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**DETERMINANTS OF TAX NON-COMPLIANCE AMONG
SMALL MEDIUM ENTERPRISES IN MALAYSIA**

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UUM
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**MASTER OF SCIENCE
(INTERNATIONAL ACCOUNTING)
UNIVERSITI UTARA MALAYSIA
SEPTEMBER 2019**

**DETERMINANTS OF TAX NON-COMPLIANCE AMONG SMALL
MEDIUM ENTERPRISES IN MALAYSIA**



**Research Paper Submitted to
Dean of Tunku Puteri Intan Safinaz School of Accountancy,
Universiti Utara Malaysia,
in Partial Fulfilment of the Requirement for the Master of Sciences
(International Accounting)**



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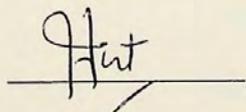
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ABSTRACT

Tax non-compliance issue is not new as it has long existed in tandem with the existence of tax, which if not addressed, will affect the collection of tax revenue that is important to the government for development. Although many studies on tax non-compliance were conducted in the past, there are still limited studies that utilized actual tax audit data to identify the relationship between company characteristics and tax non-compliance. Therefore, this study is conducted to identify factors that may be associated to tax non-compliance such as financial liquidity, capital intensity, size of tax agent, type of industry, company size and company ownership among small and medium enterprises (SMEs) in Malaysia. This study uses audit tax adjustment after field audit as a proxy to tax non-compliance. The sample of this study consists of field audits cases for the year of assessment 2016. The regression analysis showed that only company size has a positive and significant relationship to tax non-compliance. The results obtained from this study can be used to improve the existing policies and regulations to address tax non-compliance. Also, the results obtained can be used by the IRBM to understand the determinants of tax non-compliance.

Keywords: tax non-compliance, tax audit, Small Medium Enterprise (SME)

ABSTRAK

Isu ketidakpatuhan cukai telah lama wujud selari dengan kewujudan cukai, di mana sekiranya tidak dibanteras akan menjejaskan kutipan hasil cukai yang penting kepada kerajaan untuk tujuan pembangunan. Meskipun banyak kajian berkaitan ketidakpatuhan cukai dijalankan pada masa lalu, namun tidak banyak kajian yang menggunakan data audit cukai sebenar untuk mengenalpasti hubungkait di antara ciri-ciri syarikat dan ketidakpatuhan cukai. Oleh itu, kajian ini dijalankan untuk mengenalpasti faktor yang boleh dikaitkan dengan ketidakpatuhan cukai seperti kecairan kewangan, intensiti modal, saiz ejen cukai, jenis industri, saiz syarikat dan pemilikan ekuiti syarikat di kalangan pembayar cukai syarikat kecil dan sederhana (SKS) di seluruh Malaysia. Kajian ini menggunakan pelarasan cukai tambahan yang dikenakan selepas semakan audit sebagai proksi kepada ketidakpatuhan cukai. Sampel kajian ini terdiri daripada kes audit cukai SKS bagi Tahun Taksiran 2016. Analisis regresi menunjukkan hanya saiz syarikat mempunyai hubungan yang positif dan signifikan dengan ketidakpatuhan cukai. Keputusan yang diperolehi daripada kajian ini boleh digunakan untuk memperbaiki polisi dan peraturan sedia ada bagi menangani ketidakpatuhan cukai. Selain itu, LHDNM boleh menggunakan keputusan yang diperolehi untuk memahami penentu-penentu ketidakpatuhan cukai.

Katakunci: ketidakpatuhan cukai, audit cukai, Syarikat Kecil dan Sederhana (SKS)

ACKNOWLEDGEMENT

First and foremost, highest gratitude to the Almighty God for His Grace and blessings, that I am able to complete this research paper. Deepest appreciation to my parents and my family on their love, prayer and support throughout my journey towards the completion of this research paper.

I would like to express sincere appreciation to my supervisor Prof. Madya Dr. Natrah Saad, for all her kindness, valuable assistance, advice and immense knowledge throughout the completion of this research paper. Without her support, guidance, and persistent help, this research paper would not have been possible.

My sincere thanks also goes to all lecturers for their assistance, encouragement, and advice. Last but not least, thank you to all colleagues and the management of the Inland Revenue Board of Malaysia and all those involved directly and indirectly in assisting me to complete this research paper.

TABLE OF CONTENT

CERTIFICATION OF THESIS WORK.....	i
PERMISSION TO USE	ii
ABSTRACT	iii
ABSTRAK	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENT	vi
LIST OF TABLES.....	ix
LIST OF FIGURES	ix
LIST OF ABBREVIATION	x
CHAPTER 1.....	1
INTRODUCTION	1
1.1 Background of the Study	1
1.2 Problem Statement	5
1.3 Research Question.....	7
1.4 Research Objective.....	8
1.5 Significance of the Study.....	8
1.6 Scope of the Study.....	9
1.7 Organization of the Thesis.....	9
CHAPTER 2.....	11
LITERATURE REVIEW.....	11
2.1 Introduction.....	11
2.2 Small and Medium Enterprise (SME)	11
2.3 The Concept of Tax Non-Compliance	13
2.4 Previous Studies on Non-Compliance in Relation to Type of Industry, Size of Tax Agent and Company Ownership	14
2.5 Determinants of Tax Non-Compliance and Development of Hypotheses	15
2.5.1 Financial Liquidity and Tax Non-Compliance	16
2.5.2 Capital Intensity and Tax Non-Compliance	17
2.5.3 Size of Tax Agent and Tax Non-Compliance.....	18
2.5.4 Company Size and Tax Non-Compliance	19
2.5.5 Type of Industry and Tax Non-Compliance.....	21
2.5.6 Company Ownership and Tax Non-Compliance	22
2.6 Summary.....	24
CHAPTER 3.....	25
RESEARCH METHODOLOGY	25

3.1	Introduction.....	25
3.2	Research Design.....	25
3.2.1	Population and Sample Selection.....	25
3.3	Research Model.....	26
3.4	Operational Definition and Measurement of Variables	28
3.4.1	Dependent variable.....	28
3.4.2	Independent Variables	28
3.5	Data Analysis	30
3.5.1	Descriptive Analysis	30
3.5.2	Normality Test	31
3.5.3	Homoscedasticity Test	31
3.5.4	Correlation Analysis.....	31
3.5.5	T-Test and ANOVA Analysis.....	31
3.5.6	Multiple Regression	32
3.6	Summary.....	32
	CHAPTER 4.....	33
	RESULTS AND DISCUSSION.....	33
4.1	Introduction.....	33
4.2	Demographic Information	33
4.3	Descriptive Analysis.....	34
4.4	Assumption Testing.....	35
4.5	Comparison of Tax Non-Compliance by Group.....	38
4.5.1	Comparison of Tax Non-Compliance by Company Ownership.....	38
4.5.2	Comparison Tax Non-Compliance by Size of Tax Agent.....	38
4.5.3	Comparison Tax Non-Compliance by Industry.....	39
4.6	Correlation Analysis.....	40
4.7	Determinants of Tax Non-Compliance	41
	Based on the results, the regression model equation is written as follows:....	42
4.7.1	Financial Liquidity	43
4.7.2	Capital Intensity	43
4.7.3	Size of Tax Agent	44
4.7.4	Company Size	45
4.7.5	Type of Industry.....	45
4.7.6	Company Ownership.....	46
4.8	Summary of the Hypotheses	47
4.9	Summary.....	47
	CHAPTER 5.....	49

CONCLUSION AND RECOMMENDATION	49
5.1 Introduction.....	49
5.2 Implication and Recommendation	49
5.3 Limitation of the Study.....	51
5.4 Direction for Future Research.....	52
5.5 Conclusion	53
REFERENCES	54
APPENDICES	60



LIST OF TABLES

Table 1-1:	Federal Government Revenue from 2006 - 2015
Table 1-2:	Tax Audit Performance
Table 2-1:	Definition of SMEs
Table 3-1:	Summary of Sample Selection Procedure
Table 3-2:	Research Model: Summary of Hypotheses
Table 3-3:	Measurement of Variables
Table 4-1:	Demographic Information (n=205)
Table 4-2:	Descriptive Statistics (n=205)
Table 4-3:	Skewness and Kurtosis
Table 4-4:	Collinearity Statistics
Table 4-5:	Descriptive Statistics – Tax Non-Compliance by Company Ownership (n=205)
Table 4-6:	ANOVA – Tax Non-Compliance by Size of Tax Agent (n=205)
Table 4-7:	Descriptive Statistics – Tax Non-Compliance by Industry (n=205)
Table 4-8:	Descriptive Statistics – between Sectors (n=205)
Table 4-9:	Pearson Correlation (between dependent and independent variables) (n=205)
Table 4-10:	Results of Multiple Regression Analysis (n=205)
Table 4-11:	Summary of Hypotheses

LIST OF FIGURES

Figure 4.1:	Normal P-P Plot of Regression Standardized Residual
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LIST OF ABBREVIATION

RPGT	Real Property Gain Tax
GST	Goods and Service Tax
IRBM	Inland Revenue Board of Malaysia
RMCD	Royal Malaysian Customs Department
SMEs	Small Medium Enterprises
CEO	Chief Executive Officer
OECD	Organisation for Economic Co-operation and Development
GDP	Gross Domestic Product
NSDC	National SME Development Council
ETR	Effective Tax Rate
CPA	Certified Public Accountant
CMS	Case Management System
SPSS	Statistical Package for the Social Science
VIF	Variance Inflation Factor

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Taxation is important to any country, especially developing countries, as it is not only the major source of revenue but also the surest way for the government to obtain a source of income. For instance, in Ghana, 78% of annual total revenue is from tax (Bedi, 2016); while in Jordan, tax revenue contributed on average, 67% to 73% of total revenue for the period of 2010-2015 (Alshir'ah, Abdul-Jabbar, & Samsudin, 2016).

In Malaysia, direct taxes, such as income tax, constitute a major source of government revenue. As shown in Table 1-1, direct taxes, which consist of income tax and other taxes, such as Stamp Duty and Real Property Gains Tax (RPGT), contribute on average 53% of total federal revenue. On the other hand, indirect taxes, such as export duties, import duties, sales tax and goods and services tax (GST) also contribute significant revenue to the government, which on average is 18.66%. This shows the government's dependence on the Inland Revenue Board of Malaysia (IRBM) and the Royal Malaysian Custom Department (RMCD), as the country's main tax administrators for direct tax and indirect tax. However, according to Loganathan and Taha (2007), due to the high contribution to federal revenue by the IRBM, the government depends more on direct tax with less reliance on indirect tax.

Therefore, any reduction in the IRBM collection will have a direct impact on the entire revenue collection of the federal government. Due to this high dependence, the IRBM constantly improves its actions and strategies to increase tax collection by

addressing tax non-compliance and tax evasion among individuals or companies that may affect national tax revenue (National Tax Conference, 2017).

Table 1-1
Federal Government Revenue from 2006 to 2015

Year	Direct Tax		Indirect Tax		Non-Tax Revenue		Total Revenue
	(RM' bil)	%	(RM' bil)	%	(RM' bil)	%	(RM' bil)
2006	61.6	49.9	25.1	20.3	36.8	29.8	123.5
2007	69.4	49.6	25.8	18.4	44.7	32.0	139.9
2008	82.1	51.4	30.8	19.3	46.7	29.3	159.6
2009	78.4	49.4	28.1	17.7	52.1	32.8	158.6
2010	79.0	49.5	30.5	19.1	50.2	31.4	159.7
2011	102.2	55.1	32.6	17.6	50.5	27.3	185.4
2012	116.9	56.2	34.7	16.7	56.2	27.1	207.9
2013	120.5	56.3	35.4	16.6	57.4	26.9	213.3
2014	126.7	57.4	37.4	17	56.4	25.6	220.6
2015	116.7	52.5	53.2	23.9	52.4	23.6	222.4

Source: Economic Reports, Ministry of Finance (2006-2015)

However, not all taxpayers are willing to give monies to the government and comply with the tax laws. It is well-known that tax non-compliance is a global phenomenon and remains an important issue among tax authorities around the world, which if not addressed, will affect the amount of revenue collected. This issue is not new as it has long existed in tandem with the existence of tax (Mohd Yusof, Ling, & Wah, 2014). Tax losses to the government means many government projects will be postponed and efforts to improve the welfare of the citizens cannot be implemented due to lack of funds for government spending (Mohamad, Zakaria, & Hamid, 2016). Taxes are collected from taxpayers and should be returned to them in the form of basic facilities, infrastructure and good security, and an enabling environment for business.

Small and medium enterprises (SMEs) are seen as having opportunities to commit tax non-compliance more than other groups of taxpayers (Swistak, 2016). Most SMEs are managed by the owners who hold a significant number of shares, and thus, they have different interests in its use for the company. Therefore, the owner of the company is exposed to the opportunities to manipulate cash transactions or disguise personal expenses as business expenses (Cowell, 2003; Engström & Holmlund, 2009). This leads to sales, gross profits or net profits not reflecting the real profitability of the company. Thus, SMEs are likely to be associated with tax non-compliance or tax evasion activities. Due to the weaknesses found in the SMEs, the burden of tax compliance by small businesses is more intense than large businesses (Pope & Abdul-Jabbar, 2008).

Having said that, this research focuses on the SMEs as SMEs play a significant role in the development of the Malaysian economy (Mohamad et al., 2016). Based on the SME annual report of 2015/2016, contribution by SMEs to gross domestic product (GDP) increased from 32.2% in 2010 to 36.3% in 2015, while employment share rose to 65.5% and exports increased to 17.6% in 2015 (SME Corporation Malaysia, SME Annual Report 2015/2016, 2016) (SME Annual Report 2015/2016). In addition, SMEs create jobs, increase income and are a source of tax/fiscal revenue to the federal government (Mohd Yusof et al, 2014).

SMEs are critical to all nations. Several studies have agreed that SMEs are an important part of the taxpayer population (Atawodi & Ojeka, 2012; Swistak, 2016). Large companies usually start from a small-sized corporation; therefore, these SMEs must be nurtured to ensure their growth.

In the 2017 National Tax Conference, Dato Sri Sabin Samitah the Chief Executive Officer (CEO) of IRBM highlighted the need to recognize the SME industry as a key sector of the economy; IRBM will continue to improve their processes and procedures to better facilitate SMEs and have reduced cost of compliance. The enforcement efforts of IRBM are in fact their way of protecting the small businesses from unfair competition that may arise from larger businesses that abuse the tax system. Thus, it shows the commitment of the tax administrator to not only focus on the large corporations but also on medium or small-sized business corporations in Malaysia.

This research is motivated by the negative impact of tax non-compliance on the economy. Furthermore, this issue is always being discussed either within the country or internationally to combat tax non-compliance (OECD, 2009), which if not prevented, will lead to serious tax leakages in the country. Moreover, this problem remains unsolved even though there are extensive studies on tax non-compliance, which have tried to identify the determinants of tax non-compliance and attempted to provide possible solutions to combat the problem (Ser, 2013; Mohd Yusof et al, 2014). According to Kasipillai and Abdul-Jabbar (2006), tax non-compliance takes several forms, which include non-submission of return forms (tax returns) or failure to submit the form within the stipulated period; understatement of income; overstatement of deductions; and failure to pay the tax liability by the due date. Hence, this study is still relevant to be carried out to identify the factors of tax non-compliance among SMEs in Malaysia.

1.2 Problem Statement

The strategies of IRBM aim to make compliance easy and non-compliance difficult. This can be seen by IRBM's approaches, such as "Op Gegar" and "Op Patuh" which were conducted on 18 June 2017 and 21 July 2017 respectively. These operations were carried out because there was a problem of tax non-compliance among taxpayers, such as not reporting income to the tax authority, failing to submit the tax form for a certain period of time and not paying taxes within the time allowed by the IRBM. Additionally, audit activities, such as field audits and investigations, were also intensified during the period of the operation. Under this exercise, a total of 1,687 taxpayers during "Op Patuh" and 2,263 taxpayers during "Op Gegar", who were involved in non-compliance, were audited by the IRBM.

Despite the increase in corporate tax collection, it has been shown that tax non-compliance activities are also on the rise and have raised serious concerns not only of tax administrators but also of policymakers. There are indicators that tax non-compliance continues to exist in corporations, based on the tax audit cases conducted by the IRBM. For instance, as shown in Table 1-2, it is reported that the number of corporate tax audit cases increased by 3.2% from 137,636 in the year 2015 to 160,833 cases in the year 2016, although there was a reduction in tax collection and an additional penalty of 56% from RM 8,231,931,044 in 2015 to RM3,656,129,425 in 2016.

Thus, increased tax non-compliance activities over the years is of grave concern to the tax authority. While the IRBM targets for 100 percent tax compliance, the increased in corporate tax audit cases with audit findings obtained during field audit activities indicate otherwise, proving the problem of tax non-compliance still exists.

With the reduction of the first-tier income tax rate from 20% in year assessment 2015 to 19% in year assessment 2016 (second-tier tax rate was reduced from 25% to 24%), the IRBM expects an increase in voluntary compliance. Yet, the increase in the total audited cases with tax adjustments proves otherwise.

Table 1-2
Tax Audit Performance

		Total Corporate Tax Payers
2015		
No. of Cases		137,636
Tax and Penalty (RM)		8,231,931,044
2016		
No. of Cases		160,833
Tax and Penalty (RM)		3,656,129,425

Source: IRBM's Internal Statistic (2015-2016)

There is also evidence of tax non-compliance based on information from the media, such as by Magnum Bhd. and Magnum Holdings Sdn. Bhd. (MHSB), which have been served notices of assessment with penalties totaling RM476.47 million by the IRBM due to tax non-compliance issues (Malay Mail, 2017). In addition, the media has reported that the IRBM is chasing out 60 companies involved with tax evasion, involving tax revenue of RM1.24 billion and penalty of RM560 million (China Press, 2017).

Previous studies have often associated tax non-compliance with a penalty rate, marginal tax rates, liquidity and other characteristics of the firms, such as firm size, profitability, type of industry, type of ownership and holdings of foreign companies (for example Mohd Yusof et al., 2014; Kim & Im, 2017; Wan Omar, 2018). The researcher is of the opinion that in addition to the above, other relevant determinants may influence the SMEs' decision to not comply, which are capital intensity, size of tax agent and company ownership (Mohd Nor, Ahmad & Mohd Saleh, 2010; Mohd

Kasim, 2016). Capital-intensive companies are prone to tax evasion because they can manipulate the capital allowance and tax allowance in income tax reporting (Mohd Kasim, 2016). The shareholders may also influence the managers' decision to declare lower income through manipulation of the financial statement (Chi, Hung, Cheng & Lieu, 2015).

According to Mohd Nor et al. (2010), the tax authority should also focus on SMEs as these companies are vulnerable to tax evasion. There are few studies which have investigated the non-compliance of SMEs, using resolved cases with different measurement of tax adjustment (as a proxy to tax non-compliance). For example, Mohd Yusof et al. (2014) used tax audit cases which were resolved in 2011 and measured tax non-compliance by dividing tax adjustment with total assets. Similarly, Wan Omar (2018) also used resolved audit cases in his study, but for the year 2015 record. Another study by Mohd Kasim (2016) used data from tax return form for the year of assessment 2015 and utilized effective tax rate (ETR) as a proxy to tax avoidance.

1.3 Research Question

This study attempts to answer the following questions: -

1. Is there any significant difference in tax non-compliance of SMEs in relation to the size of tax agent, type of industry and company ownership?
2. What is the relationship between financial liquidity, capital intensity, size of tax agent, company size, type of industry, company ownership and tax non-compliance of SMEs?

1.4 Research Objective

The objectives of this study are twofold.

1. To determine whether or not there is any significant difference in tax non-compliance of SMEs in relation to the size of tax agent, type of industry and company ownership;
2. To examine the relationship between financial liquidity, capital intensity, size of tax agent, company size, type of industry, company ownership and tax non-compliance of SMEs.

1.5 Significance of the Study

Although there are many studies on the determinants of tax non-compliance, these studies have largely used survey data. This study comes up with additional results as it uses real tax audit cases for the year of assessment 2016 which was settled in the year 2017 to reflect a more current and actual situation. Besides, only a few studies have used tax audit cases in Malaysia due to its confidentiality. Hence, it is hoped that this study would contribute to the extant literature on tax non-compliance, particularly among SMEs in Malaysia. Also, it is hoped that this study would provide some insights to the tax administrators.

In practice, the findings of this study would provide valuable information to the tax authority to design a strategic policy and formula to address the issues of tax non-compliance, particularly among SMEs in Malaysia. The results of the research may be used by the tax administrator to implement effective enforcement activities to combat tax evasion efficiently. This gives the tax administrator a stronger position to

implement effective compliance strategies for the sustainability of the tax system (OECD, 2010).

In addition, as SMEs are susceptible to tax evasion (Mohd Nor et al., 2010), it is important for the authority to pay more attention to these companies by formulating a specific method for auditing. In terms of selection of cases to be audited, additional factors, such as capital intensity, size of tax agent and company ownership, can be used to assist the authority to profile the SMEs.

1.6 Scope of the Study

This research examines factors which may influence the tax non-compliance decisions of SMEs, comprising financial liquidity, capital intensity, size of tax agent, company size, type of industry and company ownership. The target data of this study is SME tax audit cases in Malaysia for year of assessment 2016 which audit was completed in year 2017. This study uses the actual data from tax return forms obtained from the IRBM database system to measure the determinants of tax non-compliance, using tax adjustment as a proxy of tax non-compliance.

1.7 Organization of the Thesis

This research consists of five chapters. Chapter one deals with the background of the study, problem statement, research questions, research objectives, significance of the study and scope of the study. Chapter two discusses literature review of existing studies and hypothesis development. Chapter three is on the methodology which comprises research design and data analysis. Chapter four provides the results,

findings and discussion. Lastly, conclusion and recommendations of the study are discussed in Chapter five.



CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature on tax non-compliance and the concept of tax non-compliance. It then develops the hypotheses based on the literature review. It begins with the definition of the SME in section 2.2, followed by the concept of tax compliance and non-compliance in section 2.3. Section 2.4 discusses previous studies on non-compliance and section 2.5 provides the development of hypotheses for each of the variables that influences tax non-compliance.

2.2 Small and Medium Enterprise (SME)

SMEs are known as the backbone of a country, with 98.5% of business establishments in Malaysia being SMEs. According to the Economic Census 2016 by the Department of Statistics Malaysia, a total of 907,065 enterprises were established with the highest in Selangor Darul Ehsan (19.8%), followed by Wilayah Persekutuan Kuala Lumpur (14.7%) and Johor (10.8%). SMEs play a major role in the Malaysian economy, contributing 36.6% to Malaysia's GDP and 18.6% to total exports, besides creating 65.3% jobs, while targeting 41% GDP and 23% total exports by 2020. Therefore, due to the significant contribution to the national economy, the government will continue to assist the SMEs in financing and providing programs that boost the SMEs' productivity (SME Annual Report 2016/2017).

The definition of the SME is different around the globe. According to the Organisation for Economic Co-operation and Development (OECD), SME is defined

as an independent firm and a non-subsiary, with less than 250 workers (OECD, 2000). In Malaysia, the National SME Development Council (NSDC) takes into account total sales and employees to determine the definition of SMEs. A business is classified as SME if it meets one of two set criteria, either a sales turnover or full-time employees as illustrated in Table 2-1. SMEs under this definition are entities registered with the Companies Commission of Malaysia or other regulatory bodies; the definition does not include public listed companies on the main board and its subsidiaries, multinational corporations, government-linked companies and state government owned enterprises.

Table 2-1
Definition of SMEs

Sectors	Criteria
Manufacturing	Sales turnover not beyond RM50 million or full-time employees not beyond 200
Services and other sectors	Sales turnover not beyond RM20 million or full-time employees not beyond 75

Sources: Guideline for new SME definition by Central Bank of Malaysia (2013)

Meanwhile, the IRBM defines SMEs as having paid-up ordinary share capital of not more than RM2.5 million at the beginning of the basis period. This definition of SME does not apply to companies held by or having investments in companies with paid-up share capital of more than RM2.5 million (Thornton, 2016). The definition is for tax purposes only. The Income Tax Act 1967 does not refer to such companies as SMEs, but the term is used to simplify the meaning during seminars and talks. The Act merely states that a company with paid-up capital in respect of ordinary shares of not more than RM2.5 million as at beginning of the basis period for a year of assessment is entitled to enjoy the preferential tax treatment as spelt out in the relevant provisions of the Income Tax Act 1967.

This study uses the definition of SME by the IRBM, regardless of how much the turnover or total employees of the companies is, as this study focuses on corporations with actual data from the IRBM.

2.3 The Concept of Tax Non-Compliance

There are various definitions and interpretations of tax compliance by researchers. However, the definition most preferred by researchers is from Roth, Scholz, and Witte (1989), which states that tax compliance includes compliance with tax reporting in accordance with rules, regulations and tax laws and filed within the prescribed period. Meanwhile, Brown and Mazur (2003) stated that tax compliance includes three things: submission of tax returns, tax reporting and tax payment.

Tax non-compliance refers to non-filing of tax returns, failure to submit the tax return form within the prescribed period, wrongly stated revenue or overstatement of deductions as well as not paying the tax payment within the specified date (Kasipillai & Abdul-Jabbar, 2006), which includes intentional and unintentional non-compliance (Fischer, Wartick, & Mark, 1992). Intentional non-compliance refers to tax cheating or tax evasion by taxpayers who deliberately fail to report the right amount of income (Long & Swingen, 1991). Meanwhile, unintentional non-compliance occurs due to lack of knowledge of tax laws and regulations when calculating the tax liabilities (Kasipillai, 2012).

Based on the literature review, this study defines tax non-compliance as the incorrect calculation of tax payable, which includes understatement of revenue or overstatement of deductions, such as the cost of sales, business expenses, tax

incentives and capital allowance, whether deliberately or not deliberately, to evade tax, which eventually results in tax adjustment. Tax non-compliance, tax evasion and tax avoidance are used interchangeably in this study.

2.4 Previous Studies on Non-Compliance in Relation to Type of Industry, Size of Tax Agent and Company Ownership

Previous studies have shown that non-compliance may vary according to type of industry, the size of the tax agent employed and ownership of the company. For instance, previous studies have documented that companies engaged in the service industry are mostly involved in non-compliance (Mohd Nor et al., 2010; Mohamad et al., 2016). Mohd Yusof et al. (2014) also evinced that SMEs from the service and construction sectors are more prone to non-compliance. This is supported by Mohd Kasim (2016) who found that there is a significant difference in ETR (as proxy to tax avoidance) between sectors (manufacturing, trading, services and ICT). A more recent study by Wan Omar (2018), however, documented that SMEs engaging in agriculture and forestry, manufacturing, construction, trading, and services did not have different magnitudes of tax non-compliance.

With regard to the size of the tax agent, to the researcher's knowledge, not many published papers are available to date. Most past studies have examined the size of audit firm (big four, non-big four) with regards to falsification in the financial report. Hence, this study borrows the literature from financial reporting studies (big four, non-big four) as a proxy to the size of tax agent. For instance, a study by Mohd Nor et al. (2010) indicated that a small size audit firm is more prone to non-compliance. They found that companies engaging big four audit firms are producing reliable financial reporting while companies hiring non-big four audit firms are more prone

to fraudulent. Their study was consistent with Francis and Wang (2008) who reported that non-big four audit firms are more likely to become non-compliant.

In terms of company ownership, there is no specific study on company ownership and tax non-compliance. Thus, family company or block ownership is used to represent a company ownership who owns a substantial number of shares which refers to the majority shareholder. Mohd Nor et al. (2010), reported that companies controlled by families are more exposed to non-compliance (i.e. falsification of financial reports) (although it is not statistically supported). Similarly, Chi et al. (2015) indicated that controlled companies are prone to manipulation of earnings management. Prior to that, Ali, Salleh, and Hassan, (2008) and Alves (2012) found that high ownership firms are more compliant in reporting financial information.

Notwithstanding the above literature, not much is known about different level in tax non-compliance of SMEs in relation to different type of industry, the size of the tax agent and company ownership.

2.5 Determinants of Tax Non-Compliance and Development of Hypotheses

Tax non-compliance is influenced by numerous factors, namely type of industry and financial liquidity (Mohd Yusof et al., 2014). This study also identifies other factors, such as capital intensity and company size, that can lead to tax non-compliance (Stickney & McGee, 1982). The hypotheses are developed in this section based on the results of past studies.

2.5.1 Financial Liquidity and Tax Non-Compliance

Financial liquidity, represented by the company's working capital, is needed for daily business operations. Generally, the stronger the firm's working capital, the more successful the business operations (Noor, Aziz, Mastuki, & Ismail, 2009). Their findings evince that high financial companies are significantly associated with tax evasion.

On the other hand, Spathis (2002) who examined the relationship between working capital and false financial statement, found that a decrease in working capital ratio is more likely to lead to forging of the financial statement. This result indicates that companies experiencing financial difficulties tend to engage with false financial statements (Noor et al., 2009).

Nevertheless, a study done by Mohd Yusof et al. (2014) has not found any association between financial liquidity and tax non-compliance, although from the regression analysis, it indeed has a positive relationship.

Another study defines financial liquidity as cash flow. Md-Yassin, Hasseldine, and Paton (2010) who defined financial liquidity as cash flow stated that companies with better liquidity, enable them to acquire expertise for tax planning.

Thus, it can be hypothesised as follows:

H1: There is a significant relationship between financial liquidity and tax non-compliance for SMEs.

2.5.2 Capital Intensity and Tax Non-Compliance

Capital intensity refers to an industry that operates using a substantial amount of tangible assets to produce products. Investing in tangible assets, such as plant and machinery, allows companies to reduce their statutory income by claiming capital allowances and other incentives for capital investment, such as reinvestment allowance and investment tax allowance. The benefits of this deduction allow companies to report lower effective tax rate (ETR). However, companies see this as an opportunity to do tax planning as part of tax evasion activities (Rashid, Norfadzilah, Noor, Mastuki & Bardai, 2015). Their findings evince that capital intensive firms have lower ETRs, which is proxied as tax avoidance.

The findings are in line with Stickney and McGee (1982), which indicate that companies with substantial investment in depreciable assets can enjoy huge tax savings through capital allowances and tax credits, thus reporting lower ETRs. Gupta and Newberry (1997) agreed that capital intensive companies will have lower ETRs as these companies can utilize huge tax credit. Kim and Im (2017) found that capital intensity has a positive impact on corporate tax avoidance. Firms with substantial assets can use their discretion to determine the depreciation expenses, which leads to corporate tax avoidance, proxied by book text differences.

In contrast, a study by Wang, Campbell, and Johnson (2014) shows different results from other previous researchers. Their study proves that capital intensive companies report high ETRs; while other study conducted by Irianto, Sudibyoy, and Wafirli (2017) found no association between capital intensity and tax evasion.

Therefore, the hypothesis is as follows:

H2: There is a significant relationship between capital intensity and tax non-compliance for SMEs.

2.5.3 Size of Tax Agent and Tax Non-Compliance

The tax professional or tax agent is the intermediary of the government, who is responsible for promoting compliance among their clients (Devos, 2012). However, according to Erard (1993), involvement with professionals, especially the use of Certified Public Accountant (CPA), not only helps to reduce tax complexity but also increases tax non-compliance.

Not many published papers have studied the size of tax agent and tax non-compliance among companies. Therefore, the size of tax agent is proxied by big four audit firm, while audit quality or financial reporting is proxied by tax non-compliance. Previous studies have shown that larger audit firms produce a stronger and credible audit report.

Mohd Nor et al. (2010) found a significantly negative relationship when they examined audit quality proxied by the size of audit firm and fraudulent financial reporting. This study proves that big four audit firms engaged by firms provide better audit services, and thus, they will be less likely to commit fraud as compared to using non-big four audit firms.

In examining the issuing of a going concern report by auditors in the US proxied by higher audit quality, Francis and Wang (2008) found that big four audit firms produce

a more accurate audit report. This finding denotes that big four audit firms are less inclined to be involved with aggressive tax planning.

In contrast, Kim and Im (2017) found an insignificant relationship between audit quality proxied by the size of the auditor (big four or non-big four) and tax avoidance. They categorized large audit firms as big four and perceived big four auditors to provide higher audit quality, thus leading to less tax avoidance.

Based on the above review of previous studies, the following hypothesis is developed:

H3: There is a significant relationship between size of tax agent and tax non-compliance for SMEs.

2.5.4 Company Size and Tax Non-Compliance

Some studies define company size as total asset (for example Mohd Yusof et al., 2014; Mohd Kasim, 2016; Kim & Im, 2017), while others defined it as annual turnover (for example Mohd Nor et al., 2010; Wan Omar, 2018). Irrespective of different definition, previous studies have found mixed results on the relationship between company size and tax non-compliance. The theory of political costs assumes that big companies are scrutinized by the government and the public will be more obedient than small companies. Therefore, these companies will be less likely to commit fraud and report the correct amount of taxes (Zimmerman, 1983). This theory introduced a political dimension, where a profitable company tends to manipulate its financial statement by choosing accounting methods that can reduce the taxable income (Watts & Zimmerman, 1986). In contrast, the political power theory assumes

that large-sized companies can maximize tax savings by implementing better tax planning as it has more resources (Siegfried, 1972).

Previous studies by Mohd Nor et al., (2010); Bedi (2016); Hanlon, Mills, and Slemrod, (2005); Mohd Kasim (2016) have supported the political cost theory. Mohd Nor et al. (2010) found that large corporations are less involved in financial statement fraud activities than small-sized corporations. They argued that big companies have more organized internal controls and are often monitored by regulators to safeguard public interest and stakeholders. On the contrary, Mohamad et al. (2016) and Kim and Im (2017) found that SME taxpayers become less compliant when their business is growing. Also, a study by Wan Omar (2018) shows that larger companies which turnover more than RM3,000,000 are prone to tax evasion.

Meanwhile, Mohd Yusof et al. (2014) found that there is an adverse relationship between company size and tax non-compliance in SMEs. Their results indicate that smaller companies are more tax non-compliant; however, the companies become more compliant as they become larger. Their study proves that smaller companies are less obedient but when they grow and develop, they become more obedient, which is consistent with research by Nur-Tegin (2008) and Tedds (2010).

Thus, based on the above literature, it can be hypothesized that:

H4: There is a significant relationship between company size and tax non-compliance for SMEs.

2.5.5 Type of Industry and Tax Non-Compliance

The type of industry is expected to influence entities in tax non-compliance. Every business sector has different rules, regulations, financial incentives and tax incentives set by the government. Due to the different characteristics of the industry, companies are likely to consider various strategies and opportunities for tax evasion.

Mohd Yusof et al. (2014) found that services and construction industries influence in tax non-compliance. Both industries are often associated with tax non-compliance due to being heavily involved in cash transactions. As cash transactions are often not supported by documents, it is difficult for the tax officer to determine the underreporting of income.

Their findings are consistent with Mohd Nor et al. (2010), who found positive and significant results when examining the type of industry. In their study, Mohd Nor et al. (2010) found that construction companies have a higher degree of tendency to engage with actual manipulation of the financial statement than other industries.

Bedi (2016), who studied 160 listed and unlisted companies in Ghana, found a significant influence of type of industry on tax compliance. However his finding is different from previous studies, as he reported that the financial services and manufacturing sectors are more compliant due to the stringent reporting standards by the government.

Mohamad et al. (2016) found that although the services sector is the sector which is most linked to evasion, their results do not clearly show that there is a relationship between the type of industry and tax evasion.

Thus, the hypothesis can be stated as follows:

H5: There is a significant relationship between type of industry and tax non-compliance for SMEs.

2.5.6 Company Ownership and Tax Non-Compliance

Many researchers have examined the relationship between company ownership and governance, but there are not many studies on the corporate ownership-tax non-compliance relationship. Company ownership which is associated with the amount of shareholdings and control over the company, is predicted to influence the decision not to comply with tax regulations. Such a company is controlled by a person who owns a substantial number of shares with voting rights over the company.

Due to the limited published papers on corporate ownership and tax non-compliance, this study uses earnings management, fraudulent financial reporting and governance as proxies for tax non-compliance; while family companies, block ownership, concentrated ownership and institutional ownership, are used as proxies for company ownership.

Chi et al. (2015) found a positive relationship between family firms and earning management in Taiwan. In their study, the existence of independent directors lowers

the degree of earnings management, while the existence of CEO cum Chairman shows a higher degree of earnings management.

Nevertheless, there are various papers that have the opposite results. For example, Ali et al. (2008) and Alves (2012) found a negative association when they examined the relationship between ownership and manipulation of the company's earnings. Alves (2012) reported that higher ownership improves management efficiency and leads to more reliable company information. Ali et al. (2008) found that holding a considerable number of shares by executives is an effective method for controlling earnings management activities as an alternative to corporate governance weaknesses, especially for smaller companies. Their findings are consistent with another study which examined the influence of ownership and audit quality. Moradi and Nezami (2011) found that the increase of holding of shares reduces the manipulation of the financial report.

In contrast, Salaudeen and Ejeh (2018) reported insignificant results in their study. Using regression analysis, their study reveals that there is no relationship between concentrated shareholders and effective tax rate, although it has a positive relationship. In the Malaysian context, Mohd Nor et al. (2010) documented insignificant results pertaining to type of control and fraudulent financial reporting. In their study, controlled companies usually owned by families or sole proprietors are expected to manipulate the company's operations to profit in their favour, i.e., by transferring profits to companies under their control for reducing profits and thereby reducing taxes.

Therefore, based on previous studies, the hypothesis is suggested as follows:

H6: There is a significant relationship between company ownership and tax non-compliance for SMEs.

2.6 Summary

Most previous studies have studied financial liquidity, company size and type of industry, while there are not many specific studies on the relationship between capital intensity, size of tax agent and corporate ownership and tax non-compliance. Thus, these proxies are used to associate this study with previous studies. It is hoped that the present study adds valuable evidence to the existing literature on factors affecting tax non-compliance.



CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology adopted to answer the objectives of the study. This chapter discusses the research design, research model and finally data analysis employed.

3.2 Research Design

This study adopts a quantitative approach, using secondary data. from the IRBM's Case Management System (CMS). The IRBM's CMS is a database that stores tax audit work, including companies' tax return information. This information is strictly confidential and requires written approval from the IRBM's Tax Operations Department.

3.2.1 Population and Sample Selection

The sample of this study is obtained from the IRBM's CMS comprising resolved field audit cases for the year of assessment 2016. However, there are not many cases in the year of assessment 2016 which have additional taxes as most companies ending December 31, 2016 just submitted tax returns in the year 2017 while the audit process takes time to complete. Hence, only 3,125 cases were received from the Tax Operation Department for all branches in Malaysia, out of which 2,037 cases have no tax adjustment. Thus, leaving the available completed cases with tax adjustment for all the branches in Malaysia for SMEs as 1,088 cases.

From 1,088 cases, the study excludes 759 cases with incomplete information (from the tax return form), leaving a sample of 329 cases. Data has been further filtered to identify and exclude 124 outliers, leaving a final data of 205 cases of SMEs, as summarized in Table 3-1.

Table 3-1
Summary of Sample Selection Procedure

	No. of cases
Number of cases	3,125
Less:	
No. of cases that have zero amount of tax adjustment	2,037
Cases with incomplete information	759
Outliers of size of tax agent	28
Outliers of firm size	<u>96</u>
Number of cases available for analysis	205

3.3 Research Model

Table 3-2 demonstrates the six hypotheses discussed in the previous chapter.

Table 3-2
Research Model: Summary of Hypotheses

	Hypothesis
H1	There is a significant relationship between financial liquidity and tax non-compliance for SMEs
H2	There is a significant relationship between capital intensity and tax non-compliance for SMEs
H3	There is a significant relationship between size of tax agent and tax non-compliance for SMEs
H4	There is a significant relationship between company size and tax non-compliance for SMEs
H5	There is a significant relationship between type of industry and tax non-compliance for SMEs
H6	There is a significant relationship between company ownership and tax non-compliance for SMEs

The proposed research model below is used to test the hypotheses developed for this study:

$$\begin{aligned} \text{TAXADJ} = & \beta_0 + \beta_1\text{FINLIQ} + \beta_2\text{CAPIN} + \beta_3\text{STA(B4)} + \beta_4\text{STA(NB4)} + \\ & \beta_5\text{STA(NOAGNT)} + \beta_6\text{SIZE} + \beta_7\text{IND(CONSTR)} + \beta_8\text{IND(MFTRG)} + \\ & \beta_9\text{IND(TRAD)} + \beta_{10}\text{IND(SERV)} + \beta_{11}\text{CO(MAJSHRE)} + \\ & \beta_{12}\text{CO(NONMAJORSHRE)} + \varepsilon \end{aligned}$$

Where;

Dependent variable:

TAXADJ = Tax Adjustment

Independent Variables:

β_0 = Constant

FINLIQ = Financial Liquidity

CAPIN = Capital Intensity

STA(B4) = Size of Tax Agent (Big Four)

STA(NB4) = Size of Tax Agent (Non-Big Four)

STA(NOAGNT) = Size of Tax Agent (No Tax Agent)

SIZE = Company Size

IND(CONSTR) = Type of Industry (Construction)

IND(MFTRG) = Type of Industry (Manufacturing)

IND(TRAD) = Type of Industry (Trading)

IND(SERV) = Type of Industry (Service)

CO(MAJSHRE) = Company Ownership
(Majority Shareholder)

CO(NONMAJORSHRE) = Company Ownership
(Non-Majority Shareholder)

ε = Error term

3.4 Operational Definition and Measurement of Variables

The dependent variable is tax adjustment which acts as a proxy to tax non-compliance. The independent variables are financial liquidity (FINLIQ), capital intensity (CAPIN), size of tax agent (STA), company size (SIZE), type of industry (IND) and company ownership (CO). A detailed description of the variables used is described in the next sub-topics.

3.4.1 Dependent variable

This study uses tax adjustment as the dependent variable which is a proxy for tax non-compliance as suggested by a Mohamad et al. (2016). It refers to the additional taxes imposed on the companies from the field audit activity for wrongly stating revenue and over-claiming deductions, namely business expenses, tax incentives or capital allowances. Subsequently, the amount of tax adjustment is converted to logarithm to avoid heteroscedasticity problem. This study does not include tax adjustment with zero amount.

Tax non-compliance in this research refers to the SMEs which are small medium corporations with additional taxes imposed during tax audits based on the findings of tax audited cases. These findings include overstatement of expenses and incentives and underreporting of sales or other income in their tax returns.

3.4.2 Independent Variables

Financial liquidity (FINLIQ) is defined as working capital of the company, following the definition of Mohd Yusof et al. (2014). It is measured using the ratio of current assets to current liabilities. Capital intensity (CAPIN), on the other hand, is defined

as tangible fixed assets. This definition is adopted from Mohd Kasim (2016) and measured using the ratio of tangible fixed assets divided by total assets. The tax agent is defined as intermediaries responsible for promoting compliance (Devos, 2012). Size of tax agent (STA) is divided into three categories, namely: big four (coded as 1), non-big four (coded as 2), and no tax agent (coded as 3). In Malaysia, big four tax agents are Deloitte Kassim Chan, PricewaterhouseCoopers, Ernst & Young and KPMG.

Company size (SIZE) is defined as the total assets of the company, following the definition of Mohd Kasim (2016). The measurement of company size is a natural logarithm of total assets consistent with prior studies (Mohd Yusof et al., 2014; Mohd Kasim, 2016). Total assets are converted into logarithm in order to normalize the data. The type of industry (IND) is categorized into the business code set by the IRBM when the taxpayer or company fills out the income tax form. In this study, business codes are grouped according to the relevant industry type as proposed by previous studies (Mohd Kasim, 2016; Wan Omar, 2018), namely construction, manufacturing, trade, real estate, services and others. Types of businesses with less than 10 cases, namely agriculture, forest industry and fishing are categorized into 'others'. However, for regression analysis, only four types of industries are used, namely construction, manufacturing, trading and service.

The definition of company ownership (CO) is following the interpretation of section 139 of the Income Tax Act 1967, which refers to owning a significant number of shares that allow a person to have control of the company. The ownership of the company is classified into two groups, which is the majority shareholder and non-

majority shareholder. The majority shareholder is a shareholder with more than 50% ordinary shares while the non-majority shareholder holds less than 50% of ordinary shares.

The measurement of the dependent variable and independent variables in this study are described below:

Table 3-3
Measurement of Variables

Abbreviation	Variable	Measurement
TAXADJ	Tax adjustment	Natural logarithm of tax adjustment
FINLIQ	Financial liquidity	Ratio of current assets to current liabilities
CAPIN	Capital Intensity	Ratio of tangible fixed assets divided by total assets
STA	Size of tax agent	Big four (1), non-big four (2), no tax agent (3)
SIZE	Company size	Natural log of total assets
IND	Type of industry	Construction (1), manufacturing (2), trading (3) and services (4)
CO	Company ownership	Majority shareholder (1), non-majority shareholder (2)

3.5 Data Analysis

The analysis applied in the study includes descriptive statistics, correlation, T-test, ANOVA and multiple regression. A description of the analyses is provided in the following sections.

3.5.1 Descriptive Analysis

This analysis provides brief information of all the collected samples, for instance, mean, median, standard deviation and nature of the data. The variables analysed into the descriptive analysis are financial liquidity, capital intensity, size of tax agent, company size, type of industry and company ownership. Before performing the analysis, the variables are first determined as to whether or not they are categorical

variables or continuous variables. This information is required to select appropriate statistical techniques to analyse the data.

3.5.2 Normality Test

Normality test is parametric assumption test. The assumption of normality is a necessary condition before data is analysed using statistical techniques. There are several methods, procedures and statistical techniques to test the normality assumption depending on the type of data. Examining the histogram of each variable or using a normal probability plot are two examples to check this assumption through graphic techniques. Besides, this study uses “skewness and kurtosis” to explain symmetrical distribution of scores.

3.5.3 Homoscedasticity Test

This test is also required before performing the correlation analysis. The variability of each score should not differ significantly from all other variable values.

3.5.4 Correlation Analysis

This analysis is employed as a preliminary analysis before performing a regression. For instance, “Spearman Rank Order Correlation” is used for non-parametric data while “Pearson Product-Moment Correlation” is used to analyse the parametric data.

3.5.5 T-Test and ANOVA Analysis

T-test is carried out to test the significant differences between two variables. While, Analysis of variance (ANOVA) is performed to compare the mean scores involving

more than two groups. In this study, the company ownership variable is tested using t-test analysis as it has two groups, namely, majority shareholders and non-majority shareholders. Size of tax agent and the type of industry variables are tested using ANOVA analysis to examine whether or not there is a significant difference between groups.

3.5.6 Multiple Regression

Generally, multiple regression is performed to verify the hypothesis. It is a method employed to examine the relationship between a batch of independent variables (financial liquidity, capital intensity, size of the tax agent, company size, type of industry and company ownership) on a continuous dependent variable (tax non-compliance). Also, before performing the analysis, the nature of data is examined to ensure that there is no problem with multicollinearity and singularity to get a reliable result.

3.6 Summary

This chapter describes the methodology used, the sample selection procedures as well as the dependent and independent variables. In the last section, this chapter provides a brief overview of the various statistical techniques used in this study.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Introduction

The results and explanations from the empirical findings are discussed in this chapter. It begins with demographic information of the cases, descriptive analysis and assumption testing (pre-analysis testing for parametric assumption). This is followed by a comparison of tax non-compliance between groups (t-test analysis and ANOVA analysis), correlation analysis and regression analysis. A summary of the hypotheses is presented in the later section and the chapter ends with a summary of the whole chapter.

4.2 Demographic Information

Table 4-1 illustrates the final sample of 205 SME cases for year of assessment 2016 which were audited and resolved in 2017. The sample from this study is mainly from the services industry, comprising 76 companies or 37.1% of total observations. The least observation is for 'other' industries with a total of nine companies or 4.4%, comprising the utilities, mining, quarrying, agriculture, logging and fishing sectors. This is consistent with SMECorp Malaysia statistics in 2016, which reported 89.2% or 809,126 SMEs are engaged in the services sector and the sectors with the lowest number of companies are from agriculture, mining and quarrying, at 1.2% or 11,083 companies. Therefore, it is not surprising why the services sector has the highest number of cases in this study. In terms of the size of the tax agent, the majority of SMEs (177) engaged non-big four tax agent to handle their tax matters. Another 27 SMEs did not hire tax agent. While only one SME in the sample engaged big-four

tax agent. For the ownership of the company, more than half of the SMEs owned by shareholders holding more than 50% of ordinary shares (60.5%) and the rest are holding of less than 50% of ordinary shares (39.5%).

Table 4-1
Demographic Information (n=2015)

Category	Frequency	Percentage (%)
Type of Industry		
Construction	37	18.0
Manufacturing	22	10.7
Trading	50	24.4
Real Estate	11	5.4
Services	76	37.1
Others	9	4.4
	205	100
Size of Tax Agent		
Big Four	1	0.5
Non-Big Four	177	86.3
No Tax Agent	27	13.2
	205	100
Company Ownership		
Majority Shareholder	124	60.5
Non-Majority Shareholder	81	39.5
	205	100

4.3 Descriptive Analysis

Table 4-2 provides the descriptive statistics for the dependent variable (tax adjustment) and independent variables on the final sample of 205 cases. The mean and median of tax adjustment are 3.9123 and 3.8901, which is the logarithm of the additional tax imposed on companies from the field audit. The mean value demonstrates that the average tax adjustment applied to most companies in this study is RM 8,000. The mean and median of financial liquidity are 1.2142 and 0.1132, indicating that the total current assets of most companies exceeds 21% of the total

current liabilities. The mean and median of capital intensity are 0.2902 and 0.1780, indicating that most companies have fixed assets over 30% of total assets. Further, for company size, the mean (6.4159) is slightly higher than the median (6.3900). Most companies from the sample have average total assets of RM 2,500,000.

Table 4-2
Descriptive Statistics (n=205)

	Mean	Median	Std. Dev.	Minimum	Maximum
N=205					
TAXADJ	3.9123	3.8901	0.94857	1.14	6.48
FINLIQ	1.2142	1.1132	0.75570	0.00	3.92
CAPIN	0.2902	0.1780	0.29426	0.00	1.00
STA	2.13	2.00	0.348	1	3
SIZE	6.4159	6.3900	0.75709	2.21	8.40
IND	3.46	3.00	1.601	1	6
CO	1.40	1	0.490	1	2

4.4 Assumption Testing

As discussed in Chapter Three, the assumption of normality is important before choosing the relevant statistical technique. Skewness and kurtosis are among the available statistics to assess for normality. According to Pallant (2011), the data distribution is perfectly normal if the value is 0. Bulmer (1979) indicated that if the value ranges from -1 to + 1, it is still acceptable as normal. Further, George and Mallery (2010) stated that values between -2 and +2 can still be considered as normal.

Table 4-3
Skewness and Kurtosis (n=205)

N=205	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
TAXADJ	-0.154	0.170	0.344	0.338
FINLIQ	1.047	0.170	1.491	0.338
CAPIN	0.872	0.170	-0.443	0.338
STA	1.901	0.170	2.930	0.338
SIZE	-0.928	0.170	4.407	0.338
IND	-0.235	0.170	-1.309	0.338
CO	0.432	0.170	-1.831	0.338

Table 4-3 provides the values of Skewness-Kurtosis of the study. Based on the study, the Skewness-Kurtosis values are between -2 and +2 for all variables except for size of tax agent and company size. Nevertheless, the distribution of data tends to be normal (or not too different from normal) with a reasonable large sample. Hence, Skewness and Kurtosis tests should not be used in large samples. Pallant (2011) considered large sample as having more than 200 cases.

The normal probability plot is one of the methods available for assessing the normality assumption using a graphic technique. If the plotted data form a straight line, it denotes that the data set is from a normal distribution. Figure 4-1 shows plotted data form a straight line, with no deviation of the plot data from that straight line. Accordingly, the data set obtained is from a normal distribution. Therefore, the assumption of normality is confirmed.

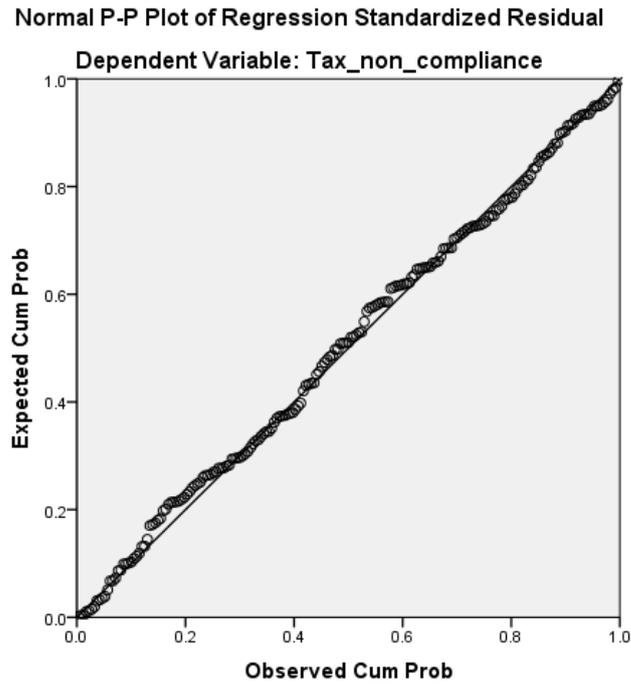


Figure 4-1 Normal P-P Plot of Regression Standardized Residual

Collinearity diagnostics is performed to determine the tolerance and Variance Inflation Factor (VIF) values are within the permitted range. As the values range from 0.799 to 0.986, which is more than the 0.10 tolerance value, and value of VIF ranges from 1.014 to 1.285 which is below 10 of VIF value, multicollinearity is not an issue in the data set (Pallant, 2011).

Table 4-4
Collinearity Statistics

	Collinearity Statistics	
	Tolerance	VIF
FINLIQ	0.799	1.252
CAPIN	0.778	1.285
STA	0.957	1.045
SIZE	0.914	1.094
IND	0.947	1.055
CO	0.986	1.014

4.5 Comparison of Tax Non-Compliance by Group

4.5.1 Comparison of Tax Non-Compliance by Company Ownership

T-test analysis is carried out to explore the scores of two groups, namely majority ownership and non-majority ownership and tax non-compliance. In this case, the value is $0.393 > 0.05$; thus, there is no statistically significant difference between majority ownership and non-majority ownership and tax non-compliance.

Table 4-5

Descriptive Statistics – Tax Non-Compliance by Company Ownership (n=205)

	CO	N	Mean	Std. Deviation	Std. Error Mean
Tax non-compliance	Majority	124	3.8669	0.97113	0.08721
	Non-Majority	81	3.9817	0.91454	0.10162

T-test:

		Levene's Test for Equality of Variances				
		F	Sig.	T	Df	Sig. (2-tailed)
Tax non-compliance	Equal variances assumed	0.040	0.842	-0.846	203	0.398
	Equal variances not assumed			-0.857	178.328	0.393

4.5.2 Comparison Tax Non-Compliance by Size of Tax Agent

ANOVA is performed to explore the impact of the size of tax agent on tax adjustment as a proxy for tax non-compliance. Size of tax agent is classified into three groups: big four, non-big four and no tax agent. In this case, the value is $0.542 > 0.05$, denoting that there is no significant difference between the tax agent's size and tax non-compliance.

Table 4-6
ANOVA – Tax Non-Compliance by Size of Tax Agent (n=205)

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1.110	2	0.555	0.614	0.542
Within Groups	182.446	202	0.903		
Total	183.556	204			

4.5.3 Comparison Tax Non-Compliance by Industry

Table 4-7 illustrates the mean values of tax non-compliance by sectors. Overall mean of tax non-compliance for all cases is 3.9123. The manufacturing sector reports the highest mean at 4.1541, which is more than the average mean of all cases. It signifies that tax non-compliance in manufacturing industry is very high. The construction, service and real estate industries also report mean values of more than the average mean, which explicitly indicate high non-compliance. Meanwhile, the trading sector reports the lowest mean value at 3.5203. The services sector, which has the highest number of cases in the study, reports a mean value of 4.0466.

Table 4-7
Descriptive Statistics - Tax Non-Compliance by Industry (n=205)

	N	Mean	Std. Deviation	Minimum	Maximum
Construction	37	4.0249	0.96504	1.84	5.97
Manufacturing	22	4.1541	0.67668	3.02	5.51
Trading	50	3.5203	0.98535	1.14	5.78
Real Estate	11	3.9512	1.03545	2.52	6.14
Service	76	4.0466	0.93247	1.99	6.48
Others	9	3.8533	0.86930	2.91	5.21
Total	205	3.9123	0.94857	1.14	6.48

ANOVA is performed to test the difference in mean between sectors within the variables. Table 4-8 shows sig. $0.032 < 0.05$. Thus, the significant difference between the six different sectors is at 0.032. Further, the Post-Hoc test reveals that although

in general, it appears there is homogeneity, by industry, there is a significant difference between the trading and services sector at $p < 0.05$ level (refer to Appendices). This finding is consistent with previous studies that have evinced the services industry has a high tendency to engage in tax evasion (Mohd Nor et al., 2010; Mohamad et al., 2016).

Table 4-8
Descriptive Statistics – between Sectors (n=205)

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	10.860	5	2.172	2.503	0.032
Within Groups	172.697	199	0.868		
Total	183.556	204			

4.6 Correlation Analysis

Correlation analysis is used to investigate the relationship between one variable and another variable. This analysis is used as a preliminary analysis before regression analysis to examine the association between independent variable and dependent variable. Table 4-9 presents the correlation value between the dependent variable and independent variables using Pearson Correlation. Based on the results, only company size has a positive correlation with tax non-compliance that is significantly correlated at the 0.01 level; while financial liquidity, capital intensity, size of tax agent, type of industry and company ownership, have a minimal correlation with tax non-compliance.

Table 4-9

Pearson Correlation (between dependent and independent variables) (n=205)

	TAXADJ	FINLI	CAPIN	STA	SIZE	IND	CO
TAXADJ	1	-0.021	0.070	-0.048	0.427**	0.018	0.059
FINLIQ	-0.021	1	-0.397**	0.061	0.100	0.018	0.052
CAPIN	0.070	-0.397**	1	0.107	0.109	0.102	-0.050
STA	-0.048	0.061	0.107	1	-0.078	-0.026	-0.065
SIZE	0.427**	0.100	0.109	-0.078	1	-0.154*	0.071
IND	0.018	0.018	0.102	-0.026	-0.154*	1	0.030
CO	0.059	0.052	-0.050	-0.065	0.071	0.030	1

** . Correlation is significant at the 0.01 level (1-tailed)

* . Correlation is significant at the 0.05 level (1-tailed)

Besides, there is no multicollinearity problem in the data set since most correlation coefficient values are low. According to Pallant (2011), multicollinearity problem exists when the correlation values exceed 0.9.

4.7 Determinants of Tax Non-Compliance

Multiple regression is used to examine the relationship for a context of a model. The analysis is carried out to determine the relationship between financial liquidity, capital intensity, size of tax agent, company size, type of industry and company ownership on tax non-compliance. For regression purpose, type of industry is split into construction, manufacturing, trading and service as there is significant difference in tax non-compliance among groups (refer ANOVA results). However, the size of tax agent and company ownership is grouped as one since the comparison analysis through T-test and ANOVA reveals that there is no significant difference for the size of the tax agent and company ownership.

Table 4-10 illustrates the results of the regression analysis. The adjusted R^2 value is 19% which means the model (including all the independent variables) explains 19%

of the variance in tax non-compliance. Although the adjusted R² in the study is low, it is still within the range as reported in previous studies. For example, Mohd Nor et al. (2010) reported adjusted R² at 10.28% and Mohamad et al. (2016) reported adjusted R² at 7.39%. However, Mohd Yusof et al. (2014) reported a high adjusted R² at 67.2%.

Table 4-10
Results of Multiple Regression Analysis (n=205)

	Unstandardized Coefficients		Standardized Coefficients	Statistic	
	B	Std. Error	Beta	T	Sig.
(Constant)	0.293	0.734		0.399	0.691
FINLIQ	-0.104	0.090	-0.083	-1.162	0.247
CAPIN	-0.180	0.236	-0.056	-0.762	0.447
STA	0.040	0.177	0.015	0.228	0.820
SIZE	0.539	0.086	0.430	6.285	0.000
IND					
CONSTRUCTION	0.001	0.239	0.000	0.005	0.996
MANUFACTURING	0.269	0.270	0.088	0.997	0.320
TRADING	-0.159	0.230	-0.072	-0.691	0.490
SERVICE	0.300	0.219	0.153	1.371	0.172
CO	0.112	0.126	0.058	0.890	0.375
Observations					205
R ²					0.226
Adjusted R ²					0.190
F					6.318

Based on the results, the regression model equation is written as follows:

$$\text{TAXADJ} = \beta_0(0.293) + \beta_1(-0.083) + \beta_2(-0.056) + \beta_3(0.015) + \beta_4(0.000) + \beta_5(0.000) + \beta_6(0.430) + \beta_7(0.000) + \beta_8(0.088) + \beta_9(-0.072) + \beta_{10}(0.153) + \beta_{11}(0.058) + \beta_{12}(0.000) + \varepsilon$$

4.7.1 Financial Liquidity

Financial liquidity is hypothesized to have a significant relationship with tax non-compliance. However, the hypothesis is not supported. The regression result shows a negative relationship even though the result is not significant (β Coefficients of -0.083, $t = -1.162$). Thus, this study cannot establish that there is a relationship between financial liquidity and tax non-compliance. The insignificant result corroborates with Mohd Yusof et al. (2014), who also found an insignificant result with regards to financial liquidity and tax non-compliance. The plausible reason which leads to insignificant result could be due to the presence of extreme values and outliers. Based on the result of the descriptive analysis, on average, most of the company's current assets exceed 21% of its current liabilities, indicating that the company can pay their debts. Whereas most studies (Spathis, 2002; Noor et al., 2009) pointed out that companies under a decrease in working capital or under cash flow are more becoming tax evaders. Thus, it leads to insignificant results.

4.7.2 Capital Intensity

This study postulates that there is a relationship between capital intensity and tax non-compliance. Result from the regression analysis indicates a negative relationship (β Coefficients of -0.056, $t = -0.762$) with tax non-compliance. It indicates that the less capital-intensive firms are more likely to evade tax. However, hypotheses H2 is not statistically significant. Thus, the hypothesis that capital intensity has a relationship with tax non-compliance cannot be accepted. The result contradicts previous studies which have found statistically significant tax avoidance and ETRs (Kim & Im, 2017; Rashid et al., 2015). Nevertheless, the insignificant result of this study is similar to Irianto et al. (2017).

The possible explanation for this insignificant result could be due to the fact that 41.46% of the total sample is from services and other industries, where property, plant and equipment are not fully utilized to produce products/services. Also, total assets from the capital intensity ratio might include the cost of land that is not eligible for the capital allowance deduction.

4.7.3 Size of Tax Agent

Size of tax agent is predicted to have a relationship with tax non-compliance. However, the value of the coefficient indicates that the size of tax agent does not statistically affect tax non-compliance. Thus, H3 is not supported. Kim and Im (2017) also found no association between audit quality proxied by the auditor's size (big four or non-big four) and tax avoidance.

Although the result is not significant, the regression analysis shows a positive effect (β Coefficients of 0.015, $t=0.228$). The positive relationship indicates that most tax non-compliance cases involved big tax agent firms or big four tax agents.

However, the insignificant result indicates that manipulation of accounts and fraudulent taxation involve both big four and non-big four tax agents. Furthermore, most samples in the study are non-big four tax agents that have led to insignificant results. Besides, most non-big four tax agents have a close relationship with the taxpayer; thus, they will be more likely to commit fraud and manipulate the financial statement (Mohd Nor et al., 2010).

4.7.4 Company Size

The coefficient value of company size signifies that company size has a significant influence on tax non-compliance. The result shows a significantly positive relationship at the 99% confidence level (β Coefficients of 0.430, $t=6.285$, $p > 0.00$), denoting that as the company becomes larger, it becomes more non-compliant. Therefore, H4 is supported. Mohamad et al. (2016) also proved that large SME taxpayers are more prone to tax evasion activities. This result corroborates the political power theory which assumes that large-sized firms with large resources can manipulate their financial statement to report lower income.

4.7.5 Type of Industry

The regression result denotes that the type of industry is not seen as an important factor in tax non-compliance. Overall, construction (β Coefficients of 0.000, $t = -0.005$), manufacturing (β Coefficients of 0.088, $t = 0.997$), trading (β Coefficients of -0.072, $t = -0.691$), and services sector variables (β Coefficients of 0.153, $t = 1.371$) are not significant. Therefore, hypotheses H5 is not supported.

However, the type of industry; construction, manufacturing and services, report a positive relationship which signifies that these industries are prone to tax evasion. The insignificant result is similar to a research done by Mohamad et al. (2016) which evinces that the type of industry does not impact tax evasion. The plausible reason is different sectors are subject to different guidelines, regulations and tax incentives (Mohamad et al., 2016). Therefore, tax evasion strategy varies by industry.

Another reason that leads to the insignificant result could be the error done in selecting the appropriate business code when filling out the tax return form. Also, companies may carry out a variety of business activities but are unable to determine the code that corresponds to their business type.

4.7.6 Company Ownership

The regression analysis shows a statistically insignificant result. Even though the result is not significant, it shows a positive effect (β Coefficients of 0.058, $t = 0.890$). The result indicates that the higher the shareholding, the higher the tax non-compliance. The insignificant result of this independent variable is similar to Mohd Nor et al. (2010), who reported that type of control is not seen as a relevant factor to falsification of financial information.

The insignificant result reveals that company ownership does not impact tax non-compliance. Major shareholders usually have several SME companies, where control over a company is given to managers with full control over account transactions and business operations. Therefore, tax leakages can occur in both cases.

However, the positive relationship demonstrates the presence of shareholders in deciding the company's management of tax evasion. Existing powers enable the largest shareholders to engage in tax manipulation, especially in controlled sales, transfer pricing, good relief and transactions between related companies.

4.8 Summary of the Hypotheses

The summary of the hypotheses is presented in Table 4-11. The results denote that only company size is associated with tax non-compliance in Malaysia; while the other five out of six variables do not support the hypotheses, namely financial liquidity, capital intensity, size of tax agent, type of industry and company ownership.

Table 4-11
Summary of Hypotheses

	Hypothesis	Results
H1	There is a significant relationship between financial liquidity and tax non-compliance for SMEs	Reject
H2	There is a significant relationship between capital intensity and tax non-compliance for SMEs	Reject
H3	There is a significant relationship between size of tax agent and tax non-compliance for SMEs	Reject
H4	There is a significant relationship between company size and tax non-compliance for SMEs	Accept
H5	There is a significant relationship between type of industry and tax non-compliance for SMEs	Reject
H6	There is a significant relationship between company ownership and tax non-compliance for SMEs	Reject

Company size is the only factor which affects tax non-compliance. Therefore, it is not surprising that company size measured using total assets in this study should be the main determinant and focus of the IRBM when selecting cases.

4.9 Summary

Overall, this chapter provides the results of all hypotheses testing using relevant statistical techniques. Regression analysis is conducted to test the hypotheses. The results show that only company size provides significant results, while other elements studied, such as financial liquidity, capital intensity, size of tax agent, type of industry and company ownership, do not provide significant results. In spite of the results

obtained, this study contributes to the existing literature on tax non-compliance for future reference.



CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 Introduction

This is the final chapter of the study that discusses the implications and recommendations of empirical findings to tax administrators, the government and policymakers, followed by the limitations of the study and directions for future research. Finally, a summary concludes this study.

5.2 Implication and Recommendation

This study has several implications for the Malaysian government, especially to IRBM as the country's tax administrator. The results obtained from this study can be used to improve the existing policies and regulations to address tax evasion. Also, the results obtained can be used by the IRBM to understand the determinants of tax evasion or tax non-compliance.

In this study, the regression analysis reveals that there is only one determinant that influences tax non-compliance, i.e., company size. Therefore, the size of a SME in terms of assets is still relevant as one of the main criteria for audit case selection. The IRBM can focus on companies with large amounts of assets as these companies have the ability or capacity to hire qualified accountants or tax specialists for tax planning purposes by taking advantage of the loopholes in the existing Income Tax Act. Trading and service industries also need to be given priority as the criterion for audit case selection, as these industries have proven to have significant differences in terms of tax non-compliance.

Besides, companies with a smaller amount of assets should also be audited by the IRBM to raise awareness of tax compliance and to educate taxpayers at an early stage, because as the businesses grow, there is a tendency for tax evaders to optimize their profit. For example, related companies may use small size SMEs as a 'hub' or 'transit' to transfer profits and losses without the IRBM's knowledge. It is supported by Tedds (2010) who urged the tax authority to increase auditing rates among small companies.

At the same time, the study shows the increasing level of tax non-compliance among SMEs in line with business growth. Therefore, the findings of this study can help policymakers to formulate and amend the existing tax laws and regulations to avoid being manipulated by certain parties for their benefit.

In addition, this study gives some insights to policymakers on SMEs in Malaysia. As smaller companies tend to become tax defaulters, the tax administrator or policymaker may implement a special program to raise voluntary compliance and propose tax incentives to help them grow at a certain level of income to reduce their tax burden.

To combat tax non-compliance among tax defaulters, the IRBM should be firm in enforcing tax laws. Penalty under section 113 (2) ITA 1967 should be imposed on the maximum amount of 100% on the additional tax for incorrect return. The implementation of the 100% penalty under section 113 (2) has never been enforced to date. Therefore, the taxpayers may not consider the penalty seriously because they only pay lower taxes than the amount of unreported income. Higher fines should be

one mechanism to educate other taxpayers. At the same time, the sentence may serve as a warning to anyone with intention to commit the offence.

As for the factors that do not influence tax non-compliance in the study (for example financial liquidity, capital intensity, size of tax agent, type of industry and company ownership), it does indicate that there are still other factors that affect tax non-compliance, which can form the basis for audit case selection criteria by IRBM.

5.3 Limitation of the Study

Like other research, this study has several limitations. Firstly, this study uses a sample of resolved cases for year of assessment 2016. However, this sample does not reflect all the companies for the year of assessment 2016 as the companies are given a grace period of up to eight months to file their tax returns. The companies used as a sample in this research are companies that have the closing accounts up to May 31, 2016. Thus, the results of the study do not represent the actual population for year of assessment 2016.

Secondly, this study only uses one year of observation, which is data in 2016. A one-year observation cannot illustrate tax non-compliance in-depth and cannot be generalized extensively. The study should take into account more time-series data to evaluate the trend and the impact of tax non-compliance, especially in the event of a reduction in penalty rates by the IRBM and different government policy changes each year.

Thirdly, another limitation in this study is the concept and definition of the SME. As discussed in Chapter Two, this study uses the definition by the IRBM which refers to SMEs as companies registered under the Companies Act, having a paid-up capital of less than RM 2.5 million at the beginning of the basis period. Meanwhile, the NSDC and several researchers define the SME as a business, be it a company or non-company, that has a minimum criterion of total earnings or full-time employees. The use of these different definitions can cause confusion and errors in the choice of articles/journals for reference. In this present study, the researcher referred to a few articles on SMEs that are defined as non-company.

5.4 Direction for Future Research

As a guideline for future research, it is recommended that other determinants be tested related to SMEs by utilizing secondary data. Other elements that can be scrutinized are SMEs receiving tax incentives, transactions between related companies and directors' interference in company operations by looking at the amount due to or from the directors, particularly in Balance Sheet Item. This is because SMEs are always associated with control by the directors. Therefore, the above determinants can be considered in future studies to gain insights into transactions relating to directors' control that may affect tax compliance in Malaysia. Further, future research can be based on ethnicity among company directors. To date, there have not been many empirical studies using the directors' ethnicity as a determinant by utilizing actual data.

Lastly, it is suggested that for future research, the IRBM, as the tax administrator, may allow collaboration between academicians and tax officers for tax research. This

collaboration will enable academicians to use tax and financial information which is confidential from the IRBM to gain a broader perspective and different insights.

5.5 Conclusion

This study examines the significant differences in the relationship between the SMEs' characteristics, such as size of tax agent, type of industry and company ownership and tax non-compliance. Besides, this study also examines the relationship between financial liquidity, capital intensity, size of tax agent, type of industry, company size and company ownership and tax non-compliance. Overall, only one out of six hypotheses provide evidence, i.e., influence of company size on tax non-compliance. The findings of this study imply that company size is still relevant as one of the main criteria for audit case selection. This last chapter also explains the implications and recommendations to IRBM and policymakers in the country. As SMEs are the engine of growth, future research on tax non-compliance may continue with other factors and issues discussed in this study.

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APPENDICES

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Tax_non_compliance

Tukey HSD

(I) Type of Industry	(J) Type of Industry	Mean of Difference			95% Confidence Interval	
		(I-J)	Std. Error	Sig.	Lower Bound	Upper Bound
Construction	Manufacturing	-.12915	.25080	.996	-.8509	.5926
	Trading	.50468	.20202	.130	-.0767	1.0860
	Real Estate	.07370	.31992	1.000	-.8469	.9943
	Services	-.02168	.18674	1.000	-.5591	.5157
	Others	.17166	.34624	.996	-.8247	1.1680
Manufacturing	Construction	.12915	.25080	.996	-.5926	.8509
	Trading	.63383	.23833	.088	-.0520	1.3197
	Real Estate	.20285	.34400	.992	-.7871	1.1928
	Services	.10747	.22553	.997	-.5415	.7565
	Others	.30081	.36861	.964	-.7599	1.3615
Trading	Construction	-.50468	.20202	.130	-1.0860	.0767
	Manufacturing	-.63383	.23833	.088	-1.3197	.0520
	Real Estate	-.43098	.31024	.734	-1.3238	.4618
	Services	-.52636*	.16963	.026	-1.0145	-.0382
	Others	-.33302	.33731	.922	-1.3037	.6377
Real Estate	Construction	-.07370	.31992	1.000	-.9943	.8469
	Manufacturing	-.20285	.34400	.992	-1.1928	.7871
	Trading	.43098	.31024	.734	-.4618	1.3238
	Services	-.09538	.30052	1.000	-.9602	.7694
	Others	.09796	.41871	1.000	-1.1070	1.3029
Services	Construction	.02168	.18674	1.000	-.5157	.5591
	Manufacturing	-.10747	.22553	.997	-.7565	.5415
	Trading	.52636*	.16963	.026	.0382	1.0145
	Real Estate	.09538	.30052	1.000	-.7694	.9602
	Others	.19334	.32840	.992	-.7517	1.1384
Others	Construction	-.17166	.34624	.996	-1.1680	.8247
	Manufacturing	-.30081	.36861	.964	-1.3615	.7599
	Trading	.33302	.33731	.922	-.6377	1.3037
	Real Estate	-.09796	.41871	1.000	-1.3029	1.1070
	Services	-.19334	.32840	.992	-1.1384	.7517

*. The mean difference is significant at the 0.05 level.

