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Religiosity and clawback provision to curb earnings management

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ABSTRACT

This study examines the impact of religiosity and clawback on corporate reporting behavior. Previous research indicates that the supervision and punishment aspects of God, and secular authorities are able to improve prosocial actions. This present study examines whether clawback that has a punishment feature moderates the effect of religiosity on the intention to manipulate earnings. This study uses an experimental method with 266 participants who are personnel from finance departments. Our results suggest that the main effect of religiosity has no significant effect on the reduction of accruals manipulation. However, the interaction of religiosity and clawback has a significant effect. Although we find that clawback strengthens the negative influence of religiosity on accrual manipulation, we find that it strengthens the positive influence of religiosity on manipulation of real activity.

1. Background

Many previous studies have examined the influence of religion on prosocial behavior (Shariff and Norenzayan 2011; Harrell 2012; Johnson et al. 2013), but whether religion influences corporate behavior, especially earnings management has not been widely explored. Earnings management exists when earnings are manipulated to achieve a financial benchmark, which will allow executives to enjoy financial incentives (Efendi, Srivastava, and Swanson 2007). Recently, McGuire, Omer, and Sharp (2012) examined whether religion, as a social norm, influences the choice of earnings manipulation methods, and the results show that corporate managers, both religious and non-religious, operating in religious regions, continue to manipulate earnings due to high market pressure to reach profit targets. Additionally, Chan et al. (2015) found that managers choose manipulating real activities compared to accrual manipulation because real activity manipulation has a low risk of detection (Chan et al. 2015). This present study extends this line of research by testing the effect of religiosity at the individual level on the selection of earnings manipulation methods. Specifically, this study also aims to test the effectiveness of clawback compensation schemes, that have a punishment feature for managers whose earnings manipulation is detected.

The influence of religion on prosocial behavior is based on the Supernatural Punishment Hypothesis (SPH) that there is a supernatural observer (God) who supervises every human action and is able to punish every violation, thus encouraging everyone to remain obedient (Yilmaz and Bahçekapili 2016). 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 (McGuire, Omer, and Sharp 2012).

However, because of the high level of materialism in modern society, religion has lost its influence over certain aspects of life (Berger 1967; Gorski 2000). Empirically, McGuire, Omer, and Sharp (2012) found that in the high capital market pressure to achieve profit targets causes corporate managers operating in highly religious regions to continue to manipulate earnings. Additionally, since individuals with high religiosity levels tend to be risk averse (Benjamin, Choi, and Fisher 2016), managers prefer real activity manipulation to accrual management because they consider real activity manipulation to be more difficult for auditors and regulators to detect. According to Graham, Harvey, and Rajgopal (2005), real activity manipulation is a less risky option and is more ethical.

In some modern societies, secular authorities such as judges, police, and leaders have punitive powers comparable to the roles of supernatural agents. In line with SPH, the Supernatural Monitoring Hypothesis (SMH) assumes that being supervised by supernatural agents (God) is the same as being supervised by secular authorities such as leaders, judges, police (Gervais and Norenzayan 2012). But there are still differences of opinion as to whether punitive attitudes or compassion, from both supernatural agents and leaders, lead to the same level of prosocial behavior. Some researchers argue that only aspects of love and reward from God enhance prosocial actions (Harrell 2012). Meanwhile, the aspect of punishment or anger from God will increase aggressiveness (Johnson et al. 2013). Contrary to those studies, several researchers found that aspects of effective punishment improve prosocial behavior (Atkinson and Bourrat 2011; Shariff and Norenzayan 2011; Shariff and Rhemtulla 2012).

The latest research conducted by Yilmaz and Bahçekapili (2016) found that religion has a positive effect on prosocial actions only if there are aspects of punishment both by God or secular authorities. This indicates that, in the current secular modern era, punishment, both through supernatural agents (God) and by agents of secular institutions (police, judges), plays an important role in cooperative and prosocial behavior.

In the business context, to prevent earnings management, many companies have recently adopted a policy of "recovery of compensation", commonly known as clawback. Clawback is the provision that authorizes 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 clawback. Dechow, Ge, and Schrand (2010) found that clawback is capable of reducing accrual manipulation levels, since this type of manipulation is easily detected by legal authorities and auditors.

From the SPH and SMH perspectives, this punishment aspect of clawback exists, so the manager will be motivated to act according to the rules to avoid punishment. Consequently, it is expected that clawback will reduce the level of earnings manipulation. Therefore, the objectives of this paper are twofold: first, to examine the influence of religiosity on the intention of manipulating earnings (fraud, accrual, and real manipulation); second, to test the effectiveness of clawback which has a punishment aspect to moderate the influence of religiosity on the intention of manipulating earnings.

The present study has important implications by providing recommendations to regulators concerning the importance of religious values and the possibility of the adoption of clawback compensation mechanism for reducing agency conflict, particularly in countries with cultures that are different from the clawback initiator countries. This study differs from previous studies in a number of key ways. First, based on the previous research which examined the effect of religion on corporate financial reporting (McGuire, Omer, and Sharp 2012), this study adds clawback as a punishment mechanism in terms of the relationship between religiosity and earnings management. Second, this study uses Indonesia as its setting, a country with different cultural dimensions whilst the majority of previous studies which tested clawback use the setting of companies listed on the US Stock Exchange. Third, this study aims to test the effectiveness of clawback in reducing fraud. A previous study (Chan et al. 2015) focuses primarily on the effectiveness of clawback in reducing the earnings manipulations that were still in the corridor of accounting standards. Fourth, whilst the majority of the previous studies make use of secondary data (Chan et al. 2012, 2015; Iskandar-Datta and Jia 2013), this study uses an experimental design in view of the fact that, in Indonesia, clawback compensation schemes are still rarely used.

2. Literature review and hypotheses development

2.1. Earnings management

Earnings is used for performance appraisal, thus encouraging managers to manipulate earnings (Trueman and Titman 1988). 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 and manipulation of real activity. The latter category includes fraud and classification shifting. Classification shifting includes shifting items on the income statements.

This study focuses on earnings manipulation outside the corridor of accounting standards (i.e., fraud) and within the corridor of accounting standards (accrual manipulation and real activity manipulation). Fraud is the flagrant violation of accepted accounting principles whilst accrual manipulation is the manipulation of earnings through the manipulation of discretionary accruals (Healy and Wahlen 1999). A discretional accrual is one that is used to decrease or increase the earnings reported

by the management selecting the accounting policies subjectively (Scott 2009). Additionally, the manipulation of real activity is 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 activity manipulation involves attempts to alter the reported earnings by adjusting the timing and scale of the underlying business activities, for example by reducing discretional spending such as R&D expenses, Selling, and General & Administrative (SG&A).

Each earnings manipulation method has its costs and consequences. Accrual manipulation does not have a direct influence on cash flows, so it only has a small possibility of destroying a company's value (Badertscher 2011). Real activity manipulation is done by reducing the discretional 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 a company's value (Badertscher 2011). Earnings manipulation through real activities makes it possible for the company to elevate short-term profits and stock return, but this trend will revert after three years to the level before earnings manipulation started (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 discretional expenses, such as R&D, will not be a focus for inspection by the auditors or regulators. So, as seen in terms of detection risk, fraud is a method of earnings manipulation that has the highest risk of being detected followed by manipulation of accrual and real activity.

2.2. Religiosity and earnings management

According to the Supernatural Punishment Hypothesis (SPH), it is not possible to monitor every action and punish each individual movement in a large number of groups. However, the opinion that there is a supernatural observer (God) who supervises every human action and has the ability to punish every violation can keep everyone obedient (Schloss and Murray 2011; Yilmaz and Bahçekapili 2016). Some studies use self-report measures to confirm that the intensity of religiosity is positively related to prosocial personality traits or helping behavior (Batson, Schoenrade, and Ventis 1993; Randolph-Seng and Nielsen 2007; Saroglou 2004).

In the business context, Weaver and Agle (2002) stated that religion influences business ethics whenever religion is an important component of one's self-identity. This is based on the theory of self-categorization, where each individual has many social categories such as religion, gender or occupation, and each category has norms regarding how someone in that category must behave (Turner 1985). When religion becomes the main self-identity, the violation of religious norms will cause cognitive and emotional discomfort, thus motivating the person to obey religious rules (Weaver and Agle 2002). So, the stronger a person's religious identity is, the more likely they are to act according to the rules of their religion.

Previous research found that the influence of religion on business ethics expanded to financial reporting. Longenecker, Mckinney, and Moore (1989) found that business managers and professionals who believe in religious values are less likely to approve of unethical behavior. Conroy and Emerson (2004) found that religiosity (with church attendance used as the proxy) is associated with a lower acceptance of accounting manipulation. McGuire, Omer, and Sharp (2012), using social norms theory, found that company managers in religious regions tend to engage in few financial reporting irregularities.

We expect that religiosity influences the manager's financial reporting decisions. Religiosity provides ethical guidelines that provide directions for adherents to distinguish ethical or unethical actions (Weaver and Agle 2002). In addition, a religious person is convinced of the presence of a supernatural (God) who supervises their actions (Schloss and Murray 2011), so managers with high religiosity levels will have a lower tendency to carry out financial report manipulation outside the corridors of accounting standards or fraud. This expectation is stated formally in H1.

H1: Religiosity has a negative influence on the intention to commit fraud.

Accrual manipulation used to decrease or increase the earnings reported through the subjective selection of accounting policies. Although within the corridor of accounting standards, accrual manipulation causes misleading of some stockholders (Healy and Wahlen 1999) and is unethical action (Graham, Harvey, and Rajgopal 2005). Religious person believes that God oversees his actions and has the ability to distinguish ethical and unethical actions (Weaver and Agle 2002). Chen et al. (2013) and Montenegro (2017) found that religiosity is significantly negatively associated with discretional accruals. Thus, we predict that religiosity limits accrual manipulation and this expectation is stated formally in the second hypothesis:

H2: Religiosity has a negative influence on the intention to perform accrual manipulation.

Religions have lost their influence over the many aspects of daily life due to the increasing materialism of modern society (Berger 1967; Gorski 2000). Several studies support this statement. Among these are McGuire, Omer, and Sharp (2012) who found that managers in religious regions still manipulate earnings because of the pressure from shareholders to meet profit targets. Managers in religious regions prefer to use manipulation of real activity rather than accrual manipulation because they view real activity manipulation as being more ethical and less risky (Graham, Harvey, and Rajgopal 2005). The empirical evidence shows that the earnings manipulation method with the biggest risk of detection is accrual manipulation and lastly real activity manipulation. Compared to someone with a low religiosity level, someone with a high religiosity level tends to be risk averse (Benjamin, Choi, and Fisher 2016), so managers with high religiosity levels are likely to prefer real activity

manipulation methods to accrual manipulation. This is because in real activity manipulation, manipulation is carried out and hidden in transactions that are seemingly legal, so it is hard for auditors and regulators to detect. Our third hypothesis is therefore:

uH3: Religiosity likely increases the odds of the intention to perform manipulation of real activity.

2.3. Moderating effect of clawback

Some previous studies have shown that religion influences prosocial actions (Shariff and Norenzayan 2011; Harrell 2012; Johnson et al. 2013) but it is still unclear whether aspects of virtue or punishment from God enhance prosocial behavior. Pichon, Boccato, and Saroglou (2007) found that only positive aspects of God (i.e., reward, heaven, forgiveness) were able to enhance prosocial actions. The study by Johnson et al. (2013) shows that aspects of virtue from God enhance prosocial behavior, while aspects of God's anger increase aggressiveness. Harrell's (2012) study also found the same thing: it is only priming related to rewards in religious and secular institutions that increases generosity.

Unlike the research mentioned above, there are several studies that state that fear of punishment from God is an effective tool for social regulation. For example, someone who thinks that God punishes people will have a wary character and tend to cheat less on academic tasks, whereas those who think God is primarily forgiving tend to cheat more (Shariff and Norenzayan 2011).

Fear of supernatural punishment is an effective tool for social regulation. Shariff and Rhemtulla (2012) indicate that the crime rate is negatively related to the belief in the existence of hell and is positively related to the belief in the existence of heaven. Atkinson and Bourrat (2011) found empirical evidence that belief in a punishing God enhances cooperation and reduces selfish behavior.

In some modern societies, secular authorities have taken over the role of judging and convicting from religious authorities. Along with SPH, the Supernatural Monitoring Hypothesis (SMH) is based on the assumption that being supervised by supernatural agents (God) has the same influence as being supervised by other human beings (Gervais and Norenzayan 2012). The implication is that someone who believes that his actions are supervised by others will be more prosocial (Bateson, Nettle, and Roberts 2006), more generous (Kurzban et al., 2001) and more helpful (Van Rompay, Vonk, and Fransen 2009).

Recently, Yilmaz and Bahçekapili (2016) examined whether, in the current secular modern era, religious or secular authority in general lead to increased cooperation and prosocial behavior. The research they performed, which used predominantly Muslim samples, shows empirical evidence that punishment, both through supernatural agents (God) and by agents of secular institutions (police, judges), plays an important role in cooperative and prosocial behavior. Yilmaz and Bahçekapili (2016) found empirical evidence that religion is associated with an increase in prosocial actions only if there are aspects of punishment both by God and institutions. Hence, it can be concluded that punishment plays an important role in the evolution and maintenance of cooperation in the human species.

Clawback is one form of recovery provision introduced by Section 304 of the Sarbanes-Oxley Act (SOX) in 2002. As previously mentioned, clawback is the provision that authorizes the board of directors to recoup the compensation paid to their managers, based on the managers' misstated financial reports (Chan et al. 2015). Clawback has a penalty or punishment aspect.

In line with the SPH and SMH lenses, because of the punishment aspect of this clawback, managers will be motivated to act according to the rules to avoid punishment, so it is expected that this clawback will reduce the level of earnings manipulation. Another theory that supports effective punishment is the Prospect Theory (Kahneman and Tversky 1992) which argues that people receive greater disutility from the losses than the utility they receive from equivalent benefits. Therefore, individuals must work harder to avoid penalty or punishment than to get bonuses amounting to equal amounts of dollars. Hannan (2005) found that individuals prefer to pursue a higher effort to avoid punishment rather than receive a bonus of an equivalent dollar amount.

There are a number of research that tested the effectiveness of the clawback scheme. Chan et al. (2012) found that after the adoption of clawback, financial misstatements decrease, external auditors are less likely to report material internal control weaknesses, audit fees become lower, and audit reports are issued with shorter delays. The implementation of clawbacks also increases the market's responses towards the company; while investors' motivation to invest in the company increases (Iskandar-Datta and Jia 2013). Dehaan, Hodge, and Shevlin (2013) found that companies which implement clawbacks have improved the quality of their financial reports compared to those which do not. Therefore, companies implementing clawback provisions have better financial reporting quality than non-adopting companies to reduce detection risk (Dehaan, Hodge, and Shevlin 2013) because the CEO will be more careful when making financial reports to avoid clawbacks or punishment. Thus, the existence of the punishment aspect of the clawback will strengthen the influence of religiosity on fraud in financial reporting. This leads to the fourth hypothesis:

H4: Clawback moderates the negative relationship between religiosity and the intention to perform fraud in such way that the fraud-preventing effect of the clawback scheme is stronger for religious people than the non-religious.

Accrual manipulation is the riskiest method of earnings manipulation compared to real activity manipulation. Clawback has a punishment feature that makes managers feel that their actions are being supervised. Dechow, Ge, and Schrand (2010) found that clawbacks are negatively related to accrual manipulation, since this type of manipulation is easily detected. The religious person tends to be risk-averse, making it less likely to manipulate the accrual because this increases the risk of detection. McGuire, Omer, and Sharp (2012) found negative association between religiosity and abnormal accruals. Therefore, we predict that the punishment aspect of the clawback has a stronger impact on religious persons than on non-religious ones.

H5: Clawback moderates the negative relationship between religiosity and the intention to perform accrual manipulation in such way that the accrual-preventing effect of the clawback scheme is stronger for religious people than the non-religious.

Denis (2012) found that markets and auditors see an improvement in the quality of financial reports after the implementation of clawbacks for the following reasons. First, the adoption of clawbacks is a signal to the boards of directors that companies have a bigger commitment to greater financial integrity. Second, the auditors' erroneous belief that a company 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.

The implementation of the clawback leads managers to be more careful in choosing methods of earnings manipulation, i.e., they tend to change their earnings manipulation method from accrual manipulation to real activity manipulation (Chan et al. 2015). Managers prefer real activity manipulation to accrual manipulation, seeing that the former is harder for auditors and regulators to detect, so this option offers less risk of being found out (Graham, Harvey, and Rajgopal 2005). This is in accordance with findings from recent research (e.g., Chan et al. 2015) showing that clawback carries unexpected consequences, i.e., more manipulation of real activity.

The method of earnings manipulation in real activities is more difficult to detect by the authorities. McGuire, Omer, and Sharp (2012) found positive association between religiosity and real activities manipulation, suggesting that managers of firms in religious regions prefer real earnings management over accruals manipulation. They consider real activity manipulation is a less risky option and is more ethical (Graham, Harvey, and Rajgopal 2005). Moreover, in a clawback compensation scheme, the religious person is likely to increase the odds of the intention to perform manipulation of real activity, compared to when there is no clawback. Therefore, we hypothesize:

H6: Clawback moderates the positive relationship between religiosity and the intention to perform real activity manipulation in such way that in the clawback scheme, the intention to manipulate real activities is higher for the religious people than the non-religious.

3. Research method

3.1. Experiment design

To test the hypotheses formulated in the previous section, a series of experimental sessions was conducted which lasted for approximately 45 minutes each. The participants were personnel from finance departments who were studying for a master's degree. The design of this study was repeated measures of the dependent variable. 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 scenarios.

The experiment consisted of four parts. First, the participants were told they were in a bonus compensation scheme, which was then changed to a clawback compensation scheme. Second, their religiosity and individual attributes were measured. Third, the participants' earnings were calculated for each of the previous parts. Fourth, they answered questions

about their understanding of the experiment and demographic characteristics in the exit questionnaire.

3.2. Manipulated variables

3.2.1. Compensation scheme

Two compensation schemes were used: a bonus scheme and a clawback scheme. First, the compensation scheme provided was a bonus scheme. In this scheme, if the company achieved its profit targets, the participants would get a bonus. The participants were asked to select an alternative proposal to achieve the profit targets. If they chose the alternative, then they would 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 participants were caught engaging in manipulation of earnings, they would be given a reprimand card by the auditor.

Second, the compensation scheme was changed to clawback. In the clawback scheme, the participants were informed that the authority had issued a new policy: the clawback compensation scheme. In this scheme, if a participant was caught engaging in earnings' manipulation, the bonus that had been awarded must be returned. Participants were given a case similar to the bonus schemes, and were asked to select the available proposals to obtain the targeted profits. The auditor 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 and religiosity.

3.3.1. Intention to perform earnings management

Each participant was given one scenario and asked to select three proposals. The scenarios were modified from those developed by Clikeman and Henning (2000). The first proposal was to measure the intention to commit fraud through capitalizing the routine maintenance and depreciating it over 10 years. To ensure that the participants understood that the scenario was not in accordance with the accounting standards, they were told: "You have concerns regarding this proposal because the accounting standards indicate that expenses of this nature should be listed as expenses as incurred."

The second proposal was to measure the intention of performing accrual manipulation. Participants evaluated a proposal to delay recognition of maintenance costs until the following year. To ensure that the participants understood that the scenario was in accordance with the accounting standards, this scenario included the statement: "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 third proposal was to measure the intention to perform real activity manipulation through cutting maintenance costs. To ensure that the participants understood that the scenario was in accordance with the accounting standards and had a low detection risk, the participants were informed: "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 participants answered a question relating to their intentions regarding the proposals made in the scenarios. The question was: "What is the degree of your intention to perform earnings manipulation?" The scale provided five options: 1 indicating strong disagreement and 5 strong agreement.

3.3.2. Religiosity

To measure religiosity we used instruments developed by Underwood et al. (2003). The respondents were asked to indicate their religiosity, ranging from 1 = strongly disagree to 5 = strongly agree. Examples of the statements are: "I am convinced that God looks upon what I am doing" and "I am a religious person."

3.3. Control variables: age and gender

We controlled for age and gender. This is because Huang, Rose-Green, and Lee (2012) found that the age of CEOs was positively related to financial reporting quality. Additionally, Qi *et al.* (2018) found empirical evidence that executives who are near retirement age were negatively related to the level of earnings manipulation because they tend to be more conservative and risk-averse. Older top executives are more conservative and risk-averse (Herrmann and Datta 2006). Peni and Vähämaa (2010) found that female CFOs are related to income-decreasing discretionary accruals. This indicates that female CFOs are more likely to be risk averse and conservative in terms of financial reporting strategies.

3.4. Manipulation check

Two questions were asked for the manipulation check. First, to ensure that the participants understood the changes in the compensation schemes, the question asked was: "Will there be punishment, in the form of returning the bonus, if earnings manipulation is detected?" Second, to make sure that the participants understood the acceptability according to the accounting standards, we asked was 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 experiment.

3.5. Monetary incentives and clawback schemes

The participants received compensation depending on their choice of proposals and this compensation would be returned if earnings manipulation was detected. The amount of the returned bonus depended on the proposals selected (accrual manipulation = $6, real earnings management = $4, and fraud = $18). A detailed description is presented in Table 1. After any clawback or returned bonus, payments ranged from $2 to $6.

Table 1. Manipulation used in each experiment.

	BONUS			CLAWBACK	
Proposal number	Proposal given	Bonus received by participant	Outside/within corridor of accounting standards	Detection risk	Bonus Returned*
Proposal 1	Doing accrual manipulation by delaying recognition for machine maintenance and repair	Selecting proposal 1 will increase profits by 20%. CFO will receive compensation of 20% for net profit or $10	Within the corridor of accounting standards	Moderate	$6
Proposal 2	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	$4
Proposal 3	Committing fraud by capitalising cost	Selecting proposal C will increase profits by 40%. CFO will receive compensation of $20	Outside the corridor of accounting standards	High	$18

* the amount of bonus returned is based on the level of the detection of the selected proposal.

3.6. Model specification

To test the hypothesis, we used the following moderated regression equation:

$$Yn = \alpha_0 + \alpha_1 Religiosity + \alpha_2 Clawback + \alpha_3 ReligiosityxClawback + \alpha_4 Age + \alpha_5 Gender$$

From this specification, we tested hypotheses 1 and 4 using a dependent variable intention to commit fraud (Model Y1). To test hypotheses 2 and 5, we used the dependent variable intention to manipulate accrual (Model Y2). While to test the hypotheses 3 and 6, we used the dependent variable intention to manipulate the real activity (Model Y3).

4. Findings

The descriptive statistics and correlations are presented in Table 2. There were 273 participants who took part in this experiment, but seven participants did not pass the manipulation check. The average age of the participants was 24.69 years and the average religiosity level was 3.70. There were no multicollinearity problems since no interfactor correlation was above the threshold level of 0.65 (Tabachnick and Fidell 1996, 86).

Table 3 panel A presents the descriptive statistics of intention to manipulate earnings. In general, after clawback adoption, the average intention to commit fraud and accrual manipulation decreased, especially in the religious person, while the intention to manipulate real activities actually increased. The results provide initial support for our

Table 2. Descriptive statistics and correlations among measured variables.

	Mean	SD	1	2	3	4
1. Religiosity	3.70	0.29	1.000			
2. Compensation	0.49	0.50	−0.01	1.000		
3. Age	24.69	3.41	−0.13**	0.01	1.000	
4. Gender	0.34	0.47	−0.21***	−0.01	0.23	1.000

Table 3. Participants intention to manipulate earnings.

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

	Fraud		Accrual Manipulation		Real Activity Manipulation	
	Low Religiosity	High Religiosity	Low Religiosity	High Religiosity	Low Religiosity	High Religiosity
Bonus	2.55	2.22	2.36	2.48	2.97	3.02
	(1.13)	(0.91)	(1.12)	(1.14)	(1.10)	(1.16)
Clawback	2.10	1.80	2.76	1.50	3.10	3.83
	(0.98)	(0.85)	(1.05)	(0.89)	(1.41)	(1.31)
Column Means	2.32	2.01	2.56	2.00	3.03	3.42
	(1.07)	(0.90)	(1.09)	(1.13)	(1.25)	(1.30)

Panel B: Percentage of participants' intention to manipulate earnings

	Fraud		Accrual Manipulation		Real Activity Manipulation	
	Bonus	Clawback	Bonus	Clawback	Bonus	Clawback
Strongly disagree	42.64%	78.91%	22.48%	51.16%	7.75%	9.30%
disagree	37.98%	8.59%	38.76%	22.48%	34.11%	15.50%
neutral	9.30%	7.03%	14.73%	17.83%	18.60%	17.83%
agree	6.98%	4.69%	21.71%	4.65%	31.78%	18.60%
Strongly agree	3.10%	0.78%	2.33%	3.88%	7.75%	38.76%

hypotheses. Panel B presents the descriptive statistics on the percentage of respondents' intention to manipulate earnings based on each method of earnings manipulation and compensation schemes.

In the clawback scheme the number of participants who stated that they strongly agreed to commit fraud decreased from 3.10% to 0.78%, and those who agreed decreased from 6.98% to 4.69%. In accrual manipulation, after the adoption of the clawback, there was a decline in participants who agreed from 21.71% to 4.65%. However, after the adoption of the clawback, the number of participants who strongly agreed on real activity manipulation increased from 7.75% to 38.76%.

To test the hypotheses, we conducted moderated regression analysis. Table 4 provides the results from a series of models. Model 1 shows that the coefficient for Religiosity is negative but not significant for explaining Fraud. The interaction effect of religiosity and Clawback is also not significant. Therefore, H1 and H4 are not supported.

Using Model 2, the results indicate that the effect of religiosity on accrual manipulation is not significant. Therefore, H2 is not supported. However, the interaction effect of religiosity and the clawback is negative and significant ($\alpha_3 = -1.550$, $p < 0.01$). Individuals in the clawback scheme with high religiosity tended to have a lower level of accrual manipulation (mean = 1.50, SD = 0.89) than individuals with low religiosity (mean = 2.76, SD = 1.05). The results of the study indicate that the accrual-prevention mechanism of the clawback scheme is stronger for religious people than for non-religious people. Therefore, strong support for H5 is provided.

Using Model 3 we found that there was no significant effect of religiosity on real activity manipulation, and therefore H3 is not supported. However, we found a significant inter-action effect of religiosity and clawback ($\alpha_3 = 0.885$, $p < 0.10$), thus supporting H6. Individuals with high religiosity levels in the compensation clawback scheme have greater intention to manipulate real activities (mean = 3.83, SD = 1.13), compared to individuals with low religiosity in the clawback scheme (mean = 3.10, SD = 1.41).

From the results of Model 2 and Model 3, it is shown that changes in the compensation scheme from a bonus scheme to a clawback scheme caused unexpected consequences. It caused the intention to use real activity manipulation methods to increase, although the intention to use accrual manipulation decreased. This finding is in agreement with Chan et al. (2015). This may be caused by the fact that accrual manipulation tends to attract more scrutiny from auditors and regulators. High

Table 4. Moderated Regression Analysis Results: Clawback as the moderator.

VARIABLES	Model 1 Fraud	Model 2 Accrual Manipulation	Model 3 Real Activity Manipulation
Constant	4.060	2.341	2.035
Religiosity	−0.344	0.164	−0.151
Clawback	0.246	5.159***	−2.671
Religiosity x Clawback	−0.203	−1.550***	0.885*
Controls			
Age	0.046***	−0.021	−0.014
Gender	0.224*	0.022	−0.446***
Constant		2.341	
R^2	0.373	0.361	0.328
F Test	8.100***	7.497***	6.025***
N	256	256	256

*$p < 0.10$; **$p < 0.05$; ***$p < 0.01$.

accounting accruals are more likely to be associated with accounting restatements, which trigger clawbacks (Dechow, Ge, and Schrand 2010). On the other hand, real activity manipulation is considered to be a less risky option than accrual management. Real activity manipulation has only a slight possibility of being regarded as inappropriate by auditors and regulators (Roychowdhury 2006; Cohen and Zarowin 2010).

Concerning control variables, we found that age has a positive and significant impact in Model 1 ($\alpha_4 = 0.046$, $p < 0.01$). The positive effect of age on the intention to perform fraud suggests that the older the participants, the higher the intention to commit fraud. The results of this study do not support the study of Baolei. et al. (2018) who found the older the executives the lower the earnings manipulation. A possible explanation is that participants in this study were relatively young (24-year-old average) compared to Qi et al.'s (2018) study participants, where 35.2% of participants were nearing retirement age (around 50 or 55 years old).

Regarding the gender variables in Model 1, we found that men have higher intentions to commit fraud than women ($\alpha_5 = 0.224$, $p < 0.10$). Whereas in Model 3, we found women were more intent on manipulating real activities than men ($\alpha = -0.446$, $p < 0.01$). These results support the findings of Peni and Vähämaa (2010) that females tend to be risk averse and conservative in terms of financial reporting strategies, so they prefer earnings manipulation methods that are difficult to detect.

5. Discussion

In this study, we did not provide evidence of the main significant effect of religiosity on the intention of manipulating earnings. Religiosity can effectively reduce the intention to do accrual manipulation, but only if there is a punitive effect of clawback. The results of this study are consistent with Yilmaz and Bahçekapili (2016) that religion can influence prosocial behavior only if there are punishment aspects.

In some modern societies, punitive powers of secular authorities lead to prosocial behavior (Gervais and Norenzayan 2012). This indicates that in the current secular modern era, punishment plays an important role in cooperative behavior. This reinforces empirical evidence that the aspect of effective punishment increases prosocial behavior (Atkinson and Bourrat 2011; Shariff and Norenzayan 2011; Shariff and Rhemtulla 2012; Yilmaz and Bahçekapili 2016).

However, fear of punishment in the clawback scheme also brings unexpected consequences, where individuals tend to manipulate earnings with methods that are difficult to detect, i.e., real activity manipulation. The results of this study indicate that in the clawback scheme, the intention to manipulate real activities is actually higher in religious people than in non-religious people. Individuals with a high level of religiosity tend to be risk averse; they prefer to use a manipulation method that has a low risk of detection to achieve the profit target. Real activity manipulation is perceived as more ethical than accrual manipulation (Bruns Jr., William J. and Merchant, 1990; Graham, Harvey, and Rajgopal 2005) and has a low risk of detection (Chan et al. 2015) even though consequently lowering the quality of accounting information and misleading the financial statement's users. These results show that clawback compensation schemes that have punishment features are not able to eliminate all methods of earnings manipulation.

This study makes several contributions. First, the contribution to the literature is that religiosity becomes an effective mechanism for monitoring corporate reporting behavior only if there is a punishment aspect. Specifically, we found the interaction effect of clawback, which indicated that fear of the punishment of clawback aspect was able to strengthen the influence of religiosity on decreasing the intention to do accrual manipulation.

Second, this study extends prior research in earnings management (Grullon *et al.*, 2010; McGuire, Omer, and Sharp 2012) by providing evidence that in a clawback scheme, managers with high religiosity levels prefer earnings manipulation methods that have a low detection risk, namely real activity manipulation. The punishment aspect of clawback causes individuals to be careful in choosing the method of earnings manipulation to achieve the profit target.

Finally, we contribute to the growing number of studies that examine the influence of religion on corporate reporting behavior (e.g., Dyreng, Hanlon, and Maydew 2010; Grullon et al. 2010; McGuire, Omer, and Sharp 2012). Our findings indicate that religiosity at the individual level together with the punishment aspect of the clawback compensation system can influence the company in ways that can affect shareholder value. Therefore, this research should be of interest to investors, managers, members of boards of directors, and regulators.

6. Conclusion and limitation

Prior research provides evidence that religiosity influences corporate reporting behavior, especially earnings manipulation (McGuire, Omer, and Sharp 2012; Chen, 2013; Montenegro 2017). Despite the contribution that previous research provides, there is still scarce empirical evidence to test whether religiosity is able to eliminate all types of earnings manipulation. Recently, many companies have been using a compensation clawback mechanism to decrease the level of earnings manipulation. Clawback has a punishment aspect because the board of directors supervises and recovers compensation that has been given to managers if it is proven that those managers have made misstatements in financial reports. This study extends this line of research by testing whether the clawbacks, that have a punishment feature, moderate the effect of religiosity on the choice of earnings management methods.

The results provide evidence that the main effect of religiosity does not have a significant effect on decreasing the intention to do accrual manipulation, while the interaction effect of religiosity and the clawback is significant. Religiosity is able to reduce the intention to do accrual manipulation only if there is a punishment aspect of a clawback. The results of this study are also consistent with Yilmaz and Bahçekapili (2016) that religion can influence prosocial behavior only if there are punishment aspects.

In line with previous research, we found that clawback causes unexpected consequences because managers will use earnings manipulation methods that are difficult to detect (Chan et al. 2015). The punishment feature of the clawback actually increases the use of difficult-to-detect methods of earnings manipulation. It is shown that in the clawback compensation scheme, the religious people have a greater intention of manipulating real activities than non-religious people.

Apart from various contributions, this research has limitations, in particular in the use of a questionnaire to measure religiosity. When participants are asked about God or heaven, then there is the possibility that the participants have been "primed" by the questions. Priming can be a non-conscious guide to subsequent behavior (Bargh 2006), so that the possibilities are likely to modify their behavior. Therefore, the results should be interpreted cautiously.

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Disclosure statement

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