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## Article

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# The Moderating Role of Social Norms on Tax Compliance Model: A Laboratory Experimental Evidence in Indonesia

Nur Cahyonowati , Dwi Ratmono , and Agung Juliarto 

## ABSTRACT

This study aims to examine the role of social norms in increasing tax compliance. The traditional model of tax compliance predicts that audits and tax fines are the determinants of tax compliance. This study proposes that social norms would strengthen the effect of the economic factors (i.e., audits and penalties) on tax compliance behavior. Social norms regard tax fraud as incorrect behavior. From an economic perspective, taxpayers consider the social norms because violations of the tax rules bring social pressures that have an economic impact on the perpetrators of tax fraud. This study uses an experimental laboratory method with a 2x2 between-subjects factorial design. Our final sample consisted of 198 subjects. This study provides empirical evidence that social norms strengthen the effect of tax fines, hence improving tax compliance. However, this study fails to provide empirical evidence that social norms enhance the effect of the probability of being audited and thus enhance tax compliance. This study contributes to the recent literature about non-standard motivations for tax compliance. Theoretically, this study implies that the standard model of tax compliance is not enough to explain taxpayer compliance behavior. This study also suggests the importance of developing social norms to the policymakers.

**KEY WORDS:** audit, fines, social norms, tax compliance.

**JEL Classification:** D91, H26.

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## 1. Introduction

The issue of tax compliance is a big problem for all tax authorities (Alm et al., 1995; Güzel, 2019). The complexity of tax compliance has become the concern of academicians from various disciplines, including accounting, psychology, and economics (Boll, 2014). The crucial role of taxes in state revenues has triggered the importance of achieving tax compliance.

Tax authorities in developing countries generally use deterrent factors (i.e., law enforcement through

audits and fines) to solve all their tax non-compliance problems (Kirchler et al., 2008). However, achieving tax compliance by only enforcing the law is not effective for solving the complexities of tax compliance (Alm, 2018; Alm et al., 1995; Andreoni et al., 1998). This law enforcement approach is more expensive than letting the tax authority build taxpayers' awareness, based on a relationship of trust between the two parties (Jimenez & Iyer, 2016; Murphy, 2004). Audits and fines can also trigger more significant tax fraud in the next period (the bomb crater effect) as compensa-

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tion for losses when tax fraud has been detected previously (Mittone et al., 2017).

Although the traditional theory of tax compliance can elegantly explain tax compliance, the empirical findings of the standard model still show inconsistencies. This model has been criticized for overriding non-pecuniary or non-economic factors in predicting tax compliance (Allingham & Sandmo, 1972; Wenzel, 2003). Researchers concluded that the traditional model was unable to fully explain tax compliance (Alm, 2018; Christian, 2017), and social norms can play an essential role in understanding tax compliance decisions (Alm et al., 2019; Alm, McClelland, et al., 1992; Cullis et al., 2012; Górecki & Letki, 2020; Wenzel, 2005).

Social norms represent the rules and standards understood by members of a group, and become the guidelines for, or limitations on, social behavior without going through law enforcement (Cialdini & Trost, 1998). The literature shows that social norms are closely related to tax compliance (Alm, 1991; Alm et al., 2019; Bobek & Hatfield, 2003; Cullis et al., 2012; Wenzel, 2004b). Individuals are less likely to commit tax fraud when there is a strong social consensus about ethical behavior. Implicitly, social norms shape individual moral beliefs (Blanthorne & Kaplan, 2008).

Previous empirical research has recognized that social norms directly affect tax compliance and act as a deterrent – the social norms interaction effect. Wenzel (2004) argued that social norms render the deterrent superfluous. Taxpayers who have internalized the social norms would be unaffected by the deterrent. Therefore, internalized social norms delimit the relevance of the deterrence factors (Wenzel, 2004). Furthermore, Górecki & Letki (2020) suggested that the deterrence effect of penalties can be suppressed entirely when the subjective norms are strong. These arguments tend to lessen the importance of a deterrent, as compliance can be achieved through the existence of social norms. However, in contrast to these two arguments, this study predicts that the importance of social norms will strengthen the effect of the deterrence factors on non-compliance.

Blanthorne & Kaplan (2008) showed that economic and social processes did not arise independently. From an economic perspective, community members who violate the social norms will bear the economic

costs of engaging in tax evasion, such as damaging their reputations or endangering their future economic prospects. From this perspective, individuals assess the social norms objectively and believe that community members are quickly made aware of taxpayers' non-compliance (Blanthorne & Kaplan, 2008). This finding implies that the violation of the tax laws will have economic and social consequences. The effectiveness of economic factors can also occur through a socially mediated process (Williams & Hawkins, 1986). Therefore, this study argues that the effect of any economic factors requires a belief in the social norms, which state that tax fraud is behavior that none of the community's members accept. Individuals who believe that tax fraud is not socially agreed-upon behavior and has economic consequences in the future will be more likely to comply. This study will examine social norms as a factor that might strengthen the effect of audits and fines on tax compliance decisions.

More than 70% of the Government of Indonesia's revenue comes from tax revenues (Supriyadi, 2017). However, several indicators show that the level of tax compliance in Indonesia is still low, including the low tax ratio and the tax returns reporting ratio. Under a self-assessment system, tax compliance becomes an essential issue because individual taxpayers must calculate and report their tax obligations themselves.

Damayanti (2012) stated that the tax culture in Indonesia is one of non-compliance and the tax authorities in Indonesia emphasize law enforcement to obtain compliance. This law enforcement embodies the traditional theory of tax compliance by Allingham & Sandmo (1972). This theoretical model assumes that taxpayers are always rational and make tax compliance decisions by considering the benefits and costs. Because of the possibility of fraud not being detected, taxpayers will tend to commit tax fraud. Therefore, the only strategy to make taxpayers compliant is through audits and fines (Alm, 2018). However, this strategy is costly and might be ineffective in improving compliance (Murphy, 2004). Compared to the large number of potential taxpayers, the lack of tax officers might cause ineffectiveness in Indonesia's law enforcement strategy. Therefore, the existence of social norms is crucial.

This study conducts a laboratory experimental approach with a 2x2 factorial design between subjects.

This study provides empirical evidence that social norms and tax penalties interact with each other. Belief in the social norms and high tax penalties can increase compliance. However, this study does not show empirical evidence of the interaction effect of social norms and tax audits on tax compliance.

This research contributes to the accounting literature and provides recommendations for the tax authorities. First, this study contributes to the recent literature on tax compliance, by emphasizing the importance of non-standard motivations for tax compliance and suggesting that social norms play a significant role in the amount of income reported by taxpayers. This study also confirms the findings of the study by Williams & Hawkins (1986), which stated that the social process could significantly improve the effectiveness of the economic/deterrent factors since they create a negative stigma for the perpetrator. This stigma then causes negative economic consequences (Blanthorne & Kaplan, 2008). This research also contributes to the tax regulators and tax authorities by considering the psychological aspects of taxpayers. The government needs to use a non-economic approach and the traditional model of compliance (Güzel, 2019). Authorities can actively conduct tax compliance campaigns and enforce social sanctions on the perpetrators of tax fraud, to activate the social norms.

## 2. Literature Review

### 2.1. Behavioral Insight into Tax Compliance

The literature has recognized that the amoral individuals' economic approach could not fully explain tax compliance (Alm, 2018). Some of the economic approach's main predictions are not strongly supported by the evidence (Alm, 2018; Devos, 2014). This inconsistency has triggered the emergence of a non-economic factor, or a psychological approach, to investigate tax compliance.

The non-economic approach to tax compliance investigates tax compliance by understanding individual behavior. As noted by Alm (2018), some of the psychological literature may explain the inconsistency. The divergence from the traditional model may involve some form of frame dependence, where individuals react differently depending upon

how the information is presented. Individuals may respond based on the "value function" rather than the utility function in the economic model. Individuals may not be able to make the computational decisions implied by the economics approach because of limitations, including limited cognitive ability or time. These limitations induce the use of a heuristic approach to decision making. Finally, a wide range of motivational factors may emerge from the individual or group considerations, such as fairness, trust, personal norms and social norms.

The behavioral approach, by focusing on the group, has recognized that individuals' behavior is strongly influenced by the group's behavior (Alm, 2018). The social interaction between individuals emerges as a pattern of behavior that others judge similarly. This pattern is called the social norms.

Social norms represent the moral standards of a social group (Wenzel, 2004b). Through self-categorization, these norms are internalized as personal norms; however, part of the social norms may still be external to an individual. These "externalized" norms can add social costs to any legal sanctions. Social costs make legal sanctions more meaningful and act as a deterrent, even without the perpetrator internalizing the social norms (Wenzel, 2004b). This study only investigates the externalized social norms. This study assumes that economic factors and social norms are not mutually independent, but interact to influence tax compliance (Blanthorne & Kaplan, 2008; Wenzel, 2004b; Williams & Hawkins, 1986)

### 2.2. Personal Income Tax in Indonesia

In Indonesia, not all individual taxpayers have a tax registration number, and most of the income tax revenue comes from corporate taxpayers (Supriyadi, 2017). There were 42 million registered taxpayers in 2019. This number consisted of 38.7 million personal taxpayers and 3.3 million corporate taxpayers (Ministry of Finance of the Republic of Indonesia, 2019). This indicates the potential to increase the tax revenue from personal taxpayers.

According to the Directorate General of Taxes, value-added tax and corporate income tax dominate the tax revenue. In addition, individual taxpayers

still are mostly employees whose employers deduct their tax payments at source, not self-employed taxpayers. It indicates that people's participation in paying taxes is still low (Misbakhun, 2018).

Corporate income tax dominates the income tax revenue in Indonesia. In some countries, personal income tax revenues can be two times higher than corporate income tax revenues. The contribution of individual taxpayers in Indonesia to the tax revenue was 0.5% in 2016. This condition is different from countries in Europe. For example, in Italy, income tax from corporate taxpayers is 3.9% of the total tax revenue, and personal income taxpayers are 16.8% of the total tax revenue (Nurhayat, 2018).

Although the contribution of personal taxpayers is just one part of the total national tax revenue, a significant increase in the number of individual taxpayers promises an increase in tax revenue. Increasing the tax revenue from personal income taxpayers has become one of the tax intensification programs of the Indonesian government. Moreover, Kirchler (2007) stated that the high hidden economic activities are estimated in developing countries. A hidden or shadow economy represents economic activities and income earned that circumvent government regulations, taxation, or observation. Indonesia's shadow economy has been, on average, 24.11% from GDP during the period from 1991 to 2015 (Medina & Schneider, 2018). At the individual level, promoting the reporting of cash earned from the hidden economy in tax returns has become crucial to increase the nation's tax revenue (Parlaungan, 2014).

An individual taxpayer usually pays income tax through a withholder or at a source. However, they may earn extra cash or income from another source, such as property rent, trading activities, by providing a service or other hidden economic activities. These kinds of extra income are taxable, but the taxpayer may underreport them. Since these groups of taxpayers pay tax through withholders, they have formally fulfilled their tax obligations, but their compliance is still questioned in substance. They have the discretion about whether to report or not to report their extra income.

Form 1770 in Indonesia's taxation system is used by individual taxpayers to report their withheld

income and other taxable income. The discretionary nature of this other taxable income motivates this study to investigate the behavior of individual taxpayers in reporting their tax returns. Therefore, this study conducts an experimental setting by asking the respondents to act as employees gaining extra income from another source. The compliance is higher when the respondents report their extra income. This study predicts that the economic factors and social norms can explain their compliance behavior.

### 2.3. Tax Compliance: Definition

There still exist various definitions of tax compliance. For example, James & Alley (2002) stated that tax compliance is the motivation for an individual, company, or taxpaying entity to voluntarily comply with the tax laws and tax administration's requirements. Andreoni et al., (1998) generally define tax compliance as the willingness to obey the tax laws to create a stable state economy. Kirchler (2007) described tax compliance as the motivation to pay and comply with the tax laws from a psychological perspective. Technically, tax compliance exists when taxpayers report all their income and pay the relevant taxes under the taxation provisions (Alm, 1991).

Devos (2014) stated that there is still little consensus in explaining why individuals pay or do not pay taxes within the diversity of the above definitions. Besides that, certain variables that influence tax compliance might add to the complexity of the issue. Yong et al. (2019) indicated the complexity of tax compliance by identifying 38 variables that were studied during tax compliance research as of December 2017. Among these variables, most tax compliance research has examined tax compliance in the context of tax evasion (Yong et al. 2019). This study conducts compliance research in the context of tax evasion, where the deviance of the reported income from the actual income indicates evasion or non-compliance.

### 2.4. Hypotheses Development

The traditional model of tax compliance assumes that individual taxpayers maximize the utility by tending to commit tax evasion despite the risk of

tax audits and fines. Becker (1968) stated that individuals consider the economic consequences when committing crimes. Becker's (1968) thoughts became the basis for Allingham & Sandmo (1972), who formulated a theoretical model of income tax evasion. The model by Allingham & Sandmo (1972) places economic factors (i.e., audits and fines) as the only tax compliance strategies. This model assumed that taxpayers always consider the possibility of their evasion being detected and pay the imposed fines when their evasion is detected.

Allingham and Sandmo (1972) stated that the higher the probability was of detecting tax evasion, the individual taxpayers would be more likely to report a greater income. Empirical research generally shows weak empirical evidence for the effect of audit probability on tax compliance (Fischer et al., 1992; Alm et al., 1995; Trivedi et al., 2003).

High tax penalties cause the possibility of higher losses for tax evaders. Therefore, tax penalties should be able to prevent tax evasion. However, empirical research has not consistently supported this prediction. Alm et al. (1992) provided empirical evidence about how little an effect tax penalties had on tax non-compliance. Also, Alm et al. (1995) showed empirical evidence that tax penalties work effectively only when combined with the high probability of a tax audit. Field experiments by Schwarts and Orleans (1967) showed that increasing the fines does not increase the reported income but increases the deductible expenses. These results indicate the tendency of individual taxpayers to reduce their tax payments when they face high tax penalties. Pommerhne and Weck-Hannemann (1996) did not show empirical evidence for the effect of tax penalties on tax non-compliance.

The theoretical and empirical literature shows that economic factors alone are not able to explain tax compliance. The growing empirical research shows that taxpayers are not always rational, as predicted by the traditional models (Alm, 2018; Kirchler et al., 2007). Because of these weaknesses, the research has developed to include psychological factors to explain tax compliance (Alm & Torgler, 2006; Bobek et al., 2013; Kastlunger et al., 2013; Wenzel, 2003, 2004a).

The perceptions of social norms can increase

compliance in paying taxes or even become a justification for tax fraud (Blanthorne & Kaplan, 2008; Bobek et al., 2007; Wenzel, 2005; Bobek et al., 2013). Social norms are individual perceptions of the social pressures which shape specific behavior (Ajzen, 1991). Social norms, which refer to subjective norms, provide direction regarding the accepted behavior (Ajzen, 1991). Social norms are a function of the individual's perceived expectations, where one or more people around them (for example, relatives, peers) approve of certain types of behavior and motivate the individual to comply with them (Ajzen, 1991). Social norms arise through social pressure and the influence of people around taxpayers, for example, tax officials and company owners. If the people around a taxpayer have a positive attitude toward tax compliance, then the taxpayer will comply with the tax rules. Social norms also indicate the rules and standards understood by group members and become the guidelines or limitations for social behavior without going through law enforcement (Cialdini & Trost, 1998, p. 152).

Williams & Hawkins (1986) stated that three processes had to be gone through before legal sanctions could reduce crime. One of them is through a socially mediated process. Legal sanctions are "costly" because other individuals will react to the punishment received by the criminal. In general, everyone always tries to be appreciated, accepted, or even benefit from other people. Others react negatively to the punishment received by the perpetrator. The perpetrator will face stigma and even the termination of their relationship with other people (Williams & Hawkins 1986). The cheater will bear the economic and social costs of non-compliance.

In a similar vein, Wenzel (2004d) argued that without the internalization of social norms into personal norms, the social norms would increase the deterrent effect since they make it more meaningful and deterring. Thus, social norms and deterrence imply an additional deterrent effect on tax compliance, i.e., the socially mediated cost of legal sanctions.

Socially mediated deterrence can occur if there is an interaction between the economic/deterrent factors (such as audits and fines) and the perceived prescriptive norms (e.g., paying taxes). When there

is a socially mediated deterrent, the perception of frequent tax audits and the number of tax penalties will make individuals comply, because they think the prevailing norms are against any form of fraudulent tax behavior. In addition, other people will react negatively to the perpetrators of any detected fraud. When social norms strongly oppose tax fraud, those social norms will strengthen any legal sanctions, for example, creating feelings of shame for the perpetrators of the fraud. The perception of social norms, in terms of tax honesty, will enhance the influence of the economic factors (Williams & Hawkins 1986).

The policies preventing fraud are likely to become more effective if the authorities also pay attention to the social norms that shape taxpayers' perceptions (Cullis et al., 2012). This implies that social norms can increase the effectiveness of audits and fines as standard strategies for improving tax compliance.

Enforcement under the law has become the tax culture in Indonesia (Damayanti, 2012). Moreover, audits and fines have become the primary strategies to obtain compliance in most developing countries (Kirchler, 2007). This study does not intend to discourage the use of audits and fines for efficiency, but rather this study intends to provide an empirical model to strengthen the effect of audits and fines by developing the social norm of compliance. Law enforcement strategies alone might not be effective in increasing compliance since auditing cannot guarantee compliance. Taxpayers may even engage in worse evasion in the next tax period to compensate for their loss in the audit period (Mittone et al., 2017). Therefore, the consensus among taxpayers that tax evasion is morally wrong could increase the effectiveness of the deterrence factors. This study predicts the following two hypotheses based on Williams & Hawkins' (1986) socially mediated deterrence concept.

H1: Social norms strengthen the positive relationship between tax audits and the level of tax compliance.

H2: Social norms strengthen the positive relationship between tax penalties and the level of tax compliance.

### 3. Methods

This study modified the experimental setting of Maciejovsky et al. (2012), i.e., the subject makes tax compliance decisions in one period. The dependent variable is the level of tax compliance, as measured by the additional reported income. This study modified the scenario used by Brizi et al. (2015). The scenario asked the subjects to act as permanent employees of a fictitious company in a fictitious country who received additional income (excluding salary) in a hypothetical currency, namely the kron.

In the scenario, the subjects are told that they earn a regular salary of 1,000 kron (kron was the hypothetical currency used in the scenario, 1 kron was equivalent to 12,500 IDR) per month from their employer. They also earn 10,000 kron as extra income from freelancing each year. The subjects are told they are going to use their income to buy a car. Therefore, each subject has a dilemma, whether to report the extra income in their tax return, with the consequence of having to pay more income tax, or not to report it because they want to have enough money to buy a car. The scenario asked the subjects to decide the amount of the additional, extra, income to report in their tax returns. The greater the amount of extra income they report indicates a higher level of tax compliance. The scenario is similar to the condition for taxpayers using 1770 forms for reporting in the Indonesian taxation system.

The experiment applied a 2x2 between-subject factorial design with two factors, i.e., tax fines and the probability of being audited. Tax fines are charges for detected underreported extra income. This factor was manipulated at two levels, i.e., 2% and 200% of tax payable. The scenario informed the subjects that they would be fined 2% or 200% of the tax owed if their tax evasion was detected.

The audit probability was the probability of being audited under a random audit strategy. This factor was manipulated at two levels (i.e., 0% probability vs. 25% probability) (Trivedi et al., 2003). The scenario informed the subjects participating in this experiment that 25% or 0% of their tax returns would be chosen for auditing. For the 0% probability of an audit, the taxpayer's report would not be audited, regardless of the penalty rate. Therefore, in this condition, tax underreporting would not be detected and punished.



The social norm variable was a non-random assignment. The social norm refers to the perceived prescriptive norms developed by Wenzel (2004). A non-random assignment works by giving a social norms questionnaire to all of the subjects. They had to respond to four items modified from (Wenzel, 2004b) to measure their perceived social norms on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The items were: "Most people think they should honestly declare cash earnings on their tax return." "Most people think it is acceptable to overstate tax deductions on their tax return." (Reverse coded). "Most people think working for cash-in-hand payments without paying tax is wrong." "Most people think working for cash-in-hand payments without paying tax is a trivial offense." (Reverse coded). The average scores measure the social norms.

Our measurement of social norms is also different from personal norms. The study measures social norms as individual perception on moral standards of most people, not one's own perception of ethical standards. Therefore, the social norms in this study do not reflect heterogeneity in personal or individually perceived norms.

Social norms carry psychological costs within individuals. Social norms add a social meaning to legal sanctions, for example, shame when caught performing fraud (Wenzel, 2004b). Therefore, perceived social norms boost the deterrent effects. The Indonesian tax authorities should apply their strategy through reference to social norms and campaign widely that non-compliance is the non-acceptable behavior. Since Indonesia's tax culture is one of non-compliance (Damayanti, 2012), this alternative strategy seems promising to increase tax compliance.

In the beginning, the experimenter explained the rules that had to be obeyed during the experimental session and also explained that this research was voluntary. The experimenter then asked the subjects to sign a consent form before the subjects answered the questionnaire. After reading the scenario, the subjects were then asked to report the amount of the extra income on their tax return under a certain level of audit probability (0% or 25%) and a certain level of tax fines (2% or 200%). All the subjects were informed that the tax rate was 25%. The last page of the questionnaire asked the subjects to respond to the social norms

questions. It took about 30 minutes to complete the experimental material.

The subjects were accounting students from Diponegoro University in Semarang, Indonesia. All of them have passed the tax accounting course. The subjects were randomly grouped into one of four conditions. As a randomization method, this study arranged the questionnaires in a random order before they were distributed to the subjects.

Previous studies have used students as surrogates for taxpayers. For example, Alm et al. (2015) compared tax compliance decisions by students in laboratory experiments, compliance decisions by taxpayers (using the U.S. Internal Revenue Service's data), and compliance decisions by non-student subjects in laboratory experiments. Their research suggested the data coming from laboratory testing were similar to the IRS data. The compliance decisions by the students were similar to those by the subjects who were not students or "real taxpayers." Further, the empirical literature also recognizes the use of students as a subject in a laboratory experiment that investigates the effect of social norms on tax compliance (Alm et al., 2019).

The basic design of most compliance experiments gives the subjects some income and then asks them to decide how much income to report. The tax rate is imposed on the reported income but not on any unreported income. Underreporting is discovered with a certain probability, and the subject must pay a fine on the unpaid taxes if detected (Alm, 1991). Following this standard experimental setting for tax compliance, we believed that there would be no effect stemming from different institutional settings between the U.S. and Indonesia. Moreover, tax fines and audits tend to be viewed as a *sine qua non* instrument on the tax system of any nation (Kirchler et al., 2008), including Indonesia as a developing country.

## 4. Results

Two hundred and forty-eight students participated in this study. They had to answer two questions to check the manipulation of the probability of being audited and the tax penalties. Fifty of the students (20.16%) did not answer the questions correctly; hence the final number of participants who provided usable data was 198 (79.84%). Referring to Chang et al. (2008), the response rate in this study was ad-



equate.

Table 1 shows that the research subjects were primarily female students, numbering 153 (77%) with only 45 (23%) male students. The youngest subject was 16 years old, while the oldest was 23 years old.

This study used a principal component analysis for testing the validity of the social norm's construct. The result showed the loading factor was in the range of 0.688 to 0.790. This result indicated that all the social norm's variable indicators had loading values that met the criteria of being above 0.5 (Hair et al., 2010). Therefore, it supported the validity of the measurement of the social norm's variables. The construct's reliability test showed that the Cronbach's alpha value was 0.713. This value was slightly higher than the preferred value of 0.70 (Hair et al., 2010). It indicated the achievement of the reliability criterion.

Table 2 shows that the greater probability of being audited made the subjects less compliant than the lower probability of being audited. The subjects in the 25% audit probability condition report less of

their extra income (mean =7,735.85) meaning they chose to be less compliant than the subjects in the no chance of an audit condition (mean = 8,010.87). The level of compliance was not significantly different for these two audit probability conditions (F value = 0.377; p-value = 0.540). The mean difference between these two audit probabilities (271.568) was not statistically significant (p-value = 0.547). This finding contrasts with the prediction of the traditional deterrence model: that the higher audit probability should lead to higher compliance in terms of more of the extra income being reported

Literature noted that the empirical evidence regarding audit probability's effect on tax compliance is mixed (Devos, 2014; Górecki & Letki, 2020). In this study, subjects with 0% audit probability may overweight the audit probability. Tax evasion should be 100% in this condition; however, subjects indicate a high compliance level in the absence of an audit. This result suggests an overweight low audit probability (Alm, McClelland, et al., 1992; Fischer et al., 1992).

**Table 1**

*Descriptive Statistics*

Variable	Min	Max	Mean	Standard deviation	Total	%
Compliance	0	10,000	7,863.64	3,137.56		
Age	16	23	19.76	0.957		
Social Norms	1.75	5	3.7	0.695		
Men					45	22.7
Women					153	77.3

**Table 2**

*Means (Standard Deviations) of Tax Compliance*

	0% Audit probability	25% Audit probability	Total
2% of Tax fine	7,911.11 (2,968.181) N=45	7,666.67 (3,120.232) N=54	7,777.78 (3,039.050) N=99
200% of Tax fine	8,106.38 (3,258.661) N=47	7,807.69 (3,260.208) N=52	7,949.49 (3,246.265) N=99
Total	8,010.87 (3,104.391) N = 92	7,735.85 (3,175.207) N=106	7,863.64 (3,137.556) N=198

This study also describes that audit probability increases tend to decrease compliance. Kirchler (2007) noted that the deterrence factor might lead to reactance and counterproductive outcomes. Subjects in the 25% audit probability condition are more likely to conduct tax evasion due to decreased freedom to use their free cash.

As Wahl et al. (2010) stated, using power, including auditing to force compliance, could encourage taxpayers to behave strategically. Strategic taxpaying behavior indicates how taxpayers would behave in situations where they could evade taxes. It represents illegal tax evasion. Table 2 suggested that some respondents act strategically by reporting less of their extra income when they respond to the information about the 25% probability of an audit compared to the subjects in the absence of audit. In this case, a cop and robber assumption due to the deterrence factor (i.e., audit) might make taxpayers feel constrained and lead to reactance (Kirchler, 1999).

Regarding tax fines, Table 2 indicates that higher fines might promote greater compliance. The subjects informed of the 200% rate of tax fines reported more of their extra income (mean = 7,949.49) than those who were told the 2% rate of tax fines did (mean = 7,777.78). The level of tax compliance under the two levels of fines was not significantly different (F value = 0.148; p-value = 0.701). Also, the mean difference

between these two conditions (168.149) was not statistically significant (p-value = 0.709). However, this finding is consistent with the traditional model of tax compliance, where higher tax fines promote higher tax compliance.

Table 3 shows that auditing had no significant effect on tax compliance (F value = 2.286; p-value = 0.132). There was empirical evidence that social norms can significantly increase tax compliance (F value = 5.563; p = 0.019). However, this study did not find empirical evidence regarding the interaction effect of auditing and social norms on tax compliance (F value = 2.271; p-value = 0.133). The results do not support H1.

The tax fines had a significant effect on tax compliance (F value = 0.004; p-value = 0.047). The results provided empirical evidence regarding the interaction effect of tax fines and social norms on tax compliance (F = 4.364; p-value = 0.038). These results support H2.

The results showed that gender had a significant effect on tax compliance (F value = 4.254; p value = 0.041). Female subjects (mean = 8,150.33) tended to be more tax compliant than male subjects (mean = 6,888.89).

This paper investigated the moderating role of social norms in strengthening the effect of audits and fines on tax non-compliance. The findings of this study indicated that social norms strengthen the positive impact of tax fines and improve tax compliance.

**Table 3**  
ANCOVA Test for Tax Compliance

Variable	df	Mean Square	F	p-value
Intercept	1	339,920.432	0.037	0.848
Audit	1	21,046,753.209	2.286	0.132
Fine	1	36,869,490.654	4.004**	0.047
Norms	1	51,225,895.002	5.563**	0.019
Age	1	18,008,292.343	1.956	0.164
Gender	1	39,168,484.698	4.254**	0.041
Fine*Norms	1	40,180,790.093	4.364**	0.038
Audit*Norms	1	20,912,155.330	2.271	0.133
Audit*Fine	1	8,918.310	0.001	0.975
Error	189	9,208,198.190		

Note: \*\* significant at 5%.

However, this study did not provide empirical evidence about the interaction effect of social norms and the probability of being audited on tax compliance. The results of this study do not fully support the traditional model of tax compliance. As noted by the previous research, the conventional model has been criticized since it assumes taxpayers are entirely rational (Andreoni et al., 1998; Kirchler, 2007). Previous empirical evidence also did not consistently support this model (Alm, 2018; Devos, 2014; Kirchler, 2007).

Wenzel (2004b) also found a similar result that social norms only strengthen the effects of tax fines but not audit probability. Wenzel (2004b) argued that social norms give social meaning to formal tax fines, whereas the detection of evasion by an audit could be a more private experience. Social norms imply a social cost, particularly for the actual tax fines imposed after detection and conviction, due to tax auditing. The given sanction may cause the evader some degree, or fear, of public exposure.

Kirchler et al. (2007) and Alm & Torgler (2011) stated that economic factors alone are not sufficient to comprehensively explain tax compliance behavior. This study indicates that psychological factors, in this case, the taxpayers' perceptions of social norms, can be essential in increasing tax compliance. The results of this study confirm the critical role of social norms in realizing tax compliance (Alm, 1991; Alm et al., 2019; Bobek & Hatfield, 2003; Cullis et al., 2012; Wenzel, 2004b).

## 5. Conclusion and Limitations

This study provides empirical evidence about the interaction effect of tax fines and social norms for improving tax compliance. This study asked the subjects to report their perception of the social norms in four different economic conditions. This study provides empirical evidence that the perceived prescriptive social norms can strengthen the effectiveness of tax fines on non-compliance. This study confirms Blanthorne & Kaplan (2008), who argued for the relationship of social norms and deterrence in explaining compliance. As predicted, this study supports the additional effect of social norms (in terms of "externalized" norms) and tax fines on tax compliance (Wenzel 2004b). This study also confirms Williams & Hawkins (1986) concerning socially mediated deterrence.

The traditional model of tax compliance applies

audits and fines to achieve tax compliance (Allingham & Sandmo, 1972; Alm, 2018). The rationale for the social norms interaction effect varying by deterrent factor is the socially mediated deterrence of Williams & Hawkins (1986). We expect that social norms may increase both deterrence factors in this study. Since audit and fine could be applied independently in specific conditions (for example, the imposition of penalty for the late submission of tax return without conducting audit), this study predicts the interaction effect for each deterrent factor. However, our study only supports the socially mediated deterrence on tax fines. Wenzel (2004b) suggests that these two deterrence factors may imply different feelings on taxpayers. Social norms imply social cost, particularly for the actual sanctions that follow detection and conviction, which may cause the perpetrator some degree of public exposure (or the fear of such disclosure). Wenzel (2004b) noted that social norms give social meaning to formal sanctions, whereas detection could be a more private experience. This explanation may answer why this study failed to provide empirical evidence to support the moderating effect of social norms on the audit and tax compliance relationship.

The prediction of the additional effect of these two factors is in line with Indonesia's tax culture which emphasizes law enforcement of the self-assessment tax administration (Damayanti, 2012). These strategies seem not to have generated the optimal tax revenue for Indonesia's government, since the tax ratio is still around 11%, the lowest tax ratio among the Asian countries (Supriyadi, 2017). Therefore, other factors need to be identified (i.e., social norms) to add to the strength of law enforcement in Indonesia. This study confirms that social norms provide direction about acceptable behavior. Ajzen (1991) noted that social norms create social pressure which shapes specific behavior, including tax compliance.

This study indicates that gender has a significant effect on tax compliance. This finding has been recognized in previous research, since many studies reported that women, compared to men, are more ethically concerned with tax compliance (e.g. Castro & Rizzo, 2014; Chung & Trivedi, 2003; Fall, 1999).

We believe that our findings have policy implications, suggesting that, as long as people believe in the social norms of tax compliance, then a reasonable in-

crease in tax fines will not increase tax evasion. The social norms seem to be a strong predictor of tax compliance. They also moderate the impact of deterrence, as tax fines lower the propensity to underreport income in those who perceive strong tax norms. This additional impact of social norms on tax fines' deterrence effect implies the importance of developing norms to pay one's taxes honestly. The tax culture in Indonesia is one of non-compliance, and the tax authority in Indonesia emphasizes the penalties to try to improve compliance (Damayanti, 2012). Social norms create pressure that makes individuals consider tax evasion's economic and social consequences, such as being ashamed when having to pay tax penalties because others have acted honestly.

The significant impact of social norms to combat tax evasion is consistent with the characteristic of Indonesia, which applies a collectivist culture (Hofstede, 1980). This culture implies a citizen in Indonesia will consider following and embracing the values within the group, so they feel accepted and gain status in that environment, as expressed by the social norms variable which overrides individual perceptions when doing something. This study implies the need to build strong communitarian norms because these norms can bolster deterrence.

Some limitations still exist in this study. First, since tax compliance is a sensitive issue, some subjects might have shown their normative behavior or intentions. There is the possibility that the subjects are more likely to underreport tax evasion behavior (Korndörfer, Krumpal, and Schmukle 2014). They may do this because they are afraid of the social impact of the actual response given (Soliz, 2015). This study has tried to overcome this issue by asking the subjects to act as if they were employees of a fictitious company in a fictitious country. However, the possibility of this bias may still exist.

Under the traditional compliance model, subjects in the low deterrence condition should make a low submission or declare less extra income. However, Table 2 shows that the subjects in the low deterrence conditions (i.e., 0% audit probability and 2% tax fines) tend to report more of their extra income. Therefore, the mean differences between the high deterrence and low deterrence conditions do not differ significantly. This behavior caused the main effect for each deterrent fac-

tor not to be found. Andreoni et al. (1998) suggested that morals may explain a higher level of compliance than the prediction of the traditional model, as shown in this study. Future research should investigate this issue.

Second, the subjects are primarily women. This proportion was unavoidable since women comprise most of the students in the university's business school where the experiment was conducted.

Theoretically, audits become an instrument to gain compliance under the traditional model of tax compliance. However, this study failed to support this prediction. There may be a possibility that the manipulation checking in our setting cannot guarantee the internalization of experimental treatment on the subjects. From the methodological issue, future research should consider the use of multiperiod tax decisions in an experimental setting (Alm, 1991; Trivedi et al., 2003). This setting possibly improves the internalization of a random audit strategy at a certain level. The multiperiod setting allows subjects to experience the execution of the deterrent factors.

Finally, the economic and non-economic factors affecting tax compliance have been investigated since the 1960s (Devos, 2014). The economic or standard tax compliance model has mainly used these four parameters to investigate compliance, i.e., audit, fines, income, and tax rate (Allingham & Sandmo, 1972). Various psychological variables have also been identified (Alm, 2018; Devos, 2014; Yong et al., 2019). Future research can still investigate such psychological variables, for example, fairness (Wenzel, 2003), trust (Kirchler, 2007), ethics (Alm & Torgler, 2011), and power (Kirchler, 2007). As noted by Alm (2018), the standard model alone is not enough to explain the taxpayers' varied behavior.

## References

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1(3–4), 323–338. [https://doi.org/10.1016/0047-2727\(72\)90010-2](https://doi.org/10.1016/0047-2727(72)90010-2)
- Alm, J. (1991). A perspective on the experimental analysis of taxpayer reporting. *The Accounting Re-*

- view, 66(3), 577. <http://proquest.umi.com/pqdweb?did=86082&Fmt=7&clientId=25620&RQT=309&VName=PQD>
- Alm, J. (2018). What motivates tax compliance? *Journal of Economic Surveys*, 00(0), 1–36. <https://doi.org/10.1111/joes.12272>
- Alm, J., Bloomquist, K. M., & Mckee, M. (2015). On the external validity of laboratory tax compliance experiments. *Economic Inquiry*, 53(2), 1170–1186. <https://doi.org/10.1111/ecin.12196>
- Alm, J., Jackson, B., & Mckee, M. (1992). Institutional uncertainty and taxpayer compliance. *The American Economic Review*, 82(4), 1018–1026.
- Alm, J., McClelland, G. H., & Schulze, W. D. (1992). Why do people pay taxes? *Journal of Public Economics*, 48(1), 21–38. [https://doi.org/10.1016/0047-2727\(92\)90040-M](https://doi.org/10.1016/0047-2727(92)90040-M)
- Alm, J., Sanchez, I., & De Juan, A. (1995). Economic and noneconomic factors in tax compliance. *Kyklos*, 48.
- Alm, J., Schulze, W. D., von Bose, C., & Yan, J. (2019). Appeals to social norms and taxpayer compliance. *Southern Economic Journal*, 86(2), 638–666. <https://doi.org/10.1002/soej.12374>
- Alm, J., & Torgler, B. (2006). Culture differences and tax morale in the United States and in Europe. *Journal of Economic Psychology*, 27(2), 224–246. <https://doi.org/10.1016/j.joep.2005.09.002>
- Alm, J., & Torgler, B. (2011). Do ethics matter? Tax compliance and morality. *Journal of Business Ethics*, 101(4), 635–651. <https://doi.org/10.1007/s10551-011-0761-9>
- Andreoni, J., Erard, B., & Feinstein, J. (1998). Tax compliance. *Journal of Economic Literature*, 36(2), 818–860.
- Becker, G. S. (1968). Crime and punishment: An economic approach. *The Journal of Political Economy*, 76, 169–217. <http://www.nber.org/chapters/c3625.pdf>
- Blanthorne, C., & Kaplan, S. (2008). An egocentric model of the relations among the opportunity to underreport, social norms, ethical beliefs, and underreporting behavior. *Accounting, Organizations and Society*, 33(7–8), 684–703. <https://doi.org/10.1016/j.aos.2008.02.001>
- Bobek, D. D., Hageman, A. M., & Kelliher, C. F. (2013). Analyzing the role of social norms in tax compliance behavior. *Journal of Business Ethics*, 115(3), 451–468. <https://doi.org/10.1007/s10551-012-1390-7>
- Bobek, D. D., & Hatfield, R. C. (2003). An investigation of the theory of planned behavior and the role of moral obligation in tax compliance. *Behavioral Research in Accounting*, 15(1), 13–38. <https://doi.org/10.2308/bria.2003.15.1.13>
- Bobek, D. D., Roberts, R. W., & Sweeney, J. T. (2007). The social norms of Tax Compliance: Evidence from Australia, Singapore, and the United States. *Journal of Business Ethics*, 74, 49–64. <https://doi.org/10.1007/s10551-006-9219-x>
- Boll, K. (2014). Mapping tax compliance Assemblages, distributed action and practices: A new way of doing tax research. *Critical Perspectives on Accounting*, 25(4–5), 293–303. <https://doi.org/10.1016/j.cpa.2013.03.002>
- Brizi, A., Giacomantonio, M., Schumpe, B. M., & Manetti, L. (2015). Intention to pay taxes or to avoid them : The impact of social value orientation. *Journal of Economic Psychology*, 50, 22–31. <https://doi.org/10.1016/j.joep.2015.06.005>
- Castro, F. M., & Rizzo, I. (2014). Tax compliance under horizontal and vertical equity conditions: An experimental approach. *International Tax and Public Finance*, 21(4), 560–577. <https://doi.org/10.1007/s10797-014-9320-5>
- Chang, L., Cheng, M., & Trotman, K. T. (2008). The effect of framing and negotiation partner's objective on judgments about negotiated transfer prices. *AOS*, 33(7–8), 704–717. <https://doi.org/10.1016/j.aos.2008.01.002>
- Christian, C. (2017). Enhanced enforcement outcomes through a responsive regulation approach to sales tax enforcement. *Journal of Public Budgeting, Accounting & Financial Management*, 29(4). <https://doi.org/http://dx.doi.org/10.1108/BIJ-10-2012-0068>
- Chung, J., & Trivedi, V. U. (2003). The effect of friendly persuasion and gender on tax compliance behavior. *Journal of Business Ethics*, 47, 133–145.
- Cialdini, R., & Trost, M. (1998). Social influence: Social norms, conformity, and compliance. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology (4th ed.)* (Vol. 27, Issue 6, p. 607). Oxford University Press. <https://doi.org/10.2307/2654253>
- Cullis, J., Jones, P., & Savoia, A. (2012). Social norms and tax compliance: Framing the decision to pay tax. *Journal of Socio-Economics*, 41(2), 159–168. <https://doi.org/10.1016/j.socec.2011.12.003>
- Damayanti, T. W. (2012). Changes on Indonesia tax culture, is there a way? Studies Through Theory of Planned Behavior. *Journal of Arts, Science & Commerce*, 4(4), 8–16.
- Devos, K. (2014). *Factors influencing individual taxpayer compliance behaviour*. Springer.

- Fall, L. (1999). Gender, exposure to tax knowledge, and attitudes towards taxation; An experimental approach. *Journal of Business Ethics*, 18, 173–184. <https://doi.org/10.1023/A:1005711905297>
- Fischer, C. M., Wartick, M., & Mark, M. M. (1992). Detection probability and taxpayer compliance: A review of the literature. *Journal of Accounting Literature*, 11.
- Górecki, M. A., & Letki, N. (2020). Social norms moderate the effect of tax system on tax evasion: Evidence from a large-scale survey experiment. *Journal of Business Ethics*, 172(4), 727–746. <https://doi.org/10.1007/s10551-020-04502-8>
- Güzel, S. A. (2019). The effect of the variables of tax justice perception and trust in government on tax compliance: The case of Turkey. *Journal of Behavioral and Experimental Economics*, 78, 80–86. <https://doi.org/10.1016/j.socec.2018.12.006>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.).
- Hofstede, G. (1980). Culture and organizations. *International Studies of Management & Organization*, 10(4), 15–41. <https://doi.org/10.1080/00208825.1980.11656300>
- James, S., & Alley, C. (2002). Tax Compliance, Self-Assessment and Tax Administration. *Journal of Finance and Management in Public Services*, 2(2), 27–42.
- Jimenez, P., & Iyer, G. S. (2016). Tax compliance in a social setting: The influence of social norms, trust in government, and perceived fairness on taxpayer compliance. *Advances in Accounting*, 34, 17–26. <https://doi.org/10.1016/j.adiac.2016.07.001>
- Kastlunger, B., Lozza, E., Kirchler, E., & Schabmann, A. (2013). Powerful authorities and trusting citizens: The Slippery Slope Framework and tax compliance in Italy. *Journal of Economic Psychology*, 34, 36–45. <https://doi.org/10.1016/j.joep.2012.11.007>
- Kementerian Keuangan Republik Indonesia. (2019). *APBN KiTa: Kinerja Dan Fakta* [Budget: Performance And Facts]. <https://www.kemenkeu.go.id/media/14005/apbn-kita-edisi-desember-2019.pdf>
- Kirchler, E. (1999). Reactance to taxation: Employers' attitudes towards taxes. *Journal of Socio-Economics*, 28, 131–138.
- Kirchler, E. (2007). *The economic psychology of tax behaviour*. Cambridge University Press.
- Kirchler, E., Hoelzl, E., & Wahl, I. (2008). Enforced versus voluntary tax compliance: The “slippery slope” framework. *Journal of Economic Psychology*, 29(2), 210–225. <https://doi.org/10.1016/j.joep.2007.05.004>
- Kirchler, E., Muehlbacher, S., Kastlunger, B., & Wahl, I. (2007). Why pay taxes? A review of tax compliance decisions. In *International Studies Program Andrew Young School, Georgia State University* (Vols. 07–30, Issue December 2007). <https://doi.org/10.4324/9780203851616>
- Korndörfer, M., Krumpal, I., & Schmukle, S. C. (2014). *Measuring and explaining tax evasion: Improving self-reports using the crosswise model*. 45, 18–32. <https://doi.org/10.1016/j.joep.2014.08.001>
- Maciejovsky, B., Schwarzenberger, H., & Kirchler, E. (2012). Rationality versus emotions: The case of tax ethics and compliance. *Journal of Business Ethics*, 109(3), 339–350. <https://doi.org/10.1007/s10551-011-1132-2>
- Medina, L., & Schneider, F. (2018). Shadow economies around the world: What did we learn over the last 20 years? In *IMF Working Papers* (Vol. 18, Issue 17). <https://doi.org/10.5089/9781484338636.001>
- Misbakhun, M. (2018). *Reformasi perpajakan untuk meningkatkan kesadaran pajak* [Tax reform to increase tax awareness].
- Mittone, L., Panebianco, F., & Santoro, A. (2017). The bomb-crater effect of tax audits: Beyond misperception of chance. *Journal of Economic Psychology*. <https://doi.org/10.1016/j.joep.2017.04.007>
- Murphy, K. (2004). The role of trust in nurturing compliance: A study of accused tax avoiders. *Law and Human Behavior*, 28(2), 187–209. <https://doi.org/10.1023/B:LAHU.0000022322.94776.ca>
- Nurhayat, W. (2018). Kontribusi wajib pajak pribadi di Indonesia masih rendah [Personal taxpayer contribution in Indonesia is still low]. <https://kumparan.com/kumparanbisnis/kontribusi-wajib-pajak-pribadi-di-indonesia-masih-rendah>
- Parlaungan, G. (2014). *The tax morale of the individual taxpayers in Indonesia by demographic factors* (Issue March) [Doctoral dissertation, Curtin University]. <https://www.business.unsw.edu.au/About-Site/Schools-Site/Taxation-Business-Law-Site/Documents/Parlaungan-The-Tax-Morale-of-the-Individual-Taxpayers-in-Indonesia-by-Demographic-Factors.pdf>
- Pommerehne, W. W., & Weck-Hannemann, H. (1996). Tax rates, tax administration and income tax evasion in Switzerland. *Public Choice*, 88(1–2), 161–170. <https://doi.org/10.1007/BF00130416>
- Schwartz, R. D., & Orleans, S. (1967). On legal sanctions. *The University of Chicago Law Review*, 34(2), 274–300.
- Soliz, A. B. (2015). *Tax compliance: Ethical orientation, risk perception and the role of the tax preparer* (Issue December). The University of Mississippi.



- Supriyadi, M. W. (2017). *Beyond deterrence: An empirical and experimental analysis of tax compliance behavior in Indonesia*. Queensland University of Technology.
- Trivedi, V. U., Shehata, M., & Lynn, B. (2003). Impact of personal and situational factors on taxpayer compliance: An experimental analysis. *Journal of Business Ethics*, 47(3), 175–197. <https://doi.org/10.1023/A:1026294332606>
- Wahl, I., Kastlunger, B., & Kirchler, E. (2010). Trust in authorities and power to enforce tax compliance: An empirical analysis of the “slippery slope framework.” *Law and Policy*, 32(4), 383–406. <https://doi.org/10.1111/j.1467-9930.2010.00327.x>
- Wenzel, M. (2003). Tax compliance and the psychology of justice: Mapping the field. In V. Braithwaite (Ed.), *Tax compliance and the psychology of justice: Mapping the field* (Taxing dem, pp. 41–70). Ashgate; Hants, UK. p. 41-69.
- Wenzel, M. (2004a). *An analysis of norm processes in tax compliance*. 25, 213–228. [https://doi.org/10.1016/S0167-4870\(02\)00168-X](https://doi.org/10.1016/S0167-4870(02)00168-X)
- Wenzel, M. (2004b). The social side of sanctions: Personal and social norms as moderators of Deterrence. *Law and Human Behavior*, 28(5), 547–567.
- Wenzel, M. (2005). Motivation or rationalisation? Causal relations between ethics, norms and tax compliance. *Journal of Economic Psychology*, 26(4), 491–508. <https://doi.org/10.1016/j.joep.2004.03.003>
- Williams, K. R., & Hawkins, R. (1986). Perceptual research on general deterrence: A critical review. *Law & Society Review*, 20(4), 545–572. <http://www.jstor.org/stable/3053466>
- Yong, S., Lo, K., Freudenberg, B., & Sawyer, A. (2019). Tax compliance in the new millennium: The variables of understanding. *Australian Tax Forum*, 34(4), 766–809.