Gravander, J., & Tuttle, M. (1987). A behavioral model of ethical and unethical decision making. *Journal of Business Ethics*, 6(4), 265-280. doi: 10.1007/BF00382936
- Craft, J.L. (2013). A review of the empirical ethical decision-making literature: 2004-2011. *Journal of Business Ethics*, 117(2), 221-259. doi: 10.1007/s10551-012-1518-9

- Curley, S.P., Yates, J.F., & Abrams, R.A. (1986). Psychological sources of ambiguity avoidance. *Organizational Behavior and Human Decision Processes*, 38(2), 230-256. doi: 10.1016/0749-5978(86)90018-X
- Dezoort, F.T., & Lord, A.T. (1994). An investigation of obedience pressure effects on auditors' judgments. *Behavioral Research in Accounting*, 6, 1-29.
- Douglas, P.C., Davidson, R.A., & Schwartz, B.N. (2001). The effect of organizational culture and ethical orientation on accountants' ethical judgments. *Journal of Business Ethics*, 34(2), 101-121. doi: 10.1023/A:1012261900281
- Douglas, P.C., & Wier, B. (2000). Integrating ethical dimensions into a model of budgetary slack creation. *Journal of Business Ethics*, 28(3), 267-277. doi: 10.1023/a:1006241902011
- Elias, R.Z. (2002). Determinants of earnings management ethics among accountants. *Journal of Business Ethics*, 40(1), 33-45. doi: 10.1023/A:1019956821253
- Elias, R.Z. (2006). The impact of professional commitment and anticipatory socialization on accounting students' ethical orientation. *Journal of Business Ethics*, 68(1), 83-90. doi: 10.1007/s10551-006-9041-5
- Elias, R.Z. (2008). Auditing students' professional commitment and anticipatory socialization and their relationship to whistleblowing. *Managerial Auditing Journal*, 23(3), 283-294. doi: 10.1108/02686900810857721
- Farag, M.S., & Elias, R.Z. (2012). The impact of accounting students' professional on their ethical perceptions of earning management. In C. Jeffrey (Ed.), *Research on professional responsibility and ethics in accounting*, Vol. 16 (pp. 185-200). doi: 10.1108/S1574-0765(2012)0000016010
- Farmer, T.A., Rittenberg, L.E., & Trompeter, G.M. (1987). An investigation of the impact of economic and organizational factors on auditor independence. *Auditing*, 7(1), 1-14.
- Fischer, M., & Rosenzweig, K. (1995). Attitudes of students and accounting practitioners concerning the ethical acceptability of earnings management. *Journal of Business Ethics*, 14, 433-444. doi: 10.1007/BF00872085
- Forsyth, D.R. (1980). A taxonomy of ethical ideologies. *Journal of Personality and Social Psychology*, 39(1), 175-184. doi: 10.1037/0022-3514.39.1.175
- Forsyth, D.R. (1992). Judging the morality of business practices: The influence of personal moral philosophies. *Journal of Business Ethics*, 11(5-6), 461-470. doi: 10.1007/BF00870557
- Forsyth, D.R., & Berger, R.E. (1982). The effects of ethical ideology on moral behavior. *The Journal of Social Psychology*, 117(1), 53-56. doi: 10.1080/00224545.1982.9713406
- Forsyth, D.R., & Nye, J.L. (1990). Personal moral philosophies and moral choice. *Journal of Research in Personality*, 24(4), 398-414. doi: 10.1016/0092-6566(90)90030-A
- Gomaa, M.I., Hunton, J.E., Vaassen, E.H.J., & Carree, M.A. (2011). Decision aid reliance: Modeling the effects of decision aid reliability and pressures to

- perform on reliance behavior. *International Journal of Accounting Information Systems*, 12(3), 206-224. doi: 10.1016/j.accinf.2011.02.001
- Greenfield, A.C., Norman, C.S., & Wier, B. (2008). The effect of ethical orientation and professional commitment on earnings management behavior. *Journal of Business Ethics*, 83, 419-434. doi: 10.1007/s10551-007-9629-4
- Gurley, K., Wood, P., & Nijhawan, I. (2007). The effect of punishment on ethical behavior when personal gain is involved. *Journal of Legal, Ethical & Regulatory Issues*, 10(1), 91-104.
- Hall, M., Smith, D., & Langfield-Smith, K. (2005). Accountants's commitment to their profession: Multiple dimensions of professional commitment and opportunities for future research. *Behavioral Research in Accounting*, 17, 89-109.
- Healy, P.M., & Wahlen, J.M. (1999). A review of the earnings management literature and its implications for standard setting. *Accounting Horizons*, 13(4), 365-383. doi: 10.2308/acch.1999.13.4.365
- Jauch, L.R., Glueck, W.F., & Osborn, R.N. (1978). Organizational loyalty, professional commitment, and academic research productivity. *Academy of Management Journal*, 21(1), 84-92. doi: 10.2307/255664
- Johnson, E.N., Fleischman, G.M., Valentine, S., & Walker, K.B. (2012). Managers' ethical evaluations of earnings management and its consequences. *Contemporary Accounting Research*, 29(3), 910-927. doi: 10.1111/j.1911-3846.2011.01135.x
- Jones, T.M. (1991). Ethical decision making by individuals in organizations: An issue-contingent model. *The Academy of Management Review*, 16(2), 366-395. doi: 10.5465/AMR.1991.4278958
- Jooste, L. (2013). Investigating ethical perceptions of short-term earnings management practices. *International Journal of Emerging Markets*, 8(3), 282-299. doi: 10.1108/17468801311330338
- Kaplan, S.E. (2001). Ethically related judgments by observers of earnings management. *Journal of Business Ethics*, 32(4), 285-298. doi: 10.1023/A:1010600802029
- Kogin, T., & Rudiawarni, F.A. (2015). *The effect of female executives on earning management: Evidence from Indonesia*. Paper presented at the Airlangga Accounting International Conference 2015 held on 3-4 June 2015 at Surabaya, Indonesia.
- Lachman, R., & Aranya, N. (1986). Evaluation of alternative models of commitments and job attitudes of professionals. *Journal of Organizational Behavior*, 7(3), 227-243. doi: 10.1002/job.4030070307
- Liu, M. (2013). Effect of guanxi and ethical orientations on Chinese auditors' ethical reasoning. *Managerial Auditing Journal*, 28(9), 815-837. doi: 10.1108/MAJ-01-2013-0801
- Lord, A.T., & DeZoort, F.T. (2001). The impact of commitment and moral reasoning on auditors' responses to social influence pressure. *Accounting, Organizations and Society*, 26(3), 215-235. doi: 10.1016/S0361-3682(00)00022-2

- Marques, P.A., & Azevedo-Pereira, J. (2009). Ethical ideology and ethical judgments in the Portuguese accounting profession. *Journal of Business Ethics*, 86(2), 227-242. doi: 10.1007/s10551-008-9845-6
- Nasution, D., & Östermark, R. (2012). The impact of social pressures, locus of control, and professional commitment on auditors' judgment: Indonesian evidence. *Asian Review of Accounting*, 20(2), 163-178. doi: 10.1108/13217341211242204
- Peterson, D.K. (2003). The relationship between ethical pressure, relativistic moral beliefs and organizational commitment. *Journal of Managerial Psychology*, 18(6), 557-572. doi: 10.1108/MRR-09-2015-0216
- Rosenzweig, K., & Fischer, M. (1994). Is managing earnings ethically acceptable? *Management Accounting*, 75(9), 31-34.
- Santoso, R.D., & Rakhman, F. (2013). CEO characteristics and earnings management. *The Indonesian Journal of Accounting Research*, 16(3), 181-196.
- Selart, M., & Johansen, S.T. (2011). Ethical decision making in organizations: The role of leadership stress. *Journal of Business Ethics*, 99(2), 129-143. doi: 10.1007/s10551-010-0649-0
- Shafer, W.E., Morris, R.E., & Ketchand, A.A. (1999). The effects of formal sanctions on auditor independence. *Auditing*, 18(SUPPL.), 68-101.
- Shawver, T.J., & Clements, L.H. (2014). Are there gender differences when professional accountants evaluate moral intensity for earnings management? *Journal of Business Ethics*, 131, 557-566. doi: 10.1007/s10551-014-2293-6
- Singhapakdi, A., Vitell, S.J., & Franke, G.R. (1999). Antecedents, consequences, and mediating effects of perceived moral intensity and personal moral philosophies. *Journal of the Academy of Marketing Science*, 27(1), 19-36. doi: 10.1177/0092070399271002
- Smith, D., & Hall, M. (2008). An empirical examination of a three-component model of professional commitment among public accountants. *Behavioral Research in Accounting*, 20(1), 75-92. doi: 10.2308/bria.2008.20.1.75
- Sweeney, B., Arnold, D., & Pierce, B. (2010). The impact of perceived ethical culture of the firm and demographic variables on auditors' ethical evaluation and intention to act decisions. *Journal of Business Ethics*, 93(4), 531-551. doi: 10.1007/s10551-009-0237-3

Appendix

Case Material

You are the executive vice president of a publicly held manufacturing company. Your company closes during the last two weeks of December each year for a year-end holiday. During these two weeks extensive maintenance is performed on the manufacturing equipment. The maintenance is expensive, but has always been recorded as a normal operating expense in the past because of its recurring nature. Due to a downturn in the economy, your company's profits are significantly lower than previously released earnings forecasts. The chief executive officer is worried that failure to achieve forecasted profits will severely hurt the company's stock price and bond ratings.

Thus in an effort to achieve forecasted profits, the company is considering postponing all maintenance scheduled during the last two weeks of December until March of the following year. The cost of the maintenance will be about the same, but current year income will be increased because no expenses will be incurred during December.

For written justification manipulation. You will be asked to make decision about postponing all maintenance scheduled during the last two week of December until March by your company. You will be asked to justify in writing how and why you arrived at your decision. In the response box below, please justify your final decision.

For legal consequence manipulation. Your legal department has indicated to you that the risk of your company being sued as a result of this engagement is very high. Specifically, your legal department has evaluated the likelihood of being sued at 95%. If your company is sued, the likelihood of the plaintiffs winning the suit is 90%. If the suit is successful, the fine and penalties imposed on your company would be extremely high.

Please indicate your support for or opposition to the proposal to delay the maintenance until the following year.

Please choose one:

Strongly oppose postpone- ment	Oppose postpone- ment	Slightly oppose postpone- ment	Neither oppose nor support postpone- ment	Slightly support postpone- ment	Support post- pone- ment	Strongly support postpone- ment
1	2	3	4	5	6	7

Ethical Orientation

The Ethics Position Questionnaire

Instructions. You will find a series of general statements listed below. Each represents a commonly held opinion and there are no right or wrong answers. You will probably disagree with some items and agree with others. We are interested in the extent to which you agree or disagree with such matters of opinion.

Please read each statement carefully. Then indicate the extent to which you agree or disagree by placing in front of the statement the number corresponding to your feelings, where:

- 1 = Completely disagree
- 2 = Moderately disagree
- 3 = Neither agree nor disagree
- 4 = Moderately agree
- 5 = Completely agree

1. A person should make certain that their action never intentionally harm another even to small degree.
2. Risks to another should never be tolerated, irrespective of how small the risks might be.
3. The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.
4. One should never psychologically or physically harm another person.
5. One should not perform an action which might in any way threaten the dignity and welfare of another individual.
6. If an action could harm an innocent person, then it should not be done.
7. Deciding whether or not to perform an act by balancing the positive consequences of the act against the negative consequences of the act is immoral.
8. The dignity and welfare of the people should be the most important concern in any society.
9. It is never necessary to sacrifice the welfare of others.
10. Moral actions are those which closely match ideals of the most "perfect" action.
11. There are no ethical principles that are so important that they should be a part of any code of ethics.
12. What is ethical varies from one situation and society to another.

13. Moral standards should be seen as being individualistic; what one person considers to be moral may be judged to be immoral by another person.
14. Different types of moralities cannot be compared as to "rightness."
15. Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.
16. Moral standards are simply personal rules which indicate how a person should behave and are not to be applied in making judgments of others.
17. Ethical considerations in interpersonal relations are so complex that individuals should be allowed to formulate their own individual codes.
18. Rigidly codifying an ethical position that prevents certain types of actions could stand in the way of better human relations and adjustment.
19. No rule concerning lying can be formulated; whether a lie is permissible or not permissible totally depends upon the situation.
20. Whether a lie is judged to be moral or immoral depends upon the circumstances surrounding the action.

Professional Commitment

1. I am willing to put in a great deal of effort beyond that normally expected in order to make my profession successful.
2. I talk about this profession with my friends as a great profession to be associated with.
3. I feel very little loyalty to this profession.
4. I would accept almost any type of job assignment in order to keep working in areas that are associated with my profession.
5. I find that my values and the profession's values are very similar.
6. I am proud to tell others that I am part of this profession.
7. I could just as well be associated with another profession as long as the type of organisation in which I worked was similar.
8. Being a member of this profession really inspires the very best in me in the way of job performance.
9. It would take very little change in my present circumstances to cause me to work in areas that are not associated with this profession.
10. I am extremely glad that I chose this profession over others I was considering at the time I joined.

11. There's not too much to be gained by sticking with this profession indefinitely.
12. Often, I find it difficult to agree with this profession's policies on important matters relating to its members.
13. I really care about the fate of this profession.
14. For me this is the best of all professions to be a member of.
15. Deciding to be a member of this profession was a definite mistake on my part.

Manipulations Check

1. In the case's scenario that you have read, did the maintenance expenses occur in December?
2. What is the percentage of likelihood of the plaintiffs winning the case if your company is reported due to your decision on the maintenance expenses?
3. Are you requested to give written justification about your decision on the maintenance expenses?

