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**CURBING FRAUD, ACCRUALS, REAL ACTIVITY, AND TUNNELING
MANIPULATION: THE ROLE OF CLAWBACK PROVISIONS AND
RELIGIOSITY**

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Abstract

Clawback provision reduces the manager's intention to perform misstated financial statements because the board of directors will recoup the compensation paid to their managers, based on the managers' misstated financial reports. The purpose of this study is to examine the effectiveness of clawback's adoption and religiosity to reduce the intention to manipulate earnings, unlike previous research, this study uses the setting in countries with high uncertainty avoidance and low individualism culture because national cultures give important explanations about the variances of the effectiveness of compensation schemes. To test the hypothesis, the 2 x 2 experimental within subjects design were conducted. A total of 266 master students participated in the study. The study shows that the adoption of clawbacks decreases the intention to perform earnings manipulation, especially fraud and accrual manipulation. However, clawbacks lead to managers executing earnings management method that is harder for the regulators and auditors to detect. Another interesting finding is one where religiosity only has a negative influence on the intention to use real activity manipulation and tunneling.

Keyword:

Clawback provisions, religiosity, accrual manipulation, real activity manipulation, tunneling, earnings manipulation

1. BACKGROUND

Earnings management has eroded investors' trust and led to deterioration in the integrity of the accounting profession (Li *et al.*, 2008). Earnings management exists when earnings are manipulated to achieve a financial benchmark, which will allow executives to enjoy financial incentives (Efendi *et al.*, 2007). To prevent earnings management, many companies recently adopted a policy of "recovery of compensation", commonly known as clawback. Clawbacks are provisions that authorize the board of directors to recoup the compensation paid to their managers, based on the managers' misstated financial reports (Chan *et al.*, 2015)

Previous studies have tested the effectiveness of clawbacks. Chan *et al.* (2012) found that after the adoption of clawbacks, misstated financial statements decreased. DeHaan *et al.* (2013) found that the quality of financial statements increased in companies that adopted clawbacks compared to those that did not. Denis (2012) suggested that overconfidence in the quality of the financial statements of companies that adopt clawbacks may cause auditors to have the erroneous belief that a firm which adopts clawback provisions will issue more accurate reports. It will lead them to examine the firm's financial statements less carefully, thereby reducing the likelihood that they will find a material misstatement that requires a restatement. It is therefore possible to see that the voluntary adoption of clawback provisions does not in fact encourage more accurate financial statements (Denis, 2012). This is in accordance with the findings of recent research stating that clawbacks carry unexpected consequences.

Chan *et al.* (2015) showed that companies which adopt clawbacks change their earnings manipulation method from the accrual's manipulation to the real activity's manipulation, since the latter is not easily detected by regulators and auditors. Initially, the clawback model was designed by regulators to improve profit qualities or elevate the integrity of financial statements. In reality, however, clawbacks lead to managers executing earnings management that is harder for the regulators and auditorsto detect (Chan *et al.*, 2015). Subsequently, the majority of the previous studies use the setting of companies listed on the US Stock Exchange (Chan *et al.*, 2012; Datta and Jia, 2013; Chan *et al.*, 2015), however the effectiveness of clawback's adoption by countries with different cultures has rarely been documented in the previous research.

To extend the findings of the prior research, the present study aims to test whether clawbacks reduce the intention to commit earnings manipulation through accrual, real activity manipulation, or fraud, in countries that have not had formal instructions to implement clawback. Schuler and Rogovsky (1998) stated that national cultures give important explanations about the variances of the effectiveness of compensation schemes. For example, multinational enterprises with high uncertainty avoidance and low individualism are more effective at using compensation systems that offer higher certainties. Meanwhile, the clawback provision contains a high level of uncertainty, due to the high sensitivity of the CEO's pay-performance (Chen *et al.*, 2014). We suspect that, in countries with high uncertainty avoidance and low individualism cultures, one is inclined to be more careful with the reporting of financial statements in order to reduce the risks of misstatements and increase the certainty in the compensation systems. Han *et al.* (2010) found that the cultural dimension of uncertainty's avoidance and individualism explains the earnings management practices in certain countries. Countries with high uncertainty avoidance and low individualism, such as Indonesia, have a lower earnings manipulation level than countries with low uncertainty avoidance and high individualism (such as the US).

The present study is, therefore aimed at first testing whether the implementation of compensation clawback in Indonesia, i.e. a country with high uncertainty avoidance and low individualism levels, is effective in reducing the intention to practice profit manipulation. Dechow *et al.*, (2010) found that clawback is capable of reducing accrual manipulation levels, since this type of manipulation is easily detected by legal authorities and auditors, thus triggering clawbacks. On the other hand, clawback also raises unexpected consequences by increasing real activity manipulation, such as reductions in R&D costs, since its detection risks are lower than those of accrual manipulation. The second aim of this study is, therefore, to test whether clawback's implementation leads to a lower intention to commit fraud and accrual manipulation but an increase in earnings manipulation through real activities and tunneling. Tunneling is the manipulation of real activity using related party transactions to transfer resources out of the company

Besides the external factors such as compensation schemes, the internal factors, i.e. religion, also influences financial reporting. According to the social norm theory, religion is a social mechanism to control beliefs and behaviors (Kennedy and Lawton,

1998). Religion provides ethical guidance, emphasizes the importance of behaving ethically, and gives guidance towards which behavior is categorized as ethical and which is not. In the context of financial reporting, the higher the level of one's religiosity, the less possible it is for that person to consider earnings manipulations as an acceptable practice (Conroy and Emerson, 2004). Companies that are located in regions with high religiosity levels have a lower possibility of having financial reporting irregularities (Dyrenge *et al.*, 2010). Contrary to this theory is the theory of the sacred canopy which predicts that religion has lost its influence over certain aspects of life due to the high materialism levels of modern society (Berger, 1967; Gorski, 2000). Some studies support the theory of the sacred canopy, such as McGuire *et al.* (2012) who found that, because of the capital market's pressure to meet earnings targets, managers in religious areas still manipulate earnings; they prefer using real activity manipulation to accrual manipulation, because managers view real activity manipulation as being more ethical and less risky (Graham *et al.* 2005). The third objective of the present study is, therefore, to test whether religiosity also has an influence on the intention to undertake earnings manipulation and the choice of the earnings manipulation method.

The present study has an important implication by providing recommendations to managers and regulators concerning the possibility of the adoption of clawback compensation schemes in countries with cultures that are different from the clawback initiator countries. This study is different from previous studies in that, first, it uses the setting of a country with different cultural dimensions; the majority of the previous studies use the setting of companies listed on the US Stock Exchange. Secondly, this study aims to test the effectiveness of clawbacks in reducing fraud and tunneling. A previous study (Chan *et al.*, 2015) focuses primarily on clawbacks effectiveness in reducing the earnings manipulations that were still in the corridor accounting standards that real activity and manipulation of accruals. Thirdly, the majority of the previous studies make use of secondary data (Chan *et al.*, 2012; Iskandar-Datta and Jia, 2013; Chan *et al.*, 2015); the present study uses an experimental design seeing that, in Indonesia; clawback compensation schemes are still rarely used.

2. LITERATURE REVIEW

2.1. Earnings Management

Earnings are the main part of a financial report, and are used to measure the financial performances, decide the executives' compensation, evaluate the company's future prospects, and determine the company's evaluation. The role of earnings in the company's performance evaluation reinforces the managers who decide to manipulate the earnings figures (Trueman and Titman, 1988). One definition of earnings management refers to the use of personal judgment in reporting and in structuring the transactions to alter the financial reports to either mislead some stockholders about the underlying economic performance of the company, or to influence contractual outcomes that depend on the reported accounting numbers (Healy and Wahlen, 1999). The manipulation of financial reporting can be categorized as: That which is within the corridor of financial reporting standards and that which is outside. The former category includes accrual manipulation, real activity manipulation, and tunneling. The latter category includes fraud and classification shifting. Classification shifting includes shifting items on the income statements.

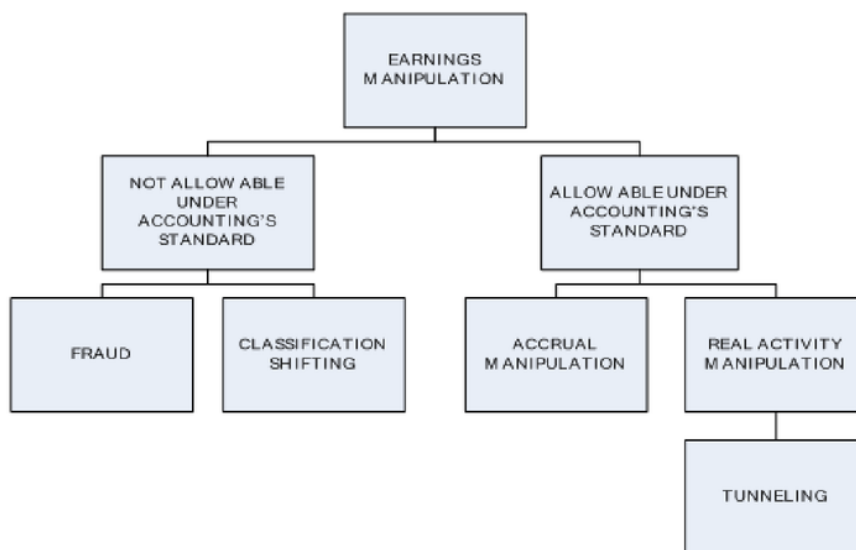


Figure 1. Classification of earnings manipulation

Three of the manipulation methods that are within the corridor of financial reporting standards are: First, accrual manipulation, i.e. the manipulation of earnings through the manipulation of discretionary accruals. A discretionary accrual is one that is used to decrease or increase the earnings reported by the management selecting the

accounting policies subjectively (Scott, 2009). Second, the manipulation of real activity, defined as a deviation from the normal operating activities of a company motivated by the desire of its management to provide a false understanding to stakeholders that certain financial reporting objectives have been achieved through the normal operating activities of the enterprise (Roychowdhury, 2006). In other words, real earnings management involves attempts to alter the reported earnings by adjusting the timing and scale of the underlying business activities, for example by reducing discretionary spending such as R&D expenses, Selling, and General & Administrative (SG&A). Third, tunneling, defined as transferring resources out of a company for the benefit of its controlling shareholders (Johnson *et al.*, 2000).

Tunneling activities are often difficult to identify since such activities are done and hidden within seemingly legitimate transactions. Tunneling is one type of real activity manipulation using related party transactions. Companies have many ways to do tunneling through related party transactions, such as receivables, asset transactions, trading transactions, cash payments, and equity transactions to related parties (Cheung *et al.*, 2006; Cheung *et al.* 2009; Jian and Wong, 2003). For example, a company can provide a huge amount of accounts receivable with long credit periods and soft credit terms. A receivable given to a related party can be treated as a put option, in which the related party can exercise such an option by not paying the receivable in a difficult financial situation (Atanasov *et al.* 2008).

Each earnings manipulation method has its costs and consequences. Accrual manipulation does not have a direct influence on cash flows, so that it only has a small possibility of destroying the company's value (Badertscher, 2011). Since accrual management is conducted within the reporting standards, the possibility of it being detected by investors, regulators, and auditors is lower than in the case of fraud. Real activity manipulation is done by reducing the discretionary expenses so that this has an impact on cash flows. In the long run, real activity manipulation has a negative impact on the optimal business activities and has the potential to destroy the company's value (Badertscher, 2011). Earnings manipulation through real activities makes it possible for the company to elevate short-term profits and return shares, but this trend will reverse to the level before earnings manipulation started after three years (Chan *et al.* 2015). In spite of having an impact on the cash flow, the detection risk of real activity manipulation is lower than that of accrual manipulation

(Badertscher, 2011) since the decrease in the discretionary expenses, such as R&D, will not become a focus for inspection by the auditors or regulators.

Tunneling impacts on the cash flow, and destroys the firm's value (Bertrand *et al.*, 2002; Cheung *et al.*, 2006; Sari *et al.*, 2016). The risk of detecting tunneling's manipulation is low because the related party transactions are difficult to audit for certain reasons. First, auditors have to rely on the management to provide detailed information regarding their related party transactions and the related parties. Second, internal controls have difficulty tracking related party transactions because of the large number of parties and types of transactions. Also, some transactions are probably not given accounting recognition, such as free service receipts from the related parties (Gordon *et al.*, 2007).

2.2. Impetus to Manage Earnings

There are some grounds for the existence of earnings management. Among others, compensation schemes might motivate the executive team to manipulate the earnings; or there is the need to meet various thresholds or benchmarks. More specifically, managers hope to avoid losses, and to show interest increases annually, or to satisfy the analysts' forecasts (Habib and Hansen, 2008). There are also various personal factors, such as the levels of religiosity.

2.3. Compensation Scheme and Earnings Management

Clawback is one form of recovery provision introduced by Section 304 of the Sarbanes-Oxley Act (SOX) in 2002. The Securities and Exchange Commission (SEC) seeks to clawback performance-based compensation paid to the CEOs and CFOs of public companies if previously generated financial statements have been requested to be restated as a result of misconduct.

The clawback compensation scheme is very popular in the United States of America but not as popular in Indonesia. The compensation scheme is still voluntary in its implementation in the US. This has motivated a great number of research studies to test the effectiveness of the scheme. Chan *et al.* (2012) found that after the adoption of clawbacks, financial misstatements decreased, external auditors were less likely to report material internal control weaknesses, audit fees became lower, and audit reports are issued with a shorter delay. The implementation of clawbacks also increases the market's responses towards the company; while investors' motivations

to invest in the company increases (Iskandar-Datta and Jia, 2013). DeHaan *et al.* (2013) found that companies which implement clawbacks have improved the quality of their financial reports compared to those which do not. We, therefore, propose the following hypothesis.

H1: After the adoption of clawback, the intention to conduct earnings manipulation decreases.

Denis (2012) found that markets and auditors see the improvement in the quality of financial reports after the implementation of clawbacks. First, the adoption of clawbacks is a signal to the boards of directors that companies have a larger commitment to greater financial integrity. Second, the auditors' erroneous belief that a firm which adopts the clawback provisions will issue more accurate reports leads them to examine the firm's financial statements less carefully, thereby reducing the likelihood that they will find a material misstatement that requires a restatement. Therefore the voluntary adoption of the clawback provisions does not, in fact, lead to more accurate financial statements (Denis, 2012). This is in accordance with findings from recent research showing that clawback carries unexpected consequences. Chan *et al.* (2015) found that companies in the US that adopt clawbacks change their earnings manipulation method from accrual manipulation to real activity manipulation. Graham *et al.* (2005) found that managers prefer real activity manipulation to accrual manipulation, seeing that the former is harder for auditors and regulators to detect, so that this option offers less risk of being found out.

On the whole, the empirical evidence shows that the earnings manipulation method with the biggest risk of detection is fraud, followed by accrual manipulation, real activity manipulation, and lastly tunneling. Managers prefer real activity manipulation and tunneling to the other two, since real activity, manipulation is carried out and hidden in transactions that are seemingly legal, so that it is hard for auditors and regulators to detect. Clawback compensation schemes are able to reduce the earnings manipulation methods that are easy to detect but have increased the use of earnings manipulation methods that are difficult to detect. We, therefore, propose the following hypotheses.

H1: After the adoption of clawback, the intention to perform earnings manipulation decreases

H1a: After the adoption of clawback, the intention to commit fraud decreases.

H1b: After the adoption of clawback, the intention to perform accrual manipulation decreases.

H1c: After the adoption of clawback, the intention to perform real activity manipulation increases.

H1d: After the adoption of clawback, the intention to perform tunneling manipulation increases.

H1e: After the adoption of clawback, the intention not to perform profit manipulation increases.

2.4. Pressure to Meet Earnings Benchmark

In a company, the person who is in charge of its financial reporting and who has a big influence on the accuracy of the reports is the Chief Financial Officer (CFO) (Feng *et al.*, 2011). CFOs have a unique fiduciary position; they have the technical skills to understand the implications of financial reports; they are responsible for the accuracy of the report; and they are required to sign-off on the statements, indicating that they are fairly presented (Indjejikian and Matejka, 2009). However, the Chief Executive Officer (CEO) also, indirectly, has an influence on the quality of the financial reporting by the company. With the authority he/she possesses, a CEO can have an influence on the company's decisions, such as the recruitment or promotion of the CFO. The CEO can use his/her authority to put pressure on the CFO to accomplish the accounting goals (Feng *et al.*, 2011). When the CFO feels under pressure, from either a financial performance matter or from the CEO, the CFO will be more likely to engage in earnings management behavior. We therefore propose the following hypothesis.

H2: The pressure applied for the achievement of earnings targets will increase the intent to manipulate the earnings

2.5. Religiosity and Earnings Management

There are two schools of thought about the influence of religion on ethical behavior. First, according to the social norm theory, religiosity is a key social mechanism for controlling behavior and beliefs (Kennedy and Lawton 1998). Weaver and Agle (2002) stated that religion influences business ethics. Longenecker *et al.* (2004) found that business managers and professionals who believe in religious values are less likely to approve unethical behavior. Conroy and Emerson (2004) found that

religiosity is associated with a lower acceptance of accounting manipulation. Du (2014) found that religion has an important influence on corporate behavior and can be a set of social norms and/or alternative mechanisms for reducing unethical tunneling behavior.

Second, the theory of the sacred canopy, developed by Berger (1967), argues that religions have lost their influence over many aspects of daily life, due to the increasing materialism of our modern society (Berger, 1967; Gorski, 2000). Several studies support the theory of the sacred canopy. For example, among others, Rawwas *et al.* (2006) examined the differences in ethical beliefs on the academic dishonesty among students at religious and secular universities in Japan. They found that religion is not an impediment to academic dishonesty. Because of the pressure from the capital market to meet profit targets, McGuire *et al.* (2012) found that managers in religious areas still manipulate earnings. They prefer to use real activity manipulation rather than accrual manipulation because they view real activity manipulation as being more ethical and less risky (Graham *et al.* 2005).

The social norm theory predicts that individuals will be influenced by religious norms (Kholberg, 1984). But the increasing materialism of modern society and pressure to meet targets makes people become more pragmatic and put aside their religious values. Religiosity has begun to lose its influence on some aspects of life, as predicted by the sacred canopy theory. It is therefore predicted that individuals with a high religiosity level tend not to use accrual manipulation or commit fraud; they prefer to using real activity manipulation and tunneling because they view these two methods as being more ethical and less risky. Based on this discussion, we propose the following hypotheses.

H3: Religiosity has a negative influence on the intention to perform earnings manipulation.

H3a: Religiosity has a negative influence on the intention to commit fraud.

H3b: Religiosity has a negative influence on the intention to perform accrual manipulation.

H3c: Religiosity has a positive influence on the intention to perform real activity manipulation.

H3d: Religiosity has a positive influence on the intention to perform tunneling.

H3e: Religiosity has a positive influence on the intention not to perform earnings manipulation.

3. RESEARCH METHOD

3.1. Experimental Design

To test the hypotheses outlined in the previous section, a series of experimental sessions were conducted, lasting for approximately 45 minutes each. The experiment consisted of five parts. First, the participants were randomly assigned to an experiment treatment, where they were placed under one of two different levels of pressure (high or low) by the CEO. Second, the participants were told they were in a bonus compensation scheme, which was then changed to a clawback compensation scheme. Third, they were measured on their individual attributes. Fourth, the participants' earnings were calculated for each of the previous parts. Fifth, they answered questions about their understanding of the experiment and demographic characteristics in the exit questionnaire.

The 2 x 2 within subjects design, with repeated measures of the dependent variable, was used to examine the likelihood of participating in earnings management behavior. In all the scenarios, the participants were asked to assume the role of the CFO in a fictitious organization and make decisions based on the proposal presented in the scenario.

The participants were master's degree level accounting students currently taking audit and business ethics classes at two universities. The use of students, instead of professionals, as the research participants was made for the following considerations: First, using a student sample is an acceptable methodological choice if the students have sufficient background knowledge to complete the task (Elliot *et al.*, 2007). Second, the purpose of this study is to test a theory; this theory should hold regardless of the population, indicating a student sample is appropriate (Croson, 2010). Third, students are readily available, have fewer time restrictions, and are more likely to give their full attention (Jones, 2013). Meanwhile, professionals tend to have time/work restrictions so they may not give their full attention to the research. Furthermore, the foreseeable limitation of the demand effect and social desirability would be the same for both professionals and students (Jones, 2013).

3.2. Manipulated Variables

3.2.1. CEO Pressure

To simulate the high level of pressure from the CEO, the scenario added: “The CEO is worried that failure to achieve the forecasted profits will severely hurt the company’s stock price and bond rating. He has charged all employees to do whatever it takes to assure the forecast is met and instituted mandatory weekend meetings to come up with ideas for improving the bottom line. He has indicated that failure to meet the benchmark could result in failure to secure the necessary financing and lead to layoffs.” In contrast, in the low pressure scenario, there was no discussion of pressure from the CEO.

3.2.2. Compensation Scheme

Two compensation schemes were used: A bonus scheme and a clawback scheme. First, The compensation scheme provided is a bonus scheme. In the bonus scheme, if the company achieves its profit targets, the participants will get a bonus. The participants were asked to select an alternative proposed proposal to achieve the profit targets. If they choose the alternative, then they will get a bonus in accordance with the alternative answer they selected. The experimenter invited an auditor to examine the participants’ answers and detect any manipulation of the earnings. If a participant is caught doing earnings’ manipulation, he/she will be given a reprimand card by the auditor. Second: the compensation scheme is changed to clawback. In the clawback scheme, the participants were informed that the Financial Services Authority had issued a new policy; the clawback compensation scheme. In this scheme, if a participant is caught undertaking earnings’ manipulation, the bonus that had been awarded would be slashed. Participants were given cases similar to normal bonus schemes, and were asked to select the available proposals to obtain the targeted profits. The experimenter examined the participants’ answers to detect any manipulation of the earnings.

3.3.Measured Variables

The measured variables in this study include the intention to perform earnings management, religiosity, and moral disengagement.

3.3.1. Intention to Perform Accrual Manipulation, Real Activity Manipulation, or Fraud

Each participant was given one scenario and asked to select five proposals. The scenarios were modified from Clikeman and Henning (2000). The first proposal was to measure the intention of performing accrual manipulation. Participants evaluate a proposal to delay recognition of maintenance costs until the following year. To assure that the participants understand that the scenario is in accordance with the accounting standards, this scenario is provided: “While you are aware this does not violate the accounting standards, you are concerned that this may affect the comparability of the financial statement from one year to the next.”

The second proposal is to measure the intention to perform real activity manipulation through cutting maintenance costs. To assure that the participants understand that the scenario is in accordance with the accounting standards and has a low detection risk, this scenario is given: “While you are aware this does not violate the accounting standards and has a low detection risk, you are concerned that this short-term advantage will disappear afterwards.”

The third proposal is to measure the intention to commit fraud through capitalizing the routine maintenance and depreciating it over 10 years. To assure that the participants understand that the scenario is not in accordance with the accounting standards, this scenario is given: “You have concerns regarding this proposal because the accounting standards indicate that expenses of this nature should be listed as expenses as incurred.”

The fourth proposal is about not undertaking any profit manipulation, although the targeted profits have not been achieved. The fifth proposal is to measure the intention to perform tunneling through related party transactions. To assure that the participants understand that the scenario is in accordance with the accounting standards and has a low detection risk, this scenario is offered: “Related party transactions are allowed and regulated in the accounting standards, so they have a low risk of being detected.”

The participants answered questions relating to their intentions regarding the proposals made in the scenarios. The first question was: “What is the degree of possibility of you performing earnings manipulation?” The scale provided five options; 1 indicating extremely disagree and 5 extremely agree. Secondly, the participants then answered two questions related to their intentions regarding each proposal made in the scenario. One question used a positive mode: “What is the possibility that you do or choose the proposal?” The other question used a negative mode: “What is the possibility that you reject the proposal?”

3.3.2. Religiosity

The measure of religiosity uses the multidimensional measurement of religiousness by Underwood (2003). Sample statements are: "I am convinced that God looks upon what I am doing" and "I am a religious person."

3.4. Manipulation Check

Three questions were asked for the manipulation check. First, to confirm the accurate perception of the manipulation of pressure by the CEO, a question was asked about the degree to which they felt pressured by this scenario. Second, to ensure that the participants understood the changes in the compensation schemes, the question asked: "Will there be punishment, in the form of cutting the bonus, if earnings manipulation is detected?" Third, to make sure that the participants understood the acceptability under the accounting standards, the question asked whether or not they believe the proposal they chose is in accordance with the accounting standards. These questions were asked at the end of the survey.

3.5. Monetary Incentives

The participants receive compensation depending on their choice of proposals and this compensation will be withdrawn if it is detected that they have done earnings manipulation. The amount of the retracted bonus depends on the selected proposals. A detailed description is presented in Table 1. The participants know they will be paid, based on the scheme. Payments averaged from \$2 to \$16 after any clawback or bonus cutting.

Table 1. Manipulation Used In Each Experiment

PANEL A: Compensation Scheme		BONUS			CLAWBACK	
Proposal number	Proposal given	Bonus received by participant	Outside/within corridor of accounting standards	Detection risk	Bonus cutting*	
Proposal A	Doing accrual manipulation by delaying recognition for machine maintenance and repair	Selecting proposal A will increase profits by 20%. CFO will receive compensation of 20% for net profit or \$10	Within the corridor of accounting standards	Moderate	Cut \$6	
Proposal B	Doing real activity manipulation by reducing expenses for machine maintenance and repair	Selecting proposal B will increase profits by 20%. CFO will receive compensation of \$10	Within the corridor of accounting standards	Low	Cut \$4	
Proposal C	Committing fraud by capitalizing cost	Selecting proposal C will increase profits by 40%. CFO will receive compensation of \$20	Outside the corridor of accounting standards	High	Cut \$18	
Proposal D	Not doing manipulation	Selecting proposal D will cause target profit not to be achieved. CFO will receive compensation of \$5	Within the corridor of accounting standards	None	No cutting	
Proposal E	Doing tunneling by related party transaction	Selecting proposal E will increase profits by 20%. CFO will receive compensation of \$10	Within the corridor of accounting standards	Low	Cut \$4	

*) the amount of bonus deducted is based on the level of detection of the selected proposal

PANEL B: CEO Pressure

HIGH CEO PRESSURE

Presently, the economic conditions are poor, the company's profits are far lower than forecasted. The company's chief director is worried that the company's failure to reach the predicted profit will cause the share value and obligations to decline and the labor force to be rationalized. The chief director instructs every worker to do everything needed in order that the targeted profit is achieved, and obligatory week-end meetings are being held to find ideas to boost the profits.

LOW CEO PRESSURE

Presently, the economic conditions are poor, the company's profits are far lower than forecasted.

4. FINDINGS

The following table shows the descriptive statistics for the 266 participants. The average age of the participants is 24.69 years. Their average GPA is 3.41. Their average full time working experience was 1.97 years. Male participants comprised 43% of the sample, and females 57%.

Table 2. Participants' Demographic Information

	Min	Max	Mean	Standard Deviation
Age	22	36	24.69	2.75
GPA	3	4	3.41	0.49
Work experience	1	5	1.97	1.24
	N	%		
Male	114	43%		
Female	152	57%		

Panel A of Table 2 shows the test results of the intention to perform earnings manipulations for each of the conditions. Panel B shows the overall analysis, as well as the resulting simple main effects.

Table 3. Results of Experiment: Intention to Do Earnings Manipulations: Influence of Compensation Scheme, CEO Pressure, Religiosity

Panel A: Descriptive Statistics—Means Intention to Do Earnings Manipulation (Standard Deviations)

	Low CEO Pressure	High CEO Pressure	Row Means	Low Religiosity	High Religiosity	Row Means
Bonus	2.30 (1.05)	2.34 (0.92)	2.32 (.98)	2.55 (1.13)	2.22 (0.91)	2.38 (0.98)
Clawback	1.98 (1.01)	1.99 (0.73)	1.98 (0.90)	2.10 (0.98)	1.80 (0.85)	1.95 (0.90)
Column Means	2.04 (1.04)	2.16 (0.87)		2.32 (1.07)	2.01 (0.90)	

Panel B: Analysis of Variance Results and Simple Effect Tests

Compensation Scheme and CEO Pressure on Intention to Manipulate Earnings

Source	Statistics	Two-tailed <i>p</i> -value
Compensation Scheme	13.75	< 0.01
CEO Pressure	1.08	0.29
Compensation Scheme x CEO Pressure	0.45	0.49

Compensation Scheme and Religiosity on Intention to Manipulate Earnings

Source	Statistics	Two-tailed <i>p</i> -value
Compensation Scheme	11.58	< 0.01
Religiosity	5.96	< 0.01
Compensation Scheme x Religiosity	0.01	0.92

These research findings show that compensation schemes have a significant influence on the intention to perform earnings' manipulations. For the bonus compensation scheme, the intention to perform earnings manipulation is higher (2.32) compared to that for the clawback scheme (1.98) ($F = 13.75$; $p < 0.000$). This finding supports H1 in that the adoption of the clawback compensation scheme decreases the intention to perform earnings manipulation.

Next, the hypotheses testing for H1a-H1e is done by testing the choice of earnings manipulation methods taken by the participants to achieve the targeted profits. Table 4 shows the testing results to find whether or not compensation schemes have an influence on the participants' preferences when selecting the earnings manipulation methods.

Table 4. Results of Experiment: Influence of Compensation Scheme and Religiosity on Choice of Earnings Manipulation Method
Panel A: Descriptive Statistics—Means Intention to Do Earnings Manipulation (Standard Deviation)

	Fraud	Accrual Manipulation	Real Activity Manipulation	Tunneling	No Manipulation
Bonus	1.90 (1.03)	2.45 (1.13)	3.00 (1.14)	3.87 (1.01)	3.39 (1.12)
Clawback	1.59 (0.90)	1.87 (1.07)	3.58 (1.26)	4.03 (1.11)	3.71 (1.32)
Low Religiosity	1.98 (1.14)	2.56 (1.09)	3.15 (1.22)	3.86 (1.18)	3.25 (1.25)
High Religiosity	1.65 (0.88)	2.01 (1.14)	3.34 (1.24)	3.98 (1.02)	3.67 (1.21)

Panel B: Analysis of Variance Results and Simple Effect Tests
 Compensation Scheme and Religiosity on Choice of Profit Manipulation Method

Source	Fraud		Accrual Manipulation		Real Activity Manipulation		Tunneling		No Manipulation	
	Statistics	Two-tailed <i>p</i> -value	Statistics	Two-tailed <i>p</i> -value	Statistics	Two-tailed <i>p</i> -value	Statistics	Two-tailed <i>p</i> -value	Statistics	Two-tailed <i>p</i> -value
Compensation Scheme	5.40	<0.05	4.26	<0.05	9.86	<0.01	1.29	0.25	2.29	0.13
Religiosity	6.65	<0.05	15.86	<0.01	1.39	0.23	0.70	0.40	6.73	<0.05
Compensation Scheme x Religiosity	0.01	0.90	23.32	<0.01	0.79	0.37	0.01	0.96	1.07	0.30

The intention to commit fraud under the bonus scheme is higher (1.90) compared to the clawback compensation scheme (1.59) ($F = 5.40, p < 0.05$). Similarly, the intention to use accrual manipulation under the bonus scheme is higher (2.45) compared to that under the clawback scheme (1.87) ($F = 4.26, p < 0.05$). Changing to the clawback compensation scheme results in a lowering of the intention to commit fraud and accrual manipulation. H1a and H1b are supported.

Conversely, in the intention to use real activity manipulation, after the adoption of clawback, real activity manipulation turns out to be increasing. The mean score for the intention to use real activity manipulation under the bonus scheme (3.00) increases to 3.58 with the clawback scheme ($F = 9.86, p < 0.01$), so H1c is supported. The intention to perform tunneling under the clawback compensation scheme also increases, but the increase is not significant; so, H1d is not supported. This is caused by the fact that compensation schemes do not seem to change the intention to perform tunneling, either under the bonus scheme or the clawback scheme; the majority of the participants prefer tunneling as the recommended method for the company. This can be seen from the following table.

Table 5. Earnings Manipulation Method most Recommended

Panel A. Bonus Scheme and Clawback

Manipulation Method	Bonus	Clawback
Fraud	5%	1%
Accrual Manipulation	6%	5%
Real Activity Manipulation	19%	14%
Tunneling	55%	42%
No Manipulation	15%	38%
Total	100%	100%

Panel B. Compensation Scheme and Religiosity Level

Earnings Manipulation Method	Bonus		Clawback	
	Low Religiosity	High Religiosity	Low Religiosity	High Religiosity
Accrual Manipulation	8%	4%	3%	0%
Real Activity				
Manipulation	13%	3%	8%	4%
Tunneling	18%	19%	13%	15%
No Manipulation	47%	57%	50%	38%
Total	13%	16%	26%	43%
	100%	100%	100%	100%

With the bonus scheme, the earnings manipulation method that is most frequently chosen by the participants is tunneling (55%). In the same way, under the clawback scheme, the most popular method is tunneling (42%). It seems that differences in the compensation schemes do not alter the preferences for the choice of this method.

The research findings show that earnings manipulation using real activity and tunneling are the most recommended methods by the participants for the two schemes. In the bonus scheme, a total of 74% of the respondents opted for real activity and tunneling as the most recommended methods to achieve the company's profit targets. Similarly for the clawback compensation scheme, 56% of the participants recommended the use of real activity manipulation. Meanwhile, only 5% of the participants chose fraud, which dropped to only 1% in the clawback scheme. Participants who chose accrual manipulation in the bonus scheme accounted for 6% and this fell slightly to 5% for the clawback scheme. Furthermore, 15% of the participants chose no manipulation under the bonus scheme, and this increased to 38%. The general inclination shows that participants take great care when selecting profit manipulation methods; the majority opt for those that are hard to detect.

The results of the hypothesis testing for H1e show that compensation schemes do not have any influence over the intention not to perform earnings manipulation. For the

bonus scheme, the intention not to perform earnings manipulation (3.39) is lower than that in the clawback compensation scheme (3.71); the difference is, however, not significant and therefore H1e is not supported.

The results of the hypotheses testing for H1a-H1d show that the change of the compensation scheme from a bonus scheme to a clawback scheme caused unexpected consequences. The change to the clawback scheme causes the intention to use the real activity manipulation method to increase, although the intention to use accrual manipulation decreases; this finding is in agreement with Chan *et al.*, (2015). This is caused by the fact that accrual manipulation tends to attract more scrutiny from auditors and regulators. High accounting accruals are more likely to be associated with accounting restatements, which trigger clawbacks (Dechow *et al.*, 2010). On the other hand, real activity manipulation is considered to be a less risky option than accrual management. Real activity manipulation is a deviation from the optimal business practices undertaken by managers, such as through cutbacks to R&D or SG&A expenses, and there is only a slight possibility of it being regarded as inappropriate by auditors and regulators (Roychowdhury, 2006; Cohen *et al.*, 2010).

Turning to the pressure applied by the CEO, when this is low, the intention to perform earnings manipulation is lower than in the condition of high pressure; the difference is however, not significant and Hypothesis H2 is thus not supported. The interaction between compensation schemes and pressure from the CEO is also not significant.

The results of testing Hypothesis H3 (Table 2) show that there are significant differences in the intention to perform earnings manipulation between individuals with low religiosity levels and those with high religiosity levels. Individuals with low religiosity levels have a higher degree of intent to perform earnings manipulations (2.32) than individuals with high religiosity levels (2.01) ($F = 5.96; p < 0.01$); Hypothesis H3 is therefore, supported. Other than having an influence on people's intentions, religiosity also influences the choice of method used. Individuals with low religiosity levels have a higher intention to commit fraud (1.98) than individuals with high religiosity levels (1.65) ($F = 6.65; p < 0.05$). In the same way, with the choice for accrual manipulation, individuals with low religiosity levels have a higher degree of intention to use accrual

manipulation (2.56) than individuals with high religiosity levels (2.01) ($F = 15.86$; $p < 0.01$). Meanwhile, for real activity and tunneling methods, no significant difference was found for the preference between individuals with low religiosity levels and those with high religiosity levels.

In terms of the preference for the manipulation method to be used, under the bonus scheme those participants with a low level of religiosity tended to recommend the use of real activity manipulation and tunneling (65%); meanwhile, participants with a high level of religiosity also recommend using real activity manipulation and tunneling (76%). With the clawback compensation scheme, a higher percentage of the participants with a low religiosity level recommend using tunneling or real activity manipulation (53%) than those who opted not to undertake profit manipulation (26%). A higher percentage of participants with a high religiosity level recommend tunneling or real activity manipulation (53%) than those who chose not to perform earnings manipulation (43%). This seems to indicate that religiosity levels do not suppress the degree of profit manipulation through tunneling or real activity manipulation in individuals with either high or low religiosity levels. Both still recommend the use of real activity manipulation and tunneling to achieve the company's profit targets.

An interesting finding is that compensation schemes do not influence people's intention to not do earnings manipulation. It is only a person's religiosity that influences him/her not to perform profit manipulation. Hypothesis-testing results show that, in individuals with low religiosity, the intention to not use profit manipulation is lower (3.25) than in individuals with high religiosity (3.67) ($F = 6.73$; $p < 0.05$).

5. CONCLUSION AND DISCUSSION

Findings of the study show that the adoption of clawbacks decreases the intention to perform earnings manipulation, especially fraud and accrual manipulation. But the clawback compensation scheme does not eliminate all the types of profit manipulation; since after the adoption of clawbacks, the intention to perform real activity manipulations becomes even higher. This is due to the fact that the use of real activity manipulation represents a deviation from the optimal operating decision, such that it is not likely to be deemed improper by the auditors and regulators. This finding is consistent with that of

Chan *et al.* (2015) in that the use of the real activity manipulation method heightens after a company adopts clawbacks, while the use of accrual manipulation decreases for the reason that accrual's use is easily detected by auditors or regulators, which triggers clawbacks.

Another interesting finding is one where religiosity only has a negative influence on the intention to commit fraud and accrual manipulation, but does not have a significant influence on the intention to use real activity manipulation and tunneling. There is no difference in the intention to use real activity manipulation and tunneling in individuals with high or low religiosity levels; both recommend using the two methods in order to meet the company's profit target. This finding supports the sacred canopy theory in that, due to the increasing materialism of modern society and pressure from the capital market to meet profit targets, religions have lost their influence over some aspects of life, including ethical behavior in financial reporting. Real activity manipulation is seen to be more ethical than accrual manipulation (Bruns and Merchant, 1990) even though both have the same consequence of lowering the quality of accounting information and misleading the financial-statement's users.

The results of this study carry implications on the implementation of clawbacks in countries with high levels of uncertainty avoidance and low levels of individualism. In countries with these characteristics, individuals tend to prefer compensation systems with a low level of uncertainty, while clawbacks have high pay-performance sensitivity. Therefore, after adopting clawbacks, an individual will take greater care when selecting an earnings manipulation method to achieve the targeted profit, i.e. real activity manipulation, since this is not easily detected by auditors and thus, does not trigger clawbacks. However, the adoption of clawbacks does not significantly heighten the intention not to perform earnings manipulation. Future research may possibly add cultural variables at the individual level to examine the effectiveness of clawbacks.

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