TAX AUDIT ADJUSTMENTS AND SMALL AND MEDIUM-SIZED CORPORATIONS (SMCs) CHARACTERISTICS

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ABSTRACT

The tax system persists as the primary sources of financing Federal Government developments plans. Malaysia is a country that lagely relies on taxes. Direct taxes administered by Inland Revenue Board of Malaysia (IRBM) accounted for more than two-thirds of the Federal Government revenue in 2015 and income taxes collected from corporate sector was 38% of the federal revenue. This represents the importance of corporate tax collection in generating revenue for the nation. While the annual income tax collection of IRBM shows a positive increment each year, tax non-compliance issues are still ongoing and intensified, evidenced by an increase in the number of cases audited by tax settlement with audit adjustments and penalties. This study was performed to determine whether there was a significant difference in the motivation to conduct tax non-compliance among Malaysian Small and Medium-sized Corporations (SMCs), based on type of industry, size of company, location, and financial liquidity. The study employ quantitative research approach to analyse secondary data of field tax audit cases completed in 2015, obtained from IRBM. The research findings indicate that the type of industry, size of company, location of company and financial liqudity have influenced the probability of SMCs engaging in tax non-compliance behaviour and significant differences exist between them. SMCs engaging in services, construction and manufacturing industries has a high probability of tax non-complinace. Similar with SMCs with total assets exceeding RM10 million and SMCs located in Kelantan/Terengganu, FT Kuala Lumpur/FT Putrajaya and Selangor. SMCs with low liquidity ratio found to be less tax compliant. Therefore, research findings are expected to contribute to the body of literatures and to aid government, tax administrators, and tax practitioners especially on issues relating to SMCs tax compliance behaviour in ensuring the level of voluntary tax compliance is improved.

Keywords: small and medium-sized corporations (SMCs), tax non-compliance, tax audit data, financial liquidity

ABSTRAK

Sistem percukaian merupakan sumber utama pembiayaan kepada rancangan pembangunan Kerajaan Persekutuan. Malaysia adalah sebuah negara yang bergantung kepada hasil kutipan cukai. Cukai langsung yang ditadbir oleh Lembaga Hasil Dalam Negeri Malaysia (LHDNM) menyumbang lebih daripada dua pertiga daripada hasil Kerajaan Persekutuan pada tahun 2015 dan cukai pendapatan yang dikutip dari sektor korporat adalah 38% daripada pendapatan persekutuan. Ini menggambarkan bahawa kepentingan kutipan cukai korporat dalam menjana pendapatan negara. Walaupun kutipan cukai pendapatan tahunan LHDNM menunjukkan peningkatan positif setiap tahun, isu-isu ketidakpatuhan cukai masih berlaku dan telah meningkat. Ini dibuktikan oleh peningkatan jumlah kes audit cukai yang diselesaikan dengan pelarasan audit dan penalti. Kajian ini dilakukan untuk menentukan sama ada terdapat perbezaan yang signifikan dalam penentu-penentu ketidakpatuhan cukai di kalangan Syarikat Kecil dan Sederhana (SKS) di Malaysia, berdasarkan jenis industri, saiz syarikat, lokasi, dan kecairan kewangan. Kajian ini menggunakan pendekatan penyelidikan kuantitatif untuk menganalisa data sekunder kes audit luar yang diselesaikan pada tahun 2015 yang diperolehi daripada LHDNM. Penemuan penyelidikan menunjukkan bahawa jenis industri, saiz syarikat, lokasi syarikat dan kecairan kewangan mempengaruhi kebarangkalian perilaku ketidakpatuhan cukai di kalangan SKS dan perbezaan signifikan wujud di antara mereka. SKS dalam industri perkhidmatan, pembinaan dan pengilangan mempunyai kebarangkalian tinggi ketidakpatuhan cukainya. Begitu juga dengan SKS yang mempunyai jumlah aset melebihi RM10 juta dan SKS yang bertempat di Kelantan, WP Kuala Lumpur/WP Putrajaya dan Selangor. SKS dengan nisbah kecairan yang rendah juga didapati kurang mematuhi cukai. Oleh itu, penemuan penyelidikan diharap dapat menyumbang kepada pertambahan literatur dan dapat membantu kerajaan, pentadbir cukai, dan pengamal cukai terutamanya mengenai isu-isu kelakuan pematuhan cukai SKS dalam memastikan tahap pematuhan cukai sukarela dipertingkatkan.

Kata kunci: syarikat kecil dan sederhana, ketidakpatuhan cukai, data audit cukai, kecairan kewangan

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
ATO	Australian Taxation Office
CMS	Case Management System
DGIR	Director General of Inland Revenue
GDP	Gross Domestic Product
GST	Goods and Services Tax
IRBM	Inland Revenue Board of Malaysia
ITA	Income Tax Act
ITRF	Income Tax Return Form
MDTD	Monitoring Deliberate Tax Defaulters
OECD	Organization for Economic Co-operation and Development
RMCD	Royal Malaysian Customs Department
SAS	Self-Assessment System
SGATAR	Study Group on Asian Tax Administration and Research
SMCs	Small and Medium-sized Corporations
SMEs	Small and Medium-sized Enterprises
SPSS	Statistical Package of the Social Science
TCMP	Tax Compliance Measurement Program

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

It is sensible to declare that at present-day, the tax system persists as the primary sources of financing for extensive agendas of Federal Government developments that encompassed both economic and social plans. Tax revenues collection is crucial for a government to ensure its funding (Hartner, Rechberger, Kirchler & Schabmann, 2008). Thus, the government revenue generated from taxes is very much vital not only as Federal Government's revenue but also as resources for the constant growth of the nation. In addition, it is claimed that tax collection enables the Federal Government to finance all the nation's public expenses, while reducing and balancing the tax gap between those who are high income earners and low income earners (Lymer & Oats, 2009).

In Malaysia, taxes can be classified into two categories of taxes; direct and indirect taxes. Inland Revenue Board of Malaysia (IRBM) and Royal Malaysian Customs Department (RMCD) are two primary bodies that administer tax system and custom regime. They are responsible for collecting tax revenue on behalf of the government (Yunus, Ramli & Hassan, 2017). Direct taxes are administered by IRBM that includes corporate tax, individual tax, petroleum tax, real property gains tax, withholding tax and stamp duty. On the other hand, RMCD is responsible to collect indirect taxes such as good and service tax (GST), excise duty, import duty and export duty.

Malaysia is a country that largely relies on taxes (particularly direct taxes) as its revenue (Abdul-Jabbar, 2009), and thus will have to take the necessary measures in order to sustain the nation's development and achieve its fiscal (GDP growth) and social objectives. Inability to collect taxes would not only restrain the nation's development, but also lead to various socioeconomic problem such as corruption among civil servants.

Generally, any tax system implemented in order to collect fair tax revenue, must have high tax compliance rate and an effective tax administration. Thus, a country that depends on tax collection to develop their nation must in deed, have a high tax compliance rate (Chung & Trivedi, 2003). This is because any tax non-compliance with reporting requirements may affect a nation's revenue collection (Tan & Sawyer, 2003).

Even though taxation implementation is known to deliver numerous social benefits, there are no doubt that certain parties have been found to engage in at least a form of tax non-compliance such as tax avoidance and tax evasion (Saad, 2012). Henceforth, tax non-compliance has constantly been a primary concern for all tax administrators, not excluding IRBM.

IRBM, which was established on March 1, 1996 after given the autonomy to improve the quality and effectiveness of tax administration, is one of the main revenue collecting agencies of the Ministry of Finance in Malaysia. IRBM is responsible for the overall administration, assessment, collection and enforcement of direct taxes

through various Acts such as Income Tax Act 1967 (ITA 1967), Real Property Gains Act 1976 and Stamp Act 1949, just to name a few.

Referring to the statistics in Table 1.1, direct taxes administered by IRBM accounted for more than two-third of the Federal Government's revenue in 2011 to 2015. Even though the portion has decreased in 2015 mainly due to the depreciation of global petroleum prices and the implementation and collection of Goods and Service Tax (GST) by the RMC (effective 1st April 2015), direct taxes still remain the leading contributor of Federal Government's revenue.

Table 1.1
Composition of Direct Taxes against Federal Revenue, 2011-2015

Year	Federal Revenue (RM million)	Direct Taxes (RM million)	Direct Taxes (%)
2011	134,885	102,242	76
2012	151,645	116,939	77
2013	155,952	120,523	77
2014	164,205	126,742	77
2015	165,440	111,770	68

Source: Federal Government Revenue, 2011-2015 (www.treasury.gov.my)

Furthermore, Table 1.2 shows significant contribution by the corporate sector for the year 2011 to 2015. In 2015, income taxes collected from corporate sector was 61%, which contributed 57% to direct taxes and 38% to the federal revenue. This represents the importance of corporate tax collection in generating revenue for the nation. It is acknowledged by Abdul-Jabbar (2009) and Abdul Wahab (2017) that corporate tax revenue is the highest contributor in the federal revenue as compared to other tax revenues segments.

Table 1.2
Composition of Corporate Tax against Income Taxes, Direct Taxes and Federal Taxes, 2011-2015

Year	Corporate Tax (RM million)	Corporate Tax as a Percentage of		
		Income Taxes	Direct Taxes	Federal Revenue
2011	46,888	48	46	35
2012	51,288	46	44	34
2013	58,175	51	48	37
2014	65,240	55	51	40
2015	63,679	61	57	38

Source : Federal Government Revenue, 2011-2015 (www.treasury.gov.my)

Approximately more than one-third of Federal Government's revenue collection is being contributed by corporate taxes collected by IRBM. Therefore, IRBM has to ensure that income taxes, which are a major source of direct taxes, to be collected appropriately and fairly. Thus, as corporate income taxes represent the highest contributor in income tax revenue, it is crucial for IRBM to implement an effective tax system, to preserve a high level of tax compliance and enforce stringent tax regulation amongst its corporate taxpayers, including Small and Medium-sized Corporations (SMCs). Otherwise, it will compromise the Federal Government's revenue collection and indirectly hinder the development of Malaysia.

The Malaysian government have reformed their tax system and structure from formal assessment to Self-Assessment System (SAS) since 2001. Initially SAS was applicable only for corporate taxpayers but was extended to other groups of taxpayers starting 2004. Since then, taxpayers are accountable for their own tax affairs, initiating from retaining proper records, establishing the accurate income with accordance of the tax regulations, reporting and paying the taxes liable within the required timeframe. In

other words, taxpayers are obliged to voluntarily comply with the legal provisions and the current tax regulations. Nonetheless, prior study claims that such tax structure in the long run will cause tax non-compliance rate to escalate (Mohd Nor, Ahmad & Mohd Saleh, 2010). Lai, Yaacob, Omar, Abdul Aziz and Yap (2013) have estimated that Malaysian tax non-compliance rate is about 20%.

Therefore, under SAS, tax officials have shifted their core activities as instead of reviewing all returns filed by taxpayers (under formal assessment), now more resources are mobilised for a more proactive enforcement activities such as tax investigation and tax audits, including both desk audit and field audit to warrant greater voluntary tax compliance, to deter and mitigate tax evasion and avoidance. In view of nation's economic development and to collect the correct amount of tax liability accordance with the tax law, IRBM imposed stringent sanctions for taxpayers who neglected to comply as punishment to prevent the act of tax non-compliance.

Concurring with IRBM 2015 annual report, tax non-compliance issues have been seen to intensify. The performance of tax audit activities in 2015 have increased tremendously by 120% as compared to tax audit activities done in 2014. Out of 1,714,912 audit cases settled in 2015, some 138,203 cases which involves tax settlements (including penalties) of RM7,783.69 million were collected from corporations in Malaysia (Table 1.3). The execution of tax audit activities by IRBM continued to expose the tax non-compliance executed by taxpayers.

Table 1.3
Tax Audit Performance (both field audit and desk audit)

Year	**2015**		**2014**	
Sector	**Cases settled (*n*)**	**Taxes and penalties (RM)**	**Cases settled (*n*)**	**Taxes and penalties (RM)**
Corporate	138,203	7,783,693,882.44	98,615	2,307,798,760.59
Non-corporate	1,576,709	2,059,835,351.99	1,771,317	2,169,621,401.92
Total	1,714,912	9,843,529,234.43	1,869,932	4,447,420,162.51

Source : IRBM Annual Report, 2015

Furthermore, some 37,305 tax field audit cases were settled in 2015, about 7% beneath 2014 achievement (Table 1.4). However, the amount of tax liability and penalties collected in 2015, via tax field audit cases have rocketed by some 264% as compared to 2014. This significantly indicates that the rate of tax non-compliance in Malaysia is still progressively high and IRBM is serious in conducting tax audit to stimulate voluntary compliance and to alleviate the occurrence of tax evasion.

Table 1.4
Tax Field Audit Performance

	2015	**2014**
Settled cases (*n*)	37,305	40,216
Taxes and penalties (RM)	3,972,423,691.29	1,092,143,888.23

Source : IRBM Annual Report, 2015

Therefore, even after numerous actions and measures have been taken up by IRBM to comprehend such incessant issue, it is evident that a further study must be conducted in order to promote understanding and to identify why such tax non-compliance is still high in Malaysia, especially amongst SMCs. By scrutinising secondary data extracted from IRBM's Case Management System (CMS) on type of industry, size of company,

location and financial liquidity of company, it is the researcher's hope that the findings of the current study will be able to facilitate IRBM with more effective approaches to overcome this predicament.

1.2 Problem Statement

The enigma of tax non-compliance is as ancient as the establishment of tax system itself (Wentworth & Rickel, 1985). Kasipillai and Abdul Jabbar (2006) stated that any deliberate action of tax non-compliance by taxpayers is a global perennial dilemma. It has been a predicament to the tax administrators in most developed and developing nations. However, numerous studies and researches have been conducted relating to tax compliance and tax non-compliance in light to find and distinguish determinant factors that have been affecting the tax compliance and tax non-compliance among taxpayers. Furthermore, studies performed were in view to offer suggestions and highlight solutions to overcome the setback.

According to Organization for Economic Co-operation and Development (OECD), in identifying and managing top risks to tax administration, tax non-compliance was ranked second highest risks for the tax administrator (OECD, 2018). In Malaysia, it is no exception. It has become more alarming ever since the Malaysian government initiated a new tax structure, SAS, way back in 2001 (Hai & See, 2011). The primary intention behind introducing the SAS is to promote voluntary compliance. It is anticipated that SAS will form a state whereby taxpayers will submit all their tax information honestly and voluntarily (Marshall, Smith & Armstrong, 1997), responding towards their rights and responsibilities by virtue of the provisions of the ITA 1967.

However, IRBM has undertaken and enforced tax audit activities as one of the methods to educate and create awareness, encourage voluntary compliance among taxpayers within the ambit of the ITA 1967 such as IRBM Tax Audit Framework and to ensure that a higher tax compliance rate is achieved under SAS. Other main objective of tax audit is to detect and deter tax evasion or tax non-compliance performed by taxpayers. Deterrence theory assumed that with higher probability of being audited and higher penalty rates, taxpayers are deterred from commiting tax non-compliance act. However, study done by Mohdali, Isa and Yusoff (2014) found that tax audits and penalties appeared to have an adverse impact on those already compliant taxpayers. It may, instead, trigger or activate their intentions to be less compliant. With this regard, the audit officer is required to ensure that the correct amount of income has been reported in accordance with tax laws and regulations.

Nevertheless, after over a decade of SAS implementation and tax audit activities, tax non-compliance in SMCs still remain an issue to be addressed . This is shown from the statistics in Table 1.5 where it can be observed that the number of corporate tax audit cases which has been finalised has escalated by 74% in 2015 as compared to 2011. In addition, the tax audit recoveries in 2015 recorded its highest collection so far. The additional taxes and penalties imposed somewhat suggest that tax non-compliance and tax evasions seem to be on the rise, and a huge portion of tax lost has been recovered through tax audits.

Table 1.5
Corporate Tax Audits Finalised 2011-2015

Year	Taxes & penalties (RM million)	Cases (*n*)	% (constant 2011)
2011	1,578.36	79,642	100
2012	3,023.57	79,688	100
2013	1,591.56	83,093	104
2014	2,307.80	98,615	124
2015	7,783.69	138,203	174

Source : IRBM Annual Report 2015

Furthermore, statistics extracted from Companies Commission of Malaysia (SSM) official website have stated a growth of approximately 9.2% in the number of registered companies in Malaysia, from 1,062,262 in 2013 to 1,160,064 in 2015. This rapid growth signifies a huge number of potential taxpayers. In addition, Tax Operation Department of IRBM reported that the quantity of active registered corporate tax files has grown over the years as shown in Table 1.6. The number of active corporate tax files has been increasing by over 40% in 2015 as compared to 2011. This information indirectly implies that Malaysia's economic environment is growing robustly, steadily and attractively for Malaysians to establish new companies in light of seizing business opportunities in Malaysia.

Table 1.6
Active Registered Corporate Tax Files

Year	Files (*n*)	% (constant 2011)
2011	476,654	100.00
2012	519,385	108.96
2013	562,155	117.94
2014	603,630	126.64
2015	687,303	144.19

Source : Tax Operation Department, IRBM (2017)

Thus, with the escalating tax audit recoveries and the growing numbers of active corporate taxpayers, it is sensible to look at it as indicators of tax non-compliance in the corporate sector that it could be a mounting issue to the local tax administrative, if not properly handled. Although Mashadi, Ramli, Palil and Jaffar (2016) cited that Malaysia only scored 4.34 out of 6.00 point in compliance index, the approximate magnitude of tax non-compliance cannot be concluded for SMCs due to deficient data from IRBM and also scarcity of prior studies in this area.

According to Mohd Yusof, Lai and Yap (2014), tax non-compliance issues such as tax fraud, tax evasion and tax criminal activities are international issues and are no alien to most tax administrators. Even though there are numerous studies on determinant of tax non-compliance, most scholars and literatures examined tax compliance or tax non-compliance based on individual taxpayers as compared to corporate taxpayers and there are limited studies found on SMCs.

Therefore, this research is an effort to revisit the findings on the characteristics of company or demographic factors of tax non-compliance among SMCs from previous scholars by utilising limited actual tax field audit data from all over Malaysia, collected from IRBM. The advantage of using such data is that it has been audited and not available publicly. Given that and with the researcher's personal experiences and involvement in SMCs tax field audit, this study's information hopefully could provide a beneficial indicator in terms of company's characteritics or demographic factors of tax non-compliance which are type of industry, size of company, location and financial

liquidity of company for the betterment of IRBM tax audit program selection with the purpose of lowering, or at least, retaining the administrative cost of tax collection.

1.3 Research Questions

In this study, the researcher established tax audit adjustments or underreporting of income as an indicator for the existence of tax non-compliance. Subsequently, various demographic factors such as types of industry, size of company, location and financial liquidity of company were examined to obtain inference whether these factors might influence SMCs in Malaysia towards tax non-compliance. Therefore, this research seeks to answer the following questions:

a) Is there any significant differences in the level of tax non-compliance between various types of industry among Malaysian SMCs?

b) Is there any significant differences in the level of tax non-compliance between various sizes of company among Malaysian SMCs?

c) Is there any significant differences in the level of tax non-compliance between various locations of company among Malaysian SMCs?

d) Is there any significant differences in the level of tax non-compliance between various financial liquidation of company among Malaysian SMCs?

1.4 Research Objectives

The main objective of this study is to determine whether there are any significant differences in the level of tax non-compliance among Malaysian SMCs based on (1) type of industry; (2) size of company; (3) location; and (4) financial liquidity.

1.5 Significant of Study

The revenue from the taxes was utilised for the purpose of redistribution of income, reallocation of resources, fulfilment of political objectives and stabilisation of the economy as mentioned by Study Group of Asian Tax Administration and Research in their 41st SGATAR Meeting held in 2011. Hence, tax is an important component of the nation's revenue, particularly direct taxes. Therefore, an effective and systematic tax collection administration is crucial to the IRBM and the government as a whole. This is critical because it warrants and sustains the growth of national revenue to fund and deliver the nation's development.

Although there are a vast amount of literatures on factors affecting tax non-compliance taxpayers in Malaysia, most of them concentrate on individual taxpayers like Kasipillai & Abdul Jabbar (2006), Hai & See (2011), and Saad (2012), just to named a few. There are limited literatures that portray corporate taxpayers (such as Md Noor, Matsuki, Ismail & Abdul Aziz, 2009; Mohd Nor et al., 2010; Isa & Pope, 2011; Lai et al., 2013) and SMCs (such as Md Yassin, Hasseldine & Paton, 2010; Mohd Yusof et al., 2014; Mashadi et al., 2016) , let alone literatures using actual findings from tax audit cases gathered from IRBM (Loo et al., 2010). Most available tax researches that attempted to measure tax non-compliance were based on annual reports, which according to Mohd Nor et al. (2010), it can be manipulated to the advantage of

taxpayers. Thus, the measurement on tax non-compliance using annual report data are less reflective of the actual situation (Hanlon & Heitzman, 2010) as compared to tax audit data.

The outcome of this study is expected to complement the existing literatures and to provide further beneficial information on tax non-compliance among SMCs, not just to tax administrators, policymakers, practitioners, taxpayers, scholars but to IRBM, especially. It may enable IRBM to enhance its database and to design a more directed and targeted tax audit selection in the future. The findings may also facilitate IRBM in identifying the characteristics of SMCs that have the highest tendency towards tax non-compliance. Consequently, a more cost-effective and efficient audit enforcement activities can be planned and conducted, in line with IRBM effort in managing and shrinking the gap of tax non-compliance issues in Malaysia, especially among SMCs.

1.6 Scope and Limitations of the Study

Evidence from finalised tax field audit cases conducted by IRBM SMC tax auditors in 2015 was used to support the objectives of this study. It does not include finalised investigation cases done by IRBM as those cases comprises mixed groups of taxpayers (individual, corporates and others). The data and information employed were obtained from IRBM's Case Management System (CMS). These actual cases were initially selected based on risk analysis criteria performed by IRBM and also based on information received from various sources. Tax non-compliance is indicated by the existence of tax audit adjustments amount (underreported income), which may be caused by under declaring incomes, overstating expenses, undertaking inappropriate deductions or claiming ineligible incentives.

The research population and samples were limited to companies which were audited and finalised in the year 2015. Data from 2015 was used because at the point when the research was started, only 2015 data was completed, available and capable to be utilised and it was still relevant during the research period. Since available data from IRBM were limited (tax audit adjustments amount, industry codes, location codes, total assets, total current assets, total current liabilities and the amount of paid-up capital), reseacher only be able to utilise and examine SMCs demographic factors relating to type of industry, size of company, location of company and financial liquidity.

Data and information used were of companies with a capital of not more than RM2.5 million as stated in a provision of the ITA 1967, to be as considered SMCs. Therefore, these research findings cannot be generalised to all enterprises and must be applied cautiously. However, the findings and conclusion from this study may complement existing literatures.

1.7 Definition of Key Terms

In this section, some key terms or concepts used in this study are discussed for further understanding as to establish a clearer context of the study.

1.7.1 Tax Compliance

Generally, tax compliance is the legal obligations of every taxpayer. OECD has outlined four comprehensive categories of tax obligation which are (1) being registered/listed in the system; (2) submitting information on time; (3) reporting of

completed and accurate information; and (4) paying the liable taxes on time. Failing to perform either one of the obligations, taxpayers will be deemed to be noncompliant.

As stated in Mashadi, Ramli, Palil and Jaffar (2016), tax administrators such as Australian Taxation Office (ATO) and IRBM defined tax compliance as a combination of few components such as registration, submission, declaration and payment. Furthermore, Alabede, Ariffin and Idris (2011) have cited the elaborated McBarnett's model of tax obligations (compliance and non-compliance) as shown in Figure 1.1. The branches of tax obligation simplify the categories of compliance and non-compliance, distinctively showing tax avoidance from tax evasion.

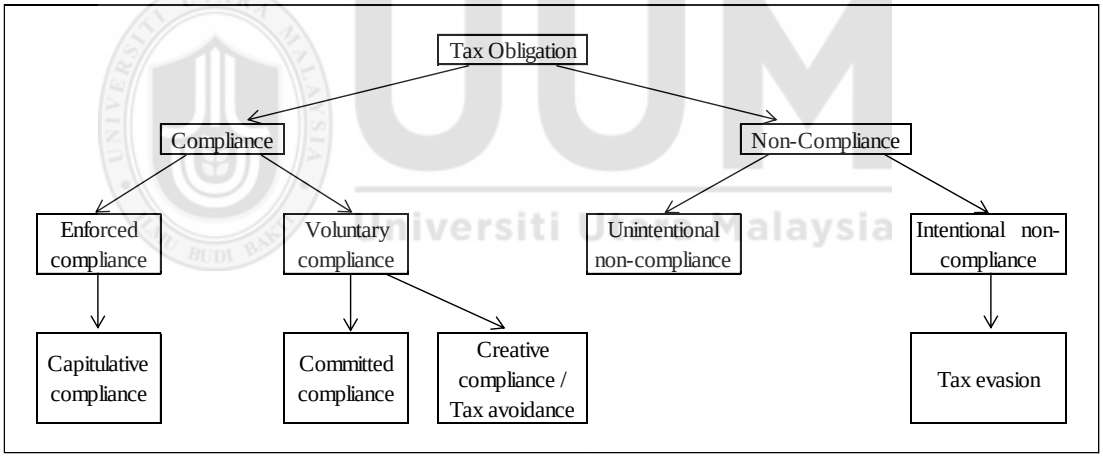

Figure 1.1
Branches of tax obligation
Source : Alabede, Ariffin and Idris, 2011

Previous literatures have attempted to discuss and define tax compliance. Quite a number of researchers such as Long and Swingen (1991), Hasseldine and Li (1999) and Devos (2009) adapted the definition provided by Roth et al. (1989). For example, as stated in Mohd Yusof et al. (2014), Roth, Scholz and Witte (1989) described that tax compliance is an act of filing all required tax statements, reporting the correct tax

liabilities and making payments within the stipulated time frame. Likewise, Alm (1991) defined tax compliance as the accurate reporting of income and claiming of expenses in accordance with stipulated tax law. In addition, Andreoni, Erard & Feinstein (1998) defined tax compliance as the taxpayers' willingness to adhere to the tax laws. Meanwhile, Kasipillai and Abdul Jabbar (2006) discussed tax compliance as a combination of few elements like submitting tax forms in time, accurate reporting and timely payment of tax dues. Sapiei and Kasipillai (2013) referred tax compliance as reporting income accurately and claiming expenditure following the stipulated law. Mohamad, Zakaria and Hamid (2016) cited Marti (2010) who defined tax compliance as fulfilling all tax obligations as specified by the law freely and completely.

There is no specific definition of tax compliance in ITA 1967. However, there are provisions in ITA 1967 that specify and explain the act of tax compliance such as (1) Section 77 and 77A on obligation of taxpayers submitting the Income Tax Return Form (ITRF) within stipulated time; (2) Section 82 and 82A prescribed taxpayers duty to maintain proper documentations and records; (3) Section 103 on taxpayers responsibility in making payment for the sum of tax liable to be paid, due on the last date of ITRF submission; (4) Section 113 on taxpayers duty in giving or declaring the accurate information in the ITRF. Taxpayers are considered tax compliant once they have fulfilled the necessary responsibilities outlined in the said statute.

Therefore, for the purpose of this study, the researcher focused on one significant form of tax non-compliance that is, underreporting or understatement of income. Generally, these understated or underreported income were found as tax audit outcomes. Underreporting of income could be defined as both unintentional and intentional act

of reporting less income or revenue than was actually received by the taxpayers, over claiming expenditure or even making ineligible tax incentives or tax credits. Hence, underreporting of income is considered an unlawful practice in Malaysia and could be penalised under Section 113 of ITA 1967 for making incorrect return. The term 'tax evasion' can also be used in exchange with 'tax non-compliance' in the context of intentional tax non-compliance.

1.7.2 Tax Audit in Malaysia

Loo, Evans and McKerchar (2010) stated that both developed and developing nations were facing hardships in ensuring that their revenue agencies were efficient and effective in collecting as much as possible all legitimate tax dues from taxpayers. On the other hand, there was an emergent concern amongst tax authorities around the globe on ways to simplify tax assessment system to promote voluntary compliance. As a result, numerous countries adopted SAS as a remedy in tackling this matter. However, SAS was vulnerable to manipulation as taxpayers were not required to produce any documentation to support their ITRF and the self-assessed tax would be deemed as final tax liability and accepted by tax authorities in good faith.

Consequently, tax audit activities were rationalised and required to deter unfavourable action by taxpayers. Nowadays, tax audits have taken place not only in Malaysia but also in Japan, USA, UK and many other countries worldwide and had demonstrated to be an effective approach to deter non-compliance. Tax audit conducted by audit officers comprises audit verification and records examination of taxpayer's financial affairs to ascertain their adherence in declaring the correct amount of income, computing and paying the appropriate tax dues accordance with the effective tax laws

and regulations. Tax audits performed a number of important roles that lead to significant contributions to improve the administration of the tax system (Isa and Pope, 2011). It is also viewed as an effective approach by the tax authorities to improve tax collection. However, Zandi and Elwahi (2016) quoted that in a modern tax administration, tax audit role is extended beyond collecting tax revenue. Lai et al. (2013) stated that IRBM has intensified the enforcement of tax audits in order to promote and encourage voluntary tax compliance, and at the same time to curb tax evasion and to recover tax losses.

According to IRBM Tax Audit Framework (2015), an equitable, fair and transparent tax administration will boost public confidence in the tax system under SAS tax regime. In order to instil public confidence in the fairness and excellence of tax administration system, selected audit cases were audited in an orderly manner, in accordance with IRBM's tax audit framework, audit manuals, work procedure manual, directives, circulars and memorandums that were currently in force. IRBM has taken steps as to enforce tax audit activities, both desk audit and field audit by introducing Monitoring Deliberate Tax Defaulters (MDTD) programme to empower and enhance the effectiveness existing tax audit activity. This is to improve and ensure non-compliant taxpayers carry out their tax obligation voluntarily and properly and contribute to a higher tax compliance rate under the SAS. Apart from that, IRBM also could directly educate taxpayers and indirectly create awareness to the other taxpayers within the area.

Audit cases were selected based on computerised risk analysis system, third party information, focused on particular industries, specific issues, and certain group of

taxpayers or even locations. Cases were to be resolved in an orderly manner, audit carried out is of high quality, conducted within determined period, handled fairly and with minimal appeals (IRBM, 2015). If it is revealed after the commencement of an audit that there has been an understatement or omission of income, a penalty will be imposed under subsection 113(2) or paragraph 44B(7)(b) of the ITA 1967 in which the penalty rate equal to the amount of tax undercharged (100%) accordingly. Conversely, the Director General of Inland Revenue (DGIR) in exercising his discretionary powers may consider a lower penalty of 45% to be imposed (IRBM, 2015).

The unique deterrent effect of tax audits shows more intentional compliance by leading taxpayers whom were previously audited, toward the existing tax laws and regulations. Tax audit help the auditors to teach taxpayers on application of tax laws and regulations. OECD (2006) states that it will improve record-keeping and help taxpayers identify areas of tax laws which they may be unaware of.

1.7.3 Small and Medium-sized Corporations (SMCs)

Small and medium sized corporations (SMCs), are part of small and medium sized enterprises (SMEs) in Malaysia, and play a crucial role in contributing to our nation's overall economy development and government revenue. According to SME Census 2016 conducted by Department of Statistics Malaysia (DOSM), SMEs made up 98.5% (2011: 97.3%) out of the 907,065 (2011: 645,136) business establishments in Malaysia, with further breakdown of 76.5% (2011: 77%) in microenterprises, 21.2% (2011: 20%) in small-sized enterprises and 2.3% (2011: 3%) in medium-sized enterprises (SME Corp, 2015; SME Corp, 2016).

In 2016, approximately 89.2% (2011: 90%) of Malaysian SMEs were in the service sector, 5.3% (2011: 5.9%) in the manufacturing sector, 4.3% (2011: 3%) in the construction sector and the remaining 1.2% (2011: 1%) were in the agriculture, mining and quarrying sectors. According to the same SME Census, it was concluded that 20.60% (2011: 19.7%) of Malaysian SMEs were owned by women and most SMEs were concentrated in the following states: 34.5% in Selangor and Kuala Lumpur (2011: 32.6%), 10.8% in Johor (2011: 10.7%) and 8.3% in Perak (2011: 9.3%) as shown in Figure 1.2

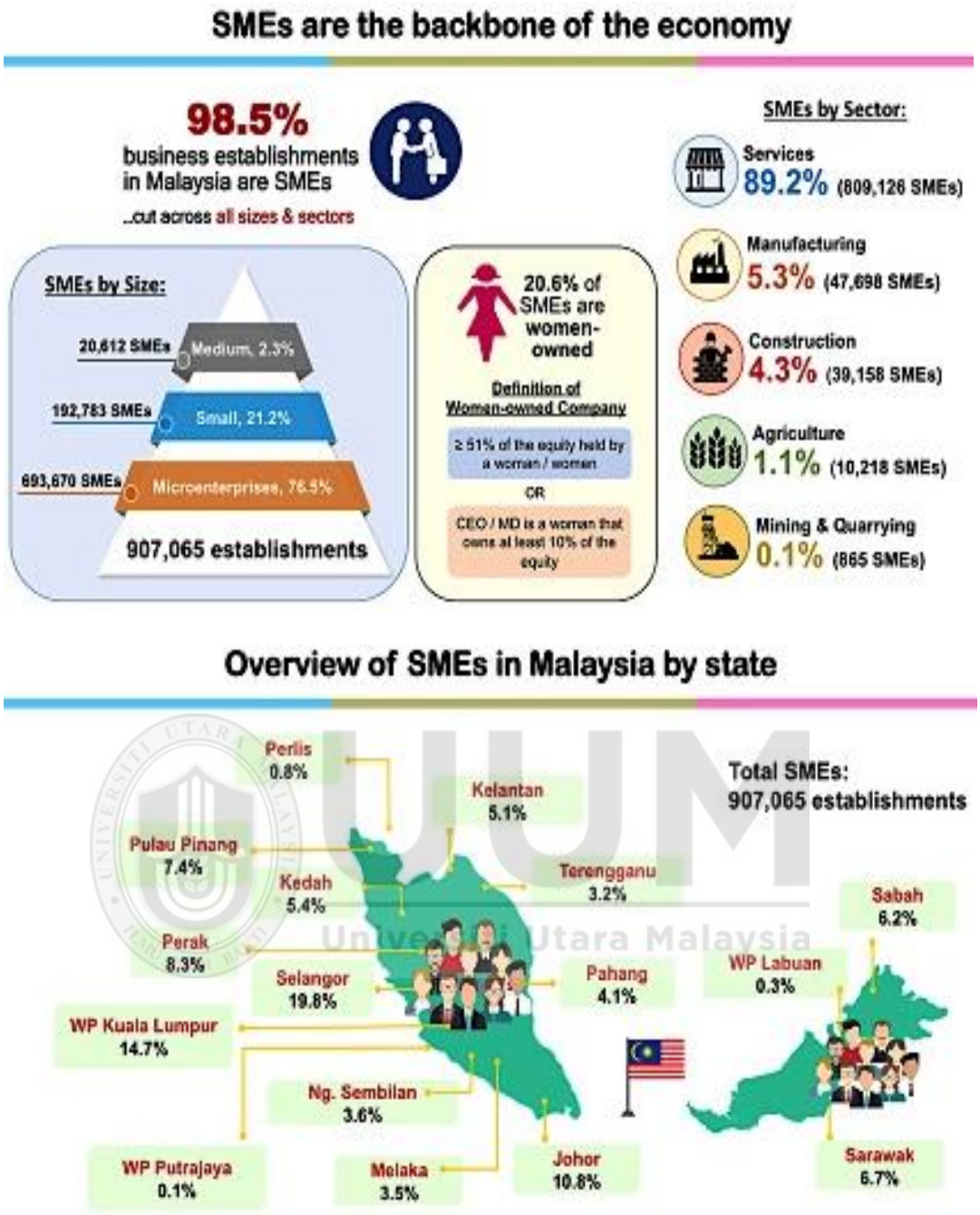

Figure 1.2
SME Statistic based on Economic Census 2016 (DOSM)
Source : www.smecorp.gov.my

SME Corporation Malaysia (SME Corp) reported that in the year 2015, SMEs have recorded an average annual growth of 6.1% as compared to the overall gross domestic product (GDP) growth of 5.0%. Furthermore, SMEs in Malaysia has contributed 36.3% to the nation's GDP and engaging 64.5% of the nation's workforce in 2015.

SMEs also contributed up to 17.7% of Malaysia's total export. In Malaysia, SMCs are source of tax/fiscal revenue to the federal government and it create jobs, especially for those with low skills (Mohd Yusof et al., 2014). Therefore, the activities and contributions SMEs should not be taken for granted, as collectively, they are the major players in Malaysia's economic growth.

There is no universally accepted definition of SMEs. Different countries have different definition for SMEs due to a number of factors and some demographic criteria such as size, location, structure, age, number of employees and others (Ab. Wahab et al., 2013). Additionally, it may be categorised according to a wide range of bases such as fixed assets, employment levels, and annual turnover. Some countries using different SMEs characteristics that suits their economic setting making it difficult to come up with an objective definition of SMEs (Zivanai, Felix & Chalton, 2016).

Therefore, in Malaysia, SME Corp has simply defined SME as follows (1) For Manufacturing sector: Sales turnover not exceeding RM50 million or full-time employees not exceeding 200 workers; and (2) For Services and other sectors: Sales turnover not exceeding RM20 million or full-time employees not exceeding 75 workers (Yunus, Ramli & Abu Hassan, 2017). A more detailed definition can be referred to Figure 1.3.

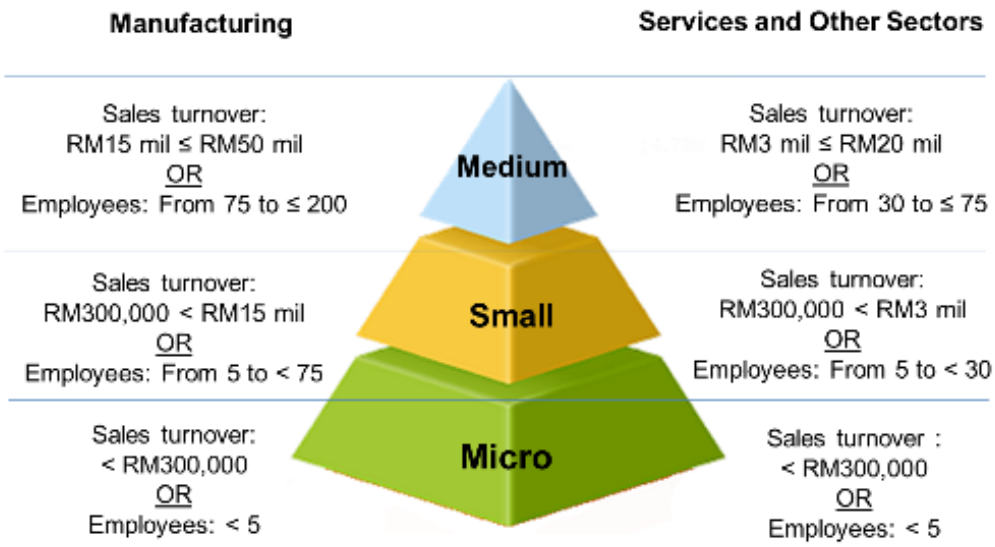

Figure 1.3
Definition of SMEs in Malaysia
Source : www.smecorp.gov.my

SMCs are not specifically define by the ITA 1967, but for tax incentive purposes under the Promotional Investments Act 1986, 'small companies' means a resident company incorporated in Malaysia whose shareholders' funds do not exceed RM500,000. From year of assessment 2009 onwards, the definition of small companies was amended. Thus, IRBM deemed SMC as a company resident in Malaysia with a paid-up capital of ordinary shares of not more than RM2.5 million at the beginning of the basis period of a year of assessment (Mohd Yusof et al., 2014).

Subsequently, for the purpose of this study, SMCs definition is set out as a combination of both IRBM's and SME Corp's definitions. Therefore, SMCs are regarded as corporate with a capital not exceeding RM2.5 million and turnover not exceeding RM50 million for manufacturing sector and RM20 million for services and other sectors. Number of employees in a company was not considered as size

measurement in the study because there was no information available from the dataset gathered from IRBM.

1.8 Organization of the Thesis

This paper is organised into five chapters. In Chapter One, it introduces the background of the study, problem statement, research questions and objectives, significance of the study, scope and limitation of the study and the key terms involved in this study.

Chapter Two represents research reviews on existing and obtainable literatures relating to tax non-compliance in and outside Malaysia. It is divided into a few subtopics stating related conceptual theory and the previous literatures findings on corporate tax non-compliance.

Chapter Three accordingly explains the study's methodology and analytical approaches used in the collection of data. This chapter also discusses research design, research population and sample, units of analysis, sampling technique, variables measurement and data analysis technique. The hypotheses of relevant factors of tax non-compliance amongst SMCs were discussed in further details in this chapter.

Chapter Four provides research outcome and results on examining differences between the variables. Subsequently, detailed analysis and discussion on research predetermined hypotheses are laid out.

And finally, Chapter Five concludes the study, offers recommendations for future research relating to SMCs and states the study's limitation, contribution and conclusion.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter begins with a brief explanation on corporate tax in Malaysia, interpretation of company according to the definition stated in ITA 1967 and the tax rate applicable to company and SMCs. Following that a short notes on tax non-compliance as per ITA 1967 is presented and then a presentation of relevant prior literature reviews on corporate tax non-compliance and the impact of various factors on tax non-compliance such as type of industry, size of company, location and financial liquidity is showcased. Such reviews are important in providing a basis to the development of theoretical framework and hypotheses for this study. Reviews considered were taken from both international and Malaysian settings.

2.2 Corporate Tax Non-Compliance

Malaysian corporate taxation is governed under the ITA 1967. IRBM being the nation's taxing agency, has published public rulings and other guidelines to complement the Act and furnish comprehensive details of the regulations as an added guidance for the public. The public rulings are continuously updated whenever there are amendments to the statute as to keep it relevant to the current economic environment of Malaysia.

According to ITA 1967, a company is interpreted under Subsection 2(1) as a body corporate and includes any body of persons established with a separate legal identity

by or under the laws of a territory outside Malaysia and a business trust. Meanwhile, Schedule 1 of the same statute, stipulated a differentiated rate that can be applied to companies in Malaysia. For year of assessment 2009 onwards, tax rate of resident companies with paid-up capital above RM2.5 million will be imposed at 25% flat. On the other hand, income tax for resident companies with a paid-up capital of not more than RM2.5 million will be assessed at 20% for the first RM500,000 and 25% on any exceeding amount. However, the latter provision can only be applied if the company is not controlled by any other company with paid-up capital exceeding RM2.5 million. Hence, by fulfilling the said criteria which are resident in Malaysia, having capital not above RM2.5 million and not controlled by any other company with capital more than RM2.5 million, the latter companies can be deemed as small-and-medium-sized corporations (SMC).

In Malaysia, ITA 1967 does not specifically define tax non-compliance. Even so, there are certain provisions in the ITA 1967 for example Section 77, 103, 112, 113 and 114, just to name a few, that may highlight the act of tax non-compliance. In those provisions, any wrongdoings for not registering as taxpayers, not submitting returns on timely basis, reporting incorrect income or information, or even late payment of tax dues will be considered as tax non-compliance. Tax non-compliance is viewed as a default action in meeting tax obligations, regardless whether it is done deliberately or not.

Alabede et al. (2011) explained that tax non-compliance behaviour might arises intentionally when taxpayers deliberately undermines the tax rules for their personal benefits. On the other hand, unintentionally encountered non-compliance might be a

result of ignorance that causes calculation mistake, error and oversight, due to lack of basic tax knowledge in applying the tax laws. Additionally, it may include tax avoidance, which is tax reduction by legal means, and tax evasion, which is unfavourable act of crime of non-payment of tax liabilities.

Although there have been numerous earlier literatures on tax compliance and tax non-compliance, such as the work of Allingham and Sandmo (1972), still there is no particular definition of it. Nevertheless, there are ample research papers discussing and explaining tax compliance and tax non-compliance definitions and issues, particularly on income tax. For instance, Jackson and Milliron (1986) have given a comprehensive review of 43 tax compliance studies carried out between the 1970s and 1985. Similarly, Richardson and Sawyer (2001) have provided a review on more than 130 tax compliance literatures published from 1985 to 1997. Both reviews considered the key tax compliance variables, method employed, issues and theory involved.

It is well-known that tax non-compliance occur everywhere (Kasipillai & Abdul Jabbar, 2006) and it is a phenomenon inherent by the existing tax system (Alabede et al., 2011). Literature by Andreoni et al. (1998) described tax non-compliance as taxpayers' unwillingness to obey the tax laws and regulations. While Roth et al. (1989) described tax non-compliance happens when taxpayers fail to submit tax return, making incorrect return by understating income and omitting income. In Malaysia, Mohd Nor et al. (2010) point out that tax non-compliance may be in the form of misstatements or non-reporting of some income, non-submission of income tax return forms within the time stipulated by the ITA 1967 and non-payment of tax indicated in

the return forms. Josephine (2013) has simplified tax non-compliance in relation with registration, submission, declaration and payment of accordance with the tax law.

There are other previous studies in Malaysia with regards to tax non-compliance. Kasipillai et al. (2006) mentioned in general that tax non-compliance may take several forms such as failure to submit the ITRF, understatement of income, overstatement deductions and failure to pay tax dues. Equally, Yong and Manual (2016) further discussed that tax non-compliance is an illegal tax evasion act which includes failing to file a tax return, underreporting of taxable income, overstating tax claims like exemptions and expenses, and failing to make timely payment of tax dues. Therefore, the failure of corporations to accurately report and pay corporate income tax is considered as tax non-compliance (Slemrod, 2004). Section 113 (1) of the ITA 1967 outlined that making incorrect returns or giving incorrect information is deemed to be a tax offence or tax non-compliance. Additionally, as concluded by Mohamad, Radzuan and Hamid (2017), older male high-earning individuals in big towns and surrounding areas, tend to accumulate the most tax arrears (not paying tax dues on timely basis), another category of tax non-compliance and can be penalised under Section 103 or 107 of ITA 1967, where applicable.

Generally, the outcomes of many studies on the determinants of tax compliance behaviour of individual taxpayers were relatively mixed, even when various research methods were employed (Jackson and Milliron 1986; Richardson and Sawyer 2001). Other relevant studies available were Fischer, Wartick and Mark (1992); Cuccia (1994); Andreoni, et al. (1998) and Hasseldine and Li (1999). Overall, these reviews also raise similar interests over the variables influencing tax compliance behavior. Yet,

most past researches on tax compliance were concentrated on individual taxpayer behaviour, with limited empirical investigations related to corporate and SMCs tax non-compliance, in particular from developing countries such as Malaysia.

Nonetheless, Rice (1992) and Joulfaian (2000) claimed that tax compliance studies on individual taxpayers have provided a formal framework enabling researches to analyse the compliance decision of corporate taxpayer. However, Chan and Mo (2000) argued that findings on individual tax compliance attitudes cannot be broadly applied to explain corporate tax non-compliance. Besides, Mohd Yusof et al. (2014) indicated that the findings in developed economies were varied and inconclusive (Rice, 1992; Kamdar, 1997; Hanlon et al., 2007; Joulfaian, 2000; Tedds, 2010; Chan and Mo, 2000; Nur-Tegin, 2008; Atawodi and Ojeka, 2012). Nevertheless, these researches have outlined that certain factors (marginal tax rate, penalty rate, financial liquidity, foreign ownership, types of industry and size) were linked to corporate tax non-compliance.

Regrettably, studies on corporate tax non-compliance are limited (Lai et al., 2013). Rice (1992), who utilised data from corporate tax compliance micro data obtained from the Tax Compliance Measurement Program (TCMP), made an early attempt to study non-compliance on medium-sized corporations. He found that corporate profitability, size and highly regulated industry yielded positive effect on tax compliance, while marginal tax rate generated negative effect on tax compliance. Nevertheless, Kamdar (1997) found no statistical evidence that an increase in penalties and lower tax rates would help to reduce tax non-compliance.

Joulfaian (2000) conducted another study using TCMP data and found that corporate taxpayers are more likely to evade taxes if their managers also evade personal income taxes. He also detected that lower marginal tax rates, higher audit rate, larger firm size and higher firm income level had substantial impact on tax non-compliance in USA. Another USA study done by Hanlon et al. (2007), analysed a more up-to-date data from "Voluntary Compliance Baseline Measurement" as compared to TCMP. The study discovered that tax non-compliance contributed by corporate sector was about 13 percent of actual tax liability. Moreover, they found that domestic and larger firms were more tax compliant. Conversely, firms involved in manufacturing, trade, transportation, warehousing, education and healthcare tend to be less compliant.

Chan and Mo (2000) who performed an investigation on the effects of tax holidays toward foreign investors' non-compliance behavior in China, and analysed 583 tax audit cases which reveal that companies are less compliant during the pre-holiday position and most compliant in the tax-exemption period. Chan and Mo also found that domestic market-oriented companies, joint-venture companies and service-oriented companies appear to be less compliant.

In a study that was conducted in Canada, by using a questionnaire survey from the "World Business Environment Survey," Tedds (2010) found that firms around the world engaged in under-reporting. He also found that there was a significant correlation between under-reporting and the legal organisation of the business, size, industry type, age, ownership, competition and audit controls. According to another study conducted by Atawodi and Ojeka (2012), after surveying 150 small and medium-enterprises in Nigeria, they discovered that higher tax rates and the

convolution of filing procedures were the critical factors of instigating non-compliance.

In Malaysia, there were a few empirical studies that examined corporate tax non-compliance behaviour. The study conducted by Md Noor et al. (2009) analysed 73 previously investigated private limited companies information obtained from IRBM to explore the probable markers of fraudulent financial reporting in relation to tax evasion. It is claimed that fraudulent financial reporting affects total tax revenue by reducing sales or increasing claimed expenditures. The study identified six factors that suggested tax evasion – revenue, liquidity, leverage, tax rate, inventories and account receivables. However, the study deduced only revenue, liquidity and leverage were found to have significant relationship with tax evasion.

Abdul-Jabbar and Pope (2009) examined tax attitudes and tax non-compliance of SMEs in the era of SAS, with corporate sector in Malaysia as study's focus. A mail questionnaire survey which related to firms financial year 2006 was employed to gather information from firms' executives as SMEs proxy, to measure the effect of managerial preferences towards corporate tax non-compliance. From 175 responses which were obtained and analysed, some 44% were received from services sector, manufacturing sector (21.1%), manufacturing-related services sector (18.3%), construction sector (15.4%) and others (1.1%). The research found an inconclusive indicator in business industry/sector of SMEs and established that size of SMEs was not a determinant of tax non-compliance behaviour. However, the study discovered that complexity of tax structure and tax audit probablibity were factors contributing to tax non-compliance behavior in SMEs.

Mohd Nor et al. (2010) who performed a study using 396 finalised corporate tax audit cases by IRBM in 2004, identified audit quality as a potential tax compliance determinants. The research also found a negative and significant relationship between tax non-compliance and corporate's characteristics (firm size, ownership structure, type of industry and audit quality).

A comprehensive research done by Md Yassin et al. (2010) examined factors that motivate tax non-compliance behaviour among SMCs in Malaysia. After making 1,365 observations on 1,075 corporations, which had been audited and investigated by the IRBM, they deduced that marginal tax rates have a larger impact on non-compliance behaviour. They also discovered that the level of directors' ownership, the level of efficiency, size and book-tax differences were the main factors that affect corporate tax non-compliance behaviour.

In a different study, done by Mohd Yusof et al. (2014) who investigated determinants of corporate tax non-compliance among SMCs in a developing country like Malaysia, employed 375 actual tax audited cases finalised by IRBM in 2011 found that marginal tax rate, penalty rate, financial liquidity, foreign ownership, company size and types of industries are the key predictors of tax non-compliance amongst SMCs. The study also revealed that concealed income indicated a widespread of tax non-compliance and quantum of tax lost is quite high. Furthermore, services and construction industry were found having significant tax non-compliance effect.

As a summary, it can be deduced that the findings of available literatures on corporate tax non-compliance were somewhat mixed and not conclusive, might be due to the fact that different methodologies and measurements were employed in the researches. Therefore, it is the intention of this study to provide additional evidence on the issue of corporate tax compliance, or more specifically SMCs tax compliance especially in the era of SAS regime.

2.3 Theoretical Assumption

There are a few theoretical models introduced in the effort to explain the reason for tax non-compliance. Prior research generally adopts economic deterrence and/or fiscal psychology models in explaining the tax compliance behaviour of individuals (Hasseldine and Li 1999). The traditional model of tax compliance stemmed from Allingham and Sandmo (1972) that explained factors that affects taxpayers' behaviour. This model is grounded on an economics-of-crime approach which was introduced by Becker (1968). Taxpayers chose how much income to report on their tax returns by considering the trade off from the tax savings of underreporting true income against the risk of audits and penalties for detection of non-compliance. It other words, the theory recognized tax audit and penalty as the factors affecting tax compliance behaviour. Both the threat of penalty and audit made taxpayers willing to pay their taxes. The researchers examined the taxpayers' decision to evade taxes when filling out the tax returns.

Other than that, they also examined the relationship between penalty rate for tax evasion at the time, the probability of detection and degree of tax evasion engaged. They found that there was a relationship between a higher penalty rate and probability

of detection deterring individuals from evading their taxes. They concluded that it was an individual's profit seeking attitudes that led to the willingness to comply or not. The model recommends that tax rate, detection probability and penalty structure are determining factors for compliance costs that affect compliance behavior (Fisher, Wartick and Mark, 1992).

Deterrence principles can be used to deter taxpayers from breaking the law but does not guarantee them to comply with the law (Yunus et al., 2017). Tax audits and tax penalties were believed to be the authority's main strategies to combat tax fraud as well as to increase the tax compliance level (Mohd Yusof et al., 2014). Arguably, the model only considers the economic variables. However, Fischer, Wartick and Mark (1992) expanded the model to a more comprehensive framework by incorporate the sociological and psychological variables as well (Figure 2.1). This expanded model consists of four group constructs, which are 1) demographic variables (age, sex and education); 2) non-compliance opportunity (income level, income source and occupation); 3) attitudes and perceptions (fairness of tax system and peer influence) and 4) tax system/structure (complexity of tax system, probability of detection and penalties, and tax rates). Although Fischer model is on individual tax compliance, many researchers accepted that past individual tax compliance researches provide a formal framework to enable tax compliance analysis on corporate setting.

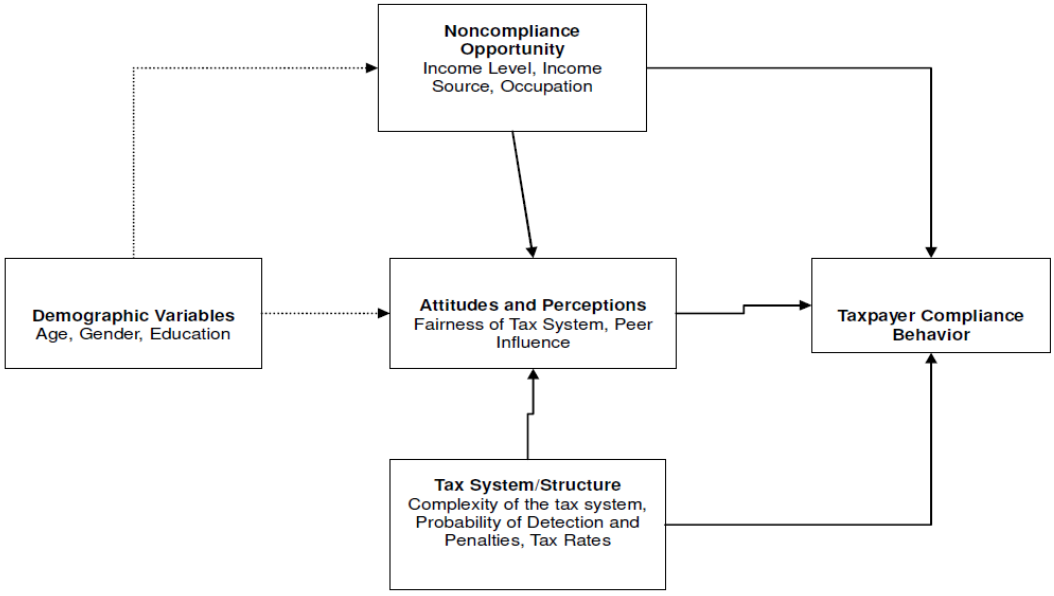

Figure 2.1
Fischer Tax Compliance Model
Source: Fisher, Wartick and Mark (1992)

This model predicts that demographic variables indirectly influence tax compliance behaviour through their effects on both non-compliance opportunities and attitudes. Besides that, non-compliance opportunities and tax system/structure are both direct determinants of tax compliance behavior but indirectly influence tax compliance through attitudes and perceptions. Eventually, attitudes and perceptions of taxpayers directly influence tax compliance. As seen from the figure, deterrence activities (tax audits and penalties) are represented in the tax system/structure.

Despite all that, OECD argued that "the question is not whether or not revenue bodies should use deterrence, but how it can be used most effectively." This is on the grounds that it is unrealistic that taxpayers are keener to bear punishments as opposed to reveal their true income. Furthermore, high-risk dodgers who have already profited from prolonged evasion might view tax audit penalty as an economic loss due to an unfortunate investment (OECD, 2010). Perhaps, paying additional taxes after a tax

audit would be a common practice among obstinate and repeated evaders in the future.

Nevertheless, the current study does not attempt to investigate new factors determining tax non-compliance amongst SMCs but to contribute new findings based on and limited to SMCs demographic factors such as industry type, size, location and financial liquidity using latest data in light to support previous studies in this area. Therefore, Fischer model is applied as the underlying basis for this current study framework and hypotheses development, limited to demographic variables consistent with the available data collected from IRBM.

2.4 Previous Research on SMCs Tax Non-Compliance

Most available literatures measure tax non-compliance based on annual reports that are less reflective of the actual state of affairs (Hanlon & Heitzman, 2010). Moreover, past literatures on tax compliance were found to focus on individual taxpayer behaviour. Hence, there were limited empirical investigations concentrating on corporate and SMCs tax non-compliance, in particular from developing countries such as Malaysia (Lai et al., 2013; Mohd Yusof et al., 2014). The existence of this gap in the empirical literature is especially crucial as firms or self-employed people have more opportunities to engage in tax evasion and are reported to have lower tax morale (Gangl, Togler, Kirchler & Hofmann, 2014). Even though studies on individual compliance provided a formal framework enabling analysis on corporate compliance (Rice, 1992; Joulfaian, 2000), the findings from such studies cannot be fully generalised to corporate taxpayers (Chan & Mo, 2000; Hanlon & Heitzman, 2010).

As an extension to the study done by Mohd Yusof et al. (2014), the current study adopts and adapts certain variables in the previous study with the introduction of another independent variable, which is location and by utilising most current available data gathered from IRBM. Since Mohd Yusof et al. (2014) examined tax non-compliance of SMCs up to 2011, the current study examines the tax non-compliance of SMCs using actual data of tax audit cases finalised in 2015, in light to compare and contrast certain determinants of SMCs tax non-compliance.

Hence, the following paragraphs would discuss further on types of industry, size of company, location and financial liquidity among Malaysian SMCs, in relation to tax non-compliance.

2.4.1 Type of Industry and Tax Non-Compliance

Available literatures suggested that the association between types of industry and tax non-compliance is fairly mixed. This is because some industries may have unique characteristics, subjects to certain regulations and may have different types of motivations to avoid and evade tax as compared to other industries (Mohd Nor et al., 2010). Walsh (2011) ascertained that certain economic sectors are associated with non-compliance such as cash and retail business, traders operating from a fixed business location, agriculture, rental earners and investors. For example, an industry that is prone toward cash transaction is more likely to engage in tax non-compliance since cash transactions are hard to investigate. Typically, cash transactions have no written evidence intact as proof to confirm that they have not been reported as part of taxable income, if audited. Hence, it is difficult for the tax authority to detect that sources of income (Mohd Yusof et al., 2014).

According to OECD (2014), most unrecorded activity in developed nations involves labor-intensive services like construction and catering since these businesses have fewer visible fixed assets than capital-intensive business. In earlier research done by Rice (1992), service-oriented industry is found to be more compliant than other industries. Conversely, Chan and Mo (2000) discovered that in China, service-oriented industry to be less compliant compared to manufacturing industry.

According to an Austrian study done by Gangl et al. (2014), industries that are being considered among the high-risk businesses in terms of tax evasion are gastronomy, construction, trading and mining. In Ghana, Antawi, Inusah and Hamza (2015) who investigated the effect of SME demographic characteristics on tax compliance found out that owners of hair dressing and barbering ventures to be the most non-compliance sector followed by auto repairs and general merchandise.

In Malaysia, Mohd Nor et al. (2010) noticed that higher propensity of firms in the construction industry to be involved in manipulation of financial reports as compared to other industries. Consistent with Mohd Nor et al. (2010), Lai et al. (2013) also found that construction industry contributed large numbers of tax evaders followed by manufacturing and service industries. It is also noted by Mohd Yusof et al. (2014) that services and construction industries were predominant industries engaging tax non-compliance. Sapiei, Jeyapalan and Eze (2014) who studied on corporate taxpayers behavior in Malaysia deduced that firms involved manufacturing business were seen to be more compliant compared to firms in service sector.

Mashadi et al. (2016) who studied in depth tax non-compliance of construction sector in Malaysian SMEs found that 44% of their study samples were non-compliant entities. Additionally, the predominant evaders were those in civil engineering sector and late or non-submission of ITRF being the most frequent offence performed by them. They concluded that construction SMEs were found to have a significant relationship with their tax compliance behaviour.

Mohamed et al. (2016) examined IRBM tax audit data and used multiple regression analysis to look at the relationship between tax evasion and certain demographic factors of SMEs in Malaysia. Statistically, they identified that those SMEs in service sector has the greatest tendency to evade tax, followed by manufacturing and agriculture sectors. However, their multiple regression analysis showed that type of industry does not significantly affect SMEs tax evasion decision.

Therefore, based on these proven mixed findings, it is expected that there is relationship between various types of industry and the level of SMCs tax non-compliance. Nontheless, the study attempts to examine whether significant differences exist in SMCs tax non-compliance level within different sectors of industry.

2.4.2 Size of Company and Tax Non-Compliance

Previous researches also discovered rather mixed evidence between company size and tax non-compliance. Generally, earlier tax compliance scholars found that certain underlying issues relating to size of company were firm's internal control and cost of compliance. It was presumed that bigger firm has better internal controls and that firm is expected to be more compliant. However, in order to be more compliant, besides

paying tax liabilities, a firm may incur additional expenditure such as tax agent's fee, which in turn may become a burden to them, especially smaller firms. Therefore, smaller firms with relatively smaller profitability may tend to be less compliant in order to reduce business costs.

In a study performed by Tedds (2010), who investigated factors that affected underreporting behaviour by firms from around the world using detailed information on more than 10,000 firms extracted from a unique dataset known as World Business Environment Survey (WEBS), learned that the size of the firm correlated negatively with tax compliance. It was gathered that smaller firms reported less and larger firms reported more of their sales to the tax authority. It is consistent with Nur-Tegin (2008) findings, where scholars argued that it is easier for smaller firms to conceal income and to be undetectable.

Conversely, some preceding scholars' outcome supported the political cost theory of Zimmerman (1983) instead, such as Rice (1992) and Hanlon et al. (2007). According to the said theory, significant regulatory intervention by the government, and the wealth transfer would affect most on larger and prosperous firms rather than smaller firms. As the company expands in size, generates high profitability and increases market dominance, its publicity also heightens. Therefore, the firm becomes more visible and this will further expose them to the government and public scrutiny and as a result, they are expected to pay more taxes (Watts & Zimmerman, 1986). Thus, many researchers conclude that large firms usually face political costs as compared to small firms which literally do not have such costs (Zimmerman, 1983). Furthermore, Wallace (2002) suggested that larger firms with high profitability generally becomes

a focal point of tax enforcement team because of it high potential for revenue collection.

In a study on corporate avoidance of SME and non-SME in Korea done by Jeong and Chae (2016), it was found that SME demonstrates less motive for tax avoidance due to low tax burden as compared to non-SME. It was rationalised that SME benefited through tax subsidies, tax incentives and tax cut provisions provided by government policies to aid SME sector.

Mohd Nor et al. (2010) inspected the relationship between fraudulent financial reporting and company characteristic of companies audited by IRBM. It was notable that larger firms were more compliant than smaller firms. Firms that acquired services from established and larger audit firms were revealed to have less tendency to commit fraud as compared to those using smaller audit firms. Scholars argued that SMCs may have higher possibility of not having proper accounting system and having less effective internal control systems. Therefore, SMCs are expected to have higher tendency to engage in accounting manipulation in order to reduce income and eventually commit tax non-compliance.

Lai et al. (2013) in their study on examining corporate tax evaders detected that out of 421 corporate cases analysed, 58.2% were SMCs and more than half (50.1%) had sales turnover RM10 million to RM100 million. However, they had no statistical evidence that in Malaysian tax setting, larger companies are more compliant than smaller ones because both larger and smaller firms are subject to tax audits. Nonetheless, Sapiei et al. (2014) established that firm size has a significant impact on tax non-compliance.

According to Mohd Yusof et al. (2014) who examined only tax non-compliance of SMCs, smaller SMCs were assumed to be more tax non-compliant as compare to larger SMCs. True enough, their investigation result showed that larger SMCs were more tax compliant perhaps due to their effective internal control, appropriate accounting system and excellent corporate governance as compared to smaller SMCs.

On the other hand, Mohamad et al. (2016) analysis on Malaysian SMEs tax evasion in cash economy found that descriptively 53% of investigated tax non-compliant cases were from micro-sized SMEs (with sales below RM250,000), 45% from small SME (with sales between RM250,000 to RM1,000,000) and only 2% were medium-sized SMEs. However, their multiple regression analysis presented that size of firm significantly affect tax evasion of SMEs. They found micro-sized SMEs were less likely to evade taxes and surprisingly medium-sized SMEs shown more susceptibility to be non-compliant. In a construction sector oriented study done by Mashadi et al. (2016), micro-sized SMEs were found to be predominant as non-compliant.

From the above literatures discussion, it can be concluded that large body of researches are available in investigating the relationship between firm size and tax non-compliance, and the outcome reveals mixed results (positive and negative). Therefore, the current study is to study whether significant differences exist in SMCs tax non-compliance against firm size.

2.4.3 Location of Company and Tax Non-Compliance

In general, the term location refers to a particular place or position. "Where do firms locate and why are they located there?" This question has been preoccupying economists' minds for a very long time now. Generally speaking, we can say that a firm's location decision depends on the interaction between production costs and the ease of access to markets" (De Bruyne, 2006). Location of firm is determined by certain factors exogenously and endogenously such as comparative advantage, technological differences, factor endowments, returns to scale, imperfect competition and transport costs. Scholars anticipates comparable regions to have the same location structure, but that is not the case. There are areas with identical features that seem attractive to all economic activities while others end up as ancillary regions to others (De Bruyne, 2006). Therefore, why does location matters?

Based on the researcher's observation on available past literatures, it is safe to say that there is a scarce number of research evidence on the association of location and taxpayers' tax non-compliance, given the numerous subdivisions of territories and states and their inconsistent use from study to study (Devos, 2008). Bradley (1994) has identified that business surrounding areas as one of the determinants affecting tax compliance. Meanwhile, Roberts, Hite and Bradley (1994) who investigated the impact of progressive tax rate on individual taxpayers, found out that tax non-compliance rate is relatively high among taxpayers with high income and resides in big cities. This was also stated by Chau et al. (2009) in their study on the Fischer Model, which shows that in general, level of compliance in developing nations has diminished.

Ayanda and Laraba (2011) had conducted a study on Nigerian SMEs. They initially assumed that SMEs in urban area are more structured and therefore, expected to be more tax compliant as compared to suburban area. However, they found out otherwise, that there was no significant relationship between location and tax non-compliance of SMEs. They justified that since SMEs in Nigeria are often small, family owned and transaction handled by family members, their management and organisation structure are seen to be weak and resulted in inducement toward tax non-compliance among SMEs.

One of the earliest study on land taxpayers was done by Abdul Manaf, Hasseldine and Hodges (2005). It was conducted to analyse the determinants of Malaysian land taxpayers' compliance attitude within the aspect of demographic variables (age, gender and race), non-compliance opportunity (education, income level, source of income and occupation), attitudes and perceptions (ethics and perceived fairness), tax system structure and taxpayer knowledge (sanctions), incentives, land type and location. Out of 750 questionnaires distributed and mailed to anonymous landowners throughout Malaysia, only 179 usable responses were received and analysed. According to their multiple regression analysis result, it was established that differences exist for location and it showed that land taxpayers in Johor, Negeri Sembilan and Kelantan are more likely to exhibit compliant attitudes. However, on average, Melaka land taxpayers were found to be less compliant.

In addition, Palil (2010) who examined the level of tax compliance awareness among taxpayers throughout Malaysia by measuring their tax knowledge (level of understanding of tax laws and regulations) discovered that there is significant

differences in taxpayers' tax knowledge depending on their location. In his research, taxpayers residing in Kelantan, Johor, Selangor/Kuala Lumpur have significantly higher tax knowledge than other states.

Mohamad et al. (2016) who performed a cross-sectional study on factors that influence tax evasion in Malaysian SMEs, have segregated their secondary data gathered from 51 branches of IRBM into two categories, which were urban and suburban as identification of the firms' location. From their study, it was found that 75% of tax non-compliant SME owners were located in the urban areas and only 25% were from suburban areas. It was also established using multiple regression analysis that SMEs in the suburban locations were significantly motivated to evade tax. SMEs in the suburban areas were observed to be less knowledgeable with regards to accounting and tax system. Therefore, they are prone to be less compliant and tend to evade taxes.

With regard to a study on tax arrears amongst individual taxpayers in Malaysia performed by Mohamad et al. (2017), place of taxpayers' residency was one of the demographic factors examined. IRBM proprietary data for the year 2004 until 2012, was extracted from Revenue Management System (ReMS) database and used in the analysis. Only data from six branches of IRBM representing different scales of branches and different territories in Malaysia were included in the analysis. There were Johor Bahru branch (big-scale and southern region), Penang branch (big-scale and northern region), Melaka (big–scale and central region), Kuantan (medium-scale and east coast region), Raub (small-scale and Peninsular region) and Tawau (small-scale in Sabah and Sarawak). From their analysis, it was evident that tax arrears cases were found to be greater in the capital cities (Johor Bahru and Penang) in contrast with

remote areas (Raub and Tawau). This is consistent with the observation done by Roberts et al. (1994).

It can be summarised that there are various evidences and mixed findings in past literatures relating to location and tax non-compliant. Thus, there is a need to examine further and verify if any significant differences exist in tax non-compliance SMCs according to various locations.

2.4.4 Financial Liquidity and Tax Non-Compliance

The term 'liquidity' generally refers to the accessibility of assets to be traded off in a market or the easiness to convert assets such as bond, shares, options and commodities into cash or money, the most liquid asset around. This is because it can be 'sold' or exchanged for goods and services instantly without any loss of value. In other words, liquidity can signify the amount of cash and cash equivalents. In accounting, liquidity is a term used to evaluate the ability of debtor to use its near cash and quick assets to pay off or retire their short-term obligations and current liabilities, as and when they fall due.

Usually, liquidity is expressed in percentage or ratio of current liabilities. Liquidity ratio is a test of business feasibility and exhibits business' health at surface. In general, the ratio should be 1:1 or higher, however this varies widely between industry or business sector (Tracy, 2004). Commonly, the higher the ratio, the greater the firm's liquidity. Companies with sufficient liquidity have an open access to their resources. Hence, they are able to fulfill their payment obligations and commitments without the

need to borrow money from financier. Therefore, they are less likely to enter bankruptcy or at risk of winding up because of their strong and healthy cash flow.

Spathis (2002) who conducted a study to detect factors related to false financial statements (FFS), analysed some 76 Greek firms' published financial data using regression analysis. Most FFS were identified based on the quantity and content of auditors' qualifications. Ten financial variables were selected for examination as potential indicators of FFS including liquidity. The study outcome found that companies with rather low ratio of working capital to total assets were those presenting liquidity problems (unable to meet financial obligations), displaying financial distress and doing poorly. He asserted that those companies are more motivated to engage in fraudulent financial statement. Besides, OECD (2010) stated that taxpayers are willing to evade tax in order to avoid the loss of cash flow and paying tax will reduce their cash flows. Hence, in the event of financial crisis, corporate taxpayers may be encouraged to avoid tax in order to preserve their business cash flow positions, even if they did not preplanned it in the first place.

According to a linguistic cues study on taxes and financial constraints done by Law and Mills (2015), firms that have financial constraints will attempt to preserve their internal finance in order to generate funds for any future investment opportunities. Those firms may adopt aggressive corporate tax planning activities with the purpose of providing extra internal financing. However, such firms subsequently found to have higher tax audit adjustments by IRS (Law & Mills, 2015).

Md Noor et al. (2009), however contended the fact that existence of financial distress

in companies might encourage the management to participate in tax fraud. Their discovery on Malaysian tax investigation cases established a positive and significant relationship between liquidity and tax evasion. They suggested that tax evasion occurs when the companies have ample financial resources to engage it. Likewise, Md Yassin et al. (2010) also found a comparable finding. They claimed that a positive relationship between cash flow and tax non-compliance might be due to the fact that with better liquidity, the management has a greater facility to engage tax advisor or expert to do their tax planning. On the other hand, Mohd Yusof et al. (2014) in their Malaysian SMCs tax non-compliance study, found that there was no significant association between financial liquidity and tax non-compliance.

From the above observations, it can be generalised that results relating to liquidity and tax non-compliance exists in both negative and positive relation. Therefore, it is essential for the current study to test whether there is any significant difference in the said relationship.

2.5 Chapter Summary

This chapter has elaborated some past literatures with regards to the definition of tax non-compliance, especially within the ambit of corporate tax. It is well known that tax non-compliance is a prevailing issue faced by most nations, developed and developing countries. Most scholars adapt deterrence theory or Fischer tax compliance model to address the issues regarding tax non-compliance including socio-economic influences and psychological component of taxpayers.

The next chapter will discuss the research methodology, research design, research population and sample, units of analysis, sampling technique, variables measurement and data analysis technique. The hypotheses of the relevant factors (Type of industry, size of company, location and financial liquidity) of tax non-compliance amongst SMCs will be discussed in further details in the next chapter.

CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter outlines and explains the research methodology and the conceptual framework applied as the current study hypotheses development basis in examining the association of firm's characteristic (type of industry, size of company, location and financial liquidity) with SMCs tax non-compliance. The discussion begins with suggested research framework, hypotheses development of each variables, research design, operational definition and measurement of variables, research population and sample, data collection procedure and lastly, technique of data analysis

3.2 Research Framework

Current study assumes that tax non-compliance in Malaysian SMCs (dependent variable) can be motivated by type of industry, size of company, location and financial liquidity (independent variables). Based on the earlier chapter discussion by researcher, it is obvious that most tax compliance study assume economic deterrence theory and/or Fischer et al. (1992) Expanded Model of Tax Compliance in their research. Thus, this current study only adopts and adapts Fischer model, but limited to demographic profiles of companies, in the effort to illustrate the level of influence of independent variables (type of industry, size of company, location and financial liquidity) towards dependent variable (tax non-compliance) as represented by Figure 3.1 below.

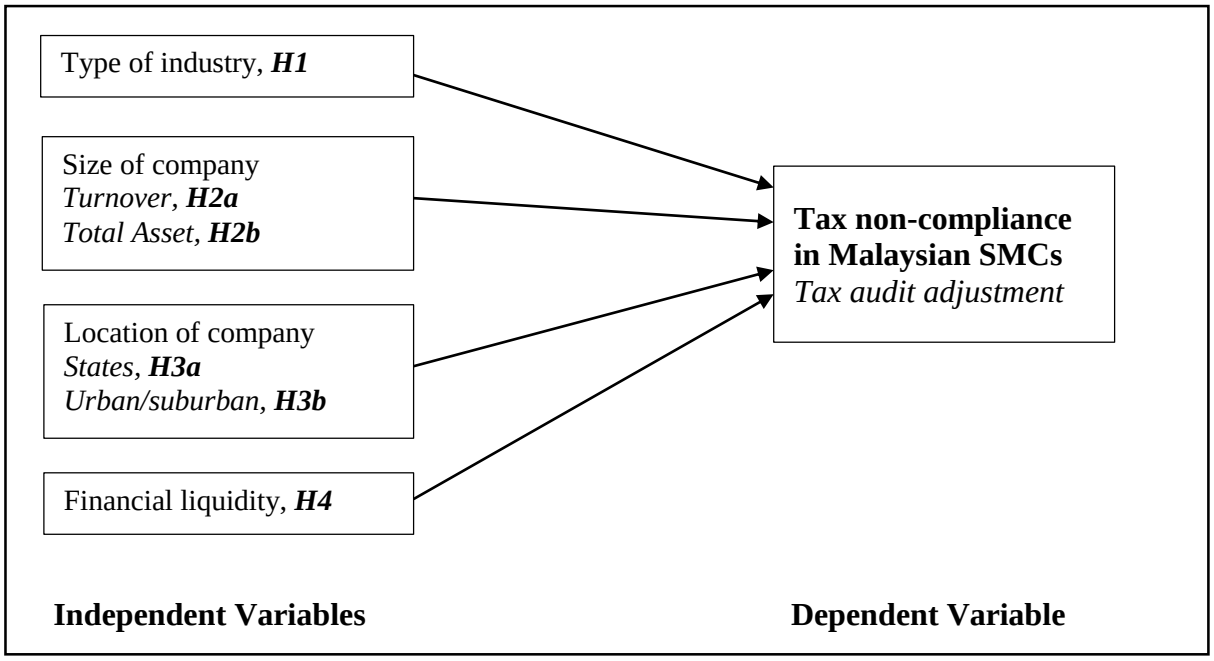

Figure 3.1
Research Framework

3.3 Hypotheses Development

The following hypotheses were developed based on discussions and findings of related past literature reviews on certain corporate characteristics such as type of industry, size of company, location and financial liquidity in relation to SMCs tax non-compliance. Hence, these firms' features were examined to learn whether there's any differences in SMCs tax non-compliance level.

3.3.1 Type of Industry and Tax Non-Compliance

Scholars found somewhat mixed results regarding differences between type of industry and tax non-compliance. Commonly, each industry have a relatively distinguished features and different probable incentives that can be employed as means to avoid or evade tax. Eventually, this situation will create diverse outcomes on types of industry investigated.

There are some researchers that discovered construction sector as one of the industry that is prone to engage in tax non-compliance. Mohd Nor et al. (2010), Lai et al. (2013) and Mohd Yusof et al. (2014) all discovered that SMCs participating in construction sector in Malaysia were seen to be the most dominant tax non-compliant firms compared to those in other sectors such as services and manufacturing. Gangl et al. (2014) also mentioned that Austrian businesses doing construction were one of those prone to engage in tax evasion.

However, Rice (1992) in his study on firms in the USA, established that entities in the services-oriented industry were more compliant than others. In spite of this, Chan & Mo (2000) revealed otherwise. Chinese services-oriented businesses were ascertained to be less compliant than those in manufacturing sector. Sapiei et al. (2014) also found that manufacturing firms in Malaysia were perceived to be more compliant than services-oriented firms. Even Mohamad et al. (2016) acknowledged that higher propensity of SMEs tax evasion found in service sector compared to manufacturing and agriculture. Based on the apparent mixture of findings between type of industry and tax non-compliance, the study's first hypothesis is outline as below:

H1 There is a significant differences in the level of tax non-compliance between various types of industry among Malaysian SMCs

3.3.2 Size of Company and Tax Non-Compliance

There is inconsistency in past literatures results in relation to tax non-compliance and size of company. As verified by Sapiei et al. (2014), firm size does matter in measuring the impact on tax non-compliance. However, past scholars' presumption was that

larger firms with better internal controls were more compliant than smaller ones that were burden by tax compliance cost. Both Nur-Tegin (2008) and Tedds (2010) suggested that smaller firms were more tax non-compliant than larger corporates. In other studies on SMCs in Malaysia, Mohd Nor et al. (2010) and Mohd Yusof et al. (2014) noticed that larger corporates were more submissive than smaller ones. Meanwhile, Mashadi et al. (2016) established greater tax non-compliance tendency in micro-sized SMEs.

Then again, Rice (1992) and Hanlon et al. (2007) found that larger firms have tendency to be non-compliant due to the political costs theory effect as stated by Zimmerman (1983) and Watts and Zimmerman (1986). Supported by Korean study, Jeong and Chae (2016) proved that by comparison to non-SME (usually larger companies), SMEs have less intention to participate in any tax non-compliance acts due to the fact that SME have privileges in government policies of tax subsidies, tax incentives and tax cut provisions. As concurred by Mohamad et al. (2016), medium-sized SMEs to have proneness to tax non-compliance compared to micro-sized SMEs. Even though the noticeable results on size of companies and tax non-compliance varies between studies, this study opt to suggest the following hypothesis:

H2a There is a significant differences in the level of tax non-compliance between various sizes of company (based on turnover) among Malaysian SMCs

H2b There is a significant differences in the level of tax non-compliance between various sizes of company (based on total assets) among Malaysian SMCs

3.3.3 Location of Company and Tax Non-Compliance

In researcher's belief, there is not much empirical studies available on the relationship between location and tax non-compliance. Most researchers presumed that taxpayers in the urban area are more obedient in contrast to those in the suburban area. Scholars relate taxpayers' level of tax knowledge to location, in order to measure their compliance attitudes. For instance, Abdul Manaf et al. (2005) revealed the existence of differences in land tax compliance attitude and locations. Land taxpayers of certain states in Malaysia are seen delinquent compared to others in term of paying land taxes and awareness on land tax regulations. Palil (2010) also discovered almost the same findings whereas tax knowledge were significantly higher in Malaysian states that portray greater tax compliance attitudes.

Additionally, Mohamad et al. (2016) detected that although three quarter of non-compliant SMEs were firm situated in the urban areas, it was among the suburban SMEs that they found to be significantly motivated to evade tax. They were perceived not knowledgeable enough on accounting and taxation matters. However, in another study by Mohamad et al. (2017), greater tax non-compliance (tax arrears) found in big cities, which is corresponding to Roberts et al. (1994) evidence. Hence, it can be concluded that location comparability is not all consistent. Therefore, the following hypothesis is proposed:

H3a There is a significant differences in the level of tax non-compliance between various locations of company (based on states) among Malaysian SMCs

H3b There is a significant differences in the level of tax non-compliance between various locations of company (based on urban/suburban) among Malaysian SMCs

3.3.4 Financial Liquidity and Tax Non-Compliance

It is important and essential for organisations to maintain sufficiently high financial liquidity to enable them to operate efficiently and to fulfill any future obligations or endeavors. This is especially vital for public listed companies in order for them represent themselves as a stable and secure firm for investors to invest in. However, it does not mean that it is less important for SMCs. They still need to maintain an adequately high liquidity to sustain its operation in the market because liquidity reflects on their feasibility and business health.

Prior literatures have noticed both positive and negative relations occur between liquidity and firm's tax non-compliance. Spathis (2012) and Law & Mills (2015) both found negative linkage between liquidity and tax non-compliance. The lower the liquidity ratio, the firm is expected to be more tax non-compliance. Companies with financial constraints tend to engage in aggressive corporate tax planning and even falsifying financial statement, just to improve the company's financial position and to preserve their internal finance in order to generate funds for any future investment opportunities.

Yet, evidence from Md Noor et al. (2009) and Md Yassin et al. (2010) found otherwise. They ascertained that companies with ample financial resources in hand tend to participate in tax evasion. They established positive connection between

liquidity and tax non-compliance. However, Mohd Yusof et al. (2014) did not find any significant relationship between financial liquidity and tax non-compliance. Nevertheless, it is reasonable to postulate that corporates with inconsistent and constantly at a low level of financial liquidity would be more motivated to evade taxes and become tax non-compliant. Based on that issues, this study suggest that SMCs with financial liquidity difficulty, to be more tax non-compliant than the rest. Thus, below hypothesis is suggested:

H4 There is a significant differences in the level of tax non-compliance between various financial liquidation of company among Malaysian SMCs

3.4 Research Design

The aim of this study was to identify certain firm characteristics (type of industry, size of company, location and financial liquidity) that might influence SMCs tax non-compliance level. Therefore, researcher employed quantitative methodology as its research approach. It was based on quantifiable secondary data and researcher broadens its findings. This approach concurred with previous studies (Rice, 1992; Joulfaian, 2000; Chan & Mo, 2000; Hanlon, 2007; Md Noor et al., 2009; Mohd Nor et al., 2010; Md Yassin et al., 2010; Lai et al., 2013; Mohd Yusof et al., 2014; and Mashadi et al., 2016) and was found to be the most appropriate method to make generalisation for a population (Yunus et al., 2017). Secondary data of finalised field audit cases in the year 2015 was gathered and extracted from IRBM's CMS, after approval was given by the management of IRBM. And then, Statistical Package of the Social Science (SPSS) software was used in analysing the empirical data. However, data sets were treated as categorical data in order to generate the regression output that enables researcher to make comparison of tax non-compliance level between groups

of data in each variables. Therefore, a set of dummy variables corresponding with each categorical variables were employed in the regression analysis.

3.5 Operational Definition and Measurement of Variables

There are three approaches in measuring the non-compliance behaviour of taxpayer; (1) self-reports; (2) experimental; and (3) tax audits (Long and Swingen, 1991). The paper proposed to adopt tax audit approach, which relied on actual facts and data from IRBM. As to-date, few empirical literatures used this approach as it was almost impossible to get the data without full cooperation from IRBM itself, as the taxpayers' data and information were considered private and confidential under the provision of ITA 1967.

For the purpose of this study, dependent variable is the tax non-compliance in Malaysian SMCs, which is measured by tax audit adjustments and independent variables are inclusive of type of industry, size of company, location and financial liquidity.

3.5.1 Tax Non-Compliance

In this study, corporate tax non-compliance is measured using tax audit adjustments as its proxy. Tax audit adjustments (ADJ) represents the understated or underreported income determined during tax audit due to SMCs' fraudulent activities either by under-reporting income, over deducting expenses, claiming ineligible credits or by any other means not corresponding to the effective tax laws. Based on initial review on sample data, researcher found a huge gap within the tax audit adjustments amount, with RM52 being the lowest and RM29,153,043 being the highest. This massive gap

might interfere the normality assumption for dependent variable. Therefore, the dependent variable (tax adjustment) will be subjected to a log transformation in order to control and rectify any heteroskedasticity problem (Chan and Mo, 2000). Present research attempts to identify the difference between firm's characteristics (type of industry, size of company, location and financial liquidity) with regards to tax non-compliance.

3.5.2 Types of Industry

Type of industry (INDTYPE) is an independent variable indicated to measure and test the types of industry that engages tax non-compliance. Initial assessment of data collection (based on IRBM's business code) discovered that Malaysian SMCs involved in 11 industries. However, for the purpose of this study, industry measurement is classified under five major industry types, which are (1) agriculture, forestry and fishery (business code 01111 to 03229); (2) manufacturing (business code 10101 to 33200); (3) construction (business code 41001 to 43909); (4) retail and wholesale trading (business code 45101 to 47999); and (5) services (business code 49110-96099). The other six industries were services-related industries and therefore, researcher have merged it into one main category as 'services'.

This classification varies depending on the objectives and availability of data collection of respective researches. For instance, Mohd Nor et al. (2010) classified industries into six major type of industries, which includes manufacturing, commercial, plantation/agricultural, services, construction and real estate. On the other hand, Lai et al. (2013) divided the industries into 10 groups (construction, manufacturing, services, wholesale, transport, real estates, mining, government

service, agriculture and other industries). However, Mohd Yusof et al. (2014) sorted industries into five main types, consist of manufacturing, construction, wholesale and retail trade, services and real estates. Lastly, Mohamed et al. (2016) only segregated industries into three core groups, mainly agriculture, manufacturing and services. Therefore, this current study does not deviate so much from the past literatures by categorising types of industry into five major groups as stated earlier.

Since the regression analysis will be based on categorical data, data grouped under 'retail and wholesale trading' sector was set as reference group (INDTYPE1) and four dummy variables were used to analyse the level of SMCs tax non-compliance within type of industry.

3.5.3 Size of Company

Past literatures have determined size of company based on either by their total assets or their annual turnover depending on the objectives, research design and data collection availability of respective studies. For the purpose of the current study, there are two measurements used to assess independent variable on size of company.

Firstly, firm size is measure based on its annual turnover (MICRO; SMALL; and MEDIUM) reported in SMCs ITF, synchronised with Mohamed et al. (2016) which divided firm size into three groups which are (1) micro (turnover of less than RM300,000); (2) small (turnover between RM300,000 to RM14,999,999 for manufacturing industry and turnover between RM300,000 to RM2,999,999 for services and other industry); and (3) medium (turnover between RM15,000,000 to RM50,000,000 for manufacturing industry and turnover between RM3,000,000 to

RM20,000,000 for services and other industry). According to Mohamad et al. (2016), 53% of investigated SMEs were micro-sized business, 45% were small-sized and only 2% were medium-sized SMEs. This measurement also similar to Mashadi et al. (2016) who investigated SMEs in construction sector in Malaysia. He found that out of 222 tax non-compliant SMEs, 49% were micro-sized entities, 34% were small-sized and 17% were medium-sized. In order to analyse the level of SMCs tax non-compliance based on various turnover, two dummy variables were used with 'micro' grouped data as reference group (MICRO).

Secondly, firm size is measured based on its total assets (SIZE) reported in SMCs ITF, concurred with Mohd Yusof et al. (2014). Accordingly, firm size is then divided into ten segments, which are (1) total assets less than RM500,000; (2) total assets between RM500,001 to RM1,000,000; (3) total assets between RM1,000,001 to RM1,500,000; (4) total assets between RM1,500,001 to RM2,000,000; (5) total assets between RM2,000,001 to RM2,500,000; (6) total assets between RM2,500,001 to RM3,000,000; (7) total assets between RM3,000,001 to RM5,000,000; (8) total assets between RM5,000,001 to RM10,000,000; (9) total assets between RM10,000,001 to RM50,000,000; and (10) total assets more than RM50,000,000. As stated by Mohd Yusof et al. (2014), there were approximately 28.50% of audited SMCs with total assets between RM10 million to RM50 million and deduced that IRBM have given intense attention to SMCs with larger assets in their tax audit cases selection. However, the current study did not apply log transformation on total assets (as did Mohd Yusof et al., 2014) because the dataset was converted into categorical data instead of continous data before generating regression analysis output. This is to be consistent with researcher's objective to examine the level of SMCs tax non-compliance within

different sizes of company based on its total assets group. Therefore, data with total assets of less that RM500,000 was grouped as reference level (SIZE1) with nine other dummy variables to allow comparison on level of SMCs tax non-compliance within various sizes in the anlysis.

3.5.4 Location of Company

Initially, corporate tax files in Malaysia were serviced by the Corporate Tax Branch of IRBM. However, in 2013 IRBM have dispersed the corporate tax files to all IRBM branches within Klang Valley and outside Klang Valley, with the intention to widespread the tax audit bases and improve the delivery of services. Consequently, most SMCs tax files were transferred to Klang Valley branches like Jalan Duta, Kuala Lumpur Bandar, Wangsa Maju, Cheras, Shah Alam, Petaling Jaya and Klang. For SMCs outside the Klang Valley, their tax files were transferred to the nearest branch according to their registered addresses.

Therefore, location in this current study implies to SMCs' place or position in Malaysia and to be more specific, it is based on location of their IRBM registered branches. This is in accordance with classification done by Compliance Department of IRBM and as referred by Mohamad et al. (2016). However, there are scarcity of literatures on location and tax non-compliance. Hence, location of company is an added independent variable that needs to be addressed. It is crucial to examine this variable because (1) taxpayers in Malaysia are segregated according to the location of their IRBM registered branches; and (2) to verify if any significant differences exist between various locations of tax non-compliance SMCs. There are two measurements used to measure location of company in this study.

Firstly, location of company is measured according to the states where IRBM's branch located in (STATE). Researchers have segregated the branches according to Compliance Department of IRBM classification (IRBM, 2015). Segregation based on states has been adopted and adapted from Mohamad et al. (2017). Table 3.1 shows location based on states. Johor was set as reference group (STATE1) and ten dummy variables to permit comparison analysis on level of SMCs tax non-compliance between states.

Table 3.1
Branch Location Classification (based on states in Malaysia)

Location	**Branch**
Johor	Johor Bahru, Kluang, and Muar
Melaka/ Negeri Sembilan	Melaka, and Seremban
Perak	Ipoh, Taiping, and Teluk Intan
Kelantan/ Terengganu	Kota Bharu, and Kuala Terengganu
Kedah/ Perlis	Alor Setar, Kangar, and Sungai Petani
Penang	Pulau Pinang, and Bukit Mertajam
Pahang	Kuantan, Raub, and Temerloh
Federal Territory (FT) Kuala Lumpur/ FT Putrajaya	Jalan Duta, KL Bandar, Cheras, and Wangsa Maju
Selangor	Shah Alam, Klang, and Petaling Jaya
Sabah	Kota Kinabalu, Sandakan, Tawau, and Keningau
Sarawak	Kuching, Sibu, Miri, and Bintulu

Secondly, SMCs' locations (USUB) are divided into two groups, (1) urban; and (2) suburban. Researcher have taken the same approach as Mohamad et al. (2016) in categorising investigated SMEs in Malaysia into urban and suburban. IRBM branches location classification is as Table 3.2. Here, researcher created one dummy variable

with urban as reference group (USUB1) for the purpose of analysing the level of tax non-compliance of SMCs.

Table 3.2
Branch Location Classification

Location	Branch
Urban	Johor Bahru, Melaka, Seremban, Ipoh, Kota Bharu, Kuala Terengganu, Alor Setar, Kangar, Pulau Pinang, Bukit Mertajam, Kuantan, Jalan Duta, KL Bandar, Cheras, Wangsa Maju, Shah Alam, Klang, Petaling Jaya, Kota Kinabalu, and Kuching
Suburban	Kluang, Muar, Taiping, Teluk Intan, Sungai Petani, Raub, Temerloh, Sandakan, Tawau, Keningau, Sibu, Miri, and Bintulu

3.5.5 Financial Liquidity

Financial liquidity (LIQ) is a measurement set to calculate firm's ability to settle their obligations and other liabilities whenever they are due. It is calculated as ratio of current assets against current liabilities. Tracy (2004) commented that financial liquidity ratio should be at least 1:1 or higher, though it differs widely between industry or business sector. Mohd Yusof et al. (2014) found SMCs in their investigation to have fragile financial position, as the mean for financial liquidity was only 1.3264 and it was below the acceptable current ratio value of 2:1. In order to investigate SMCs financial liquidity impact on tax non-compliance, this study defined it into four levels, (1) less than 1.00; (2) between 1.00 to 1.99; (2) between 2.00 to 10.00; and (4) above than 10.00. As for financial liquidity, three dummy variables were created with financial liquidity less than 1.00 as reference level (LIQ1) in analysing the level of SMCs tax non-compliance.

Represented in Table 3.3 is a summary of all the variables definitions and measurements used in this research.

Table 3.3
Variable Definitions and Measurements

Variables	Definitions and Code	Measurements
Tax non-compliance	Audit adjustment (ADJ)	Total audit adjustment
Type of industry	Type of industry (INDTYPE)	(1) Retail and wholesale trading (2) Services (3) Manufacturing (4) Construction (5) Agriculture, forestry and fishery
Size of company	Size based on annual turnover	
	(MICRO)	Less than RM300,000
	(SMALL)	Between RM300,000-RM14,999,999 (manufacturing industry); and between RM300,000-RM2,999,999 (services and other industry)
	(MEDIUM)	Between RM15,000,000-RM50,000,000 (manufacturing industry); and between RM3,000,000-RM20,000,000 (services and other industry)
Size of company	Size based on total assets (SIZE)	(1) Less than RM500,000 (2) Between RM500,001-RM1,000,000 (3) Between RM1,000,001-RM1,500,000 (4) Between RM1,500,001-RM2,000,000 (5) Between RM2,000,001-RM2,500,000 (6) Between RM2,500,001-RM3,000,000 (7) Between RM3,000,001-RM5,000,000 (8) Between RM5,000,001-RM10,000,000 (9) Between RM10,000,001-RM50,000,000 (10) More than RM50,000,000
Location of company	Location based on state (STATE)	(1) Johor (2) Melaka/Negeri Sembilan (3) Perak (4) Kelantan / Terengganu (5) Kedah / Perlis (6) Penang (7) Pahang (8) FT Kuala Lumpur / FT Putrajaya (9) Selangor (10) Sabah (11) Sarawak
Location of company	Location based on urban/suburban (USUB)	(1) Urban (2) Suburban

Financial liquidity	Financial liquidity	(1) Less than 1.00 (2) Between 1.00 to 1.99 (3) Between 2.00 to 10.00 (4) Above 10.00

3.6 Data Collection

In this study, data used were of secondary data which was gathered and extracted from IRBM's CMS database, after consent received from the management of IRBM. Data of finalised audit cases in the year 2015 was obtained in accordance with the research's requirements, such as the amount of audit adjustment, industry codes, location codes, total assets, total current assets, total current liabilities, and the amount of paid-up capital.

3.6.1 Research Population and Sample

The study's population was Malaysian SMCs taxpayers which have been audited by the IRBM tax field auditors as at 31 December 2015. The data set only comprises finalised tax field audit cases which have been extracted from Case Management System (CMS) database, an IRBM internal audit case monitoring system. A sum of 7,693 corporate tax audited cases resolved in year 2015 were extracted. Out of this sample data, there were 1,597 cases with incomplete information (no data on turnover, paid-up capital, total assets, current assets, current liabilities, industry code and location code) for the data analysis and 2,028 cases includes trust bodies, cooperatives and non-SMCs (large companies with paid up share capital more than RM2.5 million and turnover exceeded SME Corp. definition of SMEs) were excluded from the data analysis.

Only 4,068 cases relates to SMCs that were usable and suitable for this current study. Out of 4,068 cases, 320 cases had zero adjustment, which shown that they were tax compliant SMCs and excluded from data analysis as well. Thus, leaving a total of 3,748 cases with tax audit adjustments, which indicates that intentional and/or unintentional tax non-compliance was committed by SMCs and detected by auditors during tax audit. Although Krejcie and Morgan (1970) suggested only 361 to 367 samples are enough as sample size from a given population between 7,000 to 8,000 and 384 samples for one million in a population, this study analysed the whole 3,748 cases for its robustness effect and to eliminate any biasness in selection of samples that may interfere and disturb the expected outcome of the variables examined. Table 3.4 below exhibits the summary of determined samples for this research.

Table 3.4
Research Sample Selection Procedure

	SMCs Taxpayer (n)
Total finalised tax audit cases in 2015	7,693
Less:	
Cases with incomplete data/information	1,597
Cases of trust bodies, cooperatives and non-SMEs	2,028
Total usable cases	4,068
Less:	
Cases without audit adjustment (tax compliant SMCs)	320
Total SMCs sample cases analysed	**3,748**

3.6.2 Data Collection Procedures

Upon receiving IRBM approval on data usage, data from Case Management System (CMS) were extracted by IRBM Tax Compliance Department officer in charge. These secondary data used in this quantitative study were subjected to filtering and coding before analysing process using SPSS software. Some 3,748 sample data have been

coded to allow it to be processed and analysed using SPSS software. Presented in Table 3.5 are SPSS data code given based on categories.

Table 3.5
SPSS Data Code

Category	**SPSS Code**	**Total SMCs (n)**
Type of industry:		
Retail & wholesale trading	TYPE1	1,307
Services	TYPE2	942
Manufacturing	TYPE3	928
Construction	TYPE4	511
Agriculture, forestry and fishery	TYPE5	60
		3,748
Size of company (based on turnover):		
Micro	MICRO	84
Small	SMALL	2,258
Medium	MEDIUM	1,406
		3,748
Size of company (based on total assets):		
Less than RM500,000	SIZE1	520
Between RM500,001-RM1,000,000	SIZE2	667
Between RM1,000,001-RM1,500,000	SIZE3	480
Between RM1,500,001-RM2,000,000	SIZE4	374
Between RM2,000,001-RM2,500,000	SIZE5	288
Between RM2,500,001-RM3,000,000	SIZE6	200
Between RM3,000,001-RM5,000,000	SIZE7	521
Between RM5,000,001-RM10,000,000	SIZE8	423
Between RM10,000,001-RM50,000,000	SIZE9	261
More than RM50,000,000	SIZE10	14
		3,748
Location of company (based on states):		
Johor	STATE1	337
Melaka/Negeri Sembilan	STATE2	154
Perak	STATE3	304
Kelantan / Terengganu	STATE4	89
Kedah / Perlis	STATE5	116
Penang	STATE6	374
Pahang	STATE7	66
FT Kuala Lumpur / FT Putrajaya	STATE8	1,142
Selangor	STATE9	756
Sabah	STATE10	184
Sarawak	STATE11	226
		3,748
Location of company:		
Urban	USUB1	3,373
Suburban	USUB2	375
		3,748

Financial liquidity:		
Less than 1.00	LIQ1	1,443
Between 1.00 to 1.99	LIQ2	1,616
Between 2.00 to 10.00	LIQ3	605
Above 10.00	LIQ4	84
		3,748

3.6.3 Techniques of Data Analysis

This study used SPSS software to run analysis of descriptive statistics, correlation of variables and multiple regression analysis in order to analyse the level of influence independent variables have on dependent variable. Frequency analysis, tables, histograms and graphs of analysis were generated from the SPSS software. Dummy coding were used in each independent variables by setting reference group as base category and creating dummy variable corresponding to each category in each varibales, in order to analyse and observe the level of tax non-compliance within the independent variables.

3.7 Chapter Summary

Chapter three presented the study's research methodology, proposed research framework and research hypotheses development of each variables deduced from reviewing past literatures. Furthermore, the chapter also discoursed the study's research design, related variable definitions and measurements used, data collection procedure involved, its population, samples and data analysis techniques applied.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Introduction

Here in this chapter, researcher presents the research outcome and results on examining differences between type of industry, size of company, location of company and financial liquidity in relation to SMCs tax non-compliance. Firstly, demographic profiles of SMCs is laid out and followed by SPSS results of correlation test between each variables being examined. Next, detailed findings, results, justifications and discussions on each research hypotheses of the variables are offered.

4.2 Research Findings

In this section, the results of analysed SMCs demographic profiles is detailed out. Additionally, regression analysis and hypotheses testing with regards to variables being investigated are presented in this section.

4.2.1 SMCs Demographic Profiles

SMCs demographic profiles is laid out in Table 4.1. Out of 3,748 SMC audited cases of tax non-compliance finalised in 2015, some 34.87% are involved in retail and wholesale trading sector. While, 25.13% are from services sector, 24.76% from manufacturing sector, 13.63% from construction sector and 1.60% from agriculture, forestry and fishery sector. From this statistics, it can be noted that three highest groups of tax non-compliance are contributed by SMCs which engaged in retail and wholesale trading, services and manufacturing industries. The reasonable justification is that

these sectors dominates the fraction of registered SMEs in Malaysia (SME Corp., 2016). However, the ranking of tax non-compliant industries is slightly different from past literatures such as Mohd Nor et al. (2010), Lai et al. (2013) and Sapiei et al. (2014), but statistic had proven that services and manufacturing sectors are two of the predominant industries that engaged in tax non-compliance. Although earlier studies in Malaysia found that SMCs in construction industry to have highest experience in tax non-compliance (Mohd Nor et al., 2010; Lai et al., 2013; and Mohd Yusof et al., 2014), it was found differently in the current study. Construction industries only ranked forth as tax non-compliant industry.

As for size of company, it is found that most tax non-compliant SMCs are having total assets between RM500,001 to RM1,000,000 (17.80%), followed by SMCs with total assets between RM3,000,001 to RM5,000,000 (13.90%) and total assets less than RM500,000 (13.89%). The statistic also showed that about 81% of tax non-compliant SMCs having total assets of RM5,000,000 and below. Mohd Yusof et al. (2014) recorded 49.4% of tax non compliant SMCs with total assets of RM5,000,000 and below. This implies that there have been an increment of 64% tax non-compliant SMCs with total assets RM5,000,000 and below in 2015 as compared to 2011.

Additionally, with reference to size of company based on turnover, statistics found that 60.25% of tax non-compliant are among those small-sized SMCs, 37.5% medium-sized SMCs and only 2.24% are micro-sized SMCs, showing absolute contrast from result of Mohamad et al. (2016). They found 53% of investigated SMEs for tax non-compliant to be micro-sized entities. These situation may indicates that IRBM had shifted their focus from SMCs with lower declared turnover to higher declared

turnover in their tax audit case selection. Also, it can be assumed that SMCs have becoming more tax non-compliant since 2011.

SMCs demographic profile on location of company showed that 30.47% of tax non-compliant SMCs are from Kuala Lumpur/Putrajaya area. This is tailed by SMCs in Selangor (20.17%), Penang (9.98%), Johor (8.99%) and Perak (8.11%). It can be that it might be due to the concentration on SMCs in those states, as reported by SME Census in 2016 (Figure 1.2). Additionally, it is also indicated that almost 90% of SMCs investigated are located in the urban areas in Malaysia, and only 10% tax non-compliant SMCs are from the suburban. Mohamad et al. (2016) found 75% tax non-compliant SMCs were located in the urban area. Hence, there is a hike of 20% in urban SMCs that engaged in tax non-compliance.

Statistics on financial liquidity found that 43.12% of SMCs investigated have financial liquidity ratio between 1.00 to 1.99 and 38.5% of SMCs having liquidity ratio of less than 1.00. This implies that approximately 82% of examined SMCs having liquidity ratio less than 2.00, which signifies a weak financial position in SMCs as implied by Mohd Yusof et al., (2014).

Table 4.1
SMCs Demographic Profiles

Category	**Total SMCs (n)**	**Total SMCs (%)**
Industry Type		
Retail & wholesale trading	1,307	34.87%
Services	942	25.13%
Manufacturing	928	24.76%
Construction	511	13.63%
Agriculture, forestry and fishery	60	1.60%
	3,748	100.00%
Company Size based on turnover		

Micro	84	2.24%
Small	2,258	60.25%
Medium	1,406	37.15%
	3,748	100.00%
Company Size based on total assets		
Less than RM500,000	520	13.87%
Between RM500,001-RM1,000,000	667	17.80%
Between RM1,000,001-RM1,500,000	479	12.79%
Between RM1,500,001-RM2,000,000	375	10.00%
Between RM2,000,001-RM2,500,000	288	7.68%
Between RM2,500,001-RM3,000,000	200	5.34%
Between RM3,000,001-RM5,000,000	521	13.90%
Between RM5,000,001-RM10,000,000	423	11.29%
Between RM10,000,001-RM50,000,000	261	6.96%
More than RM50,000,000	14	0.37%
	3,748	100.00%
Location based on states		
FT Kuala Lumpur / FT Putrajaya	1,142	30.47%
Selangor	756	20.17%
Penang	374	9.98%
Johor	337	8.99%
Perak	304	8.11%
Sarawak	226	6.03%
Sabah	184	4.91%
Melaka/Negeri Sembilan	154	4.11%
Kedah / Perlis	116	3.09%
Kelantan / Terengganu	89	2.37%
Pahang	66	1.76%
	3,748	100.00%
Location		
Urban	3,373	90.00%
Suburban	375	10.00%
	3,748	100.00%
Financial Liquidity		
Less than 1.00	1,443	38.50%
Between 1.00 to 1.99	1,616	43.12%
Between 2.00 to 10.00	605	16.14%
Above 10.00	84	2.24%
	3,748	100.00%

4.2.2 Descriptive Analysis

Descriptive statistics forms the basis of every quantitative analysis, which uses information that has been collected from a database, an experiment, a survey, or any other data collection means to provide brief descriptions of the population or sample through numerical calculations, graphs or tables. There are about three main categories

of descriptive statistics which includes measures of frequency (count, percentage), measures of central tendency (mean, minimum, maximum), and measures of dispersion or variation (range, variance, standard deviation). In the following table (Table 4.2), frequency, probability distribution and dispersion of dependent variables (ADJ) and independent variables (financial liquidity) from the observed 3,748 cases are presented. Table 4.2 provide average tax audit adjustment of SMCs is RM167,992 where as the highest tax audit adjustments is recorded at RM29,153,043. This shows that the magnitude of tax non-compliance level in SMCs is evident and on the rise. The mean for financial liquidity (current ratio) is at 2.34, above the acceptable current ratio value of 2:1, which implies that SMCs have a stabil financial liquidity and should be able to pay off debts and tax obligations. This finding differs from Mohd Yusof et al. (2014). Nevertheless, as stated earlier, most SMCs reported current ratio below 2.00, which infers SMCs may encounter some financial difficulties and more prone to be tax non-compliant.

Table 4.2
Descriptive Statistics

N=3,748	**Mean**	**Min**	**Max**	**Std. Dev.**
ADJ	167,992	52	29,153,043	720,623
Log (ADJ)	4.67	1.72	7.46	0.75
Financial Liquidity (LIQ)	2.34	0.00	169.57	8.63

4.2.3 Assumption of Multiple Linear Regression

Regression analysis is done to achieve the study objective. Further checking of the data need to be conducted before the regression analysis can be performed. Normality tests, linearity and autocorrelation were examined to justify the use of regression

model in order to obtain valid and reliable results. The results for these assumptions are discussed below.

4.2.3.1 Normality

A histogram provides useful graphical representation of the data. Histogram in Figure 4.1 shows the histogram form a bell shaped curve, this suggest that normality assumption is met.

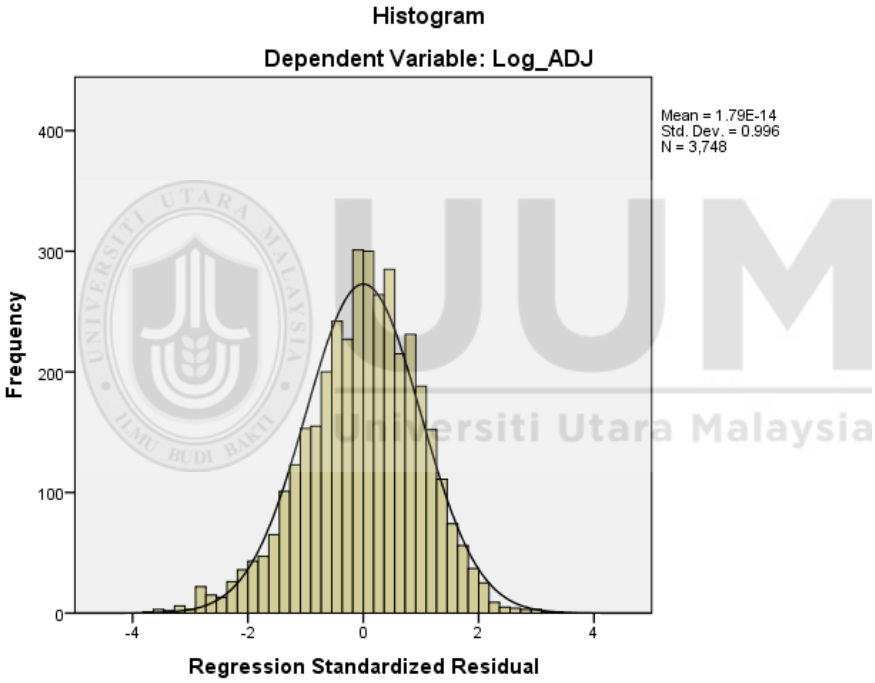

Figure 4.1
Normality test histogram

4.2.3.2 Linearity

A regression model is said to be linear if the relationship between dependent and independent variables is linear. The plot in Figure 4.2 shows randomly distributed data where there is no particular pattern visible. This clearly demonstrates that the assumption of linearity has been fulfilled.

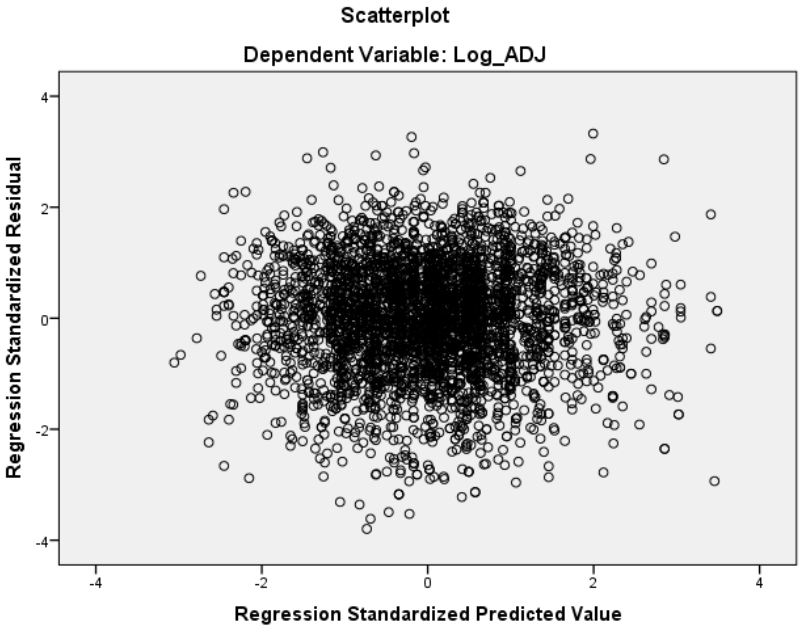

Figure 4.2
Linearity Scatterplot

4.2.3.3 Autocorrelation

The Durbin Watson test is a measure of autocorrelation in residuals from regression analysis. A rule of thumb is that test statistic values in the range of 1.5 to 2.5 are relatively normal. Values outside of this range could be cause for concern. Field (2009) suggests that values less than 1 or greater than 3 are a definite cause for concern. Findings from Table 4.3 shows that Durbin Watson value equals to 1.761 prove that no sign of autocorrelation.

Table 4.3
Durbin-Watson test of autocorrelation

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.281	.079	.072	.72581	1.761

4.2.4 Regression Analysis and Hypotheses Testing

After considering the above assumptions and all has been fulfilled, then regression analysis is carried out to determine whether any significant differences exist in SMCs tax-non-compliance level in relation to type of industry, size of company, location of company and financial liquidation. For that purpose, the following model is used:

Log(Tax non-compliance) = $\alpha + \beta_1$(Services) + β_2(Manufacturing) + β_3(Construction) + β_4(Agriculture, forestry & fishery) + β_5(Between RM500,001 to RM1,000,000) + β_6(Between RM1,000,001 to RM1,500,000) + β_7(Between RM1,500,001 to RM2,000,000)+ β_8(Between RM2,000,001 to RM2,500,000) + β_9(Between RM2,500,001 to RM3,000,000) + β_{10}(Between RM3,000,001 to RM5,000,000) + β_{11}(Between RM5,000,001 to RM10,000,000) + β_{12}(Between RM10,000,001 to RM50,000,000) + β_{13}(More than RM50,000,000) + β_{14}(Melaka/Negeri Sembilan) + β_{15}(Perak)+ β_{16}(Kelantan/Terengganu) + β_{17}(Kedah/Perlis) + β_{18}(Penang) + β_{19}(Pahang) + β_{20} (FT Kuala Lumpur/FT Putrajaya) + β_{21}(Selangor) + β_{22}(Sabah) + β_{23}(Sarawak) + β_{24}(Suburban) + β_{25}(Between 1.00 to 1.99) + β_{26}(Between 2.00 to 10.00) + β_{27}(Above 10.00) + ε

Where α = constant,

β_i = regression coefficient, i =1,2,3,4,…., 27

and ε = error

Researcher employed the Analysis of Variance (ANOVA) to test the study's hypotheses. The *F*-ratio in the ANOVA table tests whether the overall regression model is a good fit for the data. Table 4.4 shows that the independent variables

statistically significantly predict the dependent variable (tax non-compliance), $F(27,3720) = 11.826$, $p < 0.05$ (the regression model is a good fit of the data).

Table 4.4
ANOVA output

Model	Sum of squares	Df	Mean square	F	Sig.
Regression	168.143	27	6.228	11.826	< 0.001
Residual	1958.876	3720	.527		
Total	2127.019	3747			

The study uses multiple regression to test the hypotheses. Analysis results as shown in Table 4.5. The regression model is significant (F-value = 11.826, $p < 0.05$). R^2 value was 0.079, indicates that this regression model can predict 7.9% in SMCs tax non-compliance level by using all the demo predictors in the regression model.

The difference between R^2 and adjusted R^2 for the model is 0.7% (0.079-0.072 = 0.007 or 0.7%). This shrinkage means that if the regression model were derived from the population rather than a sample, it would account for approximately 0.7% less variance in the tax non-compliance level.

For type of industry, retail and wholesale trading is set reference group for comparison purposes. It is found that tax non-compliance level is higher by 0.281 for service industry and 0.102 higher for manufacturing industry. Meanwhile for construction, tax non-compliance level is 0.249 higher compared to retail and wholesale trading industry. Additionally, agriculture, forestry and fishery is found to have the most significant difference with 0.335 higher than retail and wholesale trading. As a whole,

it is found that tax non-compliance level for all types of industries (services, manufacturing**,** construction, and agriculture, forestry and fishery) are significantly different from retail and wholesale trading ($p < 0.05$). Therefore, hypothesis H1 is supported. This findings concurred with the results of Chan and Mo (2000), Mohd Yusof et al. (2014) and Sapiei et al. (2014). Accordingly, the ranking of tax non-compliant level in SMCs by type of industry are as follows: (1) agriculture, forestry and fishery; (2) services; (3) construction; (4) manufacturing; and (5) retail & wholesales trading.

For size of company based on total asset, with total asset below RM500,000 being the reference group, tax non-compliance level is found higher for total asset between RM1,500,001-RM2,000,000 by 0.155, between RM2,000,001-RM2,500,000 by 0.241 and between RM2,500,001-RM3,000,000 by 0.227. Result also reveals that for total asset between RM3,000,001-RM5,000,000, tax non-compliance level is 0.355 higher than reference group. Meanwhile for total asset between RM5,000,001-RM10,000,000, tax non-compliance is also found to be higher by 0.417. SMCs with total asset between RM10,000,001-RM50,000,000, tax non-compliance is 0.542 higher. Last but not least, for total asset above RM50,000,001, tax non-compliance is 0.502 higher than reference group.

It is found that tax non-compliance level of SMCs at all categories of total assets are significantly different from the reference group except for SMCs with total assets between RM500,001-RM1,000,000. This results verified study's hypothesis, H2b and in agreement with Sapiei et al. (2014). As a whole, it is acknowledged that larger SMCs (with total assets between RM10 million to RM50 million) are among the most

tax non-compliant SMCs in Malaysia, consistent with Mohd Yusof et al. (2014) who found 28.5% of investigated SMCs with total assets of RM10 million to RM50 million were tax non-compliant.

For location by state, Johor was set as reference group for comparison. It is found that other states have tax non-compliance level significantly higher ($p < 0.05$) than Johor's by 0.422 (Kelantan/Terengganu), 0.264 (Kedah/Perlis), 0.156 (Penang), 0.327 (FT Kuala Lumpur/FT Putrajaya), 0.402 (Selangor), 0.138 (Sabah), and 0.159 (Sarawak). Thus, hypothesis H3a of the study is supported. This result is in line with Mohamad et al. (2017) where Johor and Penang seen to have greater tax non-compliant cases. Nevertheless, SMCs in Melaka/Negeri Sembilan, Perak and Pahang are seen not significantly different in term of tax non-compliance compared to reference group. The above findings somewhat contradict with Abdul Manaf et al. (2005).

In terms of location by urban / suburban, urban was set as reference group for comparison. It is found that tax non-compliance level for suburban is 0.171 higher than urban. Therefore, suburban SMCs are seen to be significantly different from urban ($p = 0.00$) in term of tax non-compliance. Hence, study's hypothesis H3b is also suppoerted. This also agreed with Mohamed et al. (2016) result where SMEs in suburban were found to be significantly driven to evade tax. It is assumed that SMCs in the suburban are still not familiar with tax system and less tax awareness.

In terms of financial liquidity, financial liquidity less than 1.00 was set as reference group for comparison. It is found that for financial liquidity between 1.00 - < 2.00, tax non-compliance is 0.097 lower than reference group. Meanwhile for financial liquidity

between 2.00 - 10.00, tax non-compliance is 0.129 lower than reference group. It is found that tax non-compliance for both level above are significantly different (p = 0.00) from financial liquidity less than 1.00. Hence, study's hypothesis H4 is also supported. It is evident that financial liquidity have significant relation to SMCs tax non-compliance especially those SMCs with weak financial position (indicated by liquidity ratio of less than 2.00), corresponding with Law and Mills (2015).

Table 4.5
Regression analysis result

Variable	**B**	**Standardised Beta**	**t**	**Sig.**
(Constant)	4.080		67.991	.000
Retail & wholesale trading	reference			
Services	.281	.162	8.557	**.000***
Manufacturing	.102	.058	2.994	**.003***
Construction	.249	.113	6.206	**.000***
Agriculture, forestry & fishery	.335	.056	3.393	**.001***
Less than RM500,000	reference			
RM500,001-RM1,000,000	.075	.038	1.747	.081
RM1,000,001-RM1,500,000	.140	.062	2.997	**.003***
RM1,500,001-RM2,000,000	.155	.062	3.094	**.002***
RM2,000,001-RM2,500,000	.241	.085	4.450	**.000***
RM2,500,001-RM3,000,000	.227	.068	3.698	**.000***
RM3,000,001-RM5,000,000	.355	.163	7.651	**.000***
RM5,000,001-RM10,000,000	.417	.175	8.426	**.000***
RM10,000,001-RM50,000,000	.542	.183	9.288	**.000***
More than RM50,000,000	.502	.041	2.520	**.012***
Johor	reference			
Melaka/Negeri Sembilan	.106	.028	1.448	.148
Perak	.097	.035	1.606	.108
Kelantan/Terengganu	.422	.085	4.700	**.000***
Kedah/Perlis	.264	.061	3.321	**.001***
Penang	.156	.062	2.734	**.006***

Pahang	.091	.016	.909	.363
FT Kuala Lumpur/FT Putrajaya	.327	.200	6.489	**.000***
Selangor	.402	.214	7.882	**.000***
Sabah	.138	.040	2.010	**.045***
Sarawak	.159	.050	2.413	**.016***
Urban	reference			
Suburban	.171	.068	3.668	**.000***
Less than 1.00	reference			
Between 1.00 to 1.99	-.097	-.064	-3.631	**.000***
Between 2.00 to 10.00	-.129	-.063	-3.617	**.000***
Above 10.00	-.007	-.001	-.079	.937
R^2	0.079			
Adjusted R^2	0.072			
F value	11.826 ($p < 0.05$)			

*Note: *result is significant at 0.05 level.*

Therefore, the study final Multiple Linear Regression Model equation is written as below:

Log(Tax non-compliance) = 4.080 + 0.281(Services) + 0.102(Manufacturing) + 0.249(Construction) + 0.335(Agriculture, forestry & fishery) + 0.075(Between RM500,001 to RM1,000,000) + 0.140(Between RM1,000,001 to RM1,500,000) + 0.155(Between RM1,500,001 to RM2,000,000) + 0.241(Between RM2,000,001 to RM2,500,000) + 0.227(Between RM2,500,001 to RM3,000,000) + 0.355(Between RM3,000,001 to RM5,000,000) + 0.417(Between RM5,000,001 to RM10,000,000) + 0.542(Between RM10,000,001 to RM50,000,000) + 0.502(More than RM50,000,000) + 0.106(Melaka/Negeri Sembilan) + 0.097(Perak) + 0.422(Kelantan/Terengganu) + 0.264(Kedah/Perlis) + 0.156(Penang) + 0.091(Pahang) + 0.327(FT Kuala Lumpur/FT

Putrajaya) + 0.402(Selangor) + 0.138(Sabah) + 0.159(Selangor) + 0.171(Suburban) – 0.097(Between 1.00 to 1.99) – 0.129(Between 2.00 to 10.00) – 0.007(Above 10.00)

4.3 Chapter Summary

The study's results and findings from utilizing ANOVA and regression analysis was presented in this chapter, in order to examine whether any significant differences exist between type of industry, size of company, location of company and financial liquidity with SMCs tax non-compliance level. Empirical evidence found that all independent variable significantly contributed to SMCs tax non-compliance at different levels. The next chapter will discuss on the research conclusion, recommendation, implication and limitation.

CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 Introduction

The first section of the final chapter provide brief conclusions and discussions on the research findings. The study attempts to explore the differences between certain firm characteristics (type of industry, size of company, location of company, and financial liquidation) and SMCs tax non-compliance. The second section represent the implications of the study. Then, the study's limitations are discussed. Finally, the chapter offer recommendations that could be further explored in a future study.

5.2 Discussion of Research Findings

The aim of this study was to identify certain firm characteristics (type of industry, size of company, location and financial liquidity) that might influence SMCs tax non-compliance level. For the purpose of the study, secondary data of finalised field audit cases in the year 2015 was gathered and extracted from IRBM's CMS, after approval was given by the management of IRBM. Subsequently, Statistical Package of the Social Science (SPSS) software was used in analysing the empirical data of 3,748 audit cases. Hence, it was anticipated that SMCs characteristics like type of industry, size of company, location and financial liquidity contributed significantly to SMCs tax non-compliance.

As a conclusion, it was found that SMCs tax non-compliance level varies between types of industry they engage in. The study established that services industry to be

more tax non-compliant than construction and manufacturing and concurred with Chan and Mo (2000), Mohd Yusof et al. (2014) and Sapiei et al. (2014). Possible reasoning behind this occurance is that certain industries are more regulated by respective authorities than others such as construction and manufacturing sectors. Hence, by complying to the industries regulations, SMCs somewhat comply with most basic accounting and taxation requirements.

It is also concluded that Malaysian SMCs with total assets between RM10 million to RM50 million to be the most tax non-compliant group compared to others. This discovery somewhat in line with Mohd Yusof et al. (2014), where some 28.5% of investigated SMCs owns total assets of RM10 million to RM50 million. Therefore, larger SMCs probably have more means to engage in better tax planning.

Based on location of company, it can be established that differences exist for location and most tax non-compliant SMCs are located in the suburban and int the states of Kelantan/Terengganu, FT Kuala Lumpur/FT Putrajaya and Selangor. However, results are not conclusive and found to be in contrast of Abdul Manaf et al. (2005) and Palil (2010) discoveries but in line with Mohamad et al. (2016) and Mohamad et al. (2017).

As for the last independent variable, SMCs in Malaysia with financial liquidity ratio of less than 2.00 were found to be more tax non-compliant. This is probably due to weak and unstable financial position that may motivate the management of SMCs to engage in tax planning that lead to tax avoidance or tax evasion as suggested by Spathis (2002) and Law and Mills (2015).

5.3 Implication of the Study

There are significant findings in the current study that varies from previous literatures such as Mohd Yusof et al. (2014). This might be due to the fact that generally tax audit landscape in Malaysia may have changed over the years and with the usage of limited available data. Hence, theoretically current study can aid scholars, policy makers, tax practitioners and other interested parties, in identifying tax non-compliance occurrence among SMCs in Malaysia, based on the characteristics of the company.

It is evident that SMCs with total asset of more than RM5 million are found to be significantly driven towards tax non-compliance. Hence, this may help tax auditor in selecting better potential audit cases. Besides that, more emphasis should be put to audit SMCs in the services sectors as they encompassed about 89.2% of registered SMEs in Malaysia (SME Corp, 2016). Location wise, attention should be focused on states with the most concentrated SMEs such as Selangor, FT Kuala Lumpur, Johor, Perak and Penang. This is supported by the study findings that most SMCs in the above states are found to be prone to tax non-compliance.

Basically, SMCs with financial stress are motivated to engage in an unlawful act including tax non-compliance. With liquidity ratio of less than 2.00, SMCs found to be tax non-compliant. Therefore, it may facilitate auditors to have better financial analysis on potential cases.

The study's empirical findings would provide value added inputs especially to the relevant body of authorities and regulators to enhance better management on SMCS

issues. As the national tax policy makers, IRBM may practically redesign and implement better strategies and approaches to heighten the compliance rate in Malaysian SMCs. It is suggested that tax audit activities be done widely and continuously, in order to create deterrence effect. Besides that, another deterrence approach would be imposing heftier penalties to tax defaulters as tax non-compliance threaten the national revenue collections. In addition, it is recommended that IRBM boost their effort in tax education and tax awareness through various types of communication networks, in light to reach and penetrate the illiterate taxpayers, especially those in the suburban area. It is hope that younger generations of taxpayers will have higher tax knowledge level and eventually contribute to higher voluntary tax compliance.

5.4 Limitations and Recommendations for Future Study

This study faced some limitations that needed to be solved. The research population is limited to the data of SMCs tax field audit cases finalised in 2015. Therefore, research results cannot be simply generalised to other taxpayers as the characteristics may be different. Take for instance large and listed corporations. They may have higher tax compliance level due to the fact that they are regulated by certain bodies other than IRBM, such as Securities Commissioners of Malaysia (SC) and Bank Negara Malaysia (BNM).

Another limitation to the study is that the observed SMCs characteristics only consist of type of industry, size of company, location of company and its financial liquidation based on the availabe dan limited data given by IRBM. There are other determining characterstics of SMCs tax non-compliance behaviour that could be investigated if

such information is available like level of tax knowledge held by decision maker of SMCs, ownership status of the SMCs (foreign/ family-owned), probability of being audited, number of permanent staff, number of tax offences, corporate governance characteristics, tax agents appointment , tax compliance cost and such.

There are some matters that ought to be look into by future researchers in order to expand the current study and to ascertain other findings on the profile of the entities that involved in wealth transfer or underreporting. It is recommended that further research be conducted or be improved by examining the breakdowns of audit adjustments (underreporting sales, over-claiming purchases/expenses, claiming illegible credits or tax savings and others) that may have driven business entities more towards tax non-compliance. Thus, this will help tax administrator to enhance audit case selections and be able to provide better audit quality that leads to better service quality towards taxpayers.

Besides that, future researchers recommended to examine SMCs tax compliance behaviour in the era of GST by utilising the real audit data of 2016 onwards from IRBM. It is intriguing to envision the outcome of such research as it is known to the public that GST imposed somewhat additional burden to the financial position of any business entity. The curiosity on the idea whether GST implementation have some influence towards income tax compliance should be of IRBM's interest, as the probability of taxpayers commiting GST non-compliance will directly affect taxpayers income tax compliance level as well. For instance, taxpayer may omit certain purchases transactions and sales transactions from its book just to avoid or evade GST (off-book transactions). Hence, this entails lower purchases and sales amounts that

eventually lowering the net profit. Thus, lowering taxable income and tax dues as a whole, which if found so by tax audit activities, it infer taxpayer have engaged in income tax non-compliance act.

Another suggestion for future research is to investigate the impact of marginal tax rate on SMCs tax compliance behaviour using real audit data from 2017 onwards. This is to reflect the influence of lowering marginal tax rate policy taking effect in 2016, whereas SMCs taxable income will be taxed at the rate of 19% (2016) and 18% (2017) for the first RM500,000 and at the rate of 24% for subsequent amount above RM500,000. Again, it is intriguing to see whether the economic deterrence theory on lowering marginal tax rate have some effects in SMCs tax non-compliance behaviour.

It is hoped that more tax non-compliance study be conducted especially in relation to the new business model or landscape, like e-commerce or e-business that foresees positive development in Malaysia and may involved a huge number of taxpayers. It will be an added advantage if the study can be conducted using actual tax audit data gathered from IRBM.

5.5 Research Conclusion

Based on the observation of 3,748 finalised field tax audit cases in 2015, the study concluded that certain SMCs characteristics does inflict some influence toward tax non-compliance level of SMCs in Malaysia. Majority of tax non-compliant SMCs were from services sector, with total assets between RM10 million to RM50 million, located in Kelantan/Terengganu, FT Kuala Lumpur/FT Putrajaya and Selangor, and having financial liquidity ratio of below 2.00. These SMCs are seen prone to commit

tax non-compliance. Hence, IRBM should plan better strategies to manage and audit SMCs with the above stipulated criterias, to ensure higher voluntary tax compliance rate and tax awareness in the future.

Although these findings cannot be generalised to overall population of taxpayers such as large company, self-employed business entity, partnership and alike, to a certain extend, it can be assumed that the practice are the same. Therefore, IRBM must come up with a simpler tax system (less complex tax regulation and law), a stern but friendlier approach towards taxpayer so that it can create a better tax awareness environment and to expand on tax education activities as to improve the level of tax knowledge not just amongs Malaysian SMCs, but Malaysian as a whole.

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APPENDICES

Regression Output

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.281[a]	.079	.072	.72566	1.761

a. Predictors: (Constant), USUB_2, SIZE4, LIQ2, SIZE10, STATE4, STATE2, SIZE9, STATE3, SIZE6, LIQ4, STATE7, SIZE5, STATE5, STATE6, INDTYPE5, INDTYPE2, STATE10, SIZE3, SIZE8, INDTYPE4, STATE11, LIQ3, STATE9, SIZE7, INDTYPE3, SIZE2, STATE8

b. Dependent Variable: Log_ADJ

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	168.143	27	6.228	11.826	.000[b]
	Residual	1958.876	3720	.527		
	Total	2127.019	3747			

a. Dependent Variable: Log_ADJ

b. Predictors: (Constant), USUB_2, SIZE4, LIQ2, SIZE10, STATE4, STATE2, SIZE9, STATE3, SIZE6, LIQ4, STATE7, SIZE5, STATE5, STATE6, INDTYPE5, INDTYPE2, STATE10, SIZE3, SIZE8, INDTYPE4, STATE11, LIQ3, STATE9, SIZE7, INDTYPE3, SIZE2, STATE8

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	4.080	.060		67.991	.000		
	INDTYPE2	.281	.033	.162	8.557	.000	.695	1.440
	INDTYPE3	.102	.034	.058	2.994	.003	.654	1.530
	INDTYPE4	.249	.040	.113	6.206	.000	.744	1.344
	INDTYPE5	.335	.099	.056	3.393	.001	.912	1.096
	STATE2	.106	.073	.028	1.448	.148	.661	1.512
	STATE3	.097	.061	.035	1.606	.108	.514	1.946
	STATE4	.422	.090	.085	4.700	.000	.751	1.331
	STATE5	.264	.080	.061	3.321	.001	.739	1.353
	STATE6	.156	.057	.062	2.734	.006	.478	2.091
	STATE7	.091	.100	.016	.909	.363	.817	1.223
	STATE8	.327	.050	.200	6.489	.000	.261	3.831
	STATE9	.402	.051	.214	7.882	.000	.335	2.987
	STATE10	.138	.069	.040	2.010	.045	.639	1.565
	STATE11	.159	.066	.050	2.413	.016	.575	1.741
	SIZE2	.075	.043	.038	1.747	.081	.524	1.910

SIZE3	.140	.047	.062	2.997	.003	.580	1.723
SIZE4	.155	.050	.062	3.094	.002	.624	1.603
SIZE5	.241	.054	.085	4.450	.000	.673	1.485
SIZE6	.227	.061	.068	3.698	.000	.739	1.353
SIZE7	.355	.046	.163	7.651	.000	.545	1.835
SIZE8	.417	.049	.175	8.426	.000	.574	1.742
SIZE9	.542	.058	.183	9.288	.000	.637	1.569
SIZE10	.502	.199	.041	2.520	.012	.951	1.051
LIQ2	-.097	.027	-.064	-3.631	.000	.799	1.252
LIQ3	-.129	.036	-.063	-3.617	.000	.816	1.226
LIQ4	-.007	.082	-.001	-.079	.937	.952	1.050
USUB_2	.171	.047	.068	3.668	.000	.719	1.391

a. Dependent Variable: Log_ADJ

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions											
				(Constant)	INDTYPE2	INDTYPE3	INDTYPE4	INDTYPE5	STATE2	STATE3	STATE4	STATE5	STATE6	STATE7	STATE8
1	1	4.310	1.000	.00	.01	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00
	2	1.534	1.676	.00	.03	.00	.01	.06	.00	.02	.00	.01	.00	.00	.01
	3	1.417	1.744	.00	.06	.08	.00	.00	.00	.00	.00	.00	.03	.01	.01
	4	1.330	1.800	.00	.00	.02	.15	.05	.01	.04	.00	.00	.00	.00	.01
	5	1.146	1.939	.00	.00	.00	.01	.06	.00	.01	.02	.03	.02	.02	.00
	6	1.126	1.957	.00	.00	.00	.00	.02	.03	.02	.00	.00	.01	.23	.00
	7	1.087	1.991	.00	.00	.00	.00	.03	.12	.01	.01	.11	.00	.01	.00
	8	1.059	2.017	.00	.01	.00	.01	.02	.00	.05	.04	.01	.06	.03	.00
	9	1.039	2.036	.00	.00	.00	.00	.00	.00	.01	.34	.05	.00	.00	.00
	10	1.036	2.039	.00	.00	.00	.00	.00	.00	.00	.01	.01	.01	.00	.00
	11	1.036	2.040	.00	.00	.00	.00	.00	.01	.02	.00	.00	.01	.02	.00
	12	1.022	2.054	.00	.00	.00	.00	.00	.11	.00	.00	.07	.00	.09	.00
	13	.991	2.085	.00	.00	.00	.00	.01	.09	.00	.05	.05	.02	.02	.00
	14	.970	2.108	.00	.00	.00	.00	.01	.00	.00	.00	.07	.02	.02	.01
	15	.967	2.112	.00	.00	.00	.00	.00	.06	.01	.03	.06	.02	.01	.01
	16	.959	2.120	.00	.00	.00	.01	.04	.04	.00	.00	.07	.02	.00	.00
	17	.950	2.130	.00	.00	.00	.00	.00	.00	.01	.01	.03	.02	.02	.00
	18	.900	2.189	.00	.00	.00	.00	.00	.02	.04	.14	.02	.00	.02	.00
	19	.884	2.208	.00	.00	.00	.00	.15	.11	.01	.02	.02	.02	.02	.02
	20	.868	2.228	.00	.01	.01	.00	.13	.00	.00	.00	.01	.01	.23	.00
	21	.816	2.299	.00	.00	.03	.01	.30	.00	.01	.02	.01	.09	.01	.01
	22	.677	2.524	.00	.25	.06	.02	.01	.01	.07	.00	.01	.01	.00	.03

23	.666	2.544	.00	.01	.05	.32	.01	.00	.10	.02	.00	.02	.02	.00
24	.481	2.992	.00	.02	.08	.00	.01	.00	.02	.00	.06	.01	.04	.00
25	.347	3.522	.00	.17	.14	.16	.01	.00	.00	.01	.01	.00	.00	.00
26	.241	4.226	.01	.31	.40	.25	.07	.00	.05	.01	.01	.03	.00	.02
27	.112	6.213	.01	.07	.00	.01	.00	.13	.16	.08	.09	.14	.06	.21
28	.027	12.561	.98	.04	.09	.01	.00	.26	.33	.19	.18	.42	.12	.63

Collinearity Diagnostics[a]

Model	Dimension	Variance Proportions														
		STATE9	STATE10	STATE11	SIZE2	SIZE3	SIZE4	SIZE5	SIZE6	SIZE7	SIZE8	SIZE9	SIZE10	LIQ2	LIQ3	LIQ4	USUB_2
1	1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	.00	.00
	2	.01	.03	.03	.01	.01	.00	.00	.00	.01	.01	.02	.00	.00	.00	.00	.11
	3	.01	.00	.04	.01	.00	.00	.00	.00	.00	.01	.02	.00	.00	.00	.02	.02
	4	.03	.01	.02	.00	.00	.00	.00	.01	.01	.00	.01	.00	.01	.01	.00	.01
	5	.00	.04	.01	.00	.00	.01	.03	.01	.01	.00	.07	.01	.04	.09	.04	.02
	6	.00	.00	.00	.00	.00	.01	.00	.00	.00	.01	.00	.32	.00	.01	.00	.00
	7	.00	.01	.01	.00	.06	.00	.02	.05	.02	.04	.01	.02	.00	.00	.07	.01
	8	.02	.04	.00	.00	.03	.00	.01	.03	.01	.02	.01	.04	.00	.04	.08	.00
	9	.00	.00	.00	.01	.00	.00	.04	.03	.03	.01	.00	.02	.00	.04	.05	.00
	10	.00	.13	.05	.01	.02	.00	.08	.21	.00	.02	.02	.01	.00	.01	.02	.00
	11	.01	.00	.00	.02	.04	.22	.02	.03	.00	.00	.01	.01	.01	.05	.11	.00
	12	.00	.01	.00	.08	.04	.06	.04	.00	.03	.01	.01	.01	.00	.01	.01	.00
	13	.00	.03	.00	.00	.02	.00	.06	.01	.12	.02	.05	.00	.00	.01	.00	.00
	14	.00	.00	.06	.01	.03	.02	.10	.02	.00	.05	.12	.00	.00	.00	.09	.00

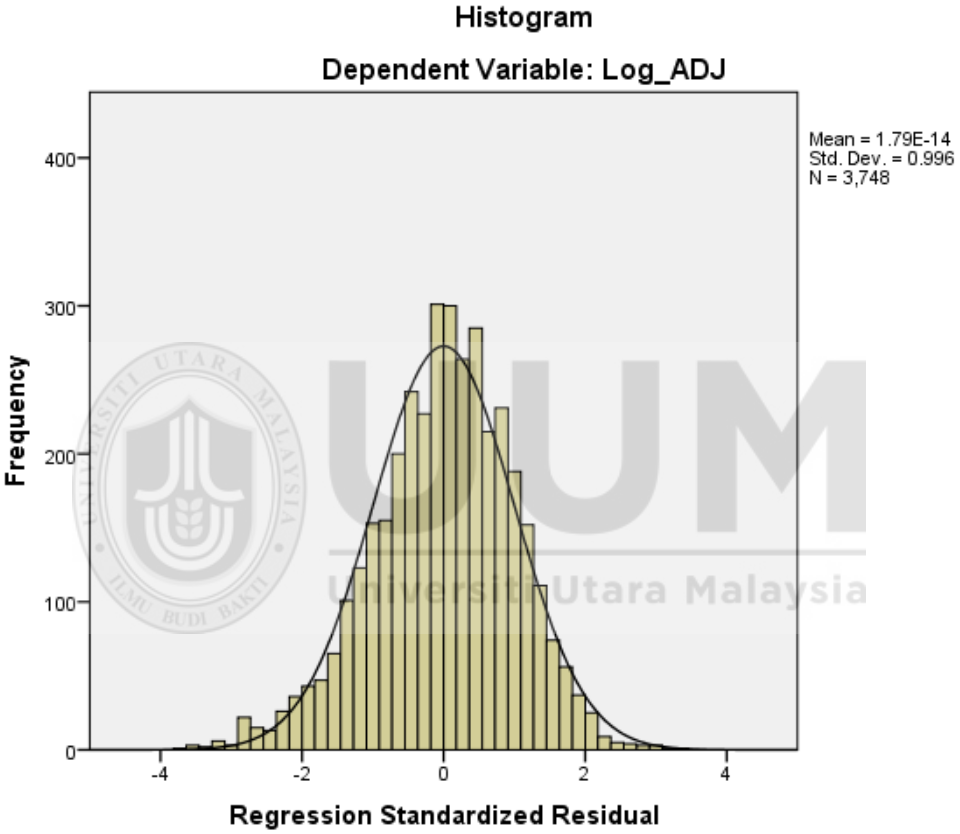
15	.01	.00	.01	.09	.02	.09	.00	.03	.04	.00	.02	.00	.00	.01	.01	.00
16	.00	.08	.03	.00	.01	.00	.08	.01	.01	.16	.02	.00	.00	.00	.00	.00
17	.00	.06	.02	.02	.06	.04	.02	.04	.01	.01	.00	.08	.00	.04	.25	.00
18	.00	.01	.04	.00	.00	.02	.05	.13	.00	.01	.02	.02	.03	.12	.00	.00
19	.00	.02	.00	.02	.01	.00	.00	.02	.03	.03	.00	.20	.01	.00	.01	.01
20	.00	.03	.05	.02	.03	.02	.00	.00	.03	.00	.00	.18	.00	.00	.07	.01
21	.00	.00	.00	.03	.06	.00	.01	.01	.02	.01	.07	.00	.01	.02	.04	.00
22	.01	.01	.00	.02	.00	.00	.00	.01	.00	.00	.05	.01	.02	.03	.01	.05
23	.07	.02	.02	.00	.00	.01	.00	.00	.00	.01	.01	.01	.00	.03	.01	.05
24	.04	.10	.19	.01	.00	.00	.00	.00	.00	.00	.02	.01	.00	.00	.00	.57
25	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.57	.38	.07	.01
26	.04	.00	.05	.04	.03	.03	.03	.03	.07	.05	.09	.02	.25	.08	.01	.03
27	.19	.10	.13	.45	.40	.36	.29	.24	.37	.33	.20	.01	.00	.00	.00	.01
28	.53	.26	.25	.14	.12	.11	.10	.07	.16	.16	.15	.01	.02	.01	.01	.08

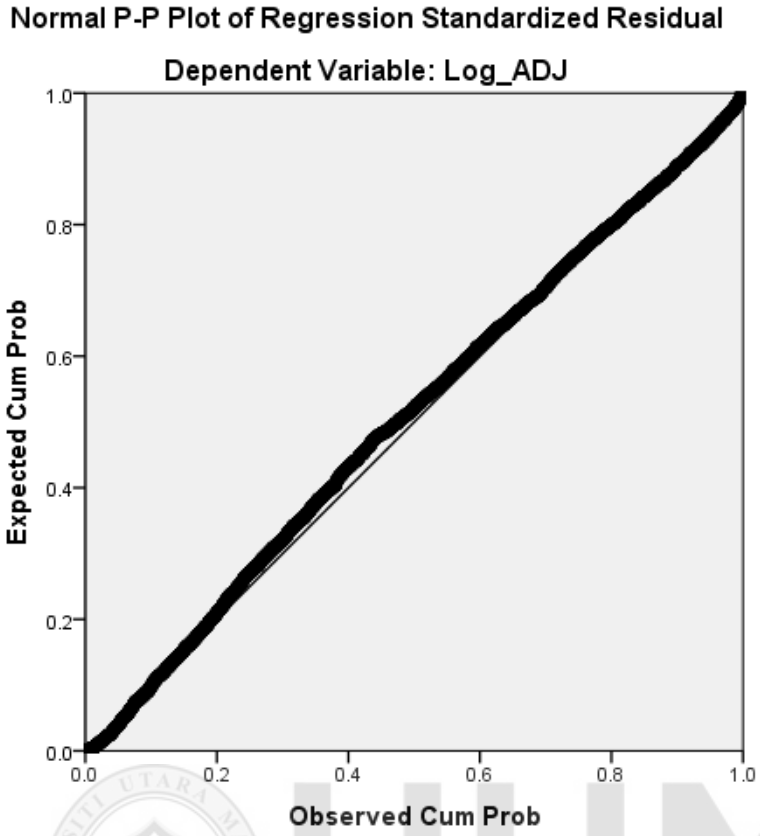
Residuals Statistics[a]

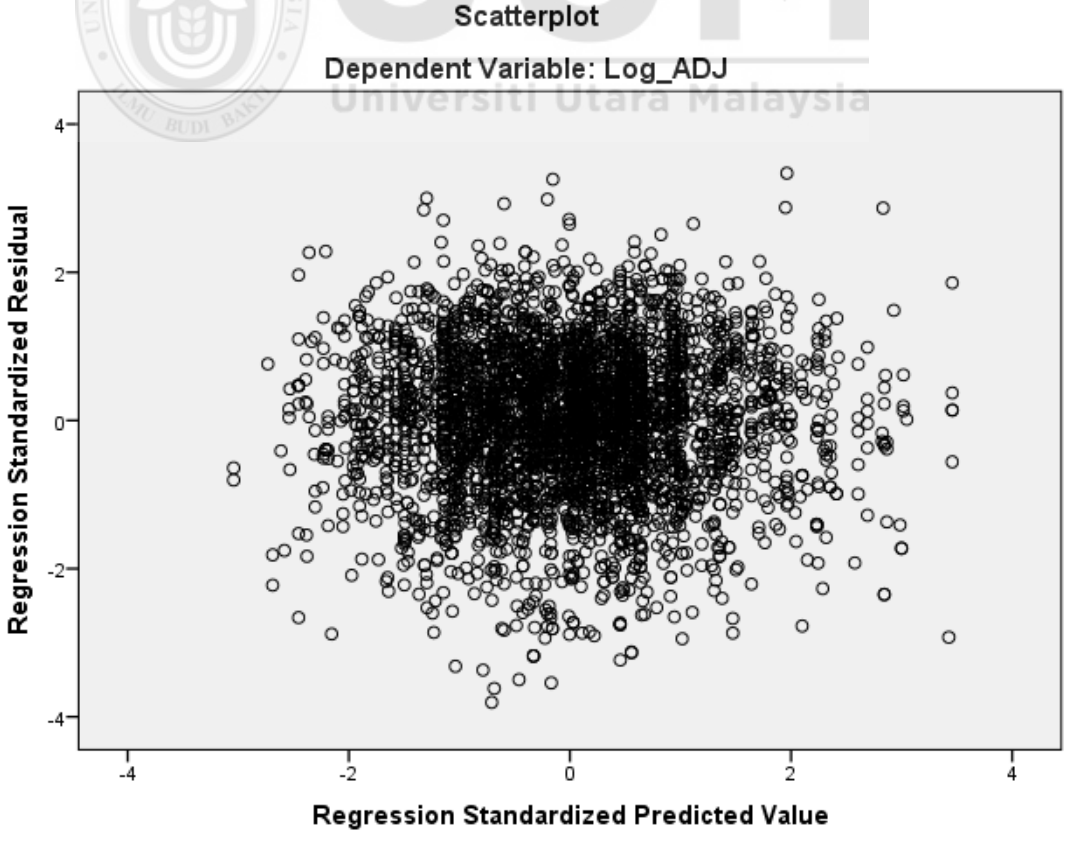
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.9826	5.3596	4.6271	.21184	3748
Residual	-2.76115	2.42208	.00000	.72304	3748
Std. Predicted Value	-3.042	3.458	.000	1.000	3748
Std. Residual	-3.805	3.338	.000	.996	3748

a. Dependent Variable: Log_ADJ

Charts







Frequencies

Statistics

		INDTYPE	LOC1 = STATE	LOC2 = U/SU	com_size _turnover	TOTAL_ ASSET	LIQ
N	Valid	3748	3748	3748	3748	3748	3748
	Missing	0	0	0	0	0	0

Frequency Table

INDTYPE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1307	34.9	34.9	34.9
	2	942	25.1	25.1	60.0
	3	928	24.8	24.8	84.8
	4	511	13.6	13.6	98.4
	5	60	1.6	1.6	100.0
	Total	3748	100.0	100.0	

LOC1 = STATE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	337	9.0	9.0	9.0
	2	154	4.1	4.1	13.1
	3	304	8.1	8.1	21.2
	4	89	2.4	2.4	23.6
	5	116	3.1	3.1	26.7
	6	374	10.0	10.0	36.7
	7	66	1.8	1.8	38.4
	8	1142	30.5	30.5	68.9
	9	756	20.2	20.2	89.1
	10	184	4.9	4.9	94.0
	11	226	6.0	6.0	100.0
	Total	3748	100.0	100.0	

LOC2 = U/SU

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	375	10.0	10.0	10.0
	1	3373	90.0	90.0	100.0
	Total	3748	100.0	100.0	

com_size_turnover

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	small	84	2.2	2.2	2.2
	medium	2258	60.2	60.2	62.5
	large	1406	37.5	37.5	100.0
	Total	3748	100.0	100.0	

TOTAL_ASSET

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than RM500,000	520	13.9	13.9	13.9
	Between RM500,001-RM1,000,000	667	17.8	17.8	31.7
	Between RM1,000,001-RM1,500,000	479	12.8	12.8	44.5
	Between RM1,500,001-RM2,000,000	375	10.0	10.0	54.5
	Between RM2,000,001-RM2,500,000	288	7.7	7.7	62.1
	Between RM2,500,001-RM3,000,000	200	5.3	5.3	67.5
	Between RM3,000,001-RM5,000,000	521	13.9	13.9	81.4
	Between RM5,000,001-RM10,000,000	423	11.3	11.3	92.7
	Between RM10,000,001-RM50,000,000	261	7.0	7.0	99.6
	Above RM50,000,001	14	.4	.4	100.0
	Total	3748	100.0	100.0	

LIQ

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1443	38.5	38.5	38.5
	2	1616	43.1	43.1	81.6
	3	605	16.1	16.1	97.8
	4	84	2.2	2.2	100.0
	Total	3748	100.0	100.0	