Impact of Tax Knowledge, Tax Compliance Cost, Tax Deterrent Tax Measures towards Tax Compliance Behavior: A survey on Self-Employed Taxpayers in West Malaysia

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Abstract

The aim of this paper is to study tax compliance behavior of self-employed taxpayers in West Malaysia and how tax knowledge, tax deterrence and tax compliance costs influence compliance behavior. Basically, those previous studies have merely focus on small and medium enterprises and less of them conduct the relevant research on self-employed population in Malaysia. Simple random sampling technique is adopted and there were 150 of self-employed taxpayers had randomly selected from West Malaysia to participate in this study. Questionnaire survey was conducted through online distribution method. Hypothesis testing is carried out with the implementation of multiple regression and Pearson correlation analysis. The result from regression analysis revealed that tax deterrence has a significant relationship with tax compliance behavior of self-employed taxpayers. However, the regression analysis indicates that tax knowledge and tax compliance costs are insignificant to compliance behavior. The findings in this paper are supported by other studies in literature reviews in chapter 2.

Keywords: Tax knowledge, tax deterrence, tax compliance behavior, self-employed taxpayers.

1. Introduction

Taxation is a system that introduced by government to raise income revenues which is going to be utilized for social welfare purpose. Under self-assessment tax system that designed by Malaysia government, taxpayers obligated to compute amount of their tax payable and provide supportive document to Malaysia Inland Revenue Board (IRB)—a government department which is in charge of the matter relative to the direct tax such as income tax. The main purpose of introducing this mechanism is to improve awareness and voluntarily compliance of taxpayers toward their tax responsibility.

Tax compliance is referring to the degree that taxpayer complies or fail to comply with the tax regulations in their country. Tax compliance can be improved if the tax system is administrated tightly and strictly through law enforcement and imposition of penalty toward taxpayers who are found guilty of committing tax evasion. Majority of those previous studies are emphasizing on compliance behavior of individual income
taxpayers in selected countries or biggest companies. Nevertheless, only few studies reviewed on level of compliance of taxpayers who are self-employed. Self-employed individuals are increasingly important to the economic growth of the Malaysia and government’s attention is highly focusing on this group of citizen. According to the data shown in (Data.worldbank.org, n.d.), in 2013, there are about 26.1% out of 29,716,965 of Malaysia population are self-employed. The previous findings data indicated that there are great numbers of self-employed are eligible to pay tax. Thus, self-employed taxpayers are considered as critical and crucial to tax revenues of Malaysia government as large contribution of corporate income tax and personal income tax are generated from them.

Tax evasion or tax non-compliance arise when the taxpayer fail to comply with tax law or meet their tax obligations in the way of intentionally or unintentionally. Issues of tax compliance such as understatement or overstatement of income and expenditures, late payment, fail fully meet tax obligation have always been encountered Malaysia for a long time and it's become significant when self-assessment regime (SAS) had introduced in Malaysia which is heavily relies on the voluntary tax compliance. Since Tax revenues of Malaysia government are largely contributed from personal and corporate income tax that mostly generated from income of self-employed taxpayers, the issue become critical when that most of income of taxpayers who are self-employed would be subject to lower tax compliance compared to the taxpayers whose income from salaries (Agbi, 2014).

There was variety factors of affecting tax compliance behavior had been examined in previous relevant studies. Out of all variables that had been examined by other researchers previously, taxpayer’s knowledge, compliance cost and deterrence are the most arguable variables that have been always predominant. Thus, this research will be focusing on these three factors as variables of the study of tax compliance behavior and targeting self-employed taxpayers as sample of this research. According to Shaharuddin, Palil, Ramli, and Maelah (2012), complexity of tax system would result in lower compliance due to taxpayer’s lack of relevant knowledge of tax system. High compliance cost to be incurred for the tax administration purpose would discourage taxpayers to fully comply with tax laws (Pope and Abdul Jabbar, 2008). Tax non-compliance still exists everywhere even though tax administrative and deterrence have taking place to address this compliance issues. Chief Executive Officer of Inland Revenue Department, Tan Sri Zainol Abidin Abdul Rashid reported that there is approximately one third of Malaysian who subject to tax liability but do not pay tax, 1.3 millions of potential taxpayers do not file tax returns (Krishnamoorthy, 2006). It was estimated that the government has lost approximately RM307.7 million due to non-compliance of taxpayers (Krishnamoorthy, 2006).

1.1 Research Objectives

- To study tax compliance cost, tax deterrent measures, tax knowledge towards tax compliance behavior of self-employed taxpayers in West Malaysia.
- To determine relationship between taxpayers’ perceptions on tax deterrence measure and tax compliance decisions of self-employed taxpayers in West Malaysia.
• To investigate relationship between tax knowledge and compliance behavior of self-employed taxpayers in West Malaysia.
• To determine relationship between tax compliance cost and tax compliance of self-employed taxpayers in West Malaysia

2. Literature Review

2.1 Tax Knowledge

According to Susanti (2007), tax knowledge can be defined as taxpayer's level of knowledge toward tax law and regulations. Level of taxpayer's knowledge is determined by knowledge in relation to issues of rebate, relief, tax returns and deduction from different taxpayer category of joint assessment, business and self-employed. The findings of Nzioki and Peter (2014) indicate that tax knowledge and education has significant positive effect on tax compliance in Real Estate Sector. An increase of tax knowledge level can lead to the increase of tax compliance level. They also suggested that improve awareness of taxpayers with regards to their tax obligations can be better improved through enhanced tax education services rather than just provide them simple guideline on filling tax returns. According to Alabede, Zainol Ariffin, and Idris (2011), tax knowledge of taxpayer can be equipped and enhanced through education. However, the level of tax knowledge must not necessarily happen simultaneously with the level of education. Just as in Fischer’s model and other study, education level of taxpayer can only be one of the demographic factors which linked to tax knowledge, moral reasoning, non-compliance opportunity and attitude but have no direct influence on tax compliance behavior.

Loo, Mckerchar and Hansford (2009) supported statements of Canada Revenue Authority (2009) as their findings reveal that gaining tax knowledge has a significant impact on Malaysian’s compliance level when the self-assessment system had introduced. They further indicate that the ability of taxpayer's in complying tax by reporting taxable income, claim relief, rebates and compute tax liability correctly can be determined by the sufficiency of taxpayer's knowledge toward tax policy. Mukasa (2011) agree that tax knowledge has a significant positive relationship with tax compliance behavior. As the result from their research, higher tax knowledge is expected to lead to higher compliance rates and lower tax knowledge lead to lower tax compliance rate in adverse. The survey among small and medium registered taxpayers operating in Kampala central division found that low tax knowledge is one of the significant factors which contributed to less compliance. This is because lack of knowledge of tax law coupled with inadequacy of taxation books in layman terms to guide them which will contribute to unintentional tax non-compliance.

According to the findings of Mukhlis, Utomo and Soesetio (2015), there is a positive and significant relationship between tax education on tax knowledge and tax compliance on Handicraft SMEs Sectors in Indonesia support the above statement and note that there was a positive significant relationship between taxpayer’s tax knowledge and tax compliance. The taxpayers who have equipped with the sufficient tax knowledge are able to access their tax liability correctly ad file tax return forms on time. Taxpayer cannot be expected to submit complete, proper tax returns accurately unless they have
sufficient knowledge to understand the system. However, Kasipillai, Aripin, and Amran (2013), oppose the argument on positive correlation between tax knowledge and tax compliance has opposed by some of the studies. They found that there is a significant negative relationship between tax knowledge and compliance behavior. They claim that the increasing knowledge of tax such as audit process and tax regulations expose taxpayers the opportunity to evade tax. In other word, taxpayer who has higher level of tax knowledge is well-know about the loophole in tax regulation and system know the legal way to reduce or even avoid tax. From their research, they found that tax compliance to be higher for taxpayers who were less well educated and older.

2.2 Tax Compliance Cost

The regression analysis that undertaken by Sapiei, Kasipillai and Eze (2014) in their studies indicate that tax compliance costs which includes internal costs (time spent by company employee on tax administration), external costs (fees paid to outside tax professional) and incidental costs (costs other than internal and external costs that incurred in dealing with tax matters such as computer, accounting software) has insignificant relationship with tax compliance costs and compliance decisions of corporate taxpayers.

The findings of Muoki Nzioki and Rawlings Peter (2014) indicated that Tax compliance cost is significantly, negatively related to tax compliance behavior. The respondents were having disagreement and dissatisfaction with the amount of cost that incurred in filing tax return, hire tax agent, and travel for tax purpose as they think those compliance costs are unfair to them. High tax compliance cost resulted in lower attractiveness of country to the foreign investors. Pope and Abdul Jabbar (2008) define "compliance cost" as the taxpayers' cost that associated with the operation of Self-Assessment System (SAS) which currently implemented in Malaysia. Three main components are used to describe tax compliance cost, which includes financial cost, psychological costs and time costs to the taxpayers. Financial costs is described as monetary expenses to acquire professionals such as tax agents, accountants and legal practitioners or other incidental expenses in relation to tax matter. Time costs are incurred to staffs who are involved in the process of tax reporting such as keeping required records of tax information, submitting tax form or preparing tax details for tax professionals, as well as time spent in dealing with the tax authorities. The psychological costs refer to the effects upon a taxpayer having to deal with tax affairs, for instance mental stress. On the other hand, they also note that tax compliance cost comprise three main components: financial costs, time cost and psychological costs to taxpayers. Nevertheless, their study observed that tax compliance cost is lack of significant related to tax compliance behavior.

Eragbhe and Modugu (2014) categories compliance cost into computational costs and tax planning costs. Computational costs refer to the cost incurred for proper accounting system includes preparation of the necessary information and computation of the amounts due for tax purposes. Whereas planning cost occur when the taxpayers try to reduce or avoid tax payment in legal way. The findings indicate that compliance costs are regressive in nature and tax compliance costs are relatively high for SMEs in Nigeria.
According to Blaufus, Eichfelder and Hundsdoerfer (2011), they found that self-employed taxpayers in Germany bear a higher cost burden. They also found that taxable income and demand for external advisers are positive and significantly correlated with compliance costs. They found evidence for a joint assessment of a married couple reduces compliance costs of time per household. Besides, compliance costs and education are positively correlated with each other.

2.3 Tax Deterrence

According to Devos (2013), among these factor determinants, the most emphasis is placed upon deterrence factor determinant is raised from the deterrence theory model which is commonly used to use to examine tax evasion and compliance from a theoretical perspective. Economic deterrence model is basically including variables of risk of being detected by audit and penalty structure which are greatly effect on psychological variables such as moral values and the perceptions of tax system and fairness held by taxpayers.

The findings of Wilks and Pacheco (2014) indicated that intentions of taxpayer to comply tax were higher and intentions to evade tax were lower when the tax authorities and administrative perceived as fair and trustworthy as well as deterrence power was high. The respondents of their research more likely and willing to comply with tax law if authorities were fair and having higher ability to detect and penalize tax evader. According to their findings, effect of authority’s power to detect and punish tax evader was significant on enforced compliance but not on voluntary compliance. In the study of Sapiei, Kasipillai, and Eze (2014) found that there is a significant negative relationship between tax deterrence sanctions and tax non-compliance behavior. In this study, tax deterrence sanctions such as probability of being audited, severity of penalties are determinants of non-compliance behavior such as under-reporting of income and overall non-compliance.

From the research that conducted by Anyaduba, Eragbhe and Kennedy (2012), they discovered that deterrent tax measures in Nigeria are not significantly assist in promoting tax compliance in Nigeria. The results of their research prove that enhancement of taxpayer's morale and voluntary compliance will not bring much effect to tax compliance improvement. In contrast, strengthening and enforcing taxpayers morale will help to improve tax compliance. According to the findings of Loo, Mckerchar and Hansford (2009), they discovered that increase of perceived detection will significantly impact taxpayer’s decision to comply with the tax law, due to their fear of being audited or penalized. As result, taxpayers will still comply with the tax law even though certain amount of them is not satisfying with the current tax system. Thus, the findings of Loo, Mckerchar and Hansford (2009) do significantly contribute to the understanding of taxpayers’ behavior.

Devos (2007) notes that the taxpayers are intend to be stimulated by perception toward detection rather than the actual probability which should be used in measuring the deterrent effect. As such, Devos further indicates that the feeling of fear of being catch and audited, as well as perceived seriousness of tax evasion are uncertainty in affecting tax compliance behavior, but the compliance can be further improved plus with the severity of punishment. According to Fischer's Model of tax compliance, deterrence of tax system structure consists of probability of being detected. Devos (2007) explain the
deterrence by punishment as a method of retrospective interference, by holding out threats that whenever a wrong has been actually committed the wrongdoer shall incur punishment. Ali, Fjeldstad, and Sjursen (2013) found that economic deterrence has significant relationship with compliance attitude of individuals in South Africa and Kenya. As result of their findings, one unit increase on perception to the enforcement that lead evasion more difficult to be made, increase likelihood of tax compliant attitude by 5% and 8% of in Kenya and South Africa respectively.

3. Methodology

There are three independents variables, namely tax knowledge, tax compliance costs and deterrent tax measures will be measured in this study with the dependent variable – tax compliance behavior. This is quantitative study and which primary data are collected by through questionnaire technique. Questionnaires are including a series of closed questions with multi-statements designed by using scaling measurement such as Likert scale of five points, dichotomous, nominal and interval scale. Simple random sampling method is adopted to choose the geographical area of respondents which are to be conducting the research and to select respondents no matter what kind of demographic background they are belongs to, as long as they are self-employed taxpayers.

![Theoretical Framework](image)

**Figure 1. Theoretical Framework**

Researcher decides to set 150 questionnaires which were administrated to selected sample of 598,800 individuals who is self-employed in West Malaysia and whose income is subject to under provision of Income Tax Act 1967 (ITA 1967). The questions of questionnaire are constructed by using Google form. 150 questionnaires were being issued and distributed to self-employed taxpayers who reside in either Johor or Selangor area (targeted respondents) through online distribution method.
4. Descriptive Analysis

The data is collected from 150 respondents’ details and which are coded, and keyed into Statistical Package for Social Scientists (SPSS) in order to identify the relationship between independent and dependent variables. The data will be analyzed on a group basis. 133 questionnaires are managed to be collected back from the total 150 distributed questionnaire, which is 88% of the overall response rate, achieved far more the response rate targeted by Raosoft.com.

4.1 Validity and Reliability Analysis

Internal consistency reliability analysis is an analysis that has to be carried out before the questionnaires items to be employed as test for the research in order to test validity of the items that are used to define scale (Tavakol, & Dennick, 2011). The analysis is to test the consistency and reliability of the questionnaires items that are used to define scale. According to Chua (2015), higher consistency of items proves higher reliability of the scale, which means the measurements are considered as reliable if the measurements able to collect the same value from the respondents when the respondents are repeatedly asked to answer the same items of measurement. Cronbach’s alpha is implemented to measure internal consistency. Generally, Cronbach’s alpha reliability coefficient gives score of range from 0 to 1. Cronbach’s alpha indicate a good internal consistency if such value is closer to 1. According to George & Mallery, (2003), “more than 0.9 – Excellent, more than 0.8 – Good, more than 0.7 – Acceptable, more than 0.6 – Questionable, more than 0.5 – Poor, and less than 0.5 – Unacceptable”. According to Panayides and Walker (2013), a higher value of alpha does not imply there is a better reliability of test as this may indicate that some of the items are redundant.

4.2 Hypothesis Analysis

Hypothesis testing method is a statistical test which is employed to examine on the given assumption of a study is true or not for the entire population. In hypothesis testing method, the opposing hypothesis statement will be formulated as follow:

\[ H1: \text{There is a significant relationship between Deterrent Tax Measures and Tax Compliance Behavior of Self-Employed Taxpayer.} \]

\[ H2: \text{There is a significant relationship between Tax Knowledge and Tax Compliance Behavior of Self-employed taxpayers.} \]

\[ H3: \text{There is a significant relationship between Tax Compliance Cost and Tax Compliance behavior of Self-Employed Taxpayer.} \]
4.3 Regression Model

A Multiple Regression is used as a prediction for tax compliance behavior (Dependent Variable) by using tax compliance costs, tax knowledge and deterrence tax measures (independent variables). The model summary and table of Anova are generated as to examine the fitness of regression model and overall statistically significance relationship between variables. The Model Summary in Figure 2 indicates that Correlation coefficient (R) is 0.889. As such, the model predicted that over 88.9% of change in the independent variable. Coefficient of determination (R²) in the model summary is used to test the goodness of fit of the model. The summary shows that R²= 0.790. This means 79% of variation in tax compliance behavior (dependent variable) is explained by tax knowledge, tax deterrence and tax compliance costs (predictors). The model is considered as good fit to the data as the value of R² is close to 100%. Anova Model is used to test whether or not the overall regression model is a good fit for the data by looking at the F-value. The findings presented in Figure 3 has indicated that the overall regression model is statistically significant (F=161.841, p < .001).

![Figure 2. Model Summary](image)

![Figure 3. Anova Model](image)

The coefficient model in the Figure 5 presents regression results which are important in deciding whether or not to reject null hypothesis, which includes the value of unstandardized coefficients (B), t-value and sig.
The result in Figure 5 shows $B = -0.855$, ($t = -17.962$, $p < 0.05$) which implies that we reject null hypothesis stating that there is no significant relationship between Deterrent Tax Measures and Tax Compliance Behavior of Self-Employed Taxpayer. This is because $p$-value=0.000 is smaller than 0.05 (alpha). The value of $B$ indicates there is a negative relationship between Deterrent Tax Measures and tax compliance behavior. For each unit increase in Deterrent Tax Measures, there is 0.855 units decrease in non-compliance level (tax compliance behavior). In the population, we have 95% confident interval with 1 unit change in Deterrent Tax Measures, the change in the non-compliance level (tax compliance behavior) ranged from -1.079 to -0.865.

From the Figure 5, the findings shows $B = -0.061$, ($t = -1.275$, $p > 0.05$). Thus, we failed to reject null hypothesis stating that there is no significant relationship between Tax Knowledge and Tax Compliance Behavior of Self-employed taxpayers, as the reason of $p$-value=0.204 is greater than 0.05 (alpha). The value of $B$ indicates there is a negative relationship between Tax Knowledge and Tax Compliance Behavior. For each unit increase in Tax Knowledge, there is 0.061 units decrease in non-compliance level (tax compliance behavior). In the population, we have 95% confident interval with 1 unit change in Tax Knowledge, the change in the non-compliance level (tax compliance behavior) ranged from -0.253 to 0.055.

From the Figure 5, the result shows $B = 0.005$, ($t = 0.163$, $p > 0.05$). Thus, we failed to reject null hypothesis stating that there is no significant relationship between Tax Compliance Cost and Tax Compliance Behavior of Self-Employed Taxpayer as the reason of $p$-value=0.871 is greater than 0.05 (alpha). The value of $B$ indicates there is a positive relationship between tax compliance costs and tax compliance behavior. For each unit increase in tax compliance costs, there is up to 0.005 units increases in non-compliance level (tax compliance behavior). In the population, we are 95% confident interval with 1 unit change in tax compliance costs, the change in the non-compliance level (tax compliance behavior) ranged from -0.060 to 0.071.

![Figure 5. Coefficients Model](image-url)
5. Findings and Discussions

5.1 Deterrent Tax Measures (H1)

The findings of this study demonstrate inconsistency with the null hypothesis (t= -17.962, p=0.000). Since p-value is smaller than alpha 0.05, null hypothesis is rejected and implies that taxpayer’s deterrent tax measures have statistically significant relationship to tax compliance behavior. The negative B defined that taxpayer’s perceptions on tax deterrent measures may lead to a decrease in non-compliance level (compliance behavior).

The findings is in agreement with the findings of Sapiei, Kasipillai, and Eze (2014) who found that tax deterrence sanctions such as probability of being audited, severity of penalties are significantly correlated to non-compliance behavior such as under-reporting of income and overall non-compliance. The findings of this study is also supported by Loo, Mckerchar and Hansford (2009), who assert that increase of perceived detection has significant influence to taxpayer’s decision to comply with the tax law, due to their fear of being audited or penalized. Wilks and Pacheco (2014) found evidence for capability of authority to detect and punish tax evader is significantly and positively correlated with enforced compliance.  This is again supported by Ali, Fjeldstad, and Sjursen (2013) who found that economic deterrence has significant relationship with compliance attitude of individuals in South Africa and Kenya. However, this is opposed by the findings of Anyaduba, Eragbhe and Kennedy (2012) as they discovered that deterrent tax measures in Nigeria is insignificant in helping the country to promote tax compliance. As conclusion of this research, deterrent measures may be a factor in impacting tax compliance decision of self-employed taxpayer in West Malaysia.

5.2 Tax Knowledge (H2)

The result in Coefficient table that presented in figure 5 shows consistency with the null (t= -1.275, p=0.204). Since p-value is greater than alpha 0.05, null hypothesis is failed to be rejected. As such, taxpayer’s tax knowledge is insignificantly correlated to tax compliance behavior. The negative B defined that tax knowledge may lead to a decrease in non-compliance level (compliance behavior). The findings above is in line with the findings of Mira Susanti (2007) which did not show any significant difference between respondent’s prior tax education and tax non-compliant behaviour of non-accounting postgraduates from UiTM. This is contradicted to the majority findings of the other researchers such as Nzioki, and Peter (2014), Loo, Mckerchar and Hansford (2009), Mukhlis, Utomo and Soesetio (2015), and Mukasa (2008) as they found that there is a statistical significant positive relationship between tax knowledge and tax compliance behavior. However, Kasipillai, Aripin, and Amran (2013) opposed the argument on positive correlation between tax knowledge and tax compliance behavior. They claim that there is a negative relationship between two variables as they found that tax compliance to be higher for taxpayers who were less well educated and older. This is because higher level of tax knowledge is associated with well-know about the loophole in tax regulation
and system know the legal way to reduce or even avoid tax. As conclusion for overall result of this research, level of tax knowledge may not be a factor in impacting tax compliance behavior of self-employed taxpayers in West Malaysia.

5.3 Tax Compliance Costs (H3)

The findings of this study shows consistency to the null hypothesis (t= 0.163, p>0.05). Since p-value is greater than alpha 0.05, null hypothesis is failed to be rejected and implies that tax compliance costs have no significant relationship to tax compliance behavior. The positive B defined that tax compliance costs may lead to an increase in non-compliance level (compliance behavior). The findings is in agreement with the findings of Sapiei, Kasipillai and Eze (2014) as these researchers discovered that tax compliance costs such as internal costs, external costs and incidental costs has insignificant relationship with compliance decisions of corporate taxpayers. This is further supported by Pope and Abdul Jabbar (2008) whose findings manifest that tax compliance costs in term of financially, psychologically and time are insignificantly related to tax compliance behavior. However, research of Muoki Nzioki and Rawlings Peter (2014) found disagreement with the result of the findings of this research. In the research paper done by them, they concluded that tax compliance cost is significantly, negatively related to tax compliance behavior. As conclusion of this research, tax compliance costs may not be a factor in impacting tax compliance behavior of self-employed taxpayers in West Malaysia.

6. Conclusion

The current study has successfully answered the research objectives and research questions. The result from generated from SPSS is adequately applied to prove and support the hypothesis testing. From the result of regression analysis, deterrence tax measures show a significant result. Meanwhile, the results for tax compliance costs and tax knowledge are insignificant. The limitations of the study for has discussed in this chapter as well. The recommendations for addressing the limitations are also discussed in this chapter for a better future studies that may conducted by other researchers. Since deterrence tax measure does a significant matter to taxpayers, a compliance strategy may be developed based on prevention concept, instead of cure. The findings also indicated that taxpayer’s positive attitude to deterrence may improve their compliance behavior by having disagreement on the behavior of “under-reporting taxable income and over-claiming business expenses to reduce chargeable income”.
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