DETERMINANTS OF TAX NON-COMPLIANCE IN MALAYSIA

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DECLARATION

I hereby declare that:

(1) This GBMZ2016 Research Project is the end result of my own work and that due acknowledgement has been given in the references to all sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) The word count of this research report is 21,707.

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ABSTRACT

This paper is aimed to find out the factors that may influence taxpayers in Malaysia on their tax non-compliance decision. There are ten determinants included in this paper to be researched upon, and are categorised into non-economic factors and economic factors. The determinants under non-economic factors included gender, age, marital status, education level, public governance quality, tax education and tax morale; meanwhile, economic factors included personal annual income of respondents, tax rate and expected future tax costs. Non-probability sampling procedure is used in this research based on the availability of respondents, and purposive sampling procedure is engaged since this paper is studying only on the determinants of tax non-compliance among taxpayers in Malaysia. T-test, ANOVA and Pearson's correlation analysis are being employed in testing the differences and relationships among the independent variables and dependent variable. The results showed that there is no difference in gender towards the level of tax non-compliance, but there are differences between age group, marital statuses, education level and income levels towards the level of tax non-compliance. Tax rate and tax education have significant positive relationship with level of tax non-compliance among taxpayers in Malaysia; whilst, tax morale, public governance quality and future tax costs affect tax non-compliance negatively but the results are insignificant. Overall, the findings in this paper are supported by other studies in literatures.

CHAPTER 1

INTRODUCTION

1.0 Chapter Overview

This chapter provides an overview of this research project. Background of the study, problem statement, research objectives and questions, justification of the research, scope of the study and organization of the study will be covered in this chapter.

1.1 Background of the Research

Tax non-compliance, has always been a problem to tax administrative system in any countries, either in developed countries, or in emerging countries. The problem of tax non-compliance is as old as the institution of tax system (Wentworth & Rickel, 1985). Tax non-compliance can be differentiated into unintentionally and intentionally (Alabede, Ariffin, & Idris, 2011). Tax evasion is categorized as the most frequent and extreme form of tax non-compliance. It is important for taxpayers to comply with tax laws. This is because income tax payment received from taxpayers is one of the incomes to increase the government revenue. With these tax collections, government may upgrade and

construct public goods and services such as national defence, infrastructures like roads and educations, and also to meet any societal objectives and public welfares.

There are extensive studies for the tax compliance as well as the tax non-compliance since few decades, which tried to identify the factors or determinants of tax non-compliance and attempted to provide the possible solutions to combat the problem. However, the problem still remains unsolved.

Slemrod (2007) mentioned that, to determine the extent of tax non-compliance is not straightforward, as respondents might not answering the survey questions about tax non-compliance honestly due to tax non-compliance is both personally sensitive and potentially incriminating. Addition to this, Allingham and Sandmo (1972), the pioneer researchers in literatures of income tax evasion (non-compliance), described tax non-compliance takes in many forms, and one can almost not able to provide a completely general analysis of all these.

Nevertheless, researchers in the area of tax non-compliance and income tax evasion have been trying hard to explain the factors affecting the behavioural intention in tax non-compliance. It is quite surprising where, Young (1994), stated that The Inland Revenue Services (IRS) of USA listed that there are 64 factors which are related with tax non-compliance by individual taxpayers or corporate companies. Some of the factors included, demographic factors, economics factors, behavioural factors, and so on which will be discussed in detail in next chapter.

1.2 Brief History of Malaysian Tax System

The tax system in this country was first introduced as early as before Year 1910, by early Malay rulers (Kasipillai & Shanmugam, 1997, p. 1). It was then improved and became more comprehensive as it underwent different periods of colonial.

For example, a draft bill from the Straits Settlements which consists of Singapore, Malacca and Penang Legislative Council in 1910 was initiated by imposing a tax on income. However, it was then being withdrawn due to the strong opposition from the people. Subsequently, a legislative fund was replaced the draft bill. The reason for this was mainly towards the funding of war expenditure, and was generally accepted instead of raising revenue which draft bill was. Nonetheless, this legislation was effectively opposed in 1922 as it was misused for local expenditure rather than for war purposes. The tax on income and profits which previously imposed was resurfaced in 1941. A year after, taxes was collected under the Japanese Occupation (1942-1945).

Further, after the Japanese Occupation Period, Heasman, from British was elected as a Special Income Tax Advisor to the Malayan Government, completed a more comprehensive Income Tax Ordinance 1947, effective from 1 January 1948. Later, replaced by Income Tax Act 1967 (ITA) with effect from 1 January 1968, after the formation of Malaysia in 1963.

From 1947 to 2000, the Malaysian Tax System had adopted the Official Assessment System (OAS) whereby the taxpayers were assessed by the IRBM based on the submission of relevant supporting documents and the amount of tax payable was computed by IRBM. However, the Malaysian Tax System had started implemented Self-Assessment System (SAS) to the corporations in 2001, and had extended later to individual taxpayers, such as sole proprietors, partnerships, cooperatives and salaried workers in 2004. Under SAS, taxpayers are obliged to carry out the whole process of tax computation inclusive the documentation of relevant supporting, and define the tax liability by themselves, rather than previously done by IRBM officers. Therefore, in the current tax regime, SAS, the tax compliance became very important as the taxpayers are accountable to manage their tax affairs.

1.3 Problem Statement

There is a famous quote from Benjamin Franklin, where it sounds like this, "There are only two things certain in life, death and taxes". Extension from this saying, it means that, as a human being, as if it is a must to pay taxes. However, a briefing paper on the cost of tax evasion worldwide, Murphy (2011), showed that the total size of shadow economy on total GDP, by region, South America (36.8%) is placed at the top of the list, followed by Africa (34.8%), Europe (20.5%), Asia (17.7%), Oceania (14.1%) and lastly North America (10.8%). Apparently, USA has the highest loss resulting from tax evasion compared to any other countries in the world.

Zooming insight, from the total of 145 countries taken into examination in this survey, the top three of the world ranking, in terms of the tax lost as a result of shadow economy (size of shadow economy/GDP X average tax rate in %), United States ranked the top carries USD337, 349 million, Brazil (USD280, 111 million) placed second in the world and thirdly is Italy (USD238, 723 million). In Asia region, 40 countries out of 45 were examined in this survey. Japan ranked 7^{th} in the world, but first in Asia region for the total tax lost as a result of shadow economy, with USD171, 147 million. China ranked 8^{th} in the world, yet 2^{nd} in Asia region, with USD134, 385 million. Whilst, Malaysia ranked 44^{th} in the world, 11^{th} in Asia region. It is quite surprising that some developing countries in Asia region, like Saudi Arabia, Vietnam, Bangladesh, Cambodia and Laos ranked even lower than Malaysia. The top 20 ranking of countries in Asia region to the total tax lost result of shadow economy are listed in Appendix B.

To sum up the findings in the report, tax non-compliance or shadow economy causing losses more than millions of dollar to any countries in the world. Tax non-compliance is always a problem and is categorized as a white-collar crime worldwide, including in Malaysia. This research area is being a quite interesting topic for many researchers and scholars since 1972, after the publication of the article, namely, "Income tax evasion: A theoretical analysis" by Allingham and

Sandmo, discussing about the formal economy theory of tax non-compliance (Sandmo, 2005).

In year of assessment (YA) 2001, the tax system in Malaysia has implemented the Self-Assessment System (SAS) for companies and YA 2004 for other taxpayers like individual taxpayers, clubs, and trade associations. However, according to Hai and See (2011), the problem of tax non-compliance has become even more serious after the implementation of SAS. Therefore, under this new system, SAS, it is extremely dependent on the honesty of taxpayers to comply with tax laws while declaring their actual income and claiming their actual expenses in calculating their tax liabilities.

Tax audit is the common method used by tax authorities to detect tax evasion or tax non-compliance. There are various types of tax audits methods available and used by The Inland Revenue Board Malaysia (IRBM). One of the methods is through tax field audit which is carried out at taxpayer's business premises to check and ensure that their recordings and reporting of income and expenses are adopting the correct tax and accounting treatments. A penalty will be imposed for incorrect tax return with discrepancy in tax liability between 15% to 60% under Section 113 (2) of the Income Tax Act, 1967 (Choong & Lai, 2008).

The statistic on tax audits carried out in Malaysia by IRBM from 2007 to 2010 is shown in Table 1.

Table 1: Tax Audits Finalized from 2007 to 2010

Year	2010		2009		2008		2007	
	No. of case Finalized	Taxes & Penalties (RM 'million)	No. of case Finalized	Taxes & Penalties (RM 'million)	No. of case Finalized	Taxes & Penalties (RM 'million)	No. of case Finalized	Taxes & Penalties (RM 'million)
Company	78,220	1,013.63	68,456	529.67	27,843	185.99	11,848	538.20
Non-Company	1,654,038	1,856.99	1,331,204	2,525.28	1,025,096	1,511.17	267,327	872.37
Total	1,732,258	2,870.62	1,399,660	3,054.95	1,052,939	1,697.16	279,175	1,410.57

Note: Adopted from various Annual Report of The Inland Revenue Board Malaysia

Table 1 shows the number of audited cases finalized and the additional taxes and penalties derived from tax audits for 4 years respectively. From Table 1, it can be observed that the number of audited cases finalized for non-company is very much greater compared to the number of audited cases finalized for company, and the additional taxes and penalties collected from non-company also greater than additional collections from companies. Therefore, in this study, tax non-compliance behaviour among non-company or individual taxpayers will be researched upon, in order to understand and comprehend the perception of individual taxpayers towards Malaysian tax system, so that, the necessary actions can be taken to overcome the problem of tax non-compliance.

Chart 1 and Chart 2 below clearly describe the trend of tax audits finalized for non-company and company respectively.

Chart1: The number of audited cases finalized and the additional taxes or penalties for company from 2007 to 2010

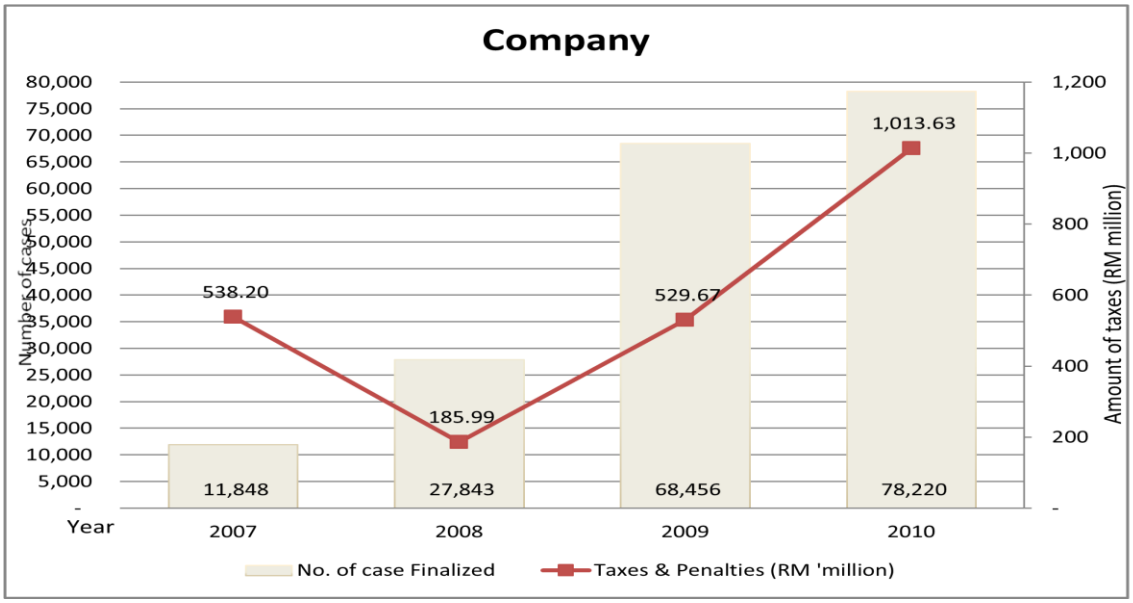
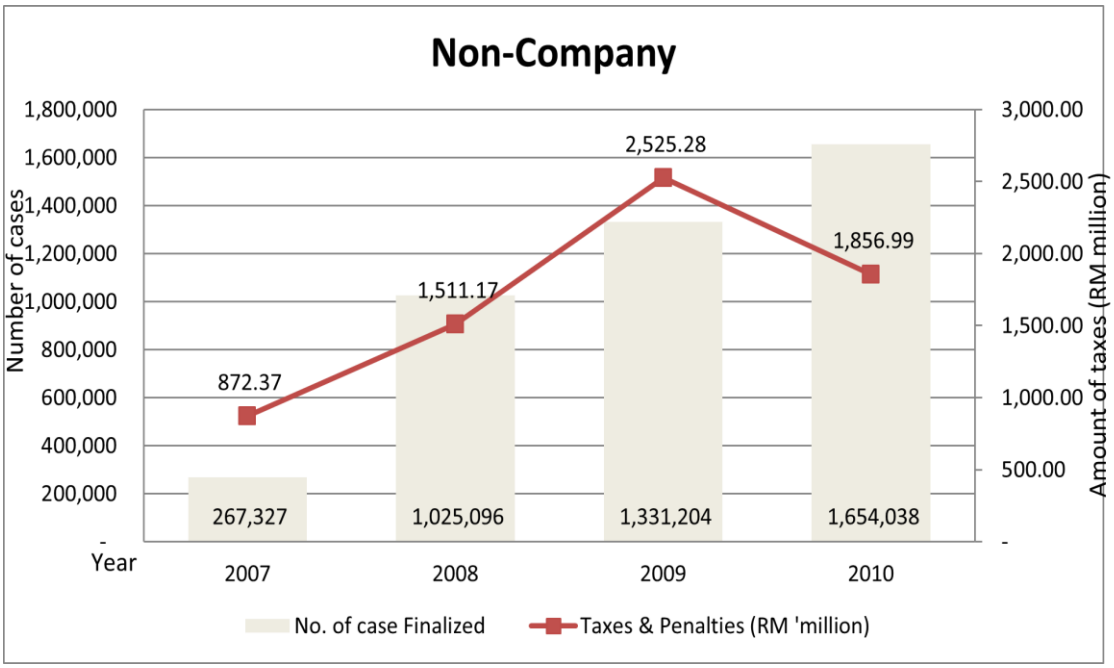


Chart 2: The number of audited cases finalized and the additional taxes or penalties for non-company from 2007 to 2010



1.4 Research Objectives

The main objective of the study is to identify the factors affecting taxpayers towards tax non-compliance in Malaysia. Since tax non-compliance may be affected by various factors, this study, however, only attempts to establish the extent to which some of the variables may affect tax non-compliance, like, the influence of future tax cost, tax rate, public governance quality, tax education / tax knowledge, tax morale, and also investigate whether to what extent is the demographic variables affect Malaysian taxpayers' perception towards tax non-compliance, which includes gender, age, marital status, education level and income level.

Besides, the present study also aimed to find out the possible ways in combating tax non-compliance among Malaysian individual taxpayers.

1.5 Research Questions

This study is intended to answer the following research questions:

1. Will tax rate, tax morale and tax education affect taxpayers on their decision of tax non-compliance?
2. Does future tax cost which might be penalized if being detected will affect taxpayers on their tax non-compliance?
3. Is public governance quality playing a role in tax non-compliance?
4. Does the background of taxpayers affect their decision of tax non-compliance?

1.6 Justification of the Research

There are many literatures have discussed about the determinants that affecting tax non-compliance in many countries, no exception for Malaysia. However, this study is to examine and give additional empirical results proven to literatures.

1.7 Scope of the Study

This study is narrowed down to examine Malaysian taxpayers' perception towards tax non-compliance behaviour. Salaried working adults, either from public or from private sector, and, sole proprietor owned businessman or so-called self-employed, are the target respondents in this study. These taxpayers are those who receive form BE (employment) and B (self-employed) in submitting their tax returns. The intention of this study is to test to what extent will the future tax cost, tax rate, public governance quality, tax education / tax knowledge, tax morale influence the perception of taxpayers towards tax non-compliance behaviour, and accompanied with the demographic determinants includes gender, age, marital status, education level and income level. The last paragraph in this chapter is the organization of the study.

1.8 Organization of the Study

Chapter 1 – Introduction: This chapter will discuss the research topic. A brief discussion of the research background, study problem, research objective and significance of the study is covered.

Chapter 2 – Literature Review: This chapter will review various theoretical and empirical studies on the research topic. Then the conceptual framework is formed.

Chapter 3 – Methodology: This chapter will describe the research method and adopt the methodology used by previous researchers.

Chapter 4 – Research Findings: This chapter will analyse and discuss the results and findings based on questionnaire distributed and answered by the respondents. Hence, review on the hypotheses will be done.

Chapter 5 – Conclusions and Recommendations: This chapter will conclude all the findings in the study. Finally, some recommendations to IRBM and taxpayers will be included in this section as well.

CHAPTER 2

LITERATURE REVIEW

2.0 Chapter Overview

In this chapter, it will cover literature on tax non-compliance, the impact of demographic factors on tax non-compliance, influence of some economic factors (like tax rate, income level and expected future tax cost) and non-economic factors (like public governance quality, tax education and tax morale) towards tax non-compliance. The discussion on literature will then drive to a development of a related theoretical framework and hypothesis.

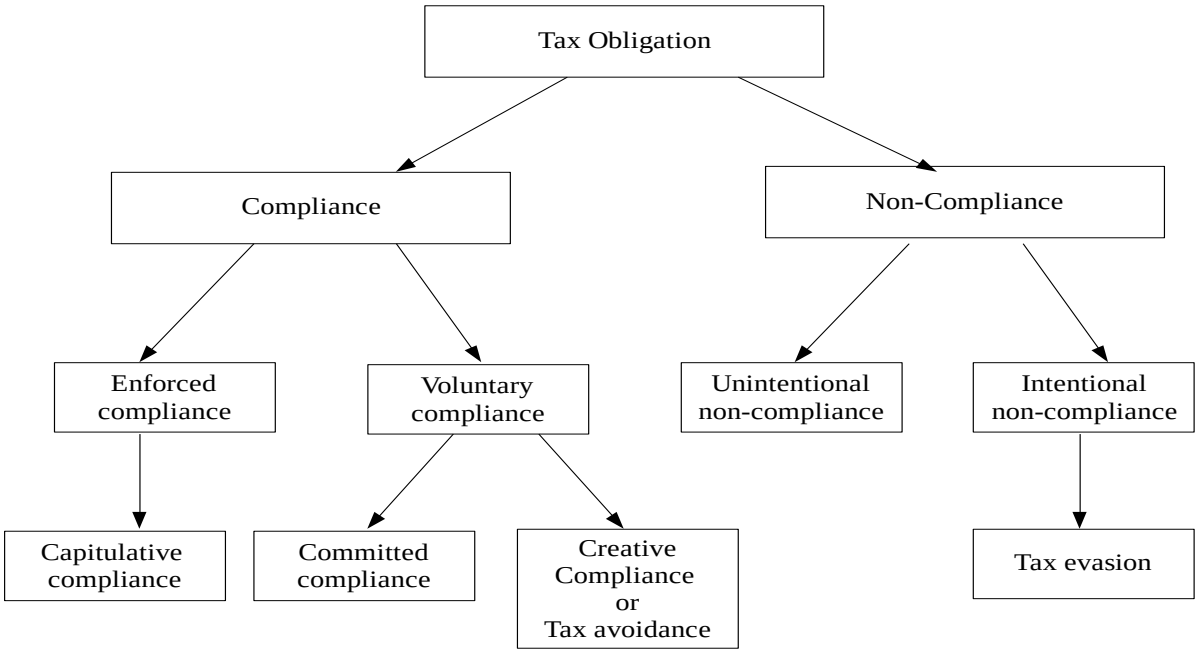
2.1 Branches of Tax Compliance

Figure 1 illustrated the branches of tax compliance as well as tax non-compliance. The above branches of tax compliance is an extension from McBarnett's model (as cited in Alabede et al., 2011) which had identified capitulative compliance, committed compliance and creative compliance as another three more subdivision of tax compliance. Capitulative compliance occurs when taxpayers unwillingly fulfil their obligation, but they still fulfil; inversely, committed compliance refers to a situation where taxpayers voluntarily pay taxes without complains or public coercion; creative compliance, on the other hand, describes a situation when taxpayers take an action to reduce tax liability by re-examining income and

expenses within legal context. This is also known as tax avoidance. The definition of tax avoidance and tax evasion are usually confused by taxpayers. Kay (as cited in Slemrod & Yitzhaki, 2002) differentiated tax avoidance and tax evasion by legality of their action in tax reporting, which also means that, taxpayers who involve in tax avoidance are actually understand the tax laws and strategize tax treatment wisely, so that they are not liable to tax. It is also known as tax planning. However, tax evasion is an action taken by taxpayers that they underpay or escape from tax by either misinterpreting the laws, underreporting income or overstated expenses illegally and intentionally. For example, produce a false invoices or expenses bills to reduce the chargeable income.

Whether taxpayer is intentionally or unintentionally does not comply with tax laws is considered as tax non-compliance (James & Alley, as cited in Alabede et al., 2011). Alabede et al. (2011) described that ignorance, omission or misinterpretation while employing tax rules & regulations are those circumstances where taxpayer normally unintentionally not complying with tax laws. Whilst, purposely understating income and overstating expenses, failing to submit tax return and make tax liability payment before due date, are defined as intentionally tax non-compliance. Based on Figure 1, tax evasion is categorized as tax non-compliance. Regardless of whether taxpayers neither intentional nor unintentional of tax non-compliance, both will be included in present study.

Figure 1: Branches of tax compliance



Note: Adapted from Alabede et al. (2011).Determinants of tax compliance behaviour: A proposed model for Nigeria. *International Research Journal of Finance and Economics*, *78*.

2.2 Types of Taxes

Generally, there are two categories of taxes imposed by government, namely direct taxes and indirect taxes. In Malaysia, direct taxation is under ministration by Direct General of Inland Revenue whilst indirect taxation is a responsibility of Direct General of the Royal Customs and Excise Department. The direct taxes in Malaysian Government context refers to the taxes which derived from personal incomes or corporate incomes; stamp duty; real property gains tax; and petroleum income tax. Meanwhile, the indirect taxes comprises the incomes from custom duties (like export duty and import duty); excise duty; sales tax; and service tax and other taxes.

In 1970s, about 50% of total revenue of Federal Government was contributed by indirect tax, whereas the direct tax was just about 27%. However, the contribution was likely to get converse trend year after year. The contribution from indirect tax reduced to about 19%, whereas direct tax increased to about 50% in 2010. Table 2 below clearly listed the total revenue of Federal Government from 2006-2010.

Table 2: Total Revenue of Federal Government from 2006-2010.

Year	Direct Tax		Indirect tax		Non Tax Revenue		Total Revenue
	(RMbil)	%	(RMbil)	%	(RMbil)	%	(RMbil)
2006	61.6	49.9	25.1	20.3	36.8	29.8	123.5
2007	69.4	49.6	25.8	18.4	44.7	32.0	139.9
2008	82.1	51.4	30.8	19.3	46.7	29.3	159.6
2009	78.4	49.4	28.1	17.7	52.1	32.8	158.6
2010	79.0	49.5	30.5	19.1	50.2	31.4	159.7

Note: Adapted from various Annual Report of The Inland Revenue Board Malaysia

2.3 Types of Income on which Tax Non-compliant

In common, the types of income that most taxpayers would likely to tax non-compliant are classified into two types, which are the income derived from the legal activities and the income obtained from the illegal activities. The typical examples of the types of income on which tax is not compliant are:

1. The income derived from self-employment, such as the income from professions, proceeds from retail trading (trades in stocks or commodities), returns from illegal money lending and so on.

2. The second income or so-called part-time jobs where the taxpayers are employed. These incomes are normally being escaped from the tax net, due to its traceability and the amount of money is usually small which causes the authorities might ignore the occurrence.

3. The income from illegal activities, for instance, smuggling; drug trafficking; income from illegal gambling; income generated from the discounts received and rebates on contracts and other financial malpractices. The examples for financial malpractices like false statements or failure to comply with legal obligations on securities and financial

performance, wrongdoing or negligence in commercial lending for business and real estate financing, impropriety or intentional errors in accounting reporting, and so on.

2.4 Classes and Forms of Tax Non-compliance

Taxpayers, which intent to violet tax laws, may commit tax non-compliance in various ways. Kasipillai and Shanmugan (1997, p. 54) categorized tax non-compliance into three different classes, namely crude form, manipulation of accounts and adulterated type of tax non-compliance.

1. Crude form

   The common wrongdoing is by filing fraudulent tax returns. The examples are, underreporting their actual income or overstating their actual legal deductions for individual taxpayers; whereas, corporations may understate their sales; claiming expenses which do not exist; failing to pay the assessed taxes; or totally failing to file tax returns.

2. Manipulation of accounts

   Another alternative way of tax non-compliance maybe channel from the alteration of purchases or make false purchases. For multinational corporations, especially, transfer pricing is considered as one of the most common way to manipulate the profit between parent company and sister subsidiaries. It involves charging of interest, royalties or patent fees, and management fees. Besides, in order to obtain a desired gross profit, businesses normally may re-evaluate the worth of stock, since stock is one of the components to compute the cost of sales, and eventually determine the value of gross profit. This is because, if the remaining stock at the end of an accounting period (closing stock) is high or increased, the gross profit will increase as well and vice versa.

3. Adulterated type

   Using dummy companies to increase the expenses with the purpose to decrease the profit and ultimately reduce the tax chargeable. Hiding money in accounts outside the country may also an option to evade tax.

2.5 Major Determinants of Tax Non-compliance

In this study, ten factors that affecting tax non-compliance are examined and are divided into two categories, namely economic factors and non-economic factors. Economic factors are those variables that intrinsically found in affecting one's value, such as tax rate, income level and expectation on future tax cost that will be penalized if the non-compliant is discovered.

The level of public governance quality and tax morale of taxpayers, are those behavioural influences that fall under category of non-economic factors. Tax education may also need to be taken into the consideration as one of the non-economic factors in perpetrating tax non-compliance.

Besides, non-economic factors pertain to demographic factors, such as gender, age, marital status and education level which relate to individual characteristic also attribute to chances in evading tax.

Richardson (2006) investigated 45 countries over tax non-compliance issues, found the factors that have strongest impact towards tax non-compliance behaviour are categorized as non-economic determinants. Thus, in this report, non-economic factors are being more emphasized than the economic factors.

These variables are discussed in detail in the following section.

2.5.1 Non-economic Factors

2.5.1.1 Gender

Numerous studies had included gender as one of the independent variables into the tax non-compliance or tax evasion research field. Ross and McGee (2011) studied more than 20 demographic variables of Malaysians towards tax evasion (non-compliance), found that, women in Malaysia were more opposed to tax non-compliance than men. However, the result was tested at the five percent level and finalized that the difference was not significant (p=0.1174).

A study conducted by Gërxhani (2007), which delved into the gender differences towards tax evasion in Tirana, Albania. The study explained the differences in tax behaviours between men and women under the application of new institutional theory, which determined institutions as the imperative framework by focusing on the social and legal norms. In other words, it means that, the researcher tried to explain differences in tax behaviours between men and women through the activities which embedded within the framework of human interaction. The reason for this is to optimize the decision making by individuals. Two forms of institutions are incorporated into this framework, namely formal and informal institutions. Formal involves rules and regulations, while informal refers to social norms. The study revealed that almost 27 percent higher possibility that men would evade tax than women in terms of personal income, small-business income and extended to social security and health insurance which was distinctively shown. Yet, the analysis concluded that the gender differences towards tax non-compliance cannot be fully illustrated by the new institutional theory, due to the country's concentration of labour market, where mostly women work in government sector while most men work in private or own business.

In addition, Kaplan, Pany, Samuels and Zhang (2009) concluded in their findings that females has higher intention than males in terms of fraudulent reporting, which may lead to more opposed to fraudulent, like tax non-compliance. Hai and See (2011) confirmed that gender has a positive influence on non-compliance behaviour of sole-proprietors in Batu Pahat District.

Kasipillai and Jabbar (2006) who also investigated gender differences towards tax compliance in Malaysian context, however, claimed that there are equal or similar aversion towards tax non-compliance between men and women, where gender does have a direct influence to compliance attitude but not the compliance behaviour, the reason founded to this is due to their perception towards the Malaysian tax system. The result was similar with the outcome of survey conducted by Jackson and Milliron (as cited in Kasipillai & Jabbar, 2006), which found a mixed result on gender differences towards tax compliance.

Some studies provided significant statistical evidence that women are more opposed to evade tax than men do (Mason & Calvin, 1978; Spicer & Becker, 1980; Boyd, (as cited in Ross & McGee, 2011); Akaah, 1989; Harris, 1990; Young, 1994; Wenzel, 2002; Hassldine & Hite, 2003). Some empirical studies have found that men are more ethical than women (Friedland, Maital & Rutenberg, 1978; Weeks et. al., (as cited in Ross & McGee, 2011); Kirchler & Maciejousky, 2001). Yet, other researches have concluded that there is no statistical different between men and women, where people are equally averse to tax non-compliance (Kasipillai & Jabbar, 2006; Roshidi, Mustafa & Asri, 2007). This shows that there is no absolute finding towards this variable. Nevertheless, most of the research evidences have found that males evade more than females, which includes, Baldry (as cited in Slemrod, 2007) and, Dubin, Graetz and Wilde (as cited in Obid, 2004).

2.5.1.2 Age

Most of the researches have concluded that older taxpayers are more opposed to tax non-compliance than younger taxpayers (Clotfelter (as cited in Bosco &

Mittone, 1997); Mason & Calvin, 1978; Serwinek, 1992; Wenzel, 2002). This may due to older taxpayers may be wealthier than younger taxpayers who are still struggling in accumulating their assets and strategizing to evade tax by underreporting income or overstating deduction. Besides, Wenzel (2002) explained that older taxpayers may be more familiar to the tax system by utilizing their tax deduction and can plan their taxation wisely contrary to younger taxpayers. However, Browning and Zabriskie (as cited in Ross & McGee, 2011) stated that younger people are more ethical. Whilst, Akaah (as cited in Ross & McGee, 2011) said that age is not a factor in affecting tax non-compliance.

Hai and See (2011) tested that age variable has a positive influence on non-compliance behaviour. However, the study did not mention which group of age is more tax non-compliant. Vogel (1974), Spicer and Lundstedt (as cited in Obid, 2004), Friedland, et al. (1978) and, Slemrod and Sorum (1984) confirmed that age has a positive effect on compliance level. Yet there are also some studies revealed a negative relation between age and non-compliance (Mason & Calvin, 1978; Witte & Woodbury (as cited in Ritsema, Thomas, & Ferrier, 2003); Feinstein, 1991).

Ross and McGee (2011) which conducted a demographic study of Malaysians, presented that the result was not straightforward, the ANOVA and t-test failed to provide any significant different. It shows that age is not a determination in Malaysia.

In relation to the mixed results, four possible explanations were proposed by Richardson and Sawyer (as cited in Richardson, 2006). First, not all taxpayers are influenced by age in their behavioural decision. Second, researchers may define taxpayers' non-compliance differently. Third, the impact of age on tax non-compliance is attenuated when age is tested with other variables, and finally, the interaction of age with other variables is agitated.

2.5.1.3 Marital Status

According to Andreoni, Erard and Feinstein (1998, p. 821-822), married taxpayers have a significant level of non-compliance than singles (as cited in Slemrod, 2007). Friedland et. al. (1978), Clotfelter (as cited in Bosco & Mittone, 1997), Crane and Nourzad (1990) also agreed that married couples have more tendency to evade and ignore tax than single persons. Ross and McGee (2011), who surveyed on Malaysians' tax compliance, supported that married group are least opposed to tax non-compliance. One of the reasons may because of married taxpayers have more commitments over the family compared to single taxpayers, therefore, with the limited source of income, they opt to evade tax in order to maximize their useable income. However, there are still few studies indicated that single taxpayers evade more than married taxpayers (Clotfelter, (as cited in Bosco & Mittone, 1997); Young, 1994).

2.5.1.4 Education Level

Researchers always include education level in their studies as a control variable (Radtke, 2005). In general, the higher the education level ones possesses, the higher the respect ones would pay to the laws and more opposed to tax non-compliance, and vice versa (Ross & McGee, 2011). However, it is contradicted with the result found by Stulhofer (as cited in Gërxhani, 2007), that tax non-compliance increases with education level.

Witte and Woodbury (as cited in Ritsema, et al., 2003) and Obid (1994), found a positive relationship between education level and non-compliance, whereas, a negative relation has been found by Dubin and Wilde (1988). Ritsema et al. (2003) supported that education is negatively related to tax non-compliance. Ross and McGee (2011) found no evidence to prove that education level affect tax compliance level, as none of the t-test showed significant different.

Education may influence an individual in his / her decision making towards tax non-compliance. This is because, people can comprehend tax laws better with certain education level, hence, become more compliant as they realize their obligations and duties towards the government and even towards the country. Ross and McGee (2011) mentioned that more complexity in tax non-compliance it would be, if one possesses a higher education level. With more understanding of tax system, may misuse the knowledge to find ways searching for weaknesses and loopholes in the tax system and try to evade tax.

2.5.1.5 Public Governance Quality

Public governance quality was seldom taken into consideration by researchers since it always a sensitive element to be mentioned. However, researches started to examine its impacts towards tax non-compliance in the recent decades.

Voluntary tax compliance is one of the means that citizens show their supports to government (Alabede et al., 2011). If citizens perceived their government and tax system is fair, more confident and trust they would have towards the government. Arrington and Reckers (as cited in Ho, Loo & Lim, 2006), Bosco and Mittone (1997), Kirchgassner (2010), and, Ross and McGee (2011) noted that taxpayers who perceived fairness of the tax system, are more likely to averse to tax non-compliance. Besides, Cummings, Martinez-Vazquez, McKee, and Torgler (2006) added also, if the government is transparent and perceived as fair, compliance level is likely to be increased. Therefore, anything happened in government does matter to taxpayers, either positively or negatively.

As discussed in the previous chapter, government's funding mostly finances from tax payment collected from citizens, and the tax collection is important, as government can utilize the funds to provide public infrastructures, public administrations and other public services. In this case, it seems that citizens are holding the power over the sustainability of the ruling party.

The public governance quality does matter in influencing tax compliance, and this is supported by Kim, Kim, Her, and Kim (2006), who delved into the study of relation between politics and non-compliance, found an empirical evidence which proved that political intention does affect tax non-compliance. This is because, in most countries, the selection of the head of tax administration is appointed by the key politicians in power. Kim et al. (2006) pointed out that this situation enables politicians in ruling party indirectly affect the behaviour of tax administration by enforcing tax authority to conduct tax auditing in accordance with their own interests, which in fact, direct influential is not allowed.

Tanzi and Davoodi (as cited in Ahangar, Bandpey & Rokny, 2011) claimed that "in economic, where there is a great extent of corruption, this is related to a high level of tax non-compliance". It was then supported by Fjeldstad (as cited in Bărbuţă-Mişu, 2011) that the willingness of tax compliance is led by the trust in political leadership and a favourable government administration. Kirchgassner (2010) seconded this opinion too, commented that the voluntary compliance from taxpayers is not solely rely on the equitability of the tax system but most importantly is the trust in the government.

Corruptions, in any forms, may lead to a questionable situation where, to what extend is the equitability and fairness the government will be, in implementing the fiscal policies and tax laws (Virmani, (as cited in Obid, 2004). During the period of 1973 – 1994, US government recorded an increase in unreported income was related to the distrust in government (Feige, (as cited in Ahangar et al, 2011). Hammer et al. (2009, p. 238) concluded that "it is important for politicians to be perceived as trustworthy in order to able to collect taxes" (as cited in Kirchgassner, 2010).

Levi (as cited in Alabede et al, 2011) used a term – vertical contract or refers as quid pro quo of taxation, to describe the influences in compliance behaviour. Taxpayers believed that paying taxes is similar as an exchange contract with government, where expected taxes was paid in return with the public goods and services that benefits themselves. Therefore, if government does not or fails to

deliver as their expectation, taxpayers can be convinced and engage in non-compliance is being justified. When government's rectitude is lower, there will be a throng of taxpayers rationalized their non-compliance (Torgler, 2003). In good governance, it normally entails with a quality public goods (Akpo, as cited in Alabede et al, 2011).

How and what government spend on also will be taken into consideration in tax compliance (Ho et al., 2006; Kirchgassner, 2010). Misappropriation of taxpayers' money and futilely wasted projects will frustrate taxpayers, which will encourage taxpayers perceived that government did not act in their interest, subsequently causes taxpayers reluctant to pay tax.

Kirchgassner (2010) mentioned that citizens exhibited to be more tax compliance if they can participate in fiscal decision more. Kirchgassner also portrayed that in order to enable citizens to trust more in their politicians of ruling party, the more decentralized the fiscal decision shall be.

Most of researchers concluded perceived inequity in governance is positively correlated to non-compliance (Keenan & Dean, (as cited in Ho et al, 2006); Bosco & Mittone, 1997; Torgler, 2003; Obid, 2004; Ho et al., 2006; Kirchgassner, 2010; Ahangar et al., 2011; Ross & McGee, 2011; Alabede et al., 2011)

2.5.1.6 Tax Education

Education level may not necessarily coincide with tax education and this is the reason that in this report, education level of taxpayers and tax education are tested separately as two independent variables.

Laws are normally difficult to understand due to some jargons and terminologies, same goes to taxation (McCaffery & Barron, as cited in Bărbuţă-Mişu, 2011), which resulted taxpayers tend to misinterpretation or misunderstanding in tax laws and policies if there is lack of profound tax knowledge. Corchón (1992)

commented that the occurrence of tax non-compliance is rather due to inaccurate of information than the deficiency of information.

Obid (2004) pronounced that with a little tax knowledge, tax compliance behaviour of taxpayers is positively correlated with tax non-compliance. Conversely, if taxpayers possess in-depth tax knowledge, they are more likely to engage in tax avoidance rather than tax non-compliance (Krichler et al., as cited in Obid, 2004). Besides, with adequate tax knowledge, taxpayers are able to understand the tax system and tax policies more comprehensively (Kasipillai, as cited in Roshidi, et al, 2007). Local tax authority, namely Inland Revenue Board Malaysia (IRBM), always has conducted tax education programs to enable public understand SAS and thus increase their awareness in fulfilling their duty as taxpayers (Kasipillai & Mustafa, 2000).

Roshidi et al. (2007) tested and found that tax knowledge influences tax compliance significantly and positively, the result is similar as found by Fallan (1999), Kasipillai (as cited in Obid, 2004), and also Singh and Renuka (as cited in Obid, 2004). Contrary, Lin and Carrol (as cited in Roshidi et al., 2007) against that tax knowledge influences compliance behaviour.

2.5.1.7 Tax Morale

Prevalently, tax morale and tax compliance sometimes was misinterpreted as coequal, in fact, tax morale is an attitude whilst tax compliance is an action (Kirchgassner, 2010). According to Cummings et al. (2006), tax morale is considered as an "intrinsic motivation to pay tax" by taxpayers, where they believed that is their obligations to pay taxes and as a repayment to the community. Tax morale is considered as an important element in affecting tax compliance behaviour. This is because, Alm and Torgler (2006) found out that over the various factors influencing tax non-compliance, tax morale has occupied more than 20% of the total portion that can explain the tax non-compliance behaviour. Thus, ceteris paribus, if tax morale is high, the tax non-compliance is expected to

be low (Kirchgassner, 2010; Ahangar et al., 2011). Unfortunately, the relationship between both is not straightforward and one dimensional (Henderson & Kaplan, 2005), which means, tax non-compliance is not only affected by one reason at a time, but many other factors at a same time, therefore, a high tax morale does not certainly come with low tax non-compliance, which this also apply to other variables in affecting tax non-compliance.

There are two approaches stated by Bosco and Mittone (1997) in defining the concept of tax morale. First, the 'Kantian' morality approach, as a starting point in perceiving fairness of the tax regime, taxpayers may think of themselves first, if they perceived unfairness, or more precisely is, if they do not foresee any profits to themselves, they are most likely to engage in tax non-compliance, and rationalized this action as self-defence. Second, the altruistic approach, one may show unselfish concern for the welfare of others, in the general society. Hence, under this approach, taxpayer may evade tax if the non-compliance brings benefits to society as a whole.

Mason and Calvin (as cited in Obid, 2004), Kaplan and Reckers (1985), Ritsema et al. (2003), Frey and Torgler (as cited in Ahangar, et al., 2011) and Kirchgassner (2010) reported a positive relationship between tax morale and tax compliance level. However, Torgler (2004) revealed from a study based in Switzerland, that tax compliance behaviour is hardly affected by tax morale. Torgler, who delved into the research in tax morale, has identified that all trust variables are highly positively associates with tax morale, which includes, trust in laws, trust in public governance, satisfaction with national officers and confidence in political system, but, negatively correlated with corruption.

2.5.2 Economic Factors

2.5.2.1 Income Level

Ritsema et al. (2003) in Internal Revenue Service (IRS) research conference presented that lack of money is a strong stimulator in tax non-compliance. Ross and McGee (2011) concluded that the higher the income level, the more ones opposed to tax non-compliance. They explained this phenomenon is due to if one has higher income, ones may have more respect to authority. Conversely, if one has lower income, then would have less respect to authority and eventually less averse to tax non-compliance. Ones rationalized this action by applying ability to pay principle.

Houston and Tran (2001) indicated that higher level of tax non-compliance falls under lower income group. Lower income group underreporting income and overstating deduction with 6.9% and 9.3% respectively compared to higher income group with 3.6% and 2.2% respectively. Yet, the result was insignificant different. Similarly, Feinstein (1991) also reported no significant relationship between income and non-compliance.

Spicer and Lundstedt (as cited in Wentworth & Rickel, 1985), Clotfelter (as cited in Bosco & Mittone, 1997), Crane and Nourzad (1990), and Young (1994), found out that non-compliance to be positively related to income. However, Alm, Jackson, and McKee (1992) found a negative association between income and non-compliance. Hoffman (as cited in Gërxhani, 2007) on the other hand, commented that tax non-compliance increase with income. Witte and Woodbury (as cited in Ritsema, et al, 2003) concluded that middle-income taxpayers are the most compliant category.

2.5.2.2 Tax Rate

Researchers always consider tax rates as an important determinant in tax non-compliance issue (Crane & Nourzad, 1987). Allingham and Sandmo (1972) were the first researchers who analysed the impact of tax rates towards the tax non-compliance.

In general, tax structure is divided into two types of tax rates, namely proportional system and flat tax rate. Malaysia tax regime has applied a mixture tax rates towards different types of income and different income bands. For examples, under employment income, the individual tax resident with chargeable income less than RM100,000 is taxed progressively, whereas, for those taxable income of RM100,001 and above, will be charged at a flat rate of 26%. For the year assessment of 2013, non-resident individual is taxed at 26% flat rate regardless any amount of income derived from either employment or business, and a 10% of tax rate to be taxed to royalty income.

According to Crane and Nourzad (1987), under the proportional tax structure, it can also be distinguished into two situations, that are: 1) linear proportional tax structure, refers to a condition where only average tax rate is moving upwards together with increment in income, yet marginal tax rate remain the same; 2) nonlinear progressive tax structure, refers to a situation that both (average tax rate and marginal tax rate) increase with income. Crane and Nourzad (1987) also explained that the marginal tax rate and average tax rate are actually having a different effect on income. However, the margin of this difference will become neutral or zero with increasing income. Allingham and Sandmo (1972), who first exhibited the relationship between tax rates and tax non-compliance with the effect of risk aversion, yet treated marginal tax rate and average tax rate as same.

In most studies, the result collected by testing with a single tax rate as a factor influences towards tax non-compliance is already ambiguous, hence, it is seemed not possible and unlikely to study multiple types of tax rates at the same time. However, the impact of tax rate is clearer if adding in another variable, like

penalty rate, risk aversion, and probability of detection (Crane & Nourzad, 1987). Addition to this, Yatzhaki (as cited in Obid, 2004 and Cummings et al., 2006) illustrated that if fines are imposed on the evaded tax, tax non-compliance is most likely to decrease even the tax rate increase.

The findings derived from empirical models analysis conducted by Crane and Nourzad (1987), they claimed that the impact of marginal tax rate towards tax non-compliance would be greater if average tax rate is taken into consideration. Anyhow, most literatures studied on the impact of marginal tax rates towards tax compliance.

High tax rates leads to higher level of tax non-compliance – this is the common results found by researchers who studied on the relationship between tax rates and tax non-compliance, who includes Crane and Nourzad (1987), Obid (2004), Ho et al. (2006), Bayer (2006) and Ahangar et al. (2011). Clotflter (as cited in Bărbuţă-Mişu, 2011) agreed that marginal tax rates does influence tax non-compliance positively. However, Feinstein (1991) and Alm, Jackson and McKee (1993) argued and claimed that marginal tax rates and tax non-compliance is negatively correlated. There is also few studies show that tax rate does not influence non-compliance, like Porcano (as cited in Kirchler, Hoelzl & Wahl, 2008), Engel & Hines (as cited in Kirchgässner, 2010) commented that the relationship between tax rates and tax non-compliance is not significantly related.

Pertaining to the relationship, where high tax rate leads to higher tax non-compliance, it can be explained by researchers, that, an increase in tax rate definitely will reduce the usable income, taxpayers have to pay higher tax in relation to higher income, therefore it can be more profitable if taxpayers choose to engage in tax non-compliance activities (Obid, 2004). With the decrease in risk aversion and perceived lower probability of detection, taxpayers are likely to evade tax if they conjecture the margin between fines or penalty is lower than the benefits derived from non-compliance (Bărbuţă-Mişu, 2011). Ho et al. (2006) concluded that tax non-compliance might occur if taxpayers have to pay high taxes while perceived others might not fulfil their obligation as taxpayers.

2.5.2.3 Future Tax Costs

Any additional tax costs that is expected to be incurred in future, if one's engage in non-compliance activities, for example, fines, penalties or even imprisonment that might be charged towards evader when tax non-compliance activities are detected; and the possibility of the non-compliance is being detected by tax authority, will be included under this variable.

Hai and See (2011) mentioned that it is necessary for taxpayers knowing the consequences or future tax costs if he/she intends to engage in tax non-compliance activities. This is because, tax authority normally will conduct tax audit in order to find out those non-compliance activities and transactions. Once he/she is being audited and is being caught on non-compliance activities, the taxpayer will then be penalized. Based on Inland Revenue Board Malaysia (IRBM), the offences of wilfully and with intention to evade or assist any other person to evade tax, is falls under Section 114 (1), provision under Income Tax Act (ITA) (1967), where evader can be charged with fines of RM1 000 to RM20 000 or imprisonment or both and 300% of tax undercharged. However, these fines and penalties may differ from case to case subject to court's decision, which may interfere by other provisions and clauses in ITA 1967. In sum, decision on tax non-compliance made by taxpayers can be influenced by future tax costs (Jackson & Jones, as cited in Hai & See, 2011). This is the reason why future tax costs variable is included in this study.

Based on economic model, it is a norm that taxpayers will weigh the benefits derived from non-compliance whether are greater than the fines or punishment when being caught later, before they decided to engage in non-compliance activities (Bărbuță-Mișu, 2011), and this can be explained better when it applies to models of tax non-compliance, namely deterrence model and pure gamble model. Future tax costs, which include fines, penalties and imprisonments, are normally related to the deterrence theory in tax non-compliance. Deterrence model was first formulated by Allingham and Sandmo (1972), who modified the model of economics of crime by Becker's (as cited in Slemrod, 2007). In this model,

taxpayers have to make the decision whether to evade and how much to evade in order to maximize the expected utility, which derived from the benefits after tax and penalty. It depends also on the level of risk preference of the taxpayers. Contrary, pure gamble model neglects the considerations from various aspects and moral constraints. The taxpayer who engages in tax non-compliance under this model merely wants to evade tax, assuming *as a game against nature* (Bosco & Mittone, 1997).

Friedland, et al. (1978), Christiansen (1980), Crane and Nourzard (1990), and, Park and Hyun (as cited in Bărbuţă-Mişu, 2011), claimed that the increase in fines rate will lead to higher compliance level, than tax audit does. Nonetheless, taxpayer who unintentionally made a mistake or misinterpreted the complex and ambiguous tax laws but was charged with inappropriate or high fines would definitely subvert the perception towards fairness within tax regime (Kirchler, et al., 2008). Obid (2004) agreed that fines and tax audit do have significant impact on level of tax compliance, but will greatly undermine the taxpayers' confidence in tax system if they felt the existence of unfairness.

Corruption is one of the important elements in the existence of perceived unfairness in tax system. Under normal circumstances, the impact of fines towards level of compliance is significantly positive (Obid, 2004). However, if corruption exists, the relationship between fines and level of compliance is distracted. This is because, even with the implementation of higher fines or penalties, yet, if tax officer tends to receive bribery, then the taxpayer would be given a second chance and discharged from the wrongdoing. Eventually, this will lead to a situation where taxpayers may find ways and take risk to evade tax, if the total amount of corruption is weighted less than the fines and penalties, as if there is a reduction in the audit probability and probability of detection. Cummings, et al. (2006) described this situation as "a general loss of trust in public institutions".

Bărbuţă-Mişu (2011) found that there is no clear picture on the relationship between fines and tax compliance. Fishcher, et al. (1992) had inconsistent findings

on relationship between fines and tax compliance. Therefore, this variable is included in this study to research upon.

Tax audit is considered as one of the most useful means to deter the tax non-compliance behaviour (Bărbuţă-Mişu, 2011). Increase in audit probability and field audit (visit taxpayer's premises) by tax authority can increase the level of compliance, as this may induce the 'fear factors' towards taxpayers (Obid, 2004). However, there are pros and cons of these fear factors, which may create an up-to-date tax obligation over the system inwards taxpayers in positive way, whilst create the pressure of honesty and integrity on taxpayers negatively.

Mason and Calvin (1978) revealed that whoever perceived there is a lower chances of being caught is most likely engage in tax non-compliance activities. If there is low probability of detection, taxpayers tend to pay less tax than they supposed to pay (Kirchgassner, 2010). However, if there is an increase in probability of detection, then the amount of tax declared will be increased too (Allingham & Sandmo, 1972).

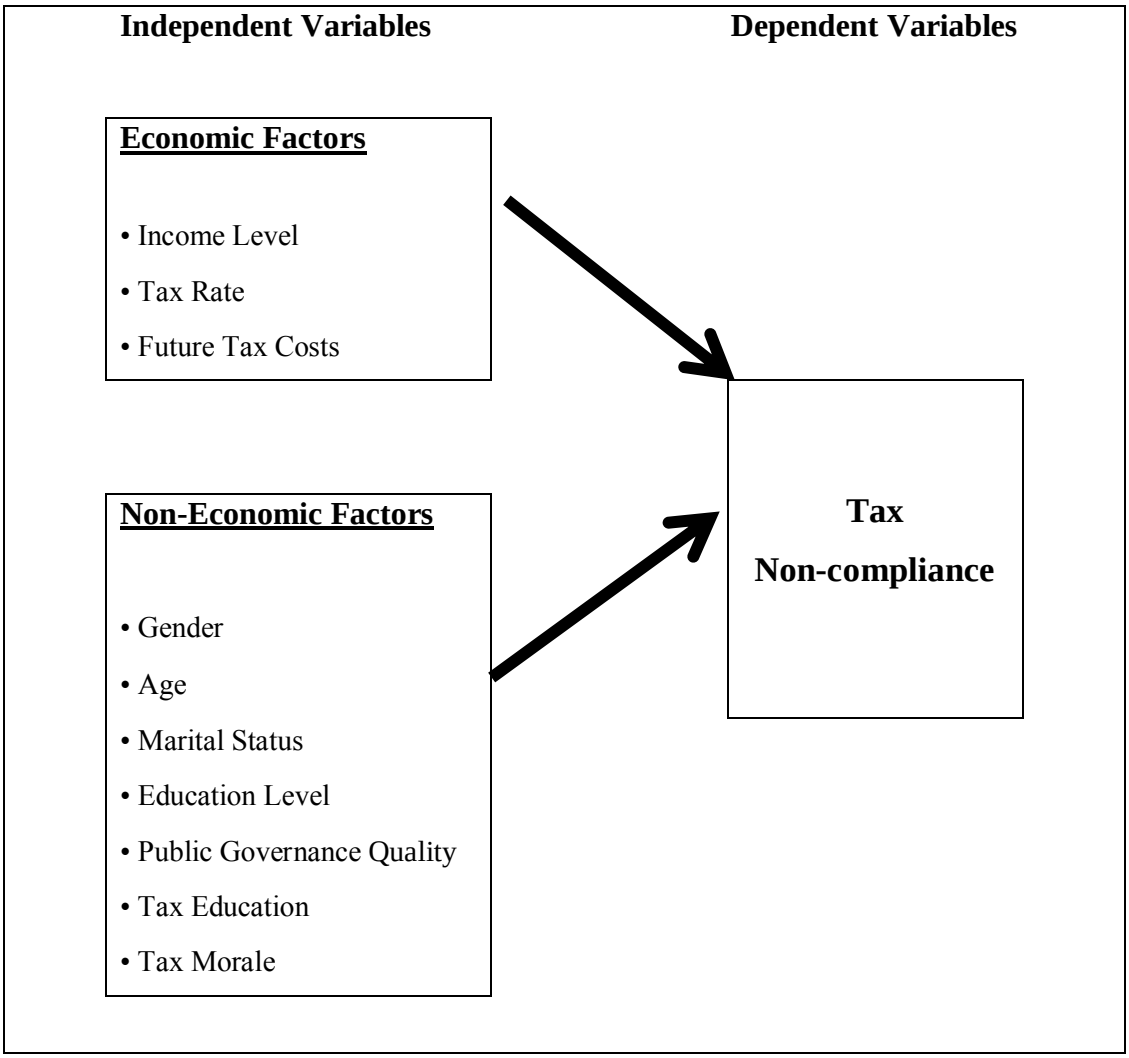
Torgler (2005) found audit have negative impact on tax non-compliance. Wittie and Woodbury (as cited in Ritsema, et al, 2003), Dubin and Wilde (1988), Crane and Nourzad (1990), Engel and Hines (as cited in Kirchgässner, 2010), Frey and Feld (as cited in Kirchgässner, 2010), found that there is a significant impact of tax audit towards tax compliance level. However, there are also studies that show weak effects or no significant impact between tax audit and compliance level, like, Hannemann and Pommerehne (as cited in Kirchgassner, 2010), Bosco and Mittone (1997), Andreoni, et al. (1998), Bărbuţă-Mişu (2011).

There are cases and experiments done by researcher which proved that after the implementation of higher fines and massive tax audit, the involvement in tax non-compliance activities is reduced drastically (Kim, et al., 2006). However, Guala and Mittone (as cited in Bărbuţă-Mişu, 2011) observed that level of tax compliance decrease dramatically after an audit. All in all, it is summed up by the study conducted by Hai and See (2011) unswervingly confirmed that future tax

cost does positively influence the taxpayers' decision making on the tax non-compliance.

2.6 Research Framework

Figure 2: Research Framework



Demographic variables (gender, age, marital status, education level and income level), tax rate, future tax costs, public governance quality, tax education and tax morale are those independent variables, whilst tax non-compliance is the only dependent variable in this research. Figure 2 illustrated the direct impact of independent variables towards tax non-compliance without including the mediator and moderator.

2.7 Hypotheses Development

H1: There is a difference in level of tax non-compliance between male and female among individual taxpayers in Malaysia.

H2: There is a difference in level of tax non-compliance between age group among individual taxpayers in Malaysia.

H3: There is a difference in level of tax non-compliance between marital statuses among individual taxpayers in Malaysia.

H4: There is a difference in education level towards tax non-compliance among individual taxpayers in Malaysia.

Demographic variables such as gender, age, marital status and education level are normally included in the study for the reason to examine how personal background affects tax non-compliance decision. Most studies showed that women are more opposed to tax non-compliant than men do (Mason & Calvin, 1978; Spicer & Becker, 1980; Boyd, (as cited in Ross & McGee, 2011); Akaah, 1989; Harris, 1990; Young, 1994; Wenzel, 2002; Hassldine & Hite, 2003). Clotfelter (as cited in Bosco & Mittone, 1997), Mason and Calvin (1978), Serwinek (1992), and Wenzel (2002), have concluded that older taxpayers are more opposed to tax non-compliance than younger taxpayers. Besides, marital status and education level will be analysed in this study too.

H5: There is a difference in level of tax non-compliance between income levels among individual taxpayers in Malaysia.

This hypothesis is developed to find out whether income level will affect tax non-compliance behaviour among individual taxpayers. Insufficient fund is a strong stimulator in tax non-compliance (Ritsema et al., 2003). The higher the income level, the more ones opposed to tax non-compliance (Ross & McGee, 2011). This is because, if one has higher income, ones may have more respect to authority.

Conversely, if one has lower income, then would have less respect to authority and eventually less averse to tax non-compliance.

H6: There is a significant relationship between tax rate and level of tax non-compliance among individual taxpayers in Malaysia.

This hypothesis is aimed to examine the relationship between tax rate and level of tax non-compliance among individual taxpayers in Malaysia. According to studies, high tax rates leads to higher level of tax non-compliance (Crane & Nourzad, 1987; Obid, 2004; Ho et al., 2006; Bayer, 2006; and Ahangar et al., 2011). An increase in tax rate definitely will reduce the usable income, taxpayers have to pay higher tax in relation to higher income, therefore it can be more profitable if taxpayers choose to engage in tax non-compliance activities (Obid, 2004).

H7: There is a significant relationship between tax education and level of tax non-compliance among individual taxpayers in Malaysia.

Laws are complex and difficult to understand if without a proper learning platform, because of its jargons and terminologies (McCaffery & Barron, as cited in Bărbuţă-Mişu, 2011), which may lead to misinterpretation or misunderstanding in tax laws. With adequate tax knowledge, taxpayers are able to understand the tax system and tax policies more comprehensively (Kasipillai, as cited in Roshidi, et al, 2007), eventually increase their tax compliance behaviour and increase their awareness in fulfilling their duty as taxpayers (Kasipillai & Mustafa, 2000). This hypothesis is to find out whether tax education has significant impact on level of tax non-compliance among individual taxpayers in Malaysia.

H8: There is a significant relationship between tax morale and level of tax non-compliance among individual taxpayers in Malaysia.

Tax morale is an important factor in the study of tax compliance, as Alm and Torgler (2006) found that over the various factors influencing tax non-compliance, tax morale has occupied more than 20% of the total portion that can explain the

tax non-compliance behaviour. Thus, ceteris paribus, if tax morale is high, the tax non-compliance is expected to be low (Kirchgassner, 2010; Ahangar et al., 2011). This hypothesis is to find out the relationship between tax morale and tax non-compliance among the individual taxpayers in Malaysia.

H9: There is a significant relationship between public governance quality and level of tax non-compliance among individual taxpayers in Malaysia.

The public governance quality does matter in influencing tax compliance (Kim et al., 2006). This is because, the willingness of voluntary tax compliance is led by the trust in political leadership and a favourable government administration. Taxpayers will also take into consideration on how and what government spends on (Ho et al., 2006; Kirchgassner, 2010). Misappropriation of taxpayers' money and futilely wasted projects will frustrate taxpayers, eventually undermined taxpayers' confidence in government. Most of researchers concluded perceived inequity in governance is positively correlated to non-compliance (Keenan & Dean, (as cited in Ho et al, 2006); Bosco & Mittone, 1997; Torgler, 2003; Obid, 2004; Ho et al., 2006; Kirchgassner, 2010; Ahangar et al., 2011; Ross & McGee, 2011; Alabede et al., 2011). This hypothesis is developed to examine the relationship between public governance quality and level of tax non-compliance among individual taxpayers in Malaysia.

H10: There is a significant relationship between future tax costs and level of tax non-compliance among individual taxpayers in Malaysia.

Based on economic model, it is a norm that, before taxpayers decided to engage in non-compliance activities, they will evaluate the benefits derived from non-compliance whether are greater than the fines or punishment when being caught later (Bărbuță-Mișu, 2011). Accelerate in fines and increase in the frequency of tax audit will affect the tax compliance behaviour. Hai and See (2011) unswervingly confirmed that future tax cost does positively influence the taxpayers' decision making on the tax non-compliance. This hypothesis is

developed to find out the impact of future tax costs towards level of tax non-compliance among the individual taxpayers in Malaysia.

2.8 Chapter Summary

The literature review is aimed to provide a better understanding and clearer picture of the research background as well as the determinants of tax non-compliance included in this study. There are mixed results for each factors of their impact towards the level of tax non-compliance among the individual taxpayers. Thus, this present study is to provide an additional research evidence of the determinants on tax non-compliance. The research methodology will be explained in the following chapter.

CHAPTER 3

METHODOLOGY

3.0 Chapter Overview

Methodology that used in present study will be covered in this chapter, which includes research design, research instruments and measurements, sampling procedure, data collection method, as well as data analysis techniques. Pilot test will be discussed in this chapter too.

3.1 Research Design

Research design is a strategic plan on how data is collected, how data is measured and how data is analysed in addressing the research problem. There are numerous types of research design and this present study is applying descriptive research and causal research which are commonly used.

The purpose of descriptive research design is to portray the characteristics of a condition, for example, the description of individual taxpayers' perception towards non-compliance in this research, and also, to answer who, what, when, where, and how to the research problem. Causal research design, on the other hand, is being used when researchers intend to know the impact of a specific relationship. It involves an empirical association between independent variable

and dependent variable, which in this present study, refers to relationship between determinants (which consists of gender, age, marital status, education level, income level, tax rate, public governance quality, tax education, tax morale and future tax costs) and tax non-compliance (dependent variable) are being tested.

3.2 Research Instruments and Measurements

In the present survey, questionnaire was chosen as the research instrument in collecting the data. According to Mahdzan (as cited in Roshidi et al., 2007) there are several benefits of using questionnaires, such as, 1) it allows researcher to compare respondents even individually since the respondents are given the same questions; 2) it ensures the quality of data is collected since there are standardized of questionnaires; and lastly, 3) it makes data processing becomes easier. However, Andreani et al. (as cited in Kim et al., 2006) argued that there are pitfalls in using survey form, and the major reason is that, there will be a potential of inaccurate information provided by respondents as it is totally in the control of respondents in answering the questionnaire and they tend to give false and simply answer to the questions. Anyhow, since it is an aggregation of level of tax non-compliance rather than personally identification (Kim et al., 2006), it is alright to employed survey form in data collection method for tax compliance or tax non-compliance studies.

3.2.1 Questionnaire Design

A cover letter was first introduced to respondents as a courtesy to express gratitude for their involvement in the survey undertaking. In the present study, the questionnaire is divided into three sections, and consists of 50 questions in total. First section relates to the personal background of the respondents, where, their gender, range of age, marital status, highest education level, their annual personal income and whether are they existing taxpayers were being asked. The demographic information that was asked here is important in finding how personal

characteristics affect the tax non-compliance decision in the next chapter. The question of whether are they existing taxpayers was being asked to avoid bias in data collection and to increase the responses of the survey. Added that, at the point of survey was carried out, whether are they existing taxpayer is unknown as the questionnaire was sent out in mass. However, the responses of non-taxpayers will be then deleted in analysis part later, since the study is aimed to examine the determinants of tax non-compliance among Malaysian individual taxpayers only. Anyway, the responses of non-taxpayers will be used in future reporting of perception of Malaysians towards non-compliance in Malaysia.

Section two in current questionnaire is sub-sectioned into seven parts, where Part One is asking the general opinion of current tax system; Part Two is testing the respondents on their preference of tax non-compliance; Part Three is to find out the respondents' opinion about the current income tax rate; Part Four is about the tax education of respondents; Part Five is aimed to find out the individual tax morale of respondents; Part Six is to find out how participants perceived on the public governance quality; and lastly Part Seven is aimed to find out the perception on future tax costs of respondents. Some of the questions in this section are being adapted from papers of other researchers, mostly from Kasipillai and Jabbar (2006), Ho et al. (2006) as well as Gërxhani (2007), are then being modified, in order to suit the Malaysian context. A 5-point Likert scale is being used in this section for respondents to indicate the extent of their agreement or disagreement of each statement, from 1 to 5, where 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; and, 5 = strongly agree.

The last section, which is Section C, is aimed to find out how respondents perceive on the possible ways in combating the tax non-compliance, by asking respondents to rate each of the item with the Likert scale of range from 1 to 10, where 1 = most effectively contribute in combating tax non-compliance and decreasingly to 10=least effectively as solution to tax non-compliance issues.

Overall, all questions are constructed into closed-ended form of statements in order to make the analysing process be easier, also allowed respondents to answer

the questions hassle-free. The respondents are allowed to choose only one answer for each question. Since the questionnaire is only available and filled-in online, all questions is marked as required to avoid the missing answer.

3.2.2 Measurement of Variables

Since there are ten variables were chosen in this research to examine their influences towards tax non-compliance. However, five out of ten variables are reasoning on demographic profile of respondents, the other five variables, namely tax rate, tax education, tax morale, public governance quality and future tax costs are measured with items which are adapted from several studies, for example, from Kasipillai and Jabbar (2006), Ho et al. (2006), Gërxhani (2007), and Kirchgassner (2010). The items of each measurement are tested using 5-point Likert scale, where 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; and, 5 = strongly agree. The list of measurement items for tax rate, tax education, tax morale, public governance quality and future tax costs are shown in Table 3 below.

Table 3: List of Measurement Items of Variables

Variables	Items of Measurement
Tax non-compliance	- I would pay taxes if my income is higher. - I fully declare my principal income, but not including my part-time income. - If the job is paid in cash basis, then it is alright not to report it in tax return. - I would understate income (employment income, rental income and etc) if the amount is relatively small.
Tax Rate	- I think the current tax rate is considered fair for every taxpayer. - If tax rates are reduced, I believe that more people would be encouraged to pay their taxes. - I would be motivated to pay taxes if tax rates are reduced. - Income tax rate does not affect my decision on tax non-compliance.

Tax Education	- I encounter significant confusion whilst filling tax forms. - I need to consult tax professionals in completing my tax forms. - When I am not really sure whether or not an expense is allowable, it makes sense to claim the deduction anyway. - There is shortage of experienced and highly motivated personnel for tax assessment and tax collection.
Tax Morale	- I would cheat on tax if I have the chance. - It is wrong if a taxpayer does not report all of his or her income in order to pay less income tax. - Taxes are so heavy that tax non-compliance is an economic necessity for many to survive. - Since everybody not compliant taxes, one can hardly be blamed for doing it.
Public Governance Quality	- I think corruption in Malaysia is high. - I think government wastes a lot of money. - I do not feel like paying taxes as long as the government cannot be trusted. - It is not so wrong to declare less on taxable income since the government spends too much on extravagant projects. - I think people are not enlightened on how tax revenues are being utilized by government.
Future Tax Costs	- The probability of being audited is so low, that it is worthwhile to understate a little on my taxable income. - I think the tax authority would not be able to find out even I failed to declare some earnings from commission. - I think it is worthwhile not compliant with tax if the benefits derived from non-compliance are greater than fines when being caught later. - I think the likelihood of being detected is still low even I am being audited. - I think the penalties imposed presently are not enough to deter potential evader.

The items of measurement that employed in this study is lesser compared to other studies, even so, Hair, Black, Babin, Anderson and Tatham (2006, p. 137)

commented that, as long as the items of measurement are in the same direction and able to measure a concept or variable and they are inter-correlated, then the items of measurement is reliable. The inter-correlation of measurement is explained by Cronbach's alpha, which will be discussed in details later. The Cronbach's alpha for variables in this study are at range of 0.896 to 0.979, which are above the minimum requirement of 0.70. In sum, the items of measurement in this study are reliable and valid to be analysed.

3.2.3 Scale of Measurement

There are four types of measurement scale, namely nominal scale, ordinal scale, interval scale and ratio scale. Nardi (2006, p. 3) explained nominal scale refers to a characteristic which has no numerical or ordered meaning. Gender is a typical example of nominal scale. However, in order to analyse and recognise the variable in system, a number was given to the groups in the variable, yet, the numeric that assigned is arbitrary. For example, male and female are those groups categorised as gender, normally, in system, male is 1 while female is 2, where 1 and 2 have no ordering properties. Since the number is not absolute, 2 can be assigned as male and 1 can be female. In this research, gender and marital statuses are categorised in nominal scale.

Ordinal scale refers to data which can be arranged in certain order (Chua, 2013, p. 5). The number assigned to each groups can illustrate the hierarchy among the groups. For example, 2 is larger than 1 but smaller than 3. In this study, age group, highest education levels and annual personal income are characterised as ordinal scale.

Section B and Section C of the questionnaire in present study is applying 5-point and 10-point Likert scale respectively. According to Chua (2012, p. 288), Likert scale is an ordinal scale. However, in order to analyse the total items of measurement of each variable, an average score of each variable is needed. By then, the figure derived from the computation has transformed as interval scale, a

scale which has mathematical and numbered properties that can be counted (Nardi, 2006, p.3). Chua (2012, p. 280) listed the advantages in using Likert scale, 1) Likert scale is easy to be used and managed; 2) respondents can easily understand and answer the questions accordingly; and, 3) there are higher reliability of data collected from Likert scale. However, he also pointed out the pitfall of using Likert scale, where, the both endings of the scale must be weighted equally in order to improve both the validity and reliability of the measurement.

3.3 Pilot Test

Before distributing the survey questionnaire to larger scale of respondents, a pilot test was being conducted. Pilot test is a smaller size of testing before conducting a full-scale of study. Teijlingen and Hundley (2001) commented that pilot test is important in ensuring the research is successfully conducted in larger scale later, as pilot test is aimed to assess and uncover the weaknesses of the questionnaire before distributing to respondents, like identify and eliminate the ambiguities and difficult questions, make sure the measurement scales are correctly used and also ensure the questionnaire is well-structured. 12 respondents were asked to give comments on the questionnaire, which consists of lecturers, professional accountants, and, postgraduate and doctorate holders, from Universiti Tunku Abdul Rahman (UTAR) and other professional bodies. The process of pretesting and amendments was done one week before the actual launching day for the questionnaire. However, the result of pilot test is normally not reported in papers to avoid the publication bias as the results might have non-significant effects to be reported (Teijlingen & Hundley, 2001)

3.4 Sample Size

It is crucial to determine the sample size to be tested in any study, in order to achieve enough evidence to represent the target population as a whole. This is because, it seems impossible one can examine the target population with time

constrain and cost incurred were taken into consideration. For example, the target population in this study is Malaysian individual taxpayers, and is around 1.65 million, revealed by Deputy Finance Minister Datuk Donald Lim Siang Chai in a press conference, where 1.65 million out of total 12.8 million workforces were reported in the nation in year 2011 (Teoh, 2011). It is unlikely and nearly impossible to have responses of 1.65 million in the given short period of time, and the cost incurred to ensure 1.65 million Malaysian individual taxpayers are participated in this study is definitely huge. The function of determination of sample size is then come into place to solve this problem.

According to Israel (1992), in order to decide on the size of sample, few considerations must be taken in place, like 1) the purpose of the study; 2) the size of population; 3) the risk of selecting a "bad" sample; and, 4) the allowance for sampling error that may be occurred. The decision on sample size introduced by Israel (1992) is more technically computed by using formulas in different approaches. However, there are other means of sample size identification by using table, which is easier to be understood, for example, Krejcie and Morgan (1970) have identified the sample size over the given population size based on Appendix C. Based on Appendix C, the population size in this study has exceeded 1 million, then the appropriate sample size is determined as minimum of 384 responses. Another source of sample size estimation using table was used in a study conducted by Roshidi et al. (2007), which employing Power Analysis Table that introduced by Cohen (as cited in Roshidi et al, 2007) was adopted in the study. An alpha (α) which derived from pilot testing was needed to decide on the sample size and Cohen recommended that power at 0.80 is most appropriate in sample size determination. From Table 4, in this study, sample size at least 26-32 responses are needed based on result from pilot test 0.581 at alpha (α) = 0.01 (two-way), which also falls under the suggestion of Cresswell (as cited in Lim, 2012), where minimum of 30 responses are needed under correlation study that examining the relationship between variables and roughly 350 responses are needed for survey research. In sum, the sample size between 30-350 participants is more applicable in this study due to constraint of time and money.

Table 4: Sample Size needed using Cohen's model

Power	Effect Size Correlation												
	0.10	**0.20**	**0.30**	**0.40**	**0.50**	**0.55**	**0.60**	**0.65**	**0.70**	**0.75**	**0.80**	**0.85**	**0.90**
0.10	168	42	20	12	-	-	-	-	-	-	-	-	-
0.20	300	75	33	19	12	10	-	-	-	-	-	-	-
0.30	420	104	45	26	16	13	11	-	-	-	-	-	-
0.40	537	133	58	32	20	16	15	11	-	-	-	-	-
0.50	661	163	71	38	24	19	16	13	11	-	-	-	-
0.60	797	196	85	46	28	23	19	15	13	10	-	-	-
0.70	956	235	102	55	33	27	22	18	15	12	-	-	-
0.80	1162	286	123	67	40	**32**	**26**	21	17	14	11	-	-
0.90	1480	364	157	84	51	40	32	27	22	17	14	11	-
0.99	2389	586	252	135	81	64	52	41	33	27	22	17	13

Note: Adopted from Roshidi et al. (2007) Alpha = 0.01 (two-way)

3.5 Sampling Procedure

Non-probability sampling was being chosen as the sampling procedure in this study, this is because of few reasons. First, no lists of taxpayers are available during the study, thus, respondents cannot be given an equal chance to be randomly selected. Second, respondents are invited to answer the questionnaire based on the availability of respondents, where convenience sampling was taken place in this study. Chua (2012) explained convenience sampling is normally being used when researchers engage interview as data collection technique and select respondents whoever are around the researchers. Convenience sampling is also known as accidental sampling or availability sampling. Besides, snowball sampling technique was also applied in this study, where the email or links in Facebook was disseminated by initial respondents who received the request to his / her friends and friends of friends. Since the present research is aimed to explore in the extend of tax non-compliance among individual taxpayers in Malaysia, purposive sampling was applied as sampling technique too, as purposive sampling refers to a process where respondents are being selected based on the fulfilment of certain characteristic under which the researcher is studying upon (Chua, 2012, p. 243). In order to avoid bias in data collection, the questionnaire was distributed in mass to anyone whoever are available at the time survey is carried out, whether or

not the respondents is a taxpayer, even though the objective of this study is to examine the extend of non-compliance behaviour of taxpayers.

3.6 Data Collection Methods

According to Andreoni et al. (as cited in Kim et al., 2006), the data that normally use in the empirical and experimental tax compliance studies is categorized into few types, which are, audit data, survey data, data from tax authority, and data obtained from laboratory experiments. Therefore, survey data is chosen as the main source of data in this study. However, as mentioned by Cummings et al. (2006), the field data in the tax non-compliance studies is usually incompletely collected, this is because, tax non-compliance is illegal, and evaders will not disclose honestly. Hence, the data in this study is gathered from primary and secondary sources, in order to enhance the data collection process and enable the data to be collected more completely.

3.6.1 Primary Data

Primary data is referred as the first hand data which normally collected through the responses from target respondents by means of survey form or questionnaire and face-to-face or phone interview. The most frequently-used data collection method in tax compliance studies is self-reporting either on hypothetical scenarios or tax-related questionnaires (Jabbar & Pope, 2008).

In the new era, everything now needs to be as fast and efficient as possible. The most important is less time-consuming. Therefore, in current study, a self-administered questionnaire will be distributed to potential respondents in electronic form by using Google Drive, which allows respondents fill in questionnaire via internet base. It also helps to save papers in printing, save trees and go-green. Google Drive is a new creature in Google.com, which the Form function under Google Drive is designed for researchers to create online

questionnaires and generate survey link that enable respondents to fill in online survey form. Responses are recorded and data can be then tabulated and downloaded as a report in Excel form, to be used in Statistical Package for the Social Science (SPSS) software for further analysis.

The primary data collection in this study will be conducted in two phases. Firstly, a survey link will be distributed to respondents through email and shared through social networking site, like Facebook. No restriction on respondents whether is a taxpayer or yet to be a taxpayer. Secondly, face-to-face survey will be taken into consideration in order to achieve more responses, and token of appreciation will be given as a gift to respondents who willing to fill in the online questionnaire. Due to constrain of time, the face-to-face survey will be conducted only for 7 days, and mostly conducted in megamalls, bus or train terminals, Inland Revenue offices, and so on that wherever most people are waiting, so that respondents will have idle times to do the online questionnaire.

3.6.2 Secondary Data

The information that is derived from the journals or articles that published by other researchers is referred as secondary data, either in digital form or printed materials. Secondary data is important in order to get an overall insight of the research topic and as guidance in doing the current study.

In this research, the secondary data is collected mainly through Google Scholar, a useful function from Google.com that enables users to reach the published journals within the desired topic. Besides, there are also other databases that provided e-journals which done by researchers, such as, EBSCOhost, Emerald, ScienceDirect and so on. These databases are available in online library of each university. Reference books are also considered as secondary sources of information.

3.7 Data Analysis Techniques

In this study, Statistical Package for the Social Science (SPSS) Version 21 is being used to analyse the data collected from questionnaire which filled by respondents. Data analysis techniques must be correctly used in order to give sufficient evidence in answering the research questions and hypotheses that had developed in previous chapter. Descriptive analysis and inferential analysis were employed to analyse the data in the present research.

3.7.1 Data Coding

The responses of the participants were recorded online through Google Drive, and were then exported from Google Drive and transferred into SPSS for further analysis. However, there are some information needs to be coded in SPSS for analysis purposes. For example, the demographic profile of the respondents. In questionnaire, respondents were asked to choose either male or female in regards of their gender. In SPSS, the system cannot read the string wording without recoded them into numeric. Therefore, in SPSS, male is coded as 1; whereas, female is coded as 2, so that SPSS software can recognise and analyse it accordingly. Data coding was also applied to age group, marital statuses, highest education levels, annual personal income and whether or not they are taxpayers. Responses from Section B and Section C needless to be coded as the questions were asked in the form of Likert-scale, which has already reported in numeric measurement.

3.7.2 Descriptive Analysis

Descriptive analysis is used to portray the characteristics of a variable (Chua, 2013). Descriptive statistics allow researchers to present their data in more meaningful way, like frequency, mean, median, mode, range, percentage, ratio and so on. However, researchers cannot draw a conclusion to hypotheses as well

as the generalisation of research sample to the whole population based on descriptive statistics (Chua, 2013). In the present research, pie chart is used to present the frequency of demographic profile, such as, in the percentage of gender, age group, marital statuses, highest education level and annual personal income of respondents. Besides, the responses of the general view on Malaysian tax system which is available in Part 1 of Section B in the questionnaire is gathered and tabulated in a table by its frequency of responses. Descriptive analysis is also being used to present the responses under Section C of the questionnaire which required respondents to rate the possible ways in combating tax non-compliance

3.7.3 Internal Reliability Test

According to Chua (2013, p. 137), reliability in research is defined as the ability of the measurements to obtain the same value when it is repeatedly used, which also means that, if respondents were asked to answer the same items of measurements by second or even third time, the value given ought to be the same. In this situation, the items of measurement are recognised to be reliable. Internal reliability test is important to examine the internal consistency of the measurements for each variable. If the internal consistency is high, the measurement is categorised as high correlation (Chua, 2012, p. 261), which also known as a homogeneity item.

Hair et al. (2006, p. 137) commented that, there is no single item that can explain and measure a concept or variable, so, multiple items are needed to give enough evidence over the concept. Therefore, a test of internal consistency is required to make sure all items in the measurement are measuring the same variable and they are inter-correlated, and this is the rationale behind internal consistency approach.

The Cronbach's alpha internal consistency reliability method is being used in this research. According to Hair et al. (2006), this method is widely used by researchers to measure the consistency of the measurement. Addition to this, the minimum acceptable score to be deemed as reliable for Cronbach's alpha is 0.70.

3.7.4 Inferential Analysis

Chua (2013) explained that inferential analysis is a statistic outlines the relationship between variables and generalisation of the sample to the population can be made. T-test, ANOVA test, Pearson's correlation test and so on are those example of inferential analysis.

T-test

T-test is used to analyse the difference between two variables by comparing their means, where "t" means two (Nardi, 2006, p. 72). According to Chua (2013, p. 183), the requirements of using t-test are, 1) both variables are normally distributed; 2) the respondents in the sample are randomly selected from the population; 3) the size of sample to be tested is more than ten subjects; and 4) the data are in interval or ratio measurement scale. Nardi (2006, p. 72) added that, variable with a dichotomous nominal scale is normally categorised as independent variable.

In t-test, the result of t-value is compared with the critical t-value to determine whether both variables are significantly difference. Nardi (2006, p. 71) stated that, if the computed t-value is greater than 2.0, then it is said to be statistically significant difference, in condition it is using a two-tailed test. Besides, p-value is also selected into the consideration in order to determine the relationship between the variables, by comparing the p-value derived from the test against the alpha (α) which is normally at significance level of 0.05 or at 95 percent confidence interval. If the p-value is less than or equal to alpha 0.05, then it rejects null hypothesis, and implying that the variables are significantly different, otherwise vice versa. In present study, only gender variable is suitable to be used in this test to determine whether gender affects the level of tax non-compliance, as it contains only two groups in gender variable, namely male and female.

ANOVA

Likewise to t-test, ANOVA is also used to analyse the difference between variable, but it comprises more than two variables in a test. ANOVA refers to analysis of

variances which is commonly used by researchers in behavioural sciences studies, said Howell (as cited in Chua, 2013, p. 216). There are several requirements of using ANOVA test, 1) the sample are normally distributed; 2) the sample size is more than 15 subjects; 3) the dependent variable is required as interval or ratio measurement scale; and 4) the variable which is served as independent variable is measured in nominal or ordinal scales, and it can comprise of more than two groups (Chua, 2013, p. 219). In reporting the result from ANOVA test, the F distribution is read and tested whether or not the variables are different in their mean scores. The F value is a variance ratio which derived from comparing between-groups variance and within-groups variance. If the comparison of means between-groups and within-groups shows a significant F value, then it is concluded that there is a significant difference among the groups of the variable.

In the present study, the variables in nominal and ordinal measurement scale, such as, age group, marital status, highest educational level, and personal income level are chosen to be analysed by using ANOVA since each of the variable is having more than two groups.

Pearson's Correlation

Pearson product-moment correlation test or also known as Pearson r correlation coefficient, is used to analyse the relationship between two groups of data which was collected from the same respondents, and these data is in interval or ratio measurement scale. Pearson's correlation is an assessment on how well the variables in the test are interacted with each other, and how one can be affected by another. The value of Pearson's correlation from the output of the test portrays the strength of the relationship between the variables. If the value is closer to 1.0, it shows a strong relationship, inversely, if the value is closer to 0, the relation is weak to no correlation at all. However, if the value is indicated with a negative sign, it shows that both variables have an opposite direction with one another, where, in regards of the increment in value of independent variable, there is a reduction in value of the dependent variable (Chua, 2013, p. 258).

3.8 Chapter Summary

In this research, questionnaire is employed as primary data collection method, and referring to secondary sources, like journals, articles and books published by other researchers gave a wider view and revealed the research topic in more details. Descriptive analysis and inferential analysis are being used in data analysis technique. The methodologies covered in this chapter intend to provide a better understanding on how analysis procedure is being conducted in Chapter 4 and eventually smoothen and ease the whole analysis process.

CHAPTER 4

RESEARCH FINDINGS

4.0 Chapter Overview

The results from questionnaires were collected and were further analysed to test the hypotheses that had developed in earlier chapter is the main objective in this chapter. Statistical Package for the Social Science (SPSS) Version 21 is being used as the software in analysing data in present study. This chapter will first cover the descriptive analysis on the demographic of respondents, which describes in the percentage for gender, age group, marital status, highest education level and also their income level. Responses of general view of Malaysian tax system will be presented next. Internal reliability analysis which consists of Cronbach alpha test is mainly used to reveal the internal consistency of each item in each variable in this study will be discussed too. Then, inferential analysis will be used to measure and test the relationship between variables, which involved, t-test, ANOVA and Pearson correlation test. Finally, the frequency analysis will be used to report top five of the choices that was chosen by respondents in regards of the possible ways in combating tax non-compliance as in the last section of the questionnaire will be included in this chapter.

4.1 Descriptive Analysis

Since the questionnaire was distributed disregard of whether or not the respondent is currently a taxpayer or non-taxpayer, as a result, the responses from the non-taxpayers are being eliminated from the current study and kept for future purposes. There is a total of 324 participants who willing to spare their time in completing the online questionnaire. Out of 324 participants, 77 respondents are non-taxpayers, whilst, the remaining of 247 respondents are taxpayers, which also means that, the taxpayers who participated in this research stands about 76% from the total of 324 participants who had taken part. All in all, the responses of 247 taxpayers are taken into account in the analysis towards tax non-compliance in this report.

Based on the output shown in Figure 3, almost 40.5 percent were male respondents while 59.5 percent of the respondents were female. Female were dominant at the time this research was carried out.

Figure 3: Respondents' Gender

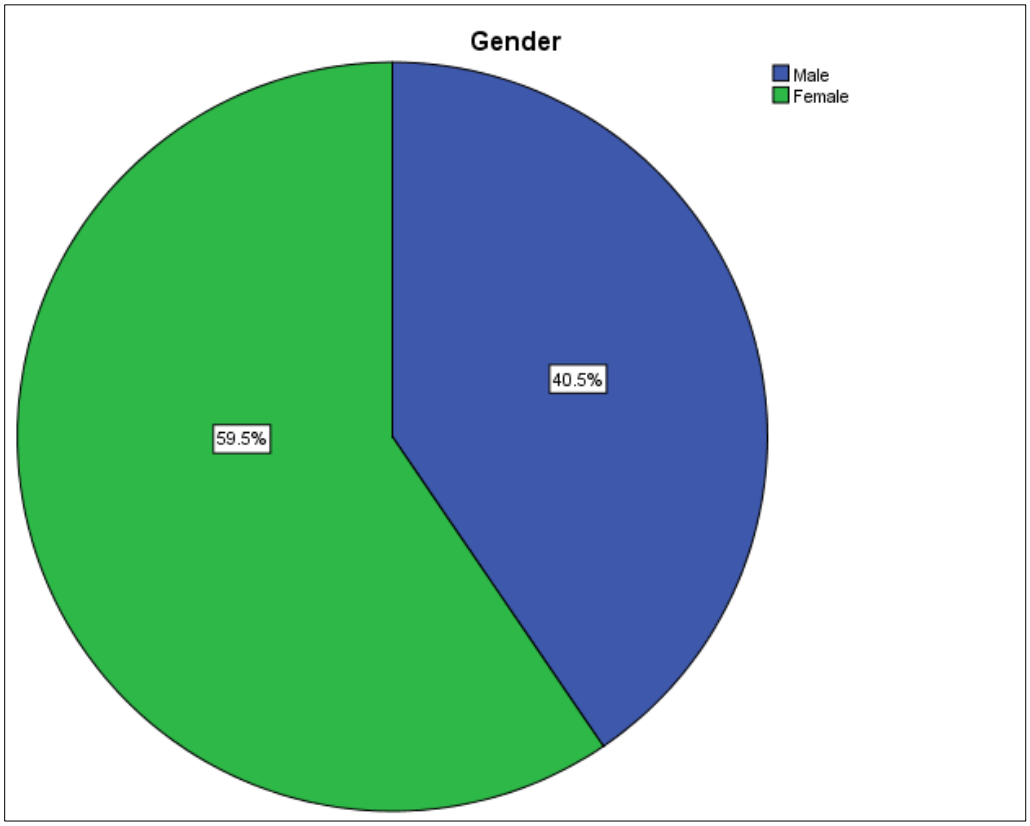
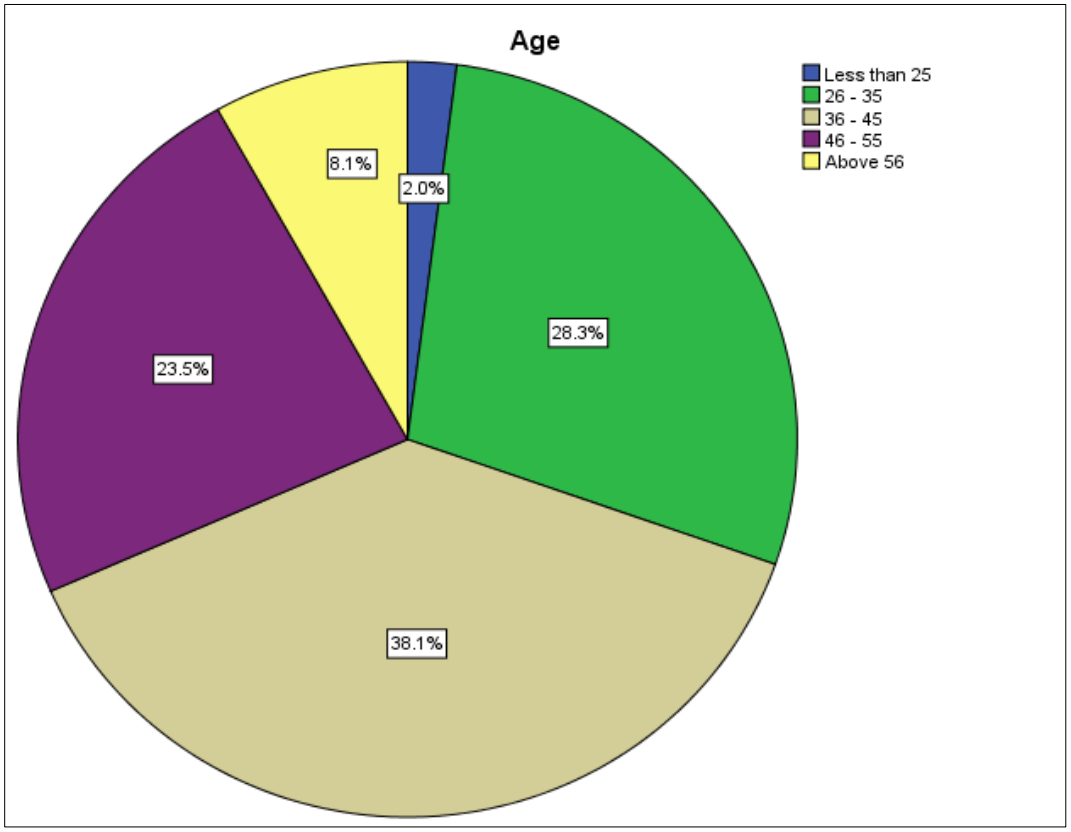


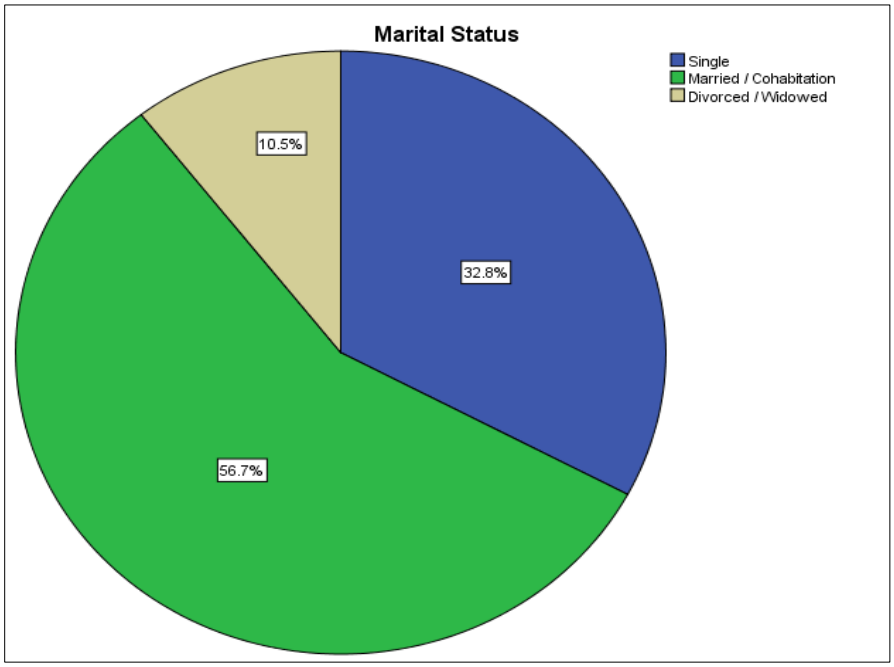
Figure 4 illustrated the age group of respondents. Among the five groups that available, majority of the respondents were at age group which consists of age between 36 to 45 years old, stands for 38.1 percent from total respondents, followed by age group 26 to 35 years old 28.3 percent, 23.5 percent for age group between 46 to 55 years old, 8.1 percent for above age 56 and lastly age group less than 25 only consists 2 percent in the total respondents who are taxpayers.

Figure 4: Respondents' Age group



Based on Figure 5, in the present study, most of the respondents are married or cohabitated with their life partner, which stands for 56.7 percent, single 32.8 percent and those who has divorced or has become single-parent stands for 10.5 percent.

Figure 5: Marital Status of Respondents



Whilst, Figure 6 shows that undergraduate or Bachelor's degree is the common highest education level that obtained by respondents in this research, followed by diploma or vocational course 30.8 percent, 19.8 percent has postgraduate or professional qualification, 4.5 percent obtained STPM or certificate level, 3.6 percent from doctorate or PhD holders and lastly 1.6 percent who only have education level up to SPM. Diploma or vocational course, undergraduate or Bachelor's degree, and, postgraduate or professional certificate, are those three groups of education level that respondents commonly obtained, this implicitly shows that people nowadays is more likely emphasizing in education level and also paying attention on the importance of education.

Figure 7 illustrated the annual personal income of respondents in this research. RM48,001 to RM72,000 is the range of annual income which participants in this research mostly achieved, with 44.9 percent compared to other range of annual income. 26.3 percent of the total respondents achieved annual income range between RM72,001 to RM 120,000 and income range between RM24,001 to RM48,000 has 24.3 percent from total respondents. Only 4.5 percent of the respondents achieved the annual income of above RM120,001 and mostly are those obtained doctorate or PhD qualification.

Figure 6: Highest Education Level of Respondents

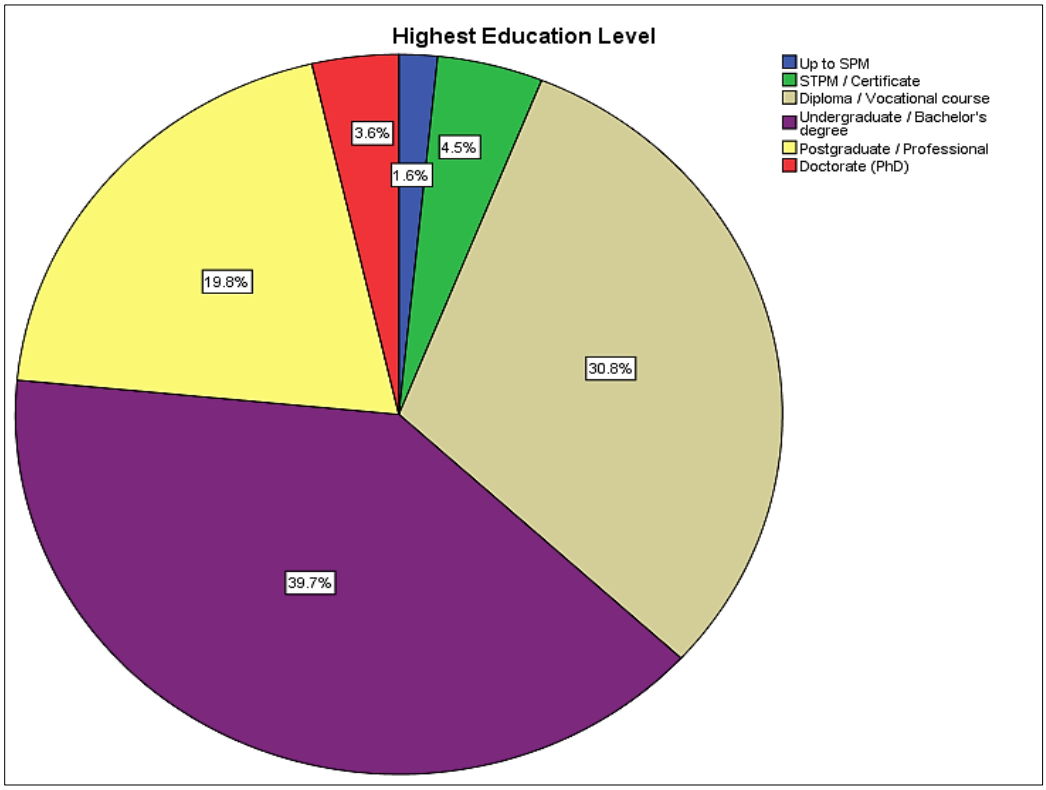


Figure 7: Annual Personal Income of Respondents

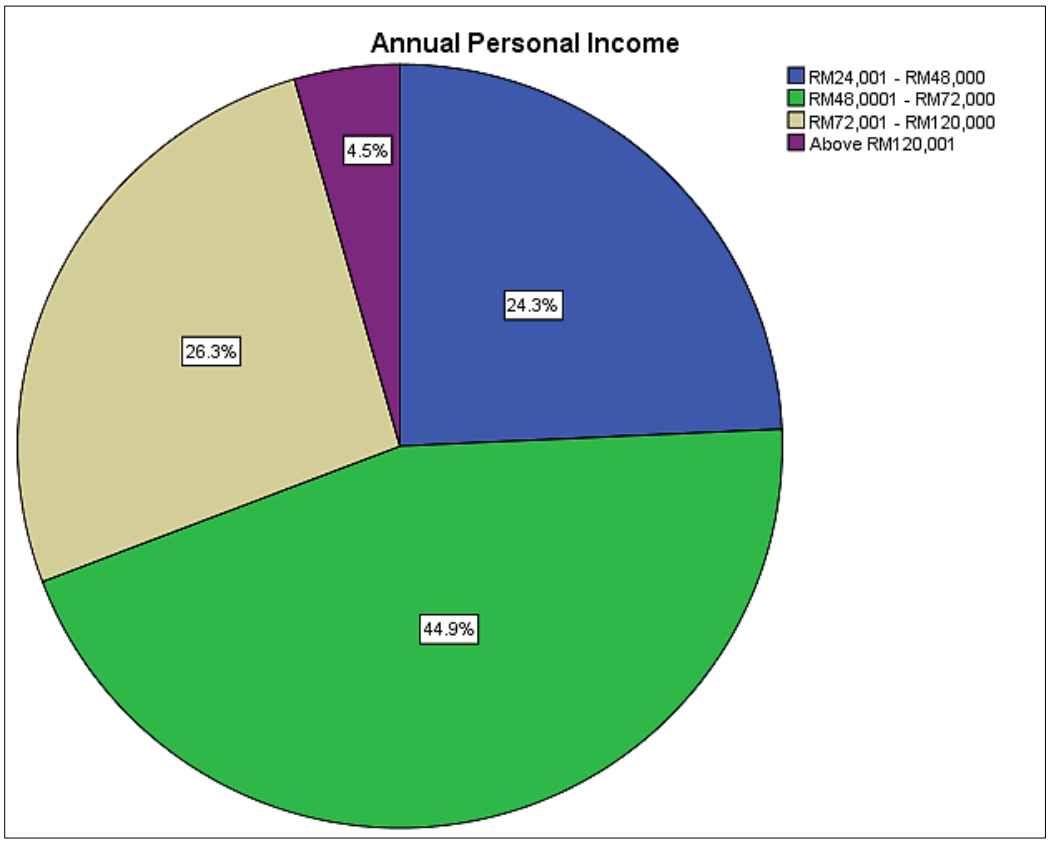


Table 5: Responses for General View of Malaysian Tax System

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
			(in percentage)		
G1-Overall, I think income tax system in Malaysia is fair	17.0	42.9	27.9	6.1	6.1
G2-Overall, the system of tax administration in Malaysia is efficient and effective	19.0	38.9	23.1	12.1	6.9
G3-Overall, I think Malaysia is characterized by political stability	14.6	33.2	26.7	15.8	9.7
G4-Overall, I have high confidence in the government	21.1	40.5	23.5	8.1	6.9
G5-Overall, current tax law in Malaysia is not complex	14.6	28.3	38.9	9.3	8.9
G6-Overall, current tax system is not induces me to non-compliant	11.3	20.2	51.4	7.7	9.3
G7-Overall, I think the amount of income tax that I have paid is not too high	17.0	45.3	23.5	6.5	7.7
G8-Overall, paying taxes is reducing my personal income	8.9	4.9	17.0	36.0	33.2

Looking at the Table 5, the responses from the participants regarding their overall perception on the Malaysian tax system is not evenly distributed. However, there are mostly negative views in overall. For example, nearly respectively 60 percent and 58 percent who perceived income tax system is not fair and the system of tax administration is not efficient and effective too. For those who perceived tax system is not fair are mostly at age group between 26 to 35 and between 36 to 45, each group contributed 22.27 percent of total 247 respondents, which also means that, at age between 26 to 45, approximately 44.5 percent of total respondents disagree that Malaysian tax system is fair. 36.8 percent of female perceived that

tax system is not fair, while married or cohabitated couple stands for 32 percent also perceived the unjust of tax system. However, most of the respondents with doctorate or PhD holder agree that tax system is fair. Undergraduate or Bachelor's degree holders contributed 26.3 percent and annual personal income range of RM 48,001 to RM72,000 contributed 28 percent in disagreement of the statement. Both of gender, male and female, equally perceived there are inefficiency and ineffectiveness in tax administration system. Age group between 26 to 35 (22.7%) disagreed that tax administration system in Malaysia is efficient and effective; conversely, respondents at age above 56 mostly agreed the statement. Again, majority of the doctorate holders agreed that tax administration system is efficient and effective.

43 percent of male and 51 percent of female from the respondents of 100 males and 147 females, denied the political stability of Malaysia. However, respondents at age above 56 and those who are doctorate holders categorized Malaysia as political stable nation. On the other hand, respondents who chose disagreement in question G1 and G2, selected the same perception negatively on the question whether are they have high confidence in the government (G4). Question G5 and G6, most of the respondents, stands for 38.9 percent and 51.4 percent respectively, has chosen neutrally on the statement, where, taxpayers who participated in this research perceived the complexity of the current tax law neutrally, and tax non-compliance may not be induced by current tax law. 45.3 percent of the total respondents disagreed that their current tax payment is not too high, which also means that, they think they are paying high taxes currently. However, each level of income group still has few responses with agreement and strongly agreement on the statement where they think the amount of income tax they are paying now is not too high. The finding was quite similar where most of the respondents agreed that paying taxes is reducing their income, even at high annual personal income range above RM120,001.

Overall, the respondents who participated in this survey perceived Malaysian tax system quite negatively, but chose to be neutral or moderated when they were asked whether current tax system induces them to tax non-compliant.

4.2 Internal Reliability Analysis

According Chua (2013, p. 137), the reliability within the quantitative research measurement can be tested by three types of approaches, which consists of 1) test-retest reliability method; 2) split-half method; and lastly 3) Cronbach's alpha internal consistency method. Test-retest method is used to test the reliability of measurements by giving pre-test and post-test towards the same group of respondents after some period of time using the same questionnaire. If the respondent has given the same answer in the pre-test and post-test on the same questionnaire, it is classified as reliable. Meanwhile, if split-half method is used, items in the measurements will be separated into two groups randomly, then the total score of each group is computed and further analysed its correlation between the groups. The items of measurement are considered reliable if the correlation computed is high.

In the present study, Cronbach's alpha internal reliability test is used to analyse the internal correlation between the items of measurement within the same variable. Based on Chua (2013, p. 147), the minimum requirement to determine the reliability is at alpha value of 0.65. Chua explained that if the alpha value is lower than 0.65, it means the internal correlation between the items of measurement is very weak and is not suitable to be used. On the other hand, George and Mallery (as cited in Gliem & Gliem, 2003) regulated that if the alpha value is more than 0.90 is categorized as excellent; 0.80 – 0.89 is good; 0.70 – 0.79 is at acceptable range; 0.60 – 0.69 is questionable; 0.50 – 0.59 is at poor range and alpha less than 0.50 is totally unacceptable.

Referring to Table 6, all items in the measurements in this research were considered reliable as overall are at good and excellent range, where at 95 percent of confidence interval, the Cronbach's alpha for measurements of variable tax non-compliance, tax education, tax morale, public governance quality and future tax cost are higher than 0.90, at the excellent level; whilst, variable tax rate achieved nearly 0.90 as well. Even though by deleting some of the items of measurement will increase the alpha, yet, due to high correlation between the

items of measurement within the variable, the particular item was remained. The internal correlation between the items of measurement within variable are correlated at value 0.707 to as high as 0.953.

Table 6: Result of Cronbach's Alpha Reliability Analysis

Variables	No of Items	Items deleted	Cronbach's Alpha
Tax Non-compliance	4	-	0.955
Tax Rate	4	-	0.896
Tax Education	4	-	0.918
Tax Morale	4	-	0.901
Public Governance Quality	5	-	0.979
Future Tax Costs	5	-	0.948

4.3 Inferential Analysis

The inferential analysis in the current research included t-test and ANOVA to analyse the differences in demographic variables towards the level of tax non-compliance, meanwhile, Pearson's correlation are used to find out the relationship between dependent and independent variables in order to provide evidence in hypotheses testing.

4.3.1 T-test

Table 7 shows the output of t-test between gender and tax non-compliance. Levene's test for equality of variances is used as an estimation whether the variance of groups within the variable are the same (Lay & Khoo, 2009, p. 71). At the same time, it is also used as an alternative to test the hypothesis, where, if the value of Levene's test is smaller than 0.05 critical p-value (at 95 percent confidence interval), then the null hypothesis is rejected, and concluded there is a difference between both variables

(equal variance not assumed), or otherwise, if the value of Levene's test is larger than 0.05, then it is assumed that there is no difference between both variables (equal variance assumed) (Lay & Khoo, 2009, p. 52). As such, referring to Table 7, the Levene's test is not significant as the p-value 0.134 is larger than 0.05 critical p-value, and the variance is assumed equally.

The reading of the result from the t-test output is also emphasizing on t-value itself. Based on Nardi (2006, p. 71), if the computed t-value is larger than 2.0, then the null hypothesis is rejected. However, the result shown in Table 7 the t-value is smaller than 2.0.

Table 7: Output: T-test between Gender and Dependent Variable

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Average score of tax non-compliance	Equal variances assumed	2.257	.134	.197	245	.844	.03053	.15526
	Equal variances not assumed			.201	228.771	.841	.03053	.15167

4.3.2 One-way ANOVA Test

The output from ANOVA test between age group, marital statuses, highest education level, annual personal income and tax non-compliance is shown in Table 8. ANOVA, as mentioned earlier, is a statistic procedure used to analyse and compare the differences in mean between three or more groups within the variable. Sum of squares is a total variation from mean (Sweeney, Williams & Anderson, 2009, p. 410), while, mean square from the table is derived by dividing sum of square over the degree of freedom (df).

F value is a variance ratio which derived from comparing between-groups variance and within-groups variance. If the comparison of means shows a significant F value, then it is concluded that there is a significant difference among the groups of the variable. However, the result at this point is not enough to show which group from the variable is actually contribute to significant differences, hence, Post-Hoc test is taken into place for further information. Post-Hoc comparison test is another test that is generated by SPSS for ANOVA in order to compare each possible pair of mean and aim to determine which group of variable show significant difference in their mean score (Lay & Khoo, 2009, p. 71). Unfortunately, Post-Hoc test in this study cannot be performed by SPSS as within the variable, as there is group that has fewer than two cases, which disables the analysis between independent variables and dependent variable for further information.

Looking at Table 8, the result of F value and significant level are taken into consideration whether accepting the null hypothesis. Based on F distribution statistic table, the critical F value for df numerator (n1) = 15; df denominator (n2) = 231 at 95 percent confidence interval, would be 1.72. If the computed F value is higher than critical F value, it shows a difference between the variables, then the null hypothesis is rejected or otherwise. As such, the result from table, F value for variable age, marital status, highest education level and annual personal income are higher than 1.72, which means there are difference within groups of the variables. In addition, the significance level of the variables, 0.000 is smaller than 0.05 p-value, affirmed that the variables are statistically significant different.

Table 8: Output: ANOVA between Age Group, Marital Statuses, Highest Education Level, Annual Personal Income and Dependent Variable

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	40.089	15	2.673	3.309	.000
	Within Groups	186.599	231	.808		
	Total	226.688	246			
Marital Status	Between Groups	18.165	15	1.211	3.652	.000
	Within Groups	76.588	231	.332		
	Total	94.753	246			
Highest Education Level	Between Groups	59.799	15	3.987	5.301	.000
	Within Groups	173.715	231	.752		
	Total	233.514	246			
Annual Personal Income	Between Groups	37.986	15	2.532	4.568	.000
	Within Groups	128.063	231	.554		
	Total	166.049	246			

4.3.3 Pearson's Correlation Analysis

Table 9 illustrated the Pearson's correlation between independent variables (tax rate, tax education, tax morale, public governance quality and future tax costs) and tax non-compliance as dependent variable, where the results was compressed into one table for clearer picture. The relationship between the variables is read based on the value of Pearson's correlation, where, if the value is closer to 1.0, it shows a strong relationship or vice versa, and affirmation by the significance level from the table, where, $p < 0.05$ shows the result is significant.

Among the variables shown in Table 9, only tax rate and tax education illustrated an average positive relationship towards tax non-compliance and they are significantly correlated ($p < 0.05$). Whist, tax morale, public governance quality and future tax costs have minimal correlation towards tax non-compliance, and the relationship is negative and opposite direction, which means, if the tax morale of respondents, public governance quality or future tax costs is in upwards trend, then the level of tax non-compliance will be decreased, and this relationship was

then affirmed by significance level, $p > 0.05$, where there are insignificant correlated between the variables.

Table 9: Output: Pearson's Correlation between Tax Rate, Tax Education, Tax Morale, Public Governance Quality, Future Tax Costs and Dependent Variable

Correlations

		Average score of tax rate	Average score of tax education	Average score of tax morale	Average score of public governance quality	Average score of future tax costs
Average score of tax non-compliance	Pearson Correlation	.444**	.519**	-.018	-.037	-.033
	Sig. (2-tailed)	.000	.000	.780	.563	.606
	N	247	247	247	247	247

**. Correlation is significant at the 0.01 level (2-tailed).

4.4 Testing of Hypotheses

H1: There is a difference in level of tax non-compliance between male and female among individual taxpayers in Malaysia.

Looking at the Table 7, the results are insignificant ($t = 0.197$, $df = 245$, $p > 0.05$). Levene's test for equality of variances shows 0.134 which is higher than 0.05 confirmed that the result is insignificant. In addition, the mean difference value of 0.03053 shows that male and female perceived the same level of tax non-compliance. There is no difference between male and female in relation towards level of tax non-compliance among the respondents participated in this research. Therefore, H1 is rejected.

H2: There is a difference in level of tax non-compliance between age group among individual taxpayers in Malaysia.

From Table 8, the result of ANOVA between age group towards level of tax non-compliance is significant, F value 3.309 ($df = 15, 231$, $p < 0.05$), where F value at

3.309 is greater than critical F value of 1.72. There is a difference in level of tax non-compliance between age group and it is significantly different ($p < 0.05$). Hence, H2 is failed to reject.

H3: There is a difference in level of tax non-compliance between marital statuses among individual taxpayers in Malaysia.

Based on Table 8, F value computed from SPSS for the comparison between marital statuses and tax non-compliance is 3.652 ($df = 15, 231$, $p < 0.05$), where F value at 3.652 is greater than critical F value of 1.72, it shows a difference in level of tax non-compliance between marital statuses, and the result is significant ($p < 0.05$). H3 is failed to reject too.

H4: There is a difference in education level towards tax non-compliance among individual taxpayers in Malaysia.

The result of ANOVA between education level and tax non-compliance is significant, as F value 5.301 ($df = 15, 231$, $p < 0.05$), is greater than critical F value of 1.72. The result shows that there is a difference in level of tax non-compliance between level of highest education obtained by respondents. Significance level 0.000 is smaller than critical p-value, 0.05 at 95 percent confidence interval, this illustrated that the result is statistically significant. Therefore, H4 is failed to reject.

H5: There is a difference in level of tax non-compliance between income levels among individual taxpayers in Malaysia.

Referring to Table 8, H5 is failed to reject as the result shows that there is a significant difference in level of tax non-compliance between annual personal income of respondents. F value 4.568 ($df = 15, 231$, $p < 0.05$), is greater than critical F value of 1.72, and the significance level 0.000 shows that respondents with different income level have significant difference in their level of tax non-compliance.

H6: There is a significant relationship between tax rate and level of tax non-compliance among individual taxpayers in Malaysia.

Table 9 shows the SPSS output in calculating the relationship between level of tax non-compliance over tax rate. *Pearson's r value* shown in table is 0.444, which was interpreted as both of the variables having a weak relationship of each other. In addition, this positive relationship indicated that if the tax rate is increase, level of tax non-compliance will increase too. Significance level at 0.000 which is lesser than 0.05 p-value, affirmed that both variables are significantly correlated with one another. Therefore, H6 is failed to reject.

H7: There is a significant relationship between tax education and level of tax non-compliance among individual taxpayers in Malaysia.

H7 is failed to reject too even though both of variables are measured to have an average correlation as *Pearson's r value* is 0.519, yet, significance level at 0.000 which is lesser than 0.05 p-value, affirmed that both variables are significantly correlated with one another. *Pearson's r value* at 0.519 means that 51.9 percent in level of tax non-compliance is influenced by tax education, where respondents who participated in this research perceived that tax education is a major determinant in affecting tax non-compliance in Malaysia.

H8: There is a significant relationship between tax morale and level of tax non-compliance among individual taxpayers in Malaysia.

Pearson's r value shown in Table 9 for correlation between tax morale and level of tax non-compliance is -0.018, which is interpreted as both of the variables is having a very weak relationship of each other, and the negative sign (-) shows a negative relationship between tax morale and level of tax non-compliance. In this negative relationship, it is explained that if there is a high value in tax morale, then the level of tax non-compliance will be decreased. Added to this, significance level at 0.780 which is higher than 0.05 p-value, shows that both variables are insignificantly correlated with one another. Therefore, H8 is rejected.

H9: There is a significant relationship between public governance quality and level of tax non-compliance among individual taxpayers in Malaysia.

H9 is rejected as there is a very weak negative relationship between public governance quality and level of tax non-compliance. *Pearson's r value* shown in table is -0.037, where only 3.7 percent in tax non-compliance is accounted by public governance quality. In addition, significance level at 0.563 which is higher than 0.05 p-value, shows that both variables are insignificantly correlated with one another.

H10: There is a significant relationship between future tax costs and level of tax non-compliance among individual taxpayers in Malaysia.

Again, H10 is being rejected too. *Pearson's r value* shown in Table 9 for relationship between future tax costs and level of non-compliance is -0.033, which is interpreted as both of the variables having a very weak negative relationship of each other. In addition, significance level at 0.606 which is higher than 0.05 p-value, affirmed that both variables are insignificantly correlated with one another.

4.5 Possible Ways in Combating Tax Non-compliance

The respondents are required to rate to what extent they think the given solutions would be most effectively in deterring and combating tax non-compliance, under Section C in questionnaire, and the responses of participants are then analysed and tabulated by comparing their responses over the total given ten possible ways. Appendix D shows the ranking of the given ten possible solutions in combating tax non-compliance after the data was analysed by using SPSS.

The data analysis procedure employed in this section is the basic descriptive statistic, namely measurement of central tendency that include mean, median, and mode; while, standard deviation is a measurement of dispersion (Chua, 2013).

Mean refers as an average value by adding up the values of the data then divided by the number of observation. Median is the value which falls in the middle of a

series of data. On the other hand, mode refers to the value which most frequently appears in a series of data. Nardi (2006, p. 8) describes standard deviation as measurement of variability of values in a series of data, an average difference from the mean of values in a series of data, and it is commonly used by researchers as a main measurement indicator to interpret dispersion in a series of data (Chua, 2013, p. 11).

Referring to Appendix D, all ten possible methods in combating tax non-compliance are ranked accordingly based on responses from participants. The top five of most selected methods are 1) Government should enhance the fairness within tax regime by reducing tax rate and tax pressure towards lower income earners, for example, by increasing income tax bands; 2) Stiff punishment towards tax evader, like imprisonment, increase fine rate, and so on; 3) Increase public governance quality by increasing transparency and provide information on how tax revenue is being utilized; 4) Increase tax enforcement such as tax audit; and also, 5) Government should put more efforts in on-going anti-corruption campaigns.

There are total nearly 43 percent, where, 29.1 percent and 13.8 percent of respondents who rated government should enhance the fairness within tax regime by reducing tax rate and tax pressure towards lower income earners, for example, by increasing income tax bands, as their first and second choices respectively in regards of the most effective way to combat tax non-compliance. Based on table, mode shows one that this method has become the most chosen and mean shows 4.26 which this solution is the nearest to one among the rest of the statements, where one is the most effective way in deterring tax non-compliance. As one of the effective ways to combat tax non-compliance, Comaniciu (2010) highlighted that in providing goods and services to citizens, either government or tax authority, both agencies must ensure not only quantities but also qualities have to be taken enough care.

Cummings et al. (2006) mentioned that in order to effectively deter tax non-compliance, high penalties, tax audits and any policies cannot be optimized if tax

regime is perceived as unfair by taxpayers. Therefore, in this study, respondents selected fairness within tax regime before stiff punishments towards evaders. Choong and Lai (2008) conducted a study and elicited the most effective way to deter tax evasion (non-compliance). In their findings, fines and imprisonment also ranked second after hoping there is an atmosphere where encourages taxpayers to obey and comply with tax laws.

4.6 Chapter Summary

The responses of 247 respondents who are taxpayers were taken into data analysis by using SPSS Version 21. The results show that either male or female does not have difference in their level of tax non-compliance but there are differences in age group, marital status, highest education level and personal income level towards level of tax non-compliance. On the other hand, tax rate and tax education do have significant relationship with tax non-compliance, and they are positively correlated, which means, if the tax rate increases, the level of tax non-compliance will also increase as well. Meanwhile, the results show insignificant negative relationship between tax morale, public governance quality and future tax costs with tax non-compliance. The discussions on findings are covered in next chapter.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.0 Chapter Overview

A summary of results from hypotheses testing will be shown in this chapter, and discussion on the hypotheses testing from the results that derived by using SPSS to analyse the data collected with 247 taxpayers will be covered too. Then, implications of findings, limitation of present study and recommendation for future study will be included in this chapter as well. An overall conclusion of this research will be served as an ending of this report.

5.1 Discussion on Hypotheses Findings

This research is aimed to find out the determinants of tax non-compliance in Malaysia with the ten major factors based on literature reviews, which includes gender, age, marital status, highest education level, income level, tax rate, tax education, tax morale, public governance quality and future tax costs. The questionnaire was distributed to public and with 247 respondents who are taxpayers, the responses are collected and analysed further. The summary of results against hypotheses testing is shown in Table 10.

Table 10: Summary of Results from Hypotheses Testing

No	Data Analysis Method	Hypotheses	Results	Positive / Negative Relationship
H1	T-Test	There is a difference in level of tax non-compliance between male and female among individual taxpayers in Malaysia.	Rejected	-
H2	ANOVA	There is a difference in level of tax non-compliance between age group among individual taxpayers in Malaysia.	Failed to Reject	-
H3	ANOVA	There is a difference in level of tax non-compliance between marital statuses among individual taxpayers in Malaysia.	Failed to Reject	-
H4	ANOVA	There is a difference in education level towards tax non-compliance among individual taxpayers in Malaysia.	Failed to Reject	-
H5	ANOVA	There is a difference in level of tax non-compliance between income levels among individual taxpayers in Malaysia.	Failed to Reject	-
H6	Pearson's Correlation	There is a significant relationship between tax rate and level of tax non-compliance among individual taxpayers in Malaysia	Failed to Reject	Positive
H7	Pearson's Correlation	There is a significant relationship between tax education and level of tax non-compliance among individual taxpayers in Malaysia.	Failed to Reject	Positive
H8	Pearson's Correlation	There is a significant relationship between tax morale and level of tax non-compliance among individual taxpayers in Malaysia.	Rejected	Negative
H9	Pearson's Correlation	There is a significant relationship between public governance quality and level of tax non-compliance among individual taxpayers in Malaysia.	Rejected	Negative
H10	Pearson's Correlation	There is a significant relationship between future tax costs and level of tax non-compliance among individual taxpayers in Malaysia.	Rejected	Negative

5.1.1 Hypothesis One

There is a difference in level of tax non-compliance between male and female among individual taxpayers in Malaysia.

Based on the literature reviews, the influence of gender towards tax non-compliance is not absolute. Even though most of the literatures showed that women are more opposed to tax non-compliance compared to men (Mason & Calvin, 1978; Spicer & Becker, 1980; Gërxhani, 2007; Ross & McGee, 2011).

However, the result from data analysis shows that the differences in gender are not a factor of tax non-compliance, where, significance level in t-test for equality of means 0.844 shows the difference is not significant, as the minimum requirement to determine whether the result is significant is lower than alpha 0.05. This result is coincide with the findings from Kasipillai and Jabbar (2006) and Roshidi et al. (2007), which both also tested gender as a factor towards tax non-compliance in Malaysia context. In sum, gender may not a factor in affecting tax non-compliance decision in Malaysia.

5.1.2 Hypothesis Two

There is a difference in level of tax non-compliance between age group among individual taxpayers in Malaysia.

The result which was shown in Chapter 4 that there is a difference in level of tax non-compliance between age group among individual taxpayers in Malaysia and it is significantly different ($p < 0.05$). However, ANOVA failed to produce Post Hoc Comparison which provide further information to which group of age is more tax non-compliant. This result is supported by Hai and See (2011) who studied on age over tax non-compliance in Malaysia context.

Other researchers such as Mason & Calvin (1978), Clotfelter (as cited in Bosco & Mittone, 1997), Feinstein (1991), Serwinek (1992) and Wenzel (2002) also concluded the influences of age towards level of tax non-compliance.

5.1.3 Hypothesis Three

There is a difference in level of tax non-compliance between marital statuses among individual taxpayers in Malaysia.

Most of the studies, which includes Andreoni et al. (as cited in Slemrod, 2007), Friedland et al. (1978), Clotfelter (as cited in Bosco & Mittone, 1997), Crane and Nourzad (1990); Clotfelter (1993), and Young (1994) showed that differences in marital status does affect decision on tax non-compliance. Similar result found by Ross and McGee (2011) who surveyed on Malaysians' level of tax compliance.

In this study, it also shows a difference in level of tax non-compliance between marital statuses, where F value at 3.652 is greater than critical F value of 1.72, and the result is significant ($p < 0.05$). Unfortunately, ANOVA failed to produce Post-Hoc comparison test in order to find out which group is more opposed to tax non-compliance.

5.1.4 Hypothesis Four

There is a difference in education level towards tax non-compliance among individual taxpayers in Malaysia.

The result from Chapter 4 shows that there is a significant difference in highest education level towards tax non-compliance among individual taxpayers in Malaysia, as the significance level 0.000 is less than 0.05 at 95 percent confidence interval. However, the result failed to explain at which level of education is more opposed to tax non-compliance.

This result is contradicted with the findings from Ross and McGee (2011) who studied on tax compliance within Malaysian context, as they found no difference between education levels towards tax compliance level. However, Stulhofer (as cited in Gërxhani, 2007), Witte and Woodbury (as cited in Ritsema, et al, 2003), Obid (1994), Dubin and Wilde (1988) and Ritsema et al. (2003) found relationship between education level and tax non-compliance.

5.1.5 Hypothesis Five

There is a difference in level of tax non-compliance between income levels among individual taxpayers in Malaysia.

Referring to Chapter 4, the result again failed to provide further information to which level of income would most likely in affecting tax non-compliance, even though the result shows that there is a significant difference in level of tax non-compliance between annual personal income among individual taxpayers in Malaysia. This result was supported by several studies, such as, Spicer and Lundstedt (as cited in Wentworth & Rickel, 1985), Clotfelter (as cited in Bosco & Mittone, 1997), Witte and Woodbury (as cited in Ritsema, et al, 2003), Crane and Nourzad (1990), Alm et al. (1992), Young (1994), Hoffman (as cited in Gërxhani, 2007) and Ross and McGee (2011). As such, it shows that income levels does matter in affecting tax non-compliance decision in Malaysia context.

5.1.6 Hypothesis Six

There is a significant relationship between tax rate and level of tax non-compliance among individual taxpayers in Malaysia.

The *Pearson's r value* 0.444 shows a significant weak but positive relationship between tax rate and tax non-compliance, given significance level at 0.000. This finding is similar with other studies, either empirically or theoretically, like Clotflter (as cited in Bărbuţă-Mişu, 2011), Crane and Nourzad (1987), Obid (2004), Ho et al. (2006), Bayer (2006) and Ahangar et al. (2011), who agreed that tax rate does influence tax non-compliance positively.

As mentioned earlier, high tax rates leads to higher level of tax non-compliance. This phenomenon is explained by Obid (2004) that, an increase in tax rate definitely will reduce the usable income, and taxpayers have to pay higher tax in relation to higher income, therefore it can be more profitable if taxpayers choose to engage in tax non-compliance activities.

5.1.7 Hypothesis Seven

There is a significant relationship between tax education and level of tax non-compliance among individual taxpayers in Malaysia.

Tax education has a significant average but positive correlation with tax non-compliance with *Pearson's r value* 0.519. In other words, 51.9 percent in level of tax non-compliance is influenced by tax education, where tax education is perceived as a major determinant in affecting tax non-compliance in Malaysia.

However, since the relationship is positive, it also means that, the higher the tax education, there would be a higher level of tax non-compliance. This result is contradicted with the findings found by Fallan (1999), Kasipillai (as cited in Obid, 2004), Singh and Renuka (as cited in Obid, 2004), and Roshidi et al. (2007) that tax knowledge influences tax compliance significantly and positively. The reason that can explain the result derived from the current study is that, taxpayers who possess higher tax knowledge are more likely to engage in tax avoidance rather than tax non-compliance (Krichler et al., as cited in Obid, 2004). Anyhow, Lin and Carrol (as cited in Roshidi et al., 2007) against that tax knowledge influences compliance behaviour.

5.1.8 Hypothesis Eight

There is a significant relationship between tax morale and level of tax non-compliance among individual taxpayers in Malaysia.

Even though as mentioned earlier that Alm and Torgler (2006) found out that tax morale has occupied more than 20% of the total portion that can explain the tax non-compliance behaviour, yet, it failed to be proven in the present research, since significance level at 0.780 which is higher than 0.05 p-value, shows that both variables are insignificantly correlated with one another. However, the negative relationship explained that if there is a high value in tax morale, then the level of tax non-compliance will be decreased.

Similarly, the findings from Mason and Calvin (as cited in Obid, 2004), Kaplan and Reckers (1985), Ritsema et al. (2003), Frey and Torgler (as cited in Ahangar, et al., 2011) and Kirchgassner (2010) also reported a positive relationship between tax morale and tax compliance level, or in other words, a negative relationship between tax morale and tax non-compliance.

5.1.9 Hypothesis Nine

H9: There is a significant relationship between public governance quality and level of tax non-compliance among individual taxpayers in Malaysia.

Public governance quality projected *Pearson's r value* -0.037 shows a very weak negative relationship with level of tax non-compliance, but they are insignificantly correlated with one another as significance level at 0.563 which is higher than 0.05 p-value. Notwithstanding the insignificant relationship between public governance quality and tax non-compliance, the negative relationship is still supported by Keenan and Dean (as cited in Ho et al, 2006), Bosco and Mittone (1997), Torgler (2003), Obid (2004), Ho et al. (2006), Kirchgassner (2010), Ahangar et al. (2011), Ross and McGee (2011), and, Alabede et al. (2011).

The result illustrated the same findings from other countries, which Malaysian taxpayers are also prone to perceive public governance quality negatively. Therefore, when government's rectitude is lower, there will be a throng of taxpayers rationalized their non-compliance (Torgler, 2003).

5.1.10 Hypothesis Ten

There is a significant relationship between future tax costs and level of tax non-compliance among individual taxpayers in Malaysia.

Referring to Chapter 4, *Pearson's r value* -0.033 shows a very weak negative relationship between future tax costs and level of non-compliance. Even though the result is insignificant (significance level at 0.606 is higher than 0.05 p-value), the negative relationship reflected the higher the future tax costs that taxpayer is

expected, the lower the level of tax non-compliance that taxpayer will engage in. This negative relationship is supported by various studies, such as, Friedland, et al. (1978), Christiansen (1980), Crane and Nourzard (1990), Park and Hyun (as cited in Bărbuţă-Mişu, 2011) and Torgler (2005).

Meanwhile, Hannemann and Pommerehne (as cited in Kirchgassner, 2010), Bosco and Mittone (1997), Andreoni, et al. (1998), Bărbuţă-Mişu (2011) found that there is no clear picture or weak effects and even no significant impact on the relationship between fines and tax audits towards tax compliance.

5.2 Implications

In order to effectively combat the issue of tax non-compliance, there must be a co-operation between three parties, which includes government, tax authority and taxpayers. A triangular relationship must be formed intimately.

The respondents who participated in this survey perceived Malaysian tax system quite negatively, where mostly chose that, the income tax system is not fair, the system of tax administration is not efficient and effective, the nation is characterised as political instability, the corruption is high, government wasted a lot of money, they think citizens are not enlightened on how tax revenues are being utilised by government and also they perceived that it is not so wrong if they declared less on taxable income since the government spend so much on extravagant projects. Comaniciu (2010) emphasized that in order to combat tax non-compliance, government should provide, not only in terms of quantity, but also in terms of quality of their goods and services to meet taxpayers' expectation.

Ho, et al. (2006) highlighted that no exertion was taken by government and tax authority to understand what taxpayers want and their needs. Cummings, et al. (2006) mentioned that, in combating tax non-compliance, it is not merely imposing high penalties, increasing the frequency of tax audits or other policies, the problem must be solved in finding out the root cause rather than just treating

the surface. Therefore, studies on taxpayers' attitude and behaviour on compliance is extremely needed, either sociologically or psychologically (Comaniciu, 2010).

Besides, Kasipillai, et al. (as cited in Ho, et al., 2006) claimed that, in order to assure tax compliance of taxpayers, it is not only depends on enforcement and penalties, but also rely on tax education programmes. Mentioning about tax education programmes, tax authority shall not only provide the workshops or seminars that barely explaining the technical aspect on how to fill in tax return, but should put more effort in creating a tax compliance atmosphere and briefing on ethical value more frequently (Choong & Lai, 2008; Kasipillai, et al (as cited in Ho, et al., 2006). As such, the duty of IRBM shall not merely collecting the tax payment from taxpayers and conducting tax audits but also nurturing taxpayers on tax knowledge and tax education.

In addition, taxpayers must not escape from their obligation as citizens. According to Choong and Lai (2008) which conducted a study on Malaysian taxpayers on their awareness of taxpayers' duties, found that, almost 70 percent of the respondents do not aware that the book-keeping for business transaction is within 60 days from the date it incurred, which is one of the rules and regulations under SAS. Therefore, it is an obligation for taxpayers to take tax laws and any public rulings seriously before penalties are imposed on wrongdoings. Meanwhile, taxpayers must inculcate themselves a respect of the laws.

Overall, a tri-dimensional effort from government, IRBM and taxpayers are extremely needed in combating tax non-compliance.

5.3 Limitations

There are some limitations throughout the study was being carried out. Firstly, the research is just focused on taxpayers, but do not put non-taxpayers in account. Most of the studies are based on the perception on taxpayers towards level of tax non-compliance, yet, the opinion from non-taxpayers shall be learnt too, as they

may become taxpayer one day. Secondly, the questionnaire was sent out in mass to the public through power of internet and was not being monitored properly by the researcher. The respondents may not fully understand the questions and requirements of questions, and respondents may simply answer the questions, this may deflect the responses of this research. Unlike face-to-face interview, which have chance to interact with respondents by explaining in details on the questions and understand them better. However, due to time and cost constrains, the fastest and easiest way to reach more respondents is by using internet network.

Thirdly, there is lack of data for processing Post-Hoc comparison test under ANOVA test, where in this research, it fails to provide further information, like which group of age, which marital status, which education level and which income group is more tax non-compliant and more oppose to tax non-compliance. Even so, the hypotheses still can be tested and the results on ANOVA test are gained too.

Lastly, as mentioned earlier, in determining the extension of tax non-compliance is not straightforward, as respondents might not answering the survey questions about tax non-compliance honestly due to tax non-compliance is both personally sensitive and potentially incriminating (Slemrod, 2007). Therefore, the results may not be absolutely reflected taxpayers' opinion.

5.4 Recommendations for Future Study

Referring to the limitations above and may serve as a guideline for future study. Firstly, if there is no time and cost constraints, the questionnaire can be distributed throughout the every states of Malaysia, by face-to-face interview, in order to get a more comprehensive and real responds from the participants with different stages of background, which may broaden the participation to non-taxpayers as well. Secondly, the Post Hoc comparison test can be done if there is more participation from public. If the questionnaire is distributed widely to every states, then it is possible to run the test, which enables the researcher to find out which

group of respondents is more opposed to tax non-compliant or otherwise. Besides, it can also enhance the findings by running more test and analysis on the data collection, such as multiple regression analysis, multivariate analysis and so on.

Thirdly, the factors which included in this research are not exclusively served as the determinants to tax non-compliance, therefore more areas and aspects of compliance behaviour and attitudes should have research upon, for example, the complexity of the tax system may become a factor of tax non-compliance and so on.

Lastly, the perception of taxpayers on tax rate, tax education, tax morale, public government quality and future tax costs may need to research in-depth in order to gain an insight view of impact of each factor towards tax non-compliance. Besides, in future study, in order to reduce the dishonesty of responses, an indirect tax-related questions or tax-related scenarios will be adopted in the questionnaire, as suggested by Gërxhani (2007).

5.5 Chapter Summary

Overall, the present research is successfully answered the research questions and the results derived from the analysis by using SPSS is adequate to provide evidence on all the hypotheses testing. From non-economic factors, age, marital status, education level and tax education show significant results, whereas, the results for gender, tax morale and public governance quality are insignificant. On the other hand, from economic factors, income level and tax rate show significant results but not for future tax costs. The implications and limitations of the research are discussed in this chapter as well as the recommendations for future study.

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APPENDICES

APPENDIX A

QUESTIONNAIRE

Dear respondents,

I am a postgraduate student from Universiti Tunku Abdul Rahman and currently conducting a study for my MBA Degree programme. I would like to invite you to participate in this survey, which attempt to find out the **Determinants of Tax Non-Compliance in Malaysia**. There are 3 sections in this questionnaire and it will take approximately 10 minutes to complete it. This survey can be completed by **any individual who is a taxpayer or yet to be a taxpayer**.

Your participation in this survey is completely voluntary. Your responses will be strictly kept confidential and data collected from this survey will be reported in the aggregate. Your information and responses will not be identified with you personally. Your participation is very important in this study. Thank you very much for sparing your time to complete this survey.

Section A: Demographic Information

This section relates to personal background. These characteristics are very important in finding how personal characteristics affect tax non-compliance decision. Kindly tick "✓" in the appropriate box that represents your response.

1. Gender
   - ☐ Male
   - ☐ Female

2. Age
   - ☐ ≤ 25
   - ☐ 26 - 35
   - ☐ 36 - 45
   - ☐ 46 - 55
   - ☐ Above 56

3. Marital status
   - ☐ Single
   - ☐ Married / Cohabitation
   - ☐ Divorced / Widowed

4. Highest education level
   - ☐ Up to SPM
   - ☐ STPM / Certificate
   - ☐ Diploma / Vocational course
   - ☐ Undergraduate / Bachelor's degree
   - ☐ Postgraduate / Professional
   - ☐ Doctorate (PhD)

5. Annual personal income
   - ☐ Up to RM24,000
   - ☐ RM24,001 – RM48,000
   - ☐ RM48,001 – RM72,000
   - ☐ RM72,001 – RM120,000
   - ☐ Above RM120,001

6. Are you an existing taxpayer?
   - ☐ Yes
   - ☐ No

Section B: Tax Non-Compliance Measures

Please indicate the extent of your agreement or disagreement with the following statements. Kindly tick "✓" in the appropriate box that represents your response.

Part 1: General

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Overall, I think income tax system in Malaysia is fair.	☐	☐	☐	☐	☐
2.	Overall, the system of tax administration in Malaysia is efficient and effective.	☐	☐	☐	☐	☐
3.	Overall, I think Malaysia is characterized by political stability.	☐	☐	☐	☐	☐
4.	Overall, I have high confidence in the government.	☐	☐	☐	☐	☐
5.	Overall, current tax law in Malaysia is not complex.	☐	☐	☐	☐	☐
6.	Overall, current tax system is not induces me to non-compliant.	☐	☐	☐	☐	☐
7.	Overall, I think the amount of income tax that I have paid is not too high.	☐	☐	☐	☐	☐
8.	Overall, paying taxes is reducing my personal income.	☐	☐	☐	☐	☐

Part 2: Reporting Income

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I would pay taxes if my income is higher.	☐	☐	☐	☐	☐
2.	I fully declare my principal income, but not including my part-time income.	☐	☐	☐	☐	☐

3.	If the job is paid in cash basis, then it is alright not to report it in tax return.	☐	☐	☐	☐	☐
4.	I would understate income (employment income, rental income and etc) if the amount is relatively small.	☐	☐	☐	☐	☐

Part 3: Income Tax Rate

		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1.	I think the current tax rate is considered fair for every taxpayer.	☐	☐	☐	☐	☐
2.	If tax rates are reduced, I believe that more people would be encouraged to pay their taxes.	☐	☐	☐	☐	☐
3.	I would be motivated to pay taxes if tax rates are reduced.	☐	☐	☐	☐	☐
4.	Income tax rate does not affect my decision on tax non-compliance.	☐	☐	☐	☐	☐

Part 4: Tax Education

		Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1.	I encounter significant confusion whilst filling tax forms.	☐	☐	☐	☐	☐
2.	I need to consult tax professionals in completing my tax forms.	☐	☐	☐	☐	☐
3.	When I am not really sure whether or not an expense is allowable, it makes sense to claim the deduction anyway.	☐	☐	☐	☐	☐
4.	There is shortage of experienced and highly motivated personnel for tax assessment and tax collection.	☐	☐	☐	☐	☐

Part 5: Individual Tax Morale

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I would cheat on tax if I have the chance.	☐	☐	☐	☐	☐
2.	It is wrong if a taxpayer does not report all of his or her income in order to pay less income tax.	☐	☐	☐	☐	☐
3.	Taxes are so heavy that tax non-compliance is an economic necessity for many to survive.	☐	☐	☐	☐	☐
4.	Since everybody not compliant taxes, one can hardly be blamed for doing it.	☐	☐	☐	☐	☐

Part 6: Public Governance Quality

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	I think corruption in Malaysia is high.	☐	☐	☐	☐	☐
2.	I think government wastes a lot of money.	☐	☐	☐	☐	☐
3.	I do not feel like paying taxes as long as the government cannot be trusted.	☐	☐	☐	☐	☐
4.	It is not so wrong to declare less on taxable income since the government spends too much on extravagant projects.	☐	☐	☐	☐	☐
5.	I think people are not enlightened on how tax revenues are being utilized by government.	☐	☐	☐	☐	☐

Part 7: Future Tax Cost

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	The probability of being audited is so low, that it	☐	☐	☐	☐	☐

	is worthwhile to understate a little on my taxable income.					
2.	I think the tax authority would not be able to find out even I failed to declare some earnings from commission.	☐	☐	☐	☐	☐
3.	I think it is worthwhile not compliant with tax if the benefits derived from non-compliance are greater than fines when being caught later.	☐	☐	☐	☐	☐
4.	I think the likelihood of being detected is still low even I am being audited.	☐	☐	☐	☐	☐
5.	I think the penalties imposed presently are not enough to deter potential evader.	☐	☐	☐	☐	☐

Section C: Possible Ways in Combating Tax Evasion

Given the list of possible solutions below, please rate the items that you think it would most effectively contribute in combating tax evasion. Please use the following scale:

1 ——————————————— 10

(most effective) (least effective)

1. Stiff punishment towards tax evader, like imprisonment, increase fine rate, and so on.

	1	2	3	4	5	6	7	8	9	10	
Most Effective	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Least Effective

2. Increase tax enforcement such as tax audit.

	1	2	3	4	5	6	7	8	9	10	
Most Effective	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Least Effective

3. More attractive rewards to fraudulent reporter.

	1	2	3	4	5	6	7	8	9	10	
Most Effective	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Least Effective

4. Increase public governance quality by increasing transparency and providing information on how tax revenue is being utilized.

	1	2	3	4	5	6	7	8	9	10	
Most Effective	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Least Effective

5. More tax education programmes should be conducted by tax authority, like workshops in interpreting tax laws.

	1	2	3	4	5	6	7	8	9	10	
Most Effective	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Least Effective

6. Government / tax authority should enhance fairness within tax regime by reducing tax rate and tax pressure towards lower income earners, eg: by increasing income tax bands.

	1	2	3	4	5	6	7	8	9	10	
Most Effective	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Least Effective

7. Education on taxation should be taught even before becoming taxpayers.

	1	2	3	4	5	6	7	8	9	10	
Most Effective	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Least Effective

8. More credible and knowledgeable tax officers.

	1	2	3	4	5	6	7	8	9	10	
Most Effective	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Least Effective

9. More studies on taxpayers' behavior, so that tax authority / government can learn more on taxpayers' opinion.

	1	2	3	4	5	6	7	8	9	10	
Most Effective	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Least Effective

10. Government should put more efforts in on-going anti-corruption campaigns.

	1	2	3	4	5	6	7	8	9	10	
Most Effective	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	Least Effective

------ End of Questionnaire ------

Thank you very much for your time and supports. Have a nice day!

Appendix B

The Top 20 Ranking of Countries in Asia Region to The Total Tax Lost Result of Shadow Economy

Country	Ranking in world record	Ranking in Asia region	Tax lost as a result of shadow economy (US'mil)	Cost of tax non-compliance, local currency ('mil)
Japan	7	1	171,147	14,347,246
China	8	2	134,385	896,351
South Korea	12	3	72,320	83,902,586
India	13	4	71,394	3,262,719
Thailand	24	5	25,814	776,997
Indonesia	32	6	17,761	158,070,661
Kazakhstan	33	7	16,279	2,401,100
Israel	34	8	16,017	58,944
Taiwan	38	9	13,887	423,549
Philippines	43	10	11,707	516,283
Malaysia	44	11	11,243	35,639
Pakistan	49	12	6,365	545,492
Azerbaijan	52	13	5,245	4,301
Saudi Arabia	53	14	5,193	19,472
Singapore	58	15	4,079	5,385
Iran	60	16	3,695	30,407,146
Vietnam	61	17	3,691	71,972,390
Bangladesh	65	18	3,109	214,504
Sri Lanka	67	19	2,893	322,157
Lebanon	73	20	2,151	3,227,116

Note: Adapted Murphy, R. (2011). The cost of tax abuse: A briefing paper on the cost of tax evasion worldwide. *The Tax Justice Network*.

APPENDIX C

Table for Determining Sample Size from a Given Population

N	*S*	*N*	*S*	*N*	*S*
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size.
S is sample size.

Note: From Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30, 607-610.*

Appendix D

Most Effective Ways in Combating Tax Non-compliance

Most Effective Ways in Combating Tax Non-compliance	Mean	Median	Mode	Standard Deviation	Rank
PossCom_6-Government should enhance the fairness within tax regime by reducing tax rate and tax pressure towards lower income earners, eg: by increasing income tax bands	4.26	4	1	2.992	1
PossCom_1-Stiff punishment towards tax evader, like imprisonment, increase fine rate, and so on	4.41	5	2	2.767	2
PossCom_4-Increase public governance quality by increasing transparency and provide information on how tax revenue is being utilized	4.44	5	1	2.928	3
PossCom_2-Increase tax enforcement such as tax audit	4.64	5	2	2.718	4
PossCom_10-Government should put more efforts in on-going anti-corruption campaigns	4.73	4	1	3.003	5
PossCom_5-More tax education programmes should be conducted by tax authority, like workshops in interpreting tax laws	5.32	6	6	2.511	6
PossCom_7-Education on taxation should be taught even before becoming taxpayers	5.70	6	6	2.691	7
PossCom_8-More credible and knowledgeable tax officers	5.85	6	7	2.555	8
PossCom_3-More attractive rewards to fraudulent reporter	5.94	6	7	2.549	9
PossCom_9-More studies on taxpayers behavior, so that tax authority / government can learn more on taxpayers' opinion	6.11	7	7	2.633	10

APPENDIX E1

SPSS OUTPUT: DEMOGRAPHIC PROFILE OF RESPONDENTS

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	100	40.5	40.5	40.5
	Female	147	59.5	59.5	100.0
	Total	247	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 25	5	2.0	2.0	2.0
	26 - 35	70	28.3	28.3	30.4
	36 - 45	94	38.1	38.1	68.4
	46 - 55	58	23.5	23.5	91.9
	Above 56	20	8.1	8.1	100.0
	Total	247	100.0	100.0	

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	81	32.8	32.8	32.8
	Married / Cohabitation	140	56.7	56.7	89.5
	Divorced / Widowed	26	10.5	10.5	100.0
	Total	247	100.0	100.0	

Highest Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Up to SPM	4	1.6	1.6	1.6
	STPM / Certificate	11	4.5	4.5	6.1
	Diploma / Vocational course	76	30.8	30.8	36.8
	Undergraduate / Bachelor's degree	98	39.7	39.7	76.5
	Postgraduate / Professional	49	19.8	19.8	96.4
	Doctorate (PhD)	9	3.6	3.6	100.0
	Total	247	100.0	100.0	

Annual Personal Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	RM24,001 - RM48,000	60	24.3	24.3	24.3
	RM48,0001 - RM72,000	111	44.9	44.9	69.2
	RM72,001 - RM120,000	65	26.3	26.3	95.5
	Above RM120,001	11	4.5	4.5	100.0
	Total	247	100.0	100.0	

APPENDIX E2

SPSS OUTPUT: RELIABILITY ANALYSIS

Tax Non-Compliance

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.955	.954	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TaxNonC_1-I would pay taxes if my income is higher	10.26	13.975	.785	.618	.970
TaxNonC_2-I fully declare my principal income, but not including my part-time income	10.32	12.691	.936	.910	.926
TaxNonC_3-If the job is paid in cash basis, then it is alright not to report it in tax return	10.36	12.621	.938	.916	.925
TaxNonC_4-I would understate income (employment income, rental income and etc) if the amount is relatively small	10.39	12.938	.901	.834	.937

Tax Rate

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.896	.896	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TaxRate_1-I think the current tax rate is considered fair for every taxpayer	10.28	9.924	.753	.665	.872
TaxRate_2-If tax rates are reduced, I believe that more people would be encouraged to pay their taxes	9.64	10.321	.797	.788	.855
TaxRate_3-I would be motivated to pay taxes if tax rates are reduced	9.65	10.432	.771	.775	.865
TaxRate_4-Income tax rate does not affect my decision on tax non-compliance	10.02	10.199	.757	.662	.869

Tax Education

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.918	.920	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TaxEdu_1-I encounter significant confusion whilst filling tax forms	10.47	9.632	.859	.811	.876
TaxEdu_2-I need to consult tax professionals in completing my tax forms	10.50	9.592	.880	.834	.869
TaxEdu_3-When I am not really sure whether or not an expense is allowable, it makes sense to claim the deduction anyway	10.86	9.875	.721	.521	.927
TaxEdu_4-There is shortage of experienced and highly motivated personnel for tax assessment and tax collection	10.32	10.365	.797	.648	.898

Tax Morale

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.901	.902	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
TaxMor_1-I would cheat on tax if I have the chance	9.51	11.056	.769	.622	.877
TaxMor_2-It is wrong if a taxpayer does not report all of his or her income in order to pay less income tax	9.26	11.427	.739	.582	.887
TaxMor_3-Taxes are so heavy that tax non-compliance is an economic necessity for many to survive	9.35	10.561	.887	.796	.833
TaxMor_4-Since everybody not compliant with taxes, one can hardly be blamed for doing it	9.59	11.439	.728	.636	.891

Public Governance Quality

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.979	.979	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
PubGQ_1-I think corruption in Malaysia is high	14.44	28.174	.938	.945	.974
PubGQ_2-I think government wastes alot of money	14.46	27.794	.947	.951	.973
PubGQ_3-I do not feel like paying taxes as long as the government cannot be trusted	14.62	27.628	.953	.919	.972
PubGQ_4-It is not so wrong to declare less on taxable income since the government spends too much on extravagant projects	14.68	28.038	.908	.851	.979
PubGQ_5-I think people are not enlightened on how tax revenues are being utilized by government	14.60	27.429	.948	.907	.973

Future Tax Costs

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.948	.948	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
FuTaxC_1-The probability of being audited is so low, that it is worthwhile to understate a little on my taxable income	11.89	19.231	.909	.842	.926
FuTaxC_2-I think the tax authority would not be able to find out even I failed to declare some earnings from commission	11.88	19.310	.902	.849	.928
FuTaxC_3-I think it is worthwhile not compliant with tax if the benefits derive from non-compliance are greater than fines when being caught later	11.86	19.293	.914	.844	.926
FuTaxC_4-I think the likelihood of being detected is still low even I am being audited	11.98	19.678	.860	.795	.935
FuTaxC_5-I think the penalties imposed presently are not enough to deter potential evader	11.52	20.901	.707	.533	.962