THE EFFECTS OF SOCIAL PRESSURE ON EARNINGS MANAGEMENT DECISION: A MODERATING EFFECT TEST OF RELIGIOSITY AND BONUS INCENTIVE

Abstract
This paper examines the moderating effects of religiosity level and bonus incentive on the relationships between social pressure and earnings management. This study also investigates subject ethical perception on real earnings management versus accrual manipulation. Based on the experiment involving 102 participants of undergraduate and graduate students majoring in accounting, the results provide evidence that individuals under obedience social pressure are more likely to engage in earnings management than those in the control group. However, the effects of religiosity and bonus incentive on the association between social pressure and earnings management intensity are not significant. The study suggests that real earnings management is perceived more ethical than accrual manipulation. However, the ethical perception of earnings management is not related to the individual’s level of religiosity.

Keywords: Accrual Manipulation, Bonus Incentive, Earnings Management, Real Activity, Religiosity, and Social Pressure.

1. INTRODUCTION
A review of the literature on the effects of social pressure on financial decision-making supports the theory of obedience pressure (Davis et al., 2006; Dezoort and Lord 1997). However, a review of the literature on the field of behavioral science shows that behaviors are not only influenced by situational factors but also personal factors (George 1992; Wood and Bandura 1989). Following this, researches on the effects of social pressure develop by investigating the roles of personal factors in the formation of behaviors (Geher et al. 2002). Hartmann and Maas (2010) tested the effects of social pressure and Machiavellianism on the creation of budgetary slack. Bishop (2013) examined the effects of followership and core self-evaluation (CSE) on the moderating effects of social pressure on financial decision-making by the CFO.

This study was aimed to investigate the roles of religiosity and bonus incentive in moderating the relationship between social pressure and earnings management decision. The research questions posed were: Can religiosity mitigate the adverse effects of social pressure on earnings management actions? Will the presence of bonus incentive strengthen the effects of social pressure on earnings management? This study was also intended to investigate whether earnings management through real activity is perceived to be more ethical than accrual manipulation. Previous archival researches have shown that managers assess real earnings management as more ethical than accrual manipulation (McGuire et al., 2012; Graham et al., 2005). The next goal of this study was to find whether the ethical perception of real and accrual earnings management is influenced by the level of religiosity.

In this study, religiosity is chosen as a moderating variable because normatively it is believed to have a positive relationship with ethics. However, empirical evidence is not always
the case. Empirical researches on the relationship between religiosity and ethical behaviors have given inconsistent results. Several studies found a positive relationship between religiosity and ethics (Cooper and Pullig, 2013; Peterson et al., 2010; Vitell 2009; Conroy and Emerson, 2004; Weaver and Agle 2002; Kennedy and Lawton 1998; Mc-Nichols and Zimmere 1985). On the contrary, other studies found no correlation between religiosity and ethics (Kurpis et al., 2008; Smith et al. 1975; Hegarty and Sims, 1978, 1979; Kidwell et al. 1987). On the other hand, some studies found a negative relationship between religiosity and business ethics (Kennedy and Lawton 1998; Rashid and Ibrahim, 2008; Singhapakdi et al. 2000; Bloodgood et al., 2008; Clark and Dawson 1996).

There are some individuals whose religiosity level seems high but committing unethical behaviors. The phenomenon of unethical behaviors can be seen from some corruption cases which are handled by KPK (Corruption Eradication Commission) in which the cases involve people who are deemed to have a high level of religiosity. For example, the case of beef import bribery involves Islamic-based political party leaders and colleagues who are both fluent in Arabic and have extensive knowledge of religion (Tempo.co, 9 and May 29, 2013). In addition, the corruption case in the procurement of Al-Qur’an involves officials in the Ministry of Religious Affairs which is seen as an institution inhabited by religious people (Tempo.co, October 25, 2013). Moreover, the Constitutional Court’s chairman bribery case involves a Parliament member who is also the treasurer of the Indonesian Ulema Council (Tempo.co, October 3, 2013). These phenomena raise a fundamental question - why do people with a high level of religiosity commit unethical acts?

The literature of behavioral science shows that personal and situational variables play an important role in influencing affection, cognition, attitude, and behavior (George, 1992). The theory of social cognitive suggests the existence of interaction between personal factors with situational factors in influencing individual behaviors. The theory states there is a triadic reciprocal causation between behavioral, cognitive and personal factors, as well as the external environment (Wood and Bandura, 1989). The cognitive and personal factors, which exist in a person, include nature, character, personality, need, value, and belief. In this regard, religiosity can be categorized as a personal factor. Meanwhile, situational variables, which are external factors, include situation, context, and environmental conditions. In this study, social pressure can be categorized as a situational factor.

Previous studies have shown that ethical considerations can be influenced by situational factors such as social pressure (DeZoort and Lord, 1994, 1997; Davis et al., 2006; Hartmann and Maas, 2010) and personal characteristics (Hartmann and Maas, 2010; Cooper and Pullig, 2013; Hobson et al. 2011). Studies conducted by Hartmann and Maas (2010) and Davis et al. (2006) have shown that social pressures affect the creation of budgetary slack. In the field of auditing, DeZoort and Lord (1994) confirmed evidence that an auditor has a tendency to make unethical decisions when under pressure from the superiors. However, there is no previous study that investigated the effects of religiosity and social pressure on earnings management decision-making.
In addition to social pressure, another situational factor that became the focus of this study was bonus incentive. Previous studies have shown that the presence of profit-based bonus contract affect the manager’s ethical behavior related to earnings manipulation (Healy 1985; Guidry et al. 1999; Davidson et al. 2007). Accordingly, this study was aimed to investigate the influence of situational factors such as social pressures and bonus incentive as well as personal factors such as the level of religiosity on the earnings management decision.

Earnings management was chosen as a dependent variable for it is an action that raises ethical dilemmas in the accounting profession, which has not gained some common ground until now. Merchant and Rockness (1994) claimed that earnings management is the most significant ethical issue faced by the accounting profession.

The results of this study indicated that social pressures significantly influence earnings management decisions. Managers who experienced social pressures had a tendency to conduct higher earnings management than those who did not experience social pressures. Meanwhile, religiosity and bonus had no significant effect in moderating the relationship between social pressures and earnings management. Another finding of this study revealed that managers tend to assume that real earnings management is more ethical than accrual manipulation. However, the assessment of the ethical acceptability of real earnings management and accrual manipulation was not influenced by the level of religiosity.

This study can contribute to the theory and practice. First, this study is useful to provide additional empirical evidence related to the influence of social pressure in ethical decision-making, especially the earnings management. Second, this study provides empirical evidence related to the roles of religiosity in earnings management decision making for the context of Muslim subject. The use of Muslim communities was based on the fact that Muslims are dominant in Indonesia. Previous studies related to the roles of religiosity in earnings management were done in the context of Christian and Jewish communities, whereas for the context of Muslim communities such issues have not been widely studied. Third, this study makes practical contribution to the policy makers and accounting standard setters in making clearer regulations about earnings management practices, particularly in the real earnings management in regard to the assessment that real earnings management is more ethical than accrual manipulation.

The next section of this paper describes a literature review and hypothesis development. Subsequently, research methods and result analysis are presented. The final section presents conclusions, limitations, implications, and recommendations of the study.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Social Pressure and Ethical Considerations
Belief, opinion, judgment, attitude, and behavior can be influenced by social pressures, i.e. the pressures of others outside oneself, either individually or in group. Social pressures can be divided into three forms, namely compliance pressure, obedience pressure, and conformity
pressure. Compliance pressure is the pressure to meet the explicit requests of individuals at various levels. Obedience pressure is the pressure to obey the orders of those in authority such as the leadership. Conformity pressure is the pressure to conform to peers or other group members (DeZoort and Lord, 1997).

Social pressure can cause bias in decision-making so that someone behaves unethically (DeZoort and Lord, 1994, 1997; Davis et al., 2006; Hartmann and Maas 2010). Milgram’s experimental study (1963) showed that individuals have a tendency to obey orders from superiors (obedience pressure) even though those actions are unethical and unlawful. Meanwhile, Asch’s study (1955) about the influence of group pressure (conformity pressure) showed that in the absence of group pressure, individuals make an error of less than 1%, but when under group pressure, they make a wrong judgment of 36.8%.

Professional accountants, such as management accountants and or auditors, have high probability of getting influence by social pressures. In ethical decision-making, social pressures from the leadership have a significant influence on the decisions taken. Previous studies have shown the pressures to obey the orders from superiors (obedience pressure) are very influential in the unethical financial decision-making (Wilhelm, 2012), e.g. the creation of budgetary slack (Davis et al., 2006; Hartmann and Maas 2010). Researches in the field of auditing also have shown that external auditors are vulnerable to social pressures in the form of compliance pressure (Lightner et al. 1982; Dirsmith and Covaleski 1985), conformity pressure (Ponemon 1992; Lord and DeZoort 2001), and obedience pressure (Dezoort and Lord 1994). DeZoort and Lord (1994) gave evidence that auditor has a tendency to make unethical decisions when under pressure from superiors.

The impacts of pressure from superiors (obedience pressure) are also associated with fraudulent behavior and tendency to misuse authority. Baird and Zelin (2009) showed that the pressure to obey the superiors gives effects on fraudulent behaviors in financial statements. Based on the theoretical basis and empirical evidence from previous researches, this study predicted that managers who experienced social pressures would tend to conduct higher earnings management than those who did not experience social pressures. Formally, hypothesis 1 is expressed as follows:

H1: Managers who experience social pressures engage in higher earnings management than those who do not experience social pressures.

2.2 The Roles of Religiosity in Business Ethics Considerations
Individuals who deal with social pressures do not always meet the pressures but can respond to the opposite, i.e. refusal. Based on the psychological reactance theory (Brehm, 1966; Brehm and Brehm, 1981), individuals who are under pressure to perform certain actions will perceive reduced freedom. These pressures lead to the refusal reaction whose purpose is to keep the feeling of still having freedom of personal choice and responsibility for the decisions made.
Those who have the refusal reaction to obey orders often take actions contrary to the orders. Such effects occur mainly in response to pressure to deviate from the code of professional ethics or moral principles (Brehm and Brehm, 1981). This study argues if a person has a high level of religiosity, then the pressure to perform ethically questionable actions could produce refusal reactions. It is because unethical behaviors conflict with religious values he or she believes in.

Religiosity is a complex and multidimensional region in human life. Until now, there is no single agreed definition of religiosity. Some have tried to make the definition of religiosity. Barnett et al. (1996) defined religiosity as the strength of one’s religious beliefs. Cornwall et al. (1986) defined religiosity in three aspects, namely cognitive, affective, and behavioral. Cognitive aspects include religious knowledge and religious beliefs. Affective aspects are related to emotional ties or emotional feelings about religion. Behavioral aspects are associated with the actions taken in the framework of religious implementation, such as attendance to church, reading the scriptures, praying, and so on.

There some theoretical frameworks to explain the influence of religion on ethical behaviors, one of which is the theory of religious self-identity developed by Weaver and Agle (2002). By employing the perspective of symbolic interactions theory, Weaver and Agle explained that religion offers role expectations, when internalized through repeated social interactions, will establish one’s self-identity as a follower of a particular religion. However, the strength of religious identity between one individual and others is not the same, thus causing the differences in behaviors that are influenced by religiosity.

Meanwhile, in examining the possibility of religiosity’s influence on business ethics, Weaver and Agle referred to the process of ethical decision-making framework developed by Rest (1986). Rest (1986) argued there are four stages of ethical decision-making, namely: (1) moral sensitivity, (2) the consideration or moral judgment, (3) moral intention, (4) moral behavior. Each of these stages can be influenced by someone’s own religious values.

The theory of religious self-identity developed by Weaver and Agle (2002) mainly focuses on the religious characteristics in individual level which consists of three aspects including religious identity, identity salience, and motivational orientation. Weaver and Agle argued that religiosity affects business ethics when an individual sets the religiosity as a major component of their self-identity.

When religion serves as the main component for a person’s identity, the deviation of religion can cause cognitive and emotional discomfort that drives its followers to keep their behaviors to conform to what is expected by the religion (Weaver and Agle 2002). Therefore, a person with stronger religious self-identity, he/she will be more likely behaving in accordance with the expectations of his/her religion values (McGuire et al. 2012).

Terpstra et al. (1993) and Barnett et al. (1996) found that individuals who have high scores in their religiosity tend to hold on to traditional views on moral issues and have a moral standard that is more conservative than people with lower levels of religiosity. A research conducted by Senger (1970) on 244 managers also showed that religious managers tend to be
more humanistic and socialistic, have less economic motive for their own interests, and be more conservative than managers with a low level of religiosity.

A study on the influence of religiosity on business ethics in accounting was once done by Conroy and Emerson (2004). This study indicated that religiosity has positive influence on ethical attitudes. One of the questions in the research conducted by Conroy and Emerson (2004) was whether religiosity has a correlation with the use of accounting tricks for manipulation. The study results showed that the frequency of church attendance as a religiosity proxy is associated with the increasingly low level of acceptability of the use of accounting manipulation. The results of a survey of 1,200 managers in the United States done Longenecker et al. (2004) showed that business managers and professionals who see religious beliefs as an important thing to them are significantly less likely to engage in accounting manipulation. The evidences from several studies indicate that individuals who have higher levels of religiosity tend to have better ethical considerations.

This study predicted that the level of religiosity would mitigate the effects of social pressures on earnings management intensity. The influence of social pressures on earnings management would be reduced if a person had a high level of religiosity. People who experience social pressures and have low levels of religiosity tend to engage in more earnings management than those with high levels of religiosity. This prediction is expressed formally in the following two hypotheses:

**H2**: The level of religiosity moderates the relationship between social pressures and earnings management. The higher level of religiosity, the weaker the influence of social pressures on earnings management.

### 2.3 Bonus Motivation in Earnings Management

Studies related to earnings management have been widely conducted. The various existing studies provide evidence that quite a lot of companies that are suspected of conducting earnings management have an increasingly high prevalence. A survey of CFOs in the United States which was done Dichev et al. (2013) showed that 20% of the companies conduct earnings management. Approximately 60% of the earnings management measures are in the form of income-increasing, while 40% are income-decreasing.

There are several motivations for managers in undertaking earnings management, including obtaining compensation or bonus (Healy, 1985; Gaver, Gaver, and Austin, 1985, Houlthausen, Larcker, and Sloan, 1995), to meet budget targets, and to smooth earnings (Koch, 1981). Dechow and Schrand (2004) classified motivation for earnings management into three. *First*, earnings management is done to obtain capital market incentives, which is when companies perform management buyouts (MBO), initial public offering (IPO), seasoned equity offering (SEO), mergers, and insider equity transaction. The purpose of earnings management in relation to capital market incentives is to increase company’s share price. *Second*, earnings management is intended to meet earnings targets which are predicted by the company or
analysts. Third, earnings management is done for the benefit of contracts, which includes debt agreements, executive compensation contracts, incentive taxes, as well as political incentives.

This research sought to examine the roles of accounting profit-based bonus as the motivation for earnings management through experimental approach. The effects of compensation on the accounting policies have been formulated in the bonus plan hypothesis. The bonus hypothesis predicted that managers of companies with a bonus program would choose accounting procedures that could improve current earnings (Watts and Zimmerman, 1986).

Researches related to bonus roles in motivating earnings management provide varying results. Healy (1985) and Guidry et al. (1999) found that the profit-based bonus contracts have a correlation with earnings manipulation. A study by Achilles et al. (2013) showed that when compensation is associated with company’s financial performance, the manager will increase (decrease) company’s earnings when the earnings are below (above) the analyst’s forecast. In the absence of compensation, the manager will increase earnings when the company’s earnings are under the analyst’ forecast, but the manager will not decrease the earnings when the company’s earnings are above the analyst’s forecast. Meanwhile, a research by Davidson et al. (2007) found that towards the end of their term of office, CEOs who are given a profit-based bonus contract will conduct earnings management by increasing the earnings (income-increasing) during the two years preceding their retirement (turnover).

Nevertheless, a research by Dechow, Sloan, and Sweeney (1996) and Holthausen et al. (1995) did not find any evidence to support the bonus hypothesis. Dechow, Sloan, and Sweeney (1996) found that managers conduct earnings management not because to increase the bonus but to obtain cheaper external financing and avoid debt covenant restrictions. A research by Siagian (2002) also found no evidence of the correlation between Director’s accounting-profit based bonus and earnings management motivation.

This study predicted that the profit-based bonus incentive would strengthen the influence of social pressures on earnings management actions. Managers with profit-based bonus incentive and social pressures tend to engage in higher earnings management than those without bonus incentive and social pressures.

**H3:** Bonus incentive moderates the relationship between social pressures and earnings management. Bonus incentive will strengthen the influence of social pressures on earnings management.

### 2.4 The Ethical Acceptability of Real Earnings Management vs. Accrual Manipulation

When viewed from its method, earnings management can be done in two ways, namely through the selection of accounting policies and through real activities. Earnings management through the selection of accounting policies includes the manipulation of accounting records and reports by selecting aggressive or deviant accounting methods. This way is called accrual manipulation or artificial earnings management. Accrual-based earnings management can be done by selecting...
accounting policies that can increase or decrease the earnings, for example through the selection of fixed assets depreciation method, the determination of economic life and residual value of fixed assets, the selection of inventory valuation method, the allowance for bad debt, revenue recognition policy, loan loss provision policy, the percentage change in bad debt expense, changes in the estimated warranty expense, valuation of inventory, receivable write off policy, and provision for restructuring (Scott, 2012; Cohen and Zarowin 2010; Wolk et al. 2008).

Earnings management can also be performed through real activity, or called real earnings management. Roychowdhury (2006) claimed that real activity manipulation is management actions that deviate from normal business practices, and conducted with the primary purpose to mislead some stakeholders. Earnings management through real activity is performed in various ways such as delaying or accelerating the sales and/or expenses into different accounting periods, set the amount of marketing expense, research and development expense, travel expense, employee recruitment and development expense, maintenance expense, asset sales, investment, discount policy, easing credit conditions, product pricing policy, excess production to decrease the cost of goods sold, and so on.

The increasingly strict accounting standards and government regulations in relation to efforts to prevent and reduce the cases of manipulation of financial statements make managers prefer earnings management through real activity rather than accrual manipulation. This happened especially after the emergence of various accounting scandals in 2001s in the United States which led to the increasingly strict regulations related to financial management companies such as the Sarbanes Oxley Act of 2002 and other stricter regulations issued by SEC.

There are several reasons managers prefer earnings management through real activity rather than through accruals. First, auditors or regulators will be more careful and cautious about the possibility of earnings management through accrual manipulation compared to that through real activity. Second, earnings management through accruals is more risky than the real activities. The risk is associated with the possibility of a public demand for a class action over the alleged accounting fraud. Third, earnings management through real activity is more flexible than accrual manipulation. Fourth, the selection of accounting policies or the change in the accrual method needs to be stated in the financial statements, while the real activities are not compulsory to be stated in the notes of financial statements (Cohen and Zarowin, 2010; Gunny, 2010).

Researches on earnings management practices through real activity have been widely conducted. Cohen and Zarowin (2010) showed that the variation in research and development expenses and asset sales are correlated with company’s efforts to meet or exceed the earnings benchmark. A research by Dechow and Sloan (1991) showed that towards the end of their term of office, executives reduce the research and development expenses to improve earnings reports. Chang et al. (2010) showed that company makes profits through the sale of asset management to avoid losses. Gunny (2010) examined the relationship between earnings management through real activity with future performance to meet earnings benchmark. Gunny’s research results
(2010) showed that firms undertake earnings management through real activity to meet earnings benchmark.

When viewed from the perspective of ethics, earnings management through real activity is judged to be too unethical than earnings management through accrual manipulation. A research by Graham et al. (2005) showed that managers assess earnings management through real activity as both a more ethical and less risky way than the accrual manipulation. Meanwhile, in case of the relation between religiosity and earnings management, McGuire et al. (2012) showed that firm managers whose head offices are situated in a religious area prefer earnings management through real activity than accrual manipulation.

A research by Lu (2010) also confirmed that firms in the United States whose head offices are located in an area with a higher religious index tend to exhibit lower discretionary accruals, higher accruals quality, higher earnings persistence, and higher earnings response coefficient (ERC). Lu’s research indicated that religiosity correlates with the quality of earnings. Based on the existing empirical evidence and theoretical basis, this study predicted that earnings management through real activity was considered more ethical than accrual manipulation. The hypothesis 4 of this study is expressed as follows:

**H4a:** Earnings management through real activity is perceived as more ethical than accrual manipulation.

**H4b:** There are differences in ethical perception between managers with high levels of religiosity and managers with low levels of religiosity on the earnings management through real activity and accrual manipulation.

3. **RESEARCH METHODS**

3.1 **Research Design**

This study used a laboratory experiment with a 2 (social pressure) x 2 (bonus) x 2 (religiosity) factorial design. The independent variables of social pressure were manipulated using case scenarios that described the social pressure condition. The independent variables of bonus were manipulated using case scenarios which indicated a contract between profit-based bonus and no-bonus condition. Meanwhile, religiosity variables were measured using the Islamic Religiosity Scale (IRS) developed by Tiliouine et al. (2009). The Islamic Religiosity Scale (IRS) consists of 16 questions with 5-point Likert scales. One example of the questions was: are you fasting during Ramadan? The answer choices were (1) never, (2) rarely, (3) sometimes, (4) often, and (5) always. The dependent variables of earnings management were measured based on the level of participants’ support for earnings management actions measured with 7-point Likert scales (1. Strongly Support up to 7. Strongly Refuse).

Before used in a real experiment, the experiment instrument was first examined in a focus group discussion (FGD) which involved three experts from practitioners and academics. After the FGD, a pilot test was done to ensure the validity, reliability, and feasibility of the instrument.
The pilot test was performed three times where each used 20 subjects so that the total number of participants involved in the pilot test was 60. The pilot test results indicated that the failure rate of manipulation check ranged from 20-25 percent and the Islamic Religiosity Scale (IRS) instrument showed a Cronbach Alpha coefficient of 0.809, meaning that the instrument was feasible to use.

3.2 Participants
Participants of this study were undergraduate students, accounting profession students, and accounting graduate students at the Faculty of Economics and Business (FEB), Gadjah Mada University. The total number of participants in the experiment was 139 (33 men and 69 women) with a mean age of 21.9 (SD = 3.392). Of these, a total of 32 participants failed manipulation check, while 5 participants were managed to pass manipulation check but the data was incomplete for the completion of IRS questionnaires and demographic data of respondents. This resulted in 102 participants to be further processed. Participant demographic data are shown in Table 1.

<table>
<thead>
<tr>
<th>Information</th>
<th>Total</th>
<th>%</th>
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<tbody>
<tr>
<td>Gender:</td>
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<tr>
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<td>33</td>
<td>32.4</td>
</tr>
<tr>
<td>- Female</td>
<td>69</td>
<td>67.6</td>
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<tr>
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<td></td>
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<tr>
<td>- Undergraduate students</td>
<td>60</td>
<td>58.8</td>
</tr>
<tr>
<td>- Graduate students</td>
<td>29</td>
<td>28.4</td>
</tr>
<tr>
<td>- Accounting Profession students</td>
<td>13</td>
<td>12.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>102</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

3.3 Experimental Procedures
Experiments were performed in classrooms. Classes used for experiments were a class courses Islam 2, Management Control Systems, Business and Profession Ethics, Behavioral Research in Accounting, and Forensic Auditing. Overall, five experimental sessions were held with different times and different participants. Each experimental session followed the same experimental procedures. Participants were randomly put into one of the four conditions (treatments), namely: 1) social pressure - bonus; 2) social pressure - no bonus; 3) no social pressure - bonus; 4) no social pressure - no bonus.

Once put into cells, for the one given the manipulation of social pressure, the participants then read the experimental instrument which illustrating the existence of social pressure condition. The scenario of social pressure described a situation in which the participants as finance and accounting manager were under pressure from their superior’s orders (the chief financial officer) to undertake earnings management actions in order to meet profit target. For
profit-based bonus incentive manipulation, participants were given an experimental instrument in the form of scenario illustrating the information from their firm about the firm’ plans to give them a bonus once the profit target was reached.

The dependent variables of earnings management decision were measured by asking participants to give their opinion about their level of support for earnings management actions to be taken by the management with the scales ranging from 1) Strongly Supports to 7) Strongly Refuse. The participants were given a case of earnings management consisting of accrual manipulation and real activity. After completing the answers related to earnings management cases, participants then filled out questionnaires on manipulation check questions, ethical perception of earnings management actions, Islamic Religious Scale (IRS), and demographic data of respondents. After completion of the experiment, participants were given compensation.

4. Research Results
The results of IRS reliability test using data from 102 participants showed a Cronbach Alpha coefficient of 0.833, indicating that the IRS was reliable to use as a research instrument. Based on the results of IRS total value, participants were then categorized into two groups, namely participants with higher levels of religiosity (the IRS value of above 64) and participants with low levels of religiosity (the IRS value of less than 64). The IRS has a minimum value of 16 and a maximum value of 80 with a median value of 48. Based on the IRS value, 49 participants were categorized as having high levels of religiosity and 53 participants had low levels of religiosity. The descriptive statistical test results are shown in Table 2 and 3.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Descriptive Statistics</th>
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<td>Real Activity</td>
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<td>Real EM Ethics</td>
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<td>Total IRS</td>
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<tr>
<td>Age</td>
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### Table 3
The Descriptive Statistics of Earnings Management Dependent Variables

#### All Participants

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<th>Without Pressure</th>
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<tr>
<td><strong>Bonus</strong></td>
<td><strong>N</strong></td>
<td><strong>Mean</strong></td>
<td><strong>SD</strong></td>
</tr>
<tr>
<td><strong>With Bonus</strong></td>
<td>25</td>
<td>3.8600</td>
<td>1.36565</td>
</tr>
<tr>
<td><strong>Without Bonus</strong></td>
<td>23</td>
<td>3.8043</td>
<td>1.01957</td>
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<tr>
<td><strong>Total</strong></td>
<td>48</td>
<td>3.8333</td>
<td>1.19988</td>
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#### High-Religiosity Participants

<table>
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<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>With Bonus</strong></td>
<td><strong>N</strong></td>
<td><strong>Mean</strong></td>
<td><strong>SD</strong></td>
</tr>
<tr>
<td>12</td>
<td>3.8750</td>
<td>1.29904</td>
<td></td>
</tr>
<tr>
<td><strong>Without Bonus</strong></td>
<td>10</td>
<td>3.8000</td>
<td>1.31656</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>22</td>
<td>3.8409</td>
<td>1.27603</td>
</tr>
</tbody>
</table>

#### Low-Religiosity Participants

<table>
<thead>
<tr>
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<th>With Pressure</th>
<th>Without Pressure</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>With Bonus</strong></td>
<td><strong>N</strong></td>
<td><strong>Mean</strong></td>
<td><strong>SD</strong></td>
</tr>
<tr>
<td>13</td>
<td>3.8462</td>
<td>1.47739</td>
<td></td>
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<tr>
<td><strong>Without Bonus</strong></td>
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<td>0.77831</td>
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<td><strong>Total</strong></td>
<td>26</td>
<td>3.8269</td>
<td>1.15709</td>
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</table>

### 4.1 Hypothesis Testing

The hypotheses H1, H2, and H3 were tested using the Analysis of Variance (ANOVA). Hypothesis 4a was tested using pair sample t-test, while Hypothesis 4b used independent sample t-test. ANOVA test was applied to determine the significance of the main effects and interaction effects of social pressure, bonus, and religiosity variables on earnings management. The pair sample t-test was used to determine whether participants exhibit different levels of ethical acceptability of assessment on earnings management actions through real activity and accrual manipulation, and more specifically, whether the participants with a high level of religiosity perceive earnings management through real activity to be more ethical than accrual manipulation. Meanwhile, the independent sample t-test was employed to find whether there are differences in ethical perception between individuals with high levels of religiosity and individuals with low levels of religiosity on earnings management through real activity and accrual manipulation.

One of the classical assumptions that need to be met in the ANOVA test is the homogeneity of variance between experimental groups. The results of Levene’s tests on the homogeneity of error variance in this study showed the value of $F = 1.232$ and $p = 0.293$. Since
the value of $p > 0.05$, it can be said that there was no variance difference between the experimental groups so the assumption of variance homogeneity was met.

The results of ANOVA test showed a significant effect of social pressure on earnings management ($F = 4.021; p < 0.05$). Meanwhile, the main effect of bonus and religiosity variables was not significant on earnings management intensity (see Table 5). Experimental group who was exposed to social pressure had a mean value of 3.832, while the group who was not exposed to social pressure had a higher mean value, i.e. 4.306. The difference in both mean values was significant ($p = 0.045$). This result can be interpreted that individuals who are exposed to social pressure provide greater support to the actions of earnings management than individuals without social pressure. The smaller mean value indicates the higher level of support for earnings management (scales of earnings management support level ranging from 1. Strongly Support to 7. Strongly Refuse). Thus, H1 of this study was supported.

Experimental group who received a bonus had a mean value of 4.0364, while the group without bonus incentive has a mean value of 4.1277. This shows that the group without bonus incentive had a higher rejection rate on earnings management, but the mean difference was not statistically significant ($p = 0.696$). Experimental group with a high level of religiosity had a mean value of 4.0612, while the group with a low level of religiosity had a mean value of 4.0943. This suggests that individuals with low levels of religiosity had an almost similar rejection rate on earnings management as the high-religiosity group. The difference in mean values between high-religiosity and low-religiosity groups was not significant ($p = 0.887$). The test results of mean difference can be seen in Table 4.

Meanwhile, the test of interaction effects between social pressure, bonus, and religiosity through two-way and three-way interactions showed no significant result. Two-way interaction between social pressure and religiosity was not significant ($F = 0.061; p = 0.806$). It can be interpreted that the effect of social pressure on earnings management intensity was not affected by the level of religiosity. To detect whether religiosity variable acted to moderate the correlation between social pressure and earnings management, the post hoc analysis was then done. Nevertheless, the results of the post hoc test did not support hypothesis 2. Thus, H2 stating that religiosity moderates the relationship between social pressure and earnings management was not supported.

### Table 4

<table>
<thead>
<tr>
<th>Variable</th>
<th>Information</th>
<th>Mean</th>
<th>Mean Difference</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Pressure</td>
<td>With</td>
<td>3.8333</td>
<td>0.46296</td>
<td>0.045</td>
</tr>
<tr>
<td></td>
<td>Without</td>
<td>4.2963</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bonus</td>
<td>With</td>
<td>4.0364</td>
<td>0.09130</td>
<td>0.696</td>
</tr>
<tr>
<td></td>
<td>Without</td>
<td>4.1277</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religiosity</td>
<td>High</td>
<td>4.0612</td>
<td>0.03312</td>
<td>0.887</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>4.0943</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5
ANOVA Test Results

<table>
<thead>
<tr>
<th>Source</th>
<th>Hypothesis</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td></td>
<td>6.640^a</td>
<td>7</td>
<td>.949</td>
<td>.679</td>
<td>.689</td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
<td>1658.378</td>
<td>1</td>
<td>1658.378</td>
<td>1187.875</td>
<td>.000</td>
</tr>
<tr>
<td>Social Pressure</td>
<td>(H1)</td>
<td>5.614</td>
<td>1</td>
<td>5.614</td>
<td>4.021</td>
<td>.048</td>
</tr>
<tr>
<td>Religiosity</td>
<td>-</td>
<td>.057</td>
<td>1</td>
<td>.057</td>
<td>.041</td>
<td>.841</td>
</tr>
<tr>
<td>Bonus</td>
<td>-</td>
<td>.223</td>
<td>1</td>
<td>.223</td>
<td>.159</td>
<td>.691</td>
</tr>
<tr>
<td>Pressure * Religiosity</td>
<td>(H2)</td>
<td>.085</td>
<td>1</td>
<td>.085</td>
<td>.061</td>
<td>.806</td>
</tr>
<tr>
<td>Pressure * Bonus</td>
<td>(H3)</td>
<td>.571</td>
<td>1</td>
<td>.571</td>
<td>.409</td>
<td>.524</td>
</tr>
<tr>
<td>Bonus * Religiosity</td>
<td>-</td>
<td>.111</td>
<td>1</td>
<td>.111</td>
<td>.079</td>
<td>.779</td>
</tr>
<tr>
<td>Pressure * Bonus *</td>
<td>-</td>
<td>.058</td>
<td>1</td>
<td>.058</td>
<td>.042</td>
<td>.839</td>
</tr>
<tr>
<td>Religiosity</td>
<td></td>
<td>131.232</td>
<td>94</td>
<td>1.396</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1834.500</td>
<td>102</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td></td>
<td>137.873</td>
<td>101</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R Squared = .048 (Adjusted R Squared = -.023)

The interaction between social pressure and bonus was not significant (F = 0.409; p = 0.524). It can be interpreted that the influence of social pressure on earnings management intensity was not affected by the presence or absence of bonus incentive. This result was followed up by conducting the post hoc analysis. The results of the post hoc test did not reveal any moderating influence of the variable bonus on the relationship between social pressure and earnings management. Thus, H3 of this study was not supported.

This study also did not find any effect of the three-way interaction. The test on the effect of three-way interaction between social pressure, bonus, and religiosity did not provide a significant effect (F = 0.042; p = 0.839). This means that the effect of social pressure on earnings management intensity was not affected by the level of religiosity and bonus.

Table 6
Paired Sample t-test Results

<table>
<thead>
<tr>
<th>Pair</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real EM Ethics</td>
<td>2.5392</td>
<td>102</td>
<td>.72674</td>
<td>.07196</td>
</tr>
<tr>
<td>Accrual EM Ethics</td>
<td>3.4510</td>
<td>102</td>
<td>.96089</td>
<td>.09514</td>
</tr>
</tbody>
</table>

Paired Samples Correlations

<table>
<thead>
<tr>
<th>Pair</th>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real EM Ethics &amp; Accrual EM Ethics</td>
<td>102</td>
<td>.116</td>
<td>.245</td>
</tr>
</tbody>
</table>
Paired Samples Test

Paired Differences

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real EM Ethics - Accrual EM Ethics</td>
<td>-0.91176</td>
<td>1.13541</td>
<td>.11242</td>
<td>1.13478</td>
<td>-0.68875</td>
<td>-8.110</td>
<td>101</td>
</tr>
</tbody>
</table>

The test on whether there is any difference between the ethical perception of earnings management through real activity and accrual manipulation was done by analyzing the paired sample t-test (See Table 6). The results of paired sample t-test on all participants (N = 102) showed a significant difference between the ethical judgment of real earnings management and accrual manipulation (t = 8.110; DF 101; p <0.001). The ethical perception of earnings management through real activity showed a mean value of 2.5392 (SD = 0.72674), while the accrual manipulation had a mean value of 3.4510 (SD = 0.96089). It shows that the participants perceived that earnings management through real activity was more ethical than through accrual manipulation because the smaller the mean value, the more ethical the perception and vice versa (Likert scales: 1. very ethical and 5. very unethical). These results supported the hypothesis 4a.

Table 7

Mean Difference Test Results

<table>
<thead>
<tr>
<th>Religiosity</th>
<th>N</th>
<th>Mean</th>
<th>Mean Difference</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real EM Ethics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>53</td>
<td>2.5660</td>
<td>.05583</td>
<td>.700</td>
</tr>
<tr>
<td>High</td>
<td>49</td>
<td>2.5102</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accrual EM Ethics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>53</td>
<td>3.4717</td>
<td>.04313</td>
<td>.822</td>
</tr>
<tr>
<td>High</td>
<td>49</td>
<td>3.4286</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The testing of hypothesis 4b to determine whether there is a difference in ethical perception between participants with high levels of religiosity with participants with low levels of religiosity on earnings management through real activity and accrual manipulation was done by using the independent sample t-test. The results of independent sample t-test showed no significant difference between high-religiosity group and low-religiosity group in the ethical assessment of real earnings management activity (t = 0.386, DF = 100, p = 0.700) and the accrual manipulation earnings management (t = 0.644, DF = 100, p = 0.822). Based on these results, hypothesis 4b was not supported.

To ensure that gender as extraneous variable did not affect the dependent variable, this study tested it by categorizing gender as a covariate variable. The results indicated that the
gender variable had no significant effect on earnings management intensity (F = 0.093; p = 0.761).

5. DISCUSSION
This study shows that social pressure significantly influences the intensity of earnings management. It is consistent with previous studies that evaluate the effects of social pressure in ethical decision-making (DeZoort and Lord, 1994, 1997; Hartmann and Maas, 2010). However, this study does not find the role of religiosity and bonus as an independent variable and as a moderating variable in the relationship between social pressure and earnings management decision.

Previous studies that examined the effects of religiosity on business ethics provide inconsistent results. In general, one criticism of the studies examining the effects of religiosity on business ethics is that they are not based on strong theory (Parboteeah et al., 2008; Giacalone and Jurkiewicz 2003; Weaver and Agle 2002). This study does not find any influence of religiosity on earnings management intensity. This might be because the theory of religious self-identity proposed by Weaver and Agle (2002) does not work in the ethical considerations of earnings management. The theory is basically an extension of the theory of symbolic interactions drawn at the individual level. The phenomenon of the absence of the influence of religiosity on business ethics can be explained through the theory of cognitive dissonance (Festinger, 1962). The unfitness of someone’s cognitive (knowledge, beliefs, values) with his/her attitude and behavior indicates that he or she is experiencing cognitive dissonance. There is a possibility that a person will experience the cognitive dissonance when facing social pressure (Festinger and Carlsmith, 1959). In the context of this study, it is possible that people with a high level of religiosity are experiencing cognitive dissonance due to facing social pressure. Cognitive dissonance occurs when a person’s knowledge and religious belief that requires him/her to act honestly are inconsistent with his/her attitude and behavior while supporting the actions of earnings management.

This study also does not find any effect of bonus variable, in terms of both main effects and effects of its interaction with social pressure, on earnings management. This result, therefore, does not support the Positive Accounting Theory (PAT) in relation to bonus hypothesis which states that the profit-based bonus contract is a factor that encourages earnings management. The absence of a bonus effect on earnings management in this study might be because managers have other motivations besides the bonus. Literature in the field of psychology indicates that without bonus incentive, the management will undertake earnings management due to psychological motivation, both intrinsic and extrinsic. Intrinsic motivation refers to motivation that comes from inside an individual, such as the want to meet self-gratification by conquering challenges related to firm profit targets. Extrinsic motivation refers to motivation that comes from outside an individual, such as competition, performance evaluation, and recognition (Achilles, Blaskovich, and Pifre, 2013).
6. CONCLUSION
The results of this study conclude that social pressure affects earnings management decision. Individuals who are exposed to social pressure have a higher tendency to engage in earnings management than individuals who are not exposed to social pressure. The influence of social pressure on earnings management intensity is not affected by the level of individual self-religiosity and the presence of bonus incentive. The results of this study, therefore, support the theory of social influence pressure (DeZoort and Lord, 1997), especially the obedience theory (Milgram, 1963). This study does not find any main effects of religiosity and bonus variables on earnings management, as well as any effects of the three-way interaction between social pressure, religiosity, and bonus on the earnings management intensity. This study provides evidence that earnings management through real activity is perceived to be more ethical than accrual manipulation. Furthermore, there are no significant differences between individuals with high levels of religiosity and individuals with low levels of religiosity in the assessment of the ethical acceptability of real and accrual earnings management.

This study provides some practical implications, such as the need to pay attention to social pressure issues within an organization. Social pressure has a significant influence in affecting unethical decision-making. Therefore, it is necessary to find a variable that can mitigate the adverse effects of social pressure that could potentially lead to unethical behaviors. The theoretical implication of this study is the need for further investigation of why religiosity cannot mitigate the adverse effects of social pressure on unethical behaviors. This study does not find the influence of religiosity, which might be because the used theory is less strong or it might be because the religiosity measuring instrument (IRS) has not fully measured the level of religiosity.

REFERENCES


