DETERMINANT OF PERSONAL TAX COMPLIANCE IN INDONESIA

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Abstract

Purpose of the study: This article aims to analyze the effect of eight independent variables (happiness, level of welfare, electoral participation, sex, age, marital status, type of residence, and level education) on tax compliance in Indonesia.

Methodology: The cross-sectional study data came from the 5th wave of the Indonesian Family Life Survey (IFLS 5) produced by Rand Corporation, Ltd, United States, in 2014-2015. The total sample of IFLS 5 reached 16,204 households and 50,418 individuals as household members. IFLS 5 respondents are household heads, spouses of heads household, and household members aged 15 years old or older who can provide information about the characteristics of household members. This article applies logistic regression using STATA 15 to analyze the IFLS 5.

Main Findings: The result of logistic regression shows that of the eight independent variables identified as predictors of tax compliance (Y), only five independent variables (p<0.01) significant affect tax compliance (Y) with a contribution as much as 128.1% (electoral participation/X5), 61.1% (welfare/X1), 54% (happiness/X1), -37% (age/X3), 17.9% (education level/X3). Among these five independent variables, only the age (X3) has a negative relationship with tax compliance (Y), while the other independent variables have a positive relationship. This final model can explain tax compliance (Y) of 0.0275 or 3% significantly, X² (5) = 459.46, p<0.01.

Applications of this study: This article recommends that the government intervene in various sectors of social development, increase tax literacy, expand access to higher education, and improve the quality of the democratization process to increase tax compliance in Indonesia.

Novelty/originality of this study: This article brings new evidence on the relationship between happiness, welfare, electoral participation, sex, age, and education level on personal tax compliance.

Keywords: Electoral participation, Happiness, IFLS 5, Indonesia, Tax compliance, Welfare.

INTRODUCTION

The low of taxpayer compliance is one of the classical problems in Indonesia’s fiscal sector. In 2018, for example, the government was only able to collect tax funds of Rp990.82 trillion or only 61.93 percent (Sugianto, 2018, p. 1). In fact, the government is targeting 2018 tax revenues to reach Rp1,454.5 trillion (Putera, 2018, p. 1). Other problems are the minimum number of taxpayers, the audit process that is not risk-based (Hamilton-Hart & Schulze, 2016, pp. 265–295), inefficient tax administration (Lewis, 2006, pp. 213–233), accuracy of object information taxes, especially in the case of building and land taxes (Booth, 2014, pp. 1–18), the low public acceptance of taxes (Von Haldenwang, 2017, pp. 124–151). This empirical phenomenon relates to the concept of tax compliance in the study of state finance.

Previous research shows that taxpayer compliance is influenced by various factors (see Table 1). Although the phenomenon of taxpayer compliance gets the attention of many researchers, there are no researchers who explain the influence of happiness, welfare, and electoral participation on taxpayer compliance. In fact, logically, when someone feels happy and prosperous, their participation in electoral participation will be distinctive, including participating in paying taxes. Because electoral participation is generally of nature like the mechanism of tax payments, when a person actively participates in the electoral event, he is predicted to be obedient to pay taxes. This research was designed to fill this space. These variables, happiness, and welfare are essential because they are one of the universal life goals that all human civilizations have, whereas electoral participation is one of the pillars of modern democratic life. The more citizens active in public spaces, the stronger the social energy a country/nation has. These three variables are also essential to be studied to see the social impact of development programs that have been implemented by the government (central, provincial, or district/city).

Table 1: Determinant of taxpayer compliance

<table>
<thead>
<tr>
<th>Level of analysis</th>
<th>Finding</th>
</tr>
</thead>
</table>

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The services quality of tax authority (Kaplanoglou & Rapanos, 2013, pp.283-304; Rosid et al., 2018, pp. 25-60; Savitri & Musfialdy, 2016, pp. 682-687)


High penalties (Bloomquist, 2011, pp. 25-49; Mikesell & Birskyte, 2007, pp. 1045–1081)

Society

Social norms (Alm, Sanchez, & De Juan, 1995, pp. 1–18; Chang, 2004, pp. 344–368)

Tax communication using a social network and persuasive message of tax campaign (Onu & Oats, 2016, pp. 29–42)

The zero-tolerance attitude of society towards tax evasion (Mikesell & Birskyte, 2007, pp. 1045–1081)

National and ethnic identity (Li, 2010, pp. 146-177)

Tax dissemination (Andreas & Savitri, 2015, pp. 163-169)

Individual

Taxpayer perception of the tax system and fair tax decision (Jimenez & Iyer, 2016, pp. 17–26)

Taxpayer perception of corruption (Rosid et al., 2018, pp. 25-60)

Subjective norms (Jimenez & Iyer, 2016, pp. 17–26)

Spiritual awareness (Widiastuti et al., 2015, pp. 761–767)

Taxpayers beliefs and perceptions that the tax system is a fair and they will get something of value from the taxes they pay (Mikesell & Birskyte, 2007, pp. 1045–1081)

Taxpayer attitudes towards risks, liquidity, and fiscal illusion (Andreas & Savitri, 2015, pp. 163-169)

Taxpayer knowledge, awareness, morality, and attitudes to compliance (Damayanti et al., 2015, pp. 938–944; Strader & Fogliasso, 1989, pp. 39–46; Weisbach, 2013, pp. 187–211)

Taxpayer access to voice aspiration on tax distribution (Casal et al., 2016, pp. 141–150)

Taxpayer trust (Kirchler et al., 2014, pp. 87–92)

Age and level of education (Mikesell & Birskyte, 2007, pp. 1045–1081)

The objective of the study

Specifically, this study attempt to answer two research problem as follow: (a) what is the relationship between happiness ($X_1$), welfare ($X_2$), age ($X_3$), location of residence ($X_4$), sex ($X_5$), marital status ($X_6$), education level ($X_7$), and electoral participation ($X_8$) on personal taxpayers compliance ($Y$); (b) what is the theoretical and practical implication of the research finding towards tax policy and tax research in Indonesia? This research will contribute to the scientific debate about the concept of personal taxpayers’ compliance in Indonesia that has not paid attention to the variables of the level of happiness, welfare, and electoral participation. Also, the research findings will serve as a basis for researchers to formulate policy recommendations for the government (central, provincial, and district/city) in improving the quality and quantity of taxpayer compliance and identifying further research agendas on this topic in Indonesia.

LITERATURE REVIEW

Tax as one of the obligations of citizens to the government is ancient practices. Before the Enlightenment, tax collection as a source of state revenue had been practiced in the City of Ancient Sumerian, Ancient Egypt, to the Roman Empire (Smith, 2015, p. 5), the Abbasiyah and Umayyad Sultanates in the Middle East (Duri, 2011, pp. 107–124), Tsing Dynasty (Chen, 1914, p. 176) and Ming Dynasty in China (Huang, 1974, p. 3). In the Tsing Dynasty era in China, taxes were the only source of state revenue to carry out government functions (Chen, 1914, p. 176). Although in this era democracy was not yet born, taxes have played an essential role as a means of maintaining state power and strengthening the country's ties with its citizens (Brautigam, Fjeldstad, & Moore, 2008, p. 1). In this era, like the current government today, the monarchy rulers have also faced the problem of taxpayer compliance. Tax compliance is as old as the tax age itself (Torgler, 2007, p. 3).

Tax compliance is the willingness of taxpayers to pay taxes under the tax burden set by the government without manipulation of revenue values. If the taxpayer has income $y$ and must pay tax burden $t$, then he must report $x$ to the government and pay tax $tx$. Tax compliance occurs when taxpayers report $x = y$, while tax evasion occurs when taxpayers report $x < y$ (Andreoni, Erard, & Feinstein, 1998, pp. 818–860). Two approaches could use to understanding taxpayer compliance: the economic approach and the non-economic approach. The economic approach sees the taxpayer as a person who is moral, rational, avoids risk and tries to make the best utility of resources. Various elements of the taxation system, such as tax sanctions, tax audits, and tax structures are considered to influence taxpayer compliance.

In contrast, the non-economic approach sees taxpayers not as merely utility maximizers. Instead, taxpayers are social creatures who must deal with various beliefs and interact with social norms. Some factors identified by the non-economic approach, for example, tax mentality, justice, moral values, subjective norms, are considered to influence taxpayer compliance (Devos, 2014, pp. 13–23). Referring to these two approaches, the variable of welfare, happiness, electoral participation, and demographic attributes is derived from a non-economic approach.
Welfare refers to the situation of fulfilled human material needs in a sustainable manner (for example, housing, clothing, food, etc.). The meaning of these needs, both material and immaterial, is socially constructed and can differ between places and between times (Spicker, 2000, p. 73). However, in the context of welfare as a material need, Rose & Shiratori (1986, p. 7) shows that there is almost no significant difference in definition between Eastern and Western countries. On the contrary, sharply different is the institutional mechanism for realizing individual welfare. For modern countries, realizing the welfare of all citizens is one of the final goals to be achieved. This is in line with the principle in political science: saluspopuli suprema estlex (the welfare of citizens is the highest law) (Spicker, 2000, p. 134). To realize the welfare of its citizens, government institutions release a variety of social policies aimed at protecting their citizens from a variety of vulnerabilities. Of course, government institutions finance their social policies through public budgets, one of which is sourced from taxes paid by their citizens. When citizens feel prosperous and able to carry out economic-productive activities, they are more likely to obey paying taxes due to the positive presence of the government in their lives. Previous research shows a positive and significant relationship between individual welfare and tax compliance despite being moderated by other variables, such as tax morals (Lisi, 2015, pp. 27–32), fiscal transparency (Stanley & Hartman, 2018, pp. 830–850), the efficiency and performance of social policies (Barone & Mocetti, 2011, pp. 724–749; Ottone & Ponzano, 2011, pp. 165–183). On the other hand, various social policies funded by the government with tax funds are a direct incentive for taxpayers to increase taxpayer compliance (Bergolo & Cruces, 2014, pp. 211–228; Di John, 2011, pp. 270–279). Hence, this study expected that prosperous taxpayers are more likely to pay a tax.

The first hypothesis of this study follows from this discussion is: “the level of taxpayer welfare is positively related to personal tax compliance” (H1).

Like the concept of welfare, happiness is a concept that describes the quality of a good human life. The term 'good life' has three meanings: (a) pleasant; (b) a person lives his life as he wishes; and (c) objective values (for example, knowledgeable, friendship, love, freedom, rational, etc.) about the good life present in one's life (Brulde, 2007, pp. 1–14). The concept of happiness, which is a derivative of the meaning 'pleasure', is a situation where a person, based on a subjective assessment of all aspects of his life, feels his life happy (Veenhoven, 1984, p. 22). Of course, meaning, motivation, and determinants happiness are very culture-specific and time-specific (Uchida, Norasakkunkit, & Kitayama, 2004, pp. 223–239). In mathematical language, happiness is H (M (A, u, h) U (A, h) where: H is happiness, M is a vector of good mental qualities (for example, self-confidence, love and be loved, freedom) or bad (for example, feeling threatened, frustrated, jealous, hateful, depressed) which is a function of activity A (in the past, present and future), attitudes and values (u), and health (h). Whereas U is a utilization vector consists of physical components A (activity) and h (health) (Ho, 2006, p. 55).

Tax is a government instrument to realize the welfare and happiness of its citizens. The government, for example, can reduce income inequality between citizens which can trigger the birth of jealousy and social hatred. Tax funds can be used by the government to finance social protection programs aimed at protecting unhappy citizens due to their low level of welfare. However, taxes can also make people unhappy so that, for example, triggers tax avoidance behavior. However, this causal relationship between happiness and tax compliance still needs to be proven empirically. To the best of the researchers' knowledge, there are several scientific articles that explain the contribution of happiness literature to tax policy (Weisbach, 2008, pp. S293–S324), the effect of cigarette tax rates on the happiness of smokers (Gruber & Mullainathan, 2006, pp. 107–146), income tax on happiness (Hutchinson et al., 2017, pp. 1277–1279), progressive tax contribution to happiness (Griffith, 2004, pp. 1363–1308; Oishi et al., 2018, pp. 157–168), the effect of welfare programs on the spread of injustice happiness (Ono & Lee, 2016, pp. 463–491), tax morals are determinants of happiness (Lubian & Zarri, 2011, pp. 223–243), tax misery and tax happiness (McGee, 2008, pp. 81–92). However, these studies have not yet answered whether happiness has related to tax compliance. Hence, this study predicted that happy people (happiness) would obey to paying taxes (tax compliance) (H2).

Meanwhile, political participation is the activity of citizens, both as individuals and as groups, who seek to influence the political process in the public sector. The forms of political participation are very diverse. Starting from voting for letters at the time of the election, demonstrations, attending meetings, or voice political demands through a variety of mass communication media and social media. The concept of political participation is a derivative of a modern democratic government system that assumes that political power comes from the people, by the people, and for the people. Referring to the above understanding, paying taxes is part of the political participation of citizens. The democratic system facilitates that tax funds are used in harmony with the collective interests of taxpayers who are very complex. If taxpayers feel the status quo regime using tax funds is not what they want, then taxpayers can give political support to the status quo regime through elections. This situation shows a logical relationship between paying taxes and political participation. Hypothetically, the more obedient a person pays taxes, the higher political participation will be. Because political participation is a taxpayer tool to control the tax funds they have. Democracy, especially voting, will significantly improve tax morals (intrinsic motivation to pay taxes) (Feld & Tyran, 2002, pp. 197–221; Torgler, 2002, pp. 50–59; Wahl, Muehlbacher, & Kirchler, 2010, pp. 144–158). Political participation indicates political awareness of citizens that without their contribution, the wheels of government will not work. It also indicated the taxpayer's trust in the current government system. Some previous research also shows that the taxpayer's trust in the legal system, government institutions, political legitimacy will also significantly improve the morale of citizens (Frey, 2003, pp. 385–406; Torgler, 2003a, pp. 119–140, 2003b, pp. 357–381; Torgler & Schneider, 2007) so that tax compliance will increase. Based on this discussion, this study
formulates the third hypothesis as follows: The taxpayers who participate in the general election (electoral participation) are more likely to pay a tax (tax compliance), or electoral participation is positively related to tax compliance (H3).

Besides happiness, welfare, and electoral participation, the statistical models will include several control variables that have been shown in previous research to be linked with tax compliance such as level of education, age, gender, marital status, and type of residence. Previous research has consistently shown that education is positively associated with personal tax compliance. Individuals with a higher education level more likely pay a tax than less educated taxpayers (Mikesell & Birksy, 2007, pp. 1045–1081; Palil & Rusyidi, 2013, pp. 118–119; Bilgin, 2014, pp. 60–74; Chan, Troutman, & O’Bryan, 2000, pp. 83–103; Marandu, Mbekomize, & Ejeue, 2015, pp. 207–218; Richardson, 2006, pp. 323–338). Also, the existing result has shown the robust relationship between age (Fischer, Wartick, & Mark, 1992, pp. 1–46; Rusydi, 2012, pp. 261–268; Tyas, 2013, pp. 279–304). Torgler (2004, pp. 237–266), for example, show that age groups from 30 to 65+ have a tendency to higher tax compliance. In other words, tax compliance rises with age. The contribution of gender towards tax compliance is debatable. Some scholars show that women have higher tax compliance than men (Chung & Trivedi, 2003, pp. 133–145). Confronting to this finding, other scholars find that male has higher tax compliance than a woman (Lago-Peñas & Lago-Peñas, 2010, pp. 441–453). Females and males also differed when paying a tax. Whereas for men audits increased subsequent evasion, women’s tax payments were less affected by prior audits (Kastlunger, Dressler, Kirchler, Mittone, & Voracek, 2010, pp. 542–552). Finally, marital status also contribute to tax compliance (Torgler, 2004, 2005).

**METHODOLOGY**

This study applies a quantitative approach and use cross-sectional data from the 5th Indonesian Family Life Survey (IFLS) in 2014, which was organized by the RAND Corporation and Survey Meter, precisely the results of interviews with heads of household, spouse of household head, and the household members several the questionnaire (Book K, Book 1, Book 3A, and Book 3B). IFLS 5 is a continuation of IFLS 1 (1993), IFLS 2 (1997), IFLS 3 (2000) and IFLS 4 (2007) which were carried out in 13 provinces: four provinces in Sumatra (North Sumatra, West Sumatra, South Sumatra and Lampung), five provinces on Java Island (DKI Jakarta, West Java, Central Java, DI Yogyakarta, East Java), four provinces that present other islands (Bali, West Nusa Tenggara, South Kalimantan and South Sulawesi) (Strauss et al., 2016).

The population of IFLS 5 is the entire population of Indonesia. The IFLS 5 sample was selected by stratified random sampling technique which refers to the SUSENAS sampling framework in 1993. The number of IFLS 5 samples is 16,204 households, 50,418 individuals as household members, and 640 community leaders at the village level (Strauss et al., 2016). Respondents of IFLS 5 are household heads, spouses of household heads, and household members aged 15 years or older who can provide information about the characteristics of household members. This study uses STATA 15 to analyze data using the logistic regression method (Hosmer & Lemeshow, 2000). Table 2 shows the operationalization of the research variables in this study.

<table>
<thead>
<tr>
<th>Type of variable</th>
<th>Variable</th>
<th>Operationalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable</td>
<td>Personal tax compliance (Y)</td>
<td>1 = paying a tax; 0 = not paying a tax</td>
</tr>
<tr>
<td>Independent variable</td>
<td>Happiness (X1)</td>
<td>1 = happy; 0 = not happy</td>
</tr>
<tr>
<td></td>
<td>Welfare (X2)</td>
<td>1 = prosperous; 0 = not prosperous</td>
</tr>
<tr>
<td></td>
<td>Age (X3)</td>
<td>1 = young (&lt;40 years old); 0 = old (&gt;40 years old)</td>
</tr>
<tr>
<td></td>
<td>Type of residence (X4)</td>
<td>1 = urban area; 0 = rural area</td>
</tr>
<tr>
<td></td>
<td>Sex (X5)</td>
<td>1 = male and 0 = female</td>
</tr>
<tr>
<td></td>
<td>Marital status (X6)</td>
<td>1 = married; 2 = not married; 3 = divorce; 4 = widow</td>
</tr>
<tr>
<td></td>
<td>Level of education (X7)</td>
<td>1 = elementary school/equivalent; 2 = junior high school/equivalent; 3 = high school/equivalent; 4 = higher education/equivalent</td>
</tr>
<tr>
<td></td>
<td>Electoral participation (X8)</td>
<td>1 = vote; 0 = not vote</td>
</tr>
</tbody>
</table>

**DISCUSSION/ANALYSIS**

**Research respondents**

Research respondents consisted of the household heads (16.68%), spouses of household heads (73.18%), and household members (10.14%) aged 15 years or older who could provide information about the characteristics of household members. Research respondents were spread across 24 provinces representing all regions of the Republic of Indonesia, from Aceh to Papua. However, the largest proportion of respondents remained in Java because it was in harmony with a denser population compared to other islands in Indonesia. The number of respondents who were interviewed reached 17,928 people consisting of 9,563 men (53.34%) and 8,365 women (46.66%). Research respondents who live in urban areas are 10,720 people (59.79%) and those who live in rural areas reach 7,208 people (40.21%). In view of the marital status, 1,817 people or 10.13% of respondents were single, 14,101 people or 78.65% were married, 592 people or 3.30% were divorced, and 1,418 people or 7.91% were widowed.
The education level of respondents is quite varied. Many respondents have elementary/equivalent education (7,035 people or 39.24%). The second-largest proportion is occupied by respondents with a high school/equivalent education (4,980 people or 27.78%). The third position is occupied by respondents educated in junior high school/equivalent (3,574 people or 19.94%). The smallest number of respondents having a bachelor's/equivalent education (2,339 people or 13.05%). The age of respondents is in the range of 20 years old - 107 years old. The average age of respondents was 43.86 years with a standard deviation of 14.34. If age data is transformed into two categories: old (> 41 years) and young (<40 years), the composition of respondents consists of old respondents (4,877 people or 27.20%) and young respondents (13,051 people or 72.80%).

Most research respondents have employed status (56.32%). Respondents working in the domestic sector reached 25.08% and respondents who attend school reach 7.52%. The rest are respondents who are looking for work (1.16%), retirees (3.03%), sick (1.97%), and others (2.11%). When viewed from household consumption expenses to meet non-food needs (for example, electricity, water, household fuel, telephone/cell phone, body care, household goods, salaries for servants/security guards, recreation and entertainment, transportation, sweepstakes and the like, social gathering, and non-food value given regularly to other people/other parties), the majority of respondent households are in the expenditure group <Rp1 million (94.84%).

**Bivariate analysis**

Of the eight independent variables identified as covariates of tax compliance (Y), two independent variables (the type of residence/X4 and sex/X5) do not significantly interact statistically with Y. Although the type of residence (X4) is not significant, because the p-value < 0.25, it can still be included in multivariate analysis. In contrast, sex (X5) could not be included in multivariate analysis because of p-value > 0.25. Table 3 shows the results of the bivariate analysis that has been sorted based on the $\chi^2$ score. The position of the variable in Table 3 shows the order of the independent variables to be entered multivariate analysis with logistic regression using STATA 15.

**Table 3: Summary of bivariate analysis**

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable relationship</th>
<th>$\chi^2$</th>
<th>df</th>
<th>p</th>
<th>$\phi$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Electoral participation (X4) and personal tax compliance (Y)</td>
<td>191.87</td>
<td>1</td>
<td>0.01</td>
<td>0.10</td>
</tr>
<tr>
<td>2.</td>
<td>Level of education (X7) and personal tax compliance (Y)</td>
<td>102.57</td>
<td>3</td>
<td>0.01</td>
<td>0.07</td>
</tr>
<tr>
<td>3.</td>
<td>Welfare level (X2) and personal tax compliance (Y)</td>
<td>91.17</td>
<td>1</td>
<td>0.01</td>
<td>0.07</td>
</tr>
<tr>
<td>4.</td>
<td>Age (X8) and personal tax compliance (Y)</td>
<td>82.43</td>
<td>1</td>
<td>0.01</td>
<td>-0.06</td>
</tr>
<tr>
<td>5.</td>
<td>Level of happiness (X1) and personal tax compliance (Y)</td>
<td>57.17</td>
<td>1</td>
<td>0.01</td>
<td>0.05</td>
</tr>
<tr>
<td>6.</td>
<td>Marital status (X6) and personal tax compliance (Y)</td>
<td>42.47</td>
<td>3</td>
<td>0.01</td>
<td>0.04</td>
</tr>
<tr>
<td>7.</td>
<td>Type of residence (X4) and personal tax compliance (Y)</td>
<td>2.55</td>
<td>1</td>
<td>0.11</td>
<td>0.01</td>
</tr>
<tr>
<td>8.</td>
<td>Sex (X3) and personal tax compliance (Y)</td>
<td>0.00</td>
<td>1</td>
<td>0.95</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Multivariate analysis**

Starting from the results of the logistic regression stages I - stage VI, then of the seven independent variables identified as predictors (covariate) of tax payout obedience variable (Y), only 5 variables significantly influence tax compliance payout (Y), namely: level of happiness (X1), level of welfare (X2), age (X8), education level (X7), and electoral participation (X4). Among these five independent variables, only the age (X8) has a negative relationship with personal tax compliance (Y), while the other two independent variables have a positive relationship. This final model can explain the personal tax compliance (Y) of 0.0275 or 3% significantly, $\chi^2 (5) = 459.46$, $p<0.01$.

The electoral participation (X4) has the most significant contribution (128.1%) to explain Y. The second position is filled by the level of welfare (X2) fill the second position with contributing as much as 61.1%. The level of happiness (X1) has the third position with a contribution of 54%. The fourth position is occupied by age (X8) with a percentage of 37%, while the level of education (X7) has the smallest contribution (17.9%). All these independent variables significantly influence tax compliance (Y) at p <0.01 level (see Table 4). Based on this finding, this study cannot reject H1, H2, and H3.

**Table 4: The final model of logistic regression**

<table>
<thead>
<tr>
<th>Independent variable (X)</th>
<th>Dependent variable (Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electoral participation (X4)</td>
<td>0.824***</td>
</tr>
<tr>
<td></td>
<td>(-0.0612)</td>
</tr>
<tr>
<td>Level of education (X7)</td>
<td>0.164***</td>
</tr>
<tr>
<td></td>
<td>(-0.0194)</td>
</tr>
</tbody>
</table>
This study begins with the initial assumption that respondents’ subjective perception of happiness level (X₁), subjective perception of welfare level (X₂), age (X₃), type of residence (X₄), sex (X₅), marital status (X₆), education level (X₇), and electoral participation (X₈) has influence of personal tax compliance (Y). Of these eight independent variables, there is one independent variable (sex/X₅) that does not significantly interact statistically with Y during bivariate analysis so that it cannot be included in the multivariate analysis stage. In other words, the multivariate analysis only involves seven independent variables, namely: level of happiness (X₁), level of welfare (X₂), age (X₃), an education level (X₇), and electoral participation (X₈). Two independent variables, marital status (X₆) and type of residence (X₄), do not significantly affect Y during multivariate analysis. This finding has several implications.

First, this research found that the level of happiness (X₁) was positively related and could explain Y (personal tax compliance) by 54%. It means that happy taxpayers have the odds to pay taxes of 54%. Conversely, when taxpayers are unhappy, their odds to pay taxes will decrease by 54%. In other words, a happy taxpayer has a 54% chance of paying taxes compared to the unhappy taxpayer. This finding supports the results of previous research on the causality of taxes and happiness, both from the perspective of happiness theory and taxation theory (Griffith, 2004, pp. 1363–1380; Gruber & Mullainathan, 2006, pp. 107–146; Hutchinson et al., 2017, pp. 1277–1279; McGee, 2008, pp. 81–92; Oishi et al., 2018, pp. 157–168; Ono & Lee, 2016, pp. 463–491; Weisbach, 2008, pp. S293–S324). Because happiness is immaterial and taxes are material, these findings indicate a statistically significant relationship between the immaterial world and the material world. The practical implication is that government efforts to increase tax revenue do not necessarily translate into tax intensification policies. Instead, the government must intervene in various sectors of social development which are anti-thesis of economic development.

Second, the findings of this research indicate that the level of welfare (X₂) has a positive relationship and contributes to Y (personal tax compliance) by 61.1%. It suggests that a prosperous taxpayer has a 61.1% chance to pay taxes. When taxpayers do not prosper, the opportunity to pay taxes will decrease by 61.1%. This finding, while ignoring some independent variables that moderating tax compliance (for example, tax morale, fiscal transparency, social policy effectiveness, etc.), is consistent with the results of previous studies that show a positive and significant relationship between individual welfare and tax compliance (Barone & Mocetti, 2011, pp. 724–749; Bergolo & Cruces, 2014, pp. 211–222; Di John, 2011, pp. 270–279; Lisi, 2015, pp. 27–32; Ottone & Ponzano, 2011, pp. 165–183; Stanley & Hartman, 2017, pp. 830–850). If happiness is subjective well-being (immaterial), then welfare is objective well-being (material). Welfare refers to the situation of meeting human material needs sustainably (for example, housing, clothing, food). The meaning of these needs, both material and immaterial, is socially constructed and can differ between places and between times (Spicker, 2000, p. 73). However, in the context of welfare as a material need, Rose & Shiratori (1986, p. 7) shows that there is almost no significant difference in definition between Eastern and Western countries. On the contrary, sharply different is the institutional mechanism for realizing individual welfare.

The founders of the Republic of Indonesia used the term ‘advancing public welfare’ in the Preamble text of the 1945 Constitution which represented the spirit, passion, vision, and ultimate goal of establishing the Unitary State of the Republic of Indonesia within the framework of the welfare state. Every government effort to ‘advance public welfare’ must be based on “belief in the Almighty Godness; just and civilized humanity; a unified Indonesia; democracy; and people creating social justice for all Indonesian people.” Today, especially under the Jokowi - JK administration, efforts to create a welfare state are manifested in a variety of policies, such as the Family Hope Program (Program Keluarga Harapan or PKH), National Health Insurance (Jaminan Kesehatan Nasional or JKN), Smart Indonesia Card (Kartu Indonesia Pintar or KIP), Village Funds (Dana Desa or DD), and so on. In the spirit of developing Indonesia from the periphery, various large-scale infrastructure projects outside Java are also part of the government’s manifestation of realizing Indonesia as a welfare state. The government of Indonesia should maintain this policy because it has impacted directly on personal tax compliance.

<table>
<thead>
<tr>
<th>Level of welfare (X₂)</th>
<th>0.477***</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(-0.0604)</td>
</tr>
<tr>
<td>Age (X₃)</td>
<td>-0.467***</td>
</tr>
<tr>
<td></td>
<td>(-0.0487)</td>
</tr>
<tr>
<td>Level of happiness (X₁)</td>
<td>0.432***</td>
</tr>
<tr>
<td></td>
<td>(-0.0648)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.351***</td>
</tr>
<tr>
<td></td>
<td>(-0.0963)</td>
</tr>
<tr>
<td>Observations</td>
<td>17,928</td>
</tr>
</tbody>
</table>

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1
Third, the age ($X_3$) is negatively related and can explain personal tax compliance ($Y$) by 37%. Because the age is a dummy variable (1 = young and 0 = old) and the age ($X_3$) and (tax compliance) $Y$ are negative, this fact shows that young taxpayers (<40 years) have a 37% percent chance for disobeying paying taxes. Conversely, elderly citizens (> 41 years) have a 37% percent chance to obey paying taxes. In other words, young citizens (<40 years old) tend to be disobedient in paying taxes and older citizens (> 41 years old) tend to be obedient in paying taxes. This finding is in line with Fischer's model which states that age has a positive relationship with tax compliance (Fischer, Wartick, & Mark, 1992, pp. 1–46).

The older a taxpayers, the more obedience to pay taxes (Rusydi, 2012, pp. 261–268; Tyas, 2013, pp. 279–304).

In contrast, this finding rejects the results of the study which state that age does not significantly affect tax compliance (Aryati, 2012, pp. 13–29) or the younger generation has a better tax morale than the older generation (Susila, Junuillt, & Hidaya, 2016, pp. 154–172). Because it is still in the status of scientific debate, the age must always be included in the analysis of tax compliance, both as an independent variable and an intermediate variable. Also, the demographic composition that always changes from time to time necessitates the importance of the age to see tax compliance between generations. The practical implication of this finding is that the government needs to increase the knowledge and awareness of taxpayers among the younger generation through various tax literacy programs. However, if the taxpayer obedience is low due to the unstable economic condition of the younger generation, the government needs to create new jobs, encourage the birth of new entrepreneurs, and provide economic and non-economic incentives for young taxpayers. Instead, the government needs to think about economic and non-economic incentives for elderly taxpayers who are obedient to paying taxes.

Fourth, the level of education ($X_4$) has a positive relationship and can explain ($Y$) personal tax compliance as much as 17.9%. The contribution of high school/equivalent and bachelor/equivalent contributes to ($Y$) personal tax compliance respectively by 26.5% and 76.7%. This data indicates that the higher the level of education, the higher the level of tax compliance. This finding confirms previous research on a significant positive relationship between education level and tax compliance (Mikesell & Birksyte, 2007, pp. 1045–1081; Palil & Rusvidi, 2013, pp. 118–119; Bilgin, 2014, pp. 60–74; Chan, Troutman, & O’Bryan, 2000, pp. 83–103; Marandu, Mbekomize, & Iheue, 2015, pp. 207–218; Richardson, 2006, pp. 323–338). The logic is that the higher the level of education, the higher the level of knowledge and level of awareness of taxpayers to pay taxes. Therefore, the government needs to increase access to secondary and tertiary education for all Indonesian citizens. If today's compulsory education is only up to 9 years (elementary and junior high), a policy breakthrough is needed, so that compulsory education reaches the level of secondary or higher education which contributes positively and significantly to tax compliance.

Fifth, electoral participation ($X_5$) has a positive relationship and can explain ($Y$) personal tax compliance and has the most significant contribution (128.1%) to explain $Y$. It means that taxpayers who vote in elections have a 128.1% chance to pay taxes. Conversely, those who did not vote in the election had the opportunity not to pay a tax of 128.1%. This finding fits with previous research results which show that democracy has a positive effect on tax morale (intrinsic motivation to pay taxes) (Torgler, 2002, pp. 50–59, 2005, pp. 525–531). Electoral participation is a source of government legitimacy for managing tax policy. The higher number of citizens participating in electoral democracy, the higher quality of legitimacy a government has. If the political legitimacy of government institutions is high, the motivation (tax morale) of citizens to pay taxes will increase (Torgler & Schneider, 2007, pp. 443–470). The high electoral participation rate indicates the confidence of citizens or taxpayers towards government officials or institutions (Damayanti et al., 2015, pp. 938–944; Torgler, 2003a, pp. 119–140). In Indonesia, this statement is not entirely true. Because, as some researchers point out, the high electoral participation rate could be due to money politics as a winning strategy for candidates to win elections (Aspinall, 2014, pp. 545–570; Aspinall & As’ad, 2015, pp. 165–195; Aspinall & Mada, 2016). Even so, these findings still confirm that tax compliance is not only caused by mere economic and psychological factors. Conversely, political factors also play an essential role in influencing tax compliance. Therefore, the process of democratization in Indonesia which is getting better and has been rolling since 1998 must continue to be cared for and maintained by the government, private actors and civil society components.

CONCLUSION

This article has shown that happiness ($X_1$), welfare ($X_2$), age ($X_3$), level of education ($X_4$), electoral participation ($X_5$), has contributed to personal tax compliance in Indonesia significantly. As the ends of the development process, both happiness and welfare are representing the quality of people's well-being. It also represents the ends of the Sustainable Development Goals (SDGs). If the government needs to enhance tax compliance in his territory, they should pay attention to the SDGs seriously. However, it is impossible to achieve the SDG without fulfilling the political right of citizens as a taxpayer. The robust relationship between electoral participation and tax compliance strengthening and justify the old political slogan that emerges during the American Revolution (‘no taxation without representation’) or the suffrage movement (‘no tax, no vote’). Electoral participation is not only political rights issues but also relates to the ability of governments to maintain, preserve, and build democratic life.

Because modern democracy has an institution, process, value, belief, and norms, increasing the level of education of all citizens is the best shortcut to internalize democracy into people's life. Education could transfer value, norms, knowledge, and skill to all citizens so that they can participate in various forms of activity in social life. Today, in the digital era, basic
literacy (reading, writing, and numeracy) is not enough. The citizens need new knowledge and skill to live in the digital era. The Government of Indonesia should allocate the budget sufficiently to accelerate the information and communication technology sectors. Like or dislike, ICT has changed the landscape of human life, including the democratization process and tax management. Indonesia needs to develop itself as quickly as possible to enter the Industrial Revolution 4.0, which is full of challenges and very highly competitive. In the future, perhaps, paying a tax is only a small part of the internet of things (IoT), or it could be controlled efficiently and effectively through artificial intelligence. Shortly, the points are that democratization is a prerequisite for increasing tax compliance.

LIMITATION AND STUDY FORWARD
While presenting some robust findings, this study has limitations. First, the final logistic regression model produced by this research is only able to explain the personal tax compliance of 0.0275 or 3%. Further research is needed with more independent variables to improve the ability of logistic regression in predicting or explaining personal tax compliance in Indonesia. Some more sophisticated statistical techniques, such as structural equation modeling and multi-level analysis, can be adopted to explain the complexity of the relationship between independent variables and personal tax compliance. Second, this research shows that young people (<40 years old) is not obedience to pay a tax. Indonesia is experiencing a demographic bonus situation. This topic needs to be explored further because the future of Indonesia is very dependent on today's young generation. Indonesia's future will be bleak if today's young generation is not obedient to paying taxes. Longitudinal research is needed to analyze cross-generational tax compliance behavior. Third, this research uses 5th IFLS data. In the future, it is interesting to examine the findings of this paper other data that similar characteristics, for example, SUSENAS data. Third, this research uses the 5th IFLS data. In the future, it is interesting to examine the findings of this research using data that similar characteristics with the 5th IFLS, for example, SUSENAS data. Fourth, this study only focused on personal tax compliance and abandoning the variable of tax type or type of taxpayer (for example, big corporations or small-medium enterprises). Future research should be listing this topic as a priority agenda because Indonesia has many small-medium industries. More qualitative research is needed to capture the meaning, values, norms, or beliefs among a taxpayer in Indonesia who live in a multi-ethnic society within the diverse social, economic, and cultural landscape. Since 1998, a dynamic of political domestic in Indonesia has been changed gradually. Decentralization has produced various types of the regional government. This study suggests further research to consider various institutional factors embedded at local government to investigate tax compliance in Indonesia.

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USA: the National Tax Association.


