

THE IMPACT ON AUDIT FEES AFTER IFRS
CONVERGENCE: AN INVESTIGATION IN
TRADING AND SERVICES INDUSTRY

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DECLARATION

We hereby declare that:

- (1) This undergraduate research project is the end result of our own work and that due to acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing the research project.
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Who guide us patiently throughout the completion of this research study,

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LIST OF ABBREVIATIONS

AASB	Auditing and Assurance Standards Board
ADX	Abu Dhabi Stock Exchange
AICPA	American Institute of Certified Public Accountants
ANOVA	Analysis of Variance
ASE	Amman Stock Exchange
ASX	Australian Stock Exchange
AUD_FEE	External Audit Fees
AUDITEE	Auditee Size
AUDITOR	Auditor Size
BELFIRST	Belgian and Luxembourg Business Intelligence
COMPLEXITY	Client Complexity
CPA	Certified Public Accountant
CV	Control Variable
DV	Dependent Variable
EU	European Union
FAS	Finnish Accounting Standards
FRS	Financial Reporting Standards
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
GLS	Generalized Least Square
GMM	Generalized Method of Moments
IAS	International Accounting Standards
IASB	International Accounting Standard Board

ICAEW	Institute of Chartered Accountants in England and Wales
IFAC	International Federation of Accountants
IFRS	International Financial Reporting Standards
INDUSTRY	Auditor Industry Specialization
IV	Independent Variable
KPMG	Klynveld Peat Marwick Goerdeler
LSE	London Stock Exchange
MASB	Malaysian Accounting Standards Board
MFRS	Malaysian Financial Reporting Standards
MPERS	Malaysia Private Entity Reporting Standards
Natural Log	Natural Logarithm
NZ	New Zealand
OLS	Ordinary Least Square
PLC	Public Listed Companies
PwC	PricewaterhouseCoopers
R ²	Coefficient of Determination
RISK	Client Risk
RM	Ringgit Malaysia
ROA	Return on Assets
SAS	Statistical Analysis Software
SMEs	Small and Medium Enterprises
TRI	Toxics Release Inventory
UK	United Kingdom
USD	United States Dollar
VIF	Variance Inflation Factor

PREFACE

It is undeniable that accounting is currently unable to work as self-regulated system. However, it has improved in reaction to requirements and expectations in this rat-race business world. Reliability and transparency of financial statement plays a vital role in globalization as well as raising capital for the companies. In 2007, Malaysian Accounting Standard Board (MASB) has announced the new numbering system for Financial Reporting Standards (FRS) and interpretations. In 1 January 2012, the accounting standard are completely converge with all International Financial Reporting Standards (IFRS) which announced by International Accounting Standard Board (IASB). Nevertheless, this is only applicable to all Public Listed Companies (PLCs) in Malaysia. Moreover, the MASB has also renamed the framework as Malaysian Financial Reporting Standards (MFRS). The process of convergence has brought some impact to both companies and companies' auditors. The workloads of the auditors tend to increase as there are more compliance and specialization. Hence, this research will be conducted to investigate the impact on audit fees after IFRS convergence in trading and services sector.

ABSTRACT

On 1 January 2012, the Malaysian Accounting Standards Board (MASB) has brought Malaysia to the full convergence of International Financial Reporting Standards (IFRS) which has significantly affected the level of audit pricing in Malaysia. The primary objective of this study is to investigate the impact on audit fees after IFRS convergence among the trading and services companies listed on the Main Market in Bursa Malaysia. The prior studies were conducted before IFRS convergence, therefore the variation of audit pricing after IFRS convergence is still questionable. There are several variables being held constant, specifically auditor size, client size, client risk, client complexity as well as auditor industry specialization. Audit fee model will be discussed in attempt to highlight the audit fees and its impact after IFRS convergence. A quantitative research design is selected to analyze the numerical data collected from the annual reports of the 156 trading and services companies in year 2011 and year 2013. Descriptive test such as mean, standard deviation, frequency and percentage is conducted to analyze the characteristics of 156 trading and services listed companies. Independent Sample T-test, Pearson Correlation Coefficient and Multiple Linear Regression analysis are carried out to test the research model. Generally, the empirical findings reveal that IFRS convergence has given rise to audit fees. The study makes significant implications towards enhancing one's vision on the elements affecting the increase in audit fees post IFRS convergence by using the latest dataset in year 2011 and year 2013. This is an extended research with addition of a new control variable conducted primarily in Malaysia context.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

This chapter consists of five sections that illustrate the background of study along with research objectives and research questions raised from the problem statements. Significance of this study and chapters outline are also comprised in this chapter.

1.1 Background of Study

Nowadays, many standard setters in different countries are emerging towards harmonisation roadway from their respective local standards to International Financial Reporting Standards (IFRS). The development of IFRS has become a mandatory exercise for practitioners in different countries who have the intention to adopt IFRS regime into their domestic firms (Yaacob & Che-Ahmad, 2012; Sidik & Rahim, 2012). According to PricewaterhouseCoopers (PwC) (2013) survey, there are 147 countries worldwide including Malaysia has adopted IFRS as their main financial reporting regime in aligning with their local standards. Through the escalation of trend, this standard has been highly demanded for detailed disclosure in the preparation of financial statement to promote greater quality and comparability of financial information (Zeghal & Mhedhbi, 2006).

In the Malaysian context, it is known that Malaysian Accounting Standards Board (MASB) has brought Malaysia to full convergence with IFRS by 1 January 2012. According to Yeow and Mahzan (2013), there are more than one thousand public companies listed in Malaysia will be influenced by the fully IFRS convergence in 2012. The application of this standard will bring significant benefits to most of the public listed companies such as (i) increase transparency and quality of financial

reports (Hannah, Helliar, & Veneziani, 2013; Yaacob et al., 2012), (ii) lower cost of capital (Morris, Gray, Pickering, & Aisbitt, 2014) and (iii) improve the local and international financial market efficiency (Tyrrall, Woodward, & Rakhimbekova, 2007). However, these benefits may not outweigh to certain companies as IFRS are costly, burdensome and complex. Based on Institute of Chartered Accountants in England and Wales (ICAEW) survey whereby 67 percent of auditors in European Union (EU) stated that the audit fees have increased after IFRS implementation in financial statement (ICAEW, 2007, p. 72). Further evidence by Cameran and Perotti (2013) proven that higher audit fees (in real term of 19.29 percent) has imposed after adopted the new standards in Italian banking industry. Therefore, the impact of audit fees after IFRS convergence will still be a debate among the Malaysian practitioners.

1.2 Problem Statement

According to Joshi, Bremser, and Al-Ajmi (2008), the harmonisation of the IFRS is currently become a vanguard concern for auditors and financial reporting. The survey from ICAEW (2007) prevailed that the major IFRS related costs is still the escalation of audit fees as more detailed disclosure need to be performed, which requires greater audit efforts (Yaacob et al., 2012) to conduct audit assignment. However, the impact on audit fees after the convergence of IFRS is still questionable in Malaysia.

There are various past empirical researches being carried out to investigate the impact on audit fees after the IFRS adoption. George, Ferguson, and Spear (2013) have concluded that there is an 8 percent abnormal increase in the audit fees after IFRS adoption compared to normal yearly fee increased in all publicly traded Australia companies. In addition, Yaacob et al. (2012) have conducted a similar research whereby there is a significant increase in the audit fees after IFRS adoption in Malaysia. Besides, Kim, Liu, and Zheng (2013) believed that audit task complexity will be a driving force indicating a higher audit fees after the mandatory IFRS adoption in EU countries. In addition, Griffin, Lont, and Sun

(2009) revealed that the regulatory adoption of New Zealand (NZ) IFRS is the main determinant that causes a significant increase in audit fees in 2005.

However, there are several deficiencies in the past studies. Firstly, the settings of the paper is based on the common law and developed countries, hence, impact of audit fees after post-IFRS adoption may be different in Malaysia context (George et al., 2013). Secondly, the result is believed to be less accurate as the data was obtained between 2004 and 2008 due to the stage-by-stage implementation of IFRS (Yaacob et al., 2012), therefore, it is not considering the impact of audit fees after IFRS convergence (Yeow et al., 2013). Thirdly, the authors merely concentrates on the audit attributes such as audit complexity rather than client attributes like client risk and client size (Kim et al., 2013). Lastly, the study investigated the impact on audit fees after IFRS adoption in the consideration with government changes in New Zealand may not bring the same result as in Malaysia (Griffin et al., 2009).

1.3 Research Objectives and Research Questions

Table 1.1 below shows the research objectives and questions in general and specific terms. This research aims to ascertain the impact on audit fees after IFRS convergence in Malaysia. Hence, IFRS convergence is the independent variable while audit fees served as dependent variable.

Table 1.1: Research Objectives and Questions

Research Objectives	Research Questions
<p><u>General Objective:</u></p> <p>To investigate the impact on audit fees after IFRS convergence among trading and services companies listed in Malaysia.</p>	<p><u>General Question:</u></p> <p>What is the impact on audit fees after IFRS convergence among trading and services companies listed in Malaysia?</p>

<u>Specific Objectives:</u>	<u>Specific Questions:</u>
<p>a) To examine the impact on audit fees after IFRS convergence among trading and services companies listed in Malaysia, when auditee size is held constant.</p>	<p>a) Does IFRS convergence affects audit fees among trading and services companies listed in Malaysia, when auditee size is held constant?</p>
<p>b) To examine the relationship between IFRS convergence and audit fees among trading and services companies listed in Malaysia, when auditor size is held constant.</p>	<p>b) Does IFRS convergence affects audit fees among trading and services companies listed in Malaysia, when auditor size is held constant?</p>
<p>c) To examine the association between IFRS convergence and audit fees among trading and services companies listed in Malaysia, when client complexity is held constant.</p>	<p>c) Is there any connection between IFRS convergence and audit fees among trading and services companies listed in Malaysia, when client complexity is held constant?</p>
<p>d) To examine the relationship between IFRS convergence and audit fees among trading and services companies listed in Malaysia, when client risk is held constant.</p>	<p>d) Is there any association between IFRS convergence and audit fees among trading and services companies listed in Malaysia, when client risk is held constant?</p>
<p>e) To examine the impact on audit fees after IFRS convergence among trading and services</p>	<p>e) Does IFRS convergence affects audit fees among trading and services companies listed in</p>

companies listed in Malaysia, when auditor industry specialization is held constant.	Malaysia, when auditor industry specialization is held constant?
--	--

Source: Developed for the research

1.4 Significance of Study

This empirical research contributes theoretically. In the previous studies, data regarding Malaysian studies were obtained before the effective date of amendments on 1 January 2013 (Yaacob et al., 2012; Kim et al., 2012), leading to outdated studies. Hence, an extended research will be conducted in which the up-to-date data on audit fees after amendments in year 2013 will be collected. In addition, the improved model is from Yaacob et al. (2012) with additional control variable, auditor industry specialisation. Fleming and Romanus's study (as cited in Hall, 2013) mentioned auditor industry specialization substantially affects audit fees after IFRS. Based on different researchers, these control variables are amongst the most significant elements impacting audit fees after IFRS adoption (Yaacob et al., 2012; Friis & Nielsen, 2010; Zhu & Sun, 2012). Hence, this extended model adds value to the literature and can be used as academic reference for the forthcoming researches.

Practically, this research provides significant contributions to public listed companies (PLC) in Malaysia trading and services industry. The management control teams of PLC in this industry will be able to assess the variations of audit pricing after the IFRS amendments in year 2013 which impacts their organization's costs and profits. Lastly, this study essentially contributes to auditors' and Auditing and Assurance Standards Board (AASB)'s assessment in the adjustment of audit pricing since Malaysian auditors are having great interests in the changes of audit fees, whether if audit pricing will increase further after the amendments in year 2013.

1.5 Outline of Study

The first chapter comprises of the background, problem statement, objectives and significance of the study. Chapter two is about the theoretical foundation, past empirical studies, proposed conceptual framework and the hypotheses developed. The research method and data analysis techniques will be included in the third chapter. Chapter four is regarding the data analysis for this research which includes descriptive analysis and inferential analysis. The last chapter consists of discussion of the results, implications and limitations of this study along with recommendations for future research.

1.6 Conclusion

Overall, this chapter is about the introduction and significance of this study. With a brief overview of this study, it provides readers a clear view on what the following chapters in this research would be about.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

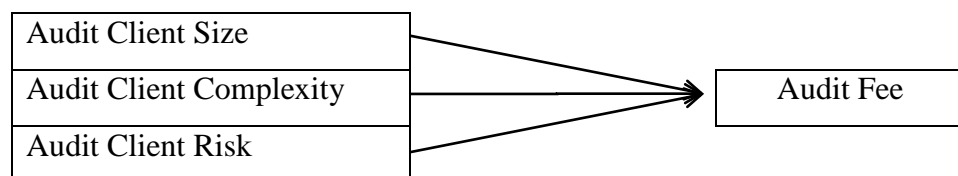
This chapter starts off with the main theoretical foundation used in this research; which is the Audit Fee Model and proceeds on with literature review for each variable. A proposed conceptual framework which helps to ease readers' understanding is also developed with six hypotheses that are used to explain the relationship of the variables.

2.1 Theoretical Foundation

2.1.1 The Audit Fee Model

The Audit Fee Model is the main theoretical foundation in examining the factors that influence the external audit pricing (Al-Harshani, 2008). According to Simunic's study which is conducted in 1980 (as cited in Cameran, 2005), audit fee is a product which auditee demand the unit price and quantity of audit services. The analysis of audit fees volatility requires the need of Audit Fee Model to determine the audit fees level with the presence of IFRS (Griffin & Lont, 2007).

Figure 2.1: The Audit Fee Model



Source: Simunic (1980)

The Audit Fee Model is developed by Simunic (1980) to determine the variation of audit fees paid in different companies. Simunic (1980) assumed that auditee and auditor are risk neutral and maximize their own expected profits each year. Moreover, Simunic's study has theorized the total audit costs consist of two elements which are (i) the resource cost components, which solely depends on the variation of audit efforts (as cited in Yaacob et al., 2012) and (ii) company's share of expected present value of residual liability and losses in audited financial statement (as cited in Griffin et al., 2007). The existence of these two components becomes predominant for the firms to promote the audit process by increasing number of resources used in order to reduce the expected value of losses in audited financial statement (Simunic & Stein, 1996).

The Audit Fee Model has been extensively used in different research areas such as investigating the audit fee premium with the effect of Sarbanes-Oxley Act 2002 (Ebrahim, 2010; Griffin et al., 2007; Salman & Carson, 2009). Besides, this model has been famously used in researching the determinants of audit fees within small medium enterprise and public listed companies in different countries such as Italy (Cameran, 2005), Bangladesh (Karim & Hasan, 2012), Belgium (Caneghem, 2010; Thinggaard & Kiertzner, 2008), Malaysia (Yatim, Kent, & Clarkson, 2006), China (Wang & Sewon O, 2009), Jordan (Naser & Nuseibeh, 2007), France (Gonthier-Besacier & Schatt, 2007), Lebanon (El-Gammal, 2012), Kuwait (Al-Harshani, 2008), and Nigeria (Akinpelu, Omojola, Ogunseye, & Bada, 2013).

There are three factors affecting variability of audit fees in Simunic (1980) Audit Fee Model. Firstly is audit client size. Simunic (1980) has revealed that audit client size positively affects the audit fees paid, providing consistent results from Vermeer, Raghunandan, and Forgione (2009). The increase in client size requires the external audit service to perform

extensive audit work to provide adequate compliance and substantive testing (Al-Harshani, 2008). The client size is another most significant factors that impacts audit fees in large-sized companies (Naser et al., 2007).

Second is audit client complexity. Simunic (1980) has proven that audit client complexity positively affects the audit fees, providing consistent result from past researchers (Verbruggen, Christiaens, Reheul, & Caneghem, 2011; Vermeer et al., 2009). Greater complexity in audit client requires extensive audit effort to review transactions causes increase in audit fees (El-Gammal, 2012).

Third is audit client risk. Simunic (1980) revealed that higher audit client risk associates positively with high audit fees for external audit firm, which provides same results from El-Gammal (2012).

The application of Simunic's Audit Fee Model which are auditee size, client complexity and client risk will be used as control variables in this research because these fundamental variables may contribute significant impact on level of audit fees post-IFRS convergence (Kim et al., 2012). However, the variables used are insufficient to indicate the real impact of audit fees post-IFRS convergence (Yaacob et al., 2012). Therefore, the extended control variables included auditor industry specialization and auditor size because Hall (2013) and Yaacob (2013) believed that such variables will contribute significant impact on the audit pricing after IFRS Convergence.

2.2 Review of Prior Empirical Studies

The following Table 2.1 shows the definitions for each Independent Variable, Dependent Variable and Control Variables.

Table 2.1: Definition of Independent Variable, Dependent Variable and Control Variables

Study	Definition
IFRS Convergence (Independent Variable)	
Vinayagamoorthy and Senthilkumar (2014)	IFRS can be defined as the principle-based standards which develop a set of widely used rules and also dominate specific accounting treatments.
International Financial Reporting Standards (2014)	IFRS is a single set of standard issued by the International Accounting Standard Board (IASB) in order to provide a high quality, understandable, enforceable and globally accepted reporting standards.
Yaacob et al. (2012)	IFRS is the new standard issued by IASB by conciliating some existing standards and IFRS plays its roles in promoting fully convergence between local GAAP and international accounting standards.
Audit Fees (Dependent Variable)	
Chersan, Robu, Carp, and Muroniuc (2012)	The International Standards on Auditing defines audit fees as the compensations for the financial auditor's activity, specifically the certification of financial statements.
El-Gammal (2012)	The pays demanded by auditor for an audit procedure performed for the accounts of its client.
Cameran et al. (2013)	A portion of the related execution outlays in auditing activity. Besides, the researchers further emphasized

	that it is a major aspect of the reform of new accounting standards.
Auditee Size (Control Variable 1)	
El-Gammal (2012)	Firm being audited or client of audit firm is termed as auditee. Total assets, revenues, sales, and number of employees have usually served as the measurement for auditee size.
Friis et al. (2010)	Items inside financial statements can be used as proxies for client size such as total revenues.
Pop and Iosivan (2007)	Total number of employees was used in this study as proxies to measure size has contributed that using total assets as size measurement is less objectivity as total assets are more likely to be affected by asset age, replacement decision and different accounting policy used.
Auditor Size (Control Variable 2)	
Bae and Lee (2013)	According to <i>Accounting Today</i> , the 100 largest audit firms are using their total revenues, number of office, and professional headcounts to measure for their audit firm size.
Chen and Hsu (2009)	Auditor size is served as alternative indicator for unobservable audit quality. A three-tier classification was used to decompose the audit firms into large-tier, medium-tier and small-tier auditors.
George et al. (2013)	Audit firm size can also be measured by distinguish them into Big 4 and non-Big 4 auditor.
Client Complexity (Control Variable 3)	
Yaacob et al. (2012)	Client complexity is determined by the number of subsidiaries of the company, including subsidiaries in overseas.

Thinggaard et al. (2008)	Complexity comprises complexity of substance and formal complexity. Complexity of substance, also known as inherent risks, is the auditor's difficulty concerning the validity of financial statement matters. Whereas, technical or formal complexity is the intricacy of financial statements demonstration after all queries of recognition and measurement have been resolved.
Griffin et al. (2009)	Client complexity is measured by ratio of sum of inventory and receivables to total assets.
Client Risk (Control Variable 4)	
George et al. (2013)	Loss exposure is measured by quick ratio and debt ratio whereas auditor-client risk sharing can be measured by return on assets (ROA) and loss in the year.
Yaacob et al. (2012)	Client risk can be assessed by debt ratio of the client financial statement
Stanley (2011)	A risk whereby the possibility of the client's economic condition would worsen later on.
Auditor Industry Specialization (Control Variable 5)	
Fernando, Abdel-Meguid, and Elder (2010)	Auditors having sufficient knowledge of its client's business plus industry and potential "abusive" accounting practices.
Iskandar and Aman (2003)	Auditor industry specialization is measured by audit firms' market share whereby the number of audit clients will be used to determine it.
Dutillieux and Willekens (2009)	According to Neal and Riley (2004), auditor industry specialization can be measured through audit firms' weight or market share and the importance of the industry.

Source: Developed for the research

2.2.1 IFRS Convergence

Vinayagamoorthy et al. (2014) discussed the convergence of IFRS as a process of “harmonization” between the national Generally Accepted Accounting Principles (GAAP) and IFRS through modifying the national GAAP by adapting to IFRS so that the financial statements prepared are in compliance to IFRS. Besides, convergence of IFRS is the main aspiration of International Accounting Standards Board (IASB) as they want to be the best standard-setter body in the world and IFRS become the “highest common denominator” in financial reporting (Tweedie & Seidenstein, 2005).

According to Bayerlein and Farooque (2012), Australia, Hong Kong, United Kingdom and more other well-developed countries have adopted IFRS on 1 January 2005. They adopt and converge to IFRS willingly as they rely on new standard to improve the credibility and comparability of their financial reports (Bayerlein et al., 2012). In year 2010, the convergence process spread over 100 countries, more than 12,000 companies are adopting IFRS (Moser, 2014). This global convergence to IFRS is expected to continue as corporations are attracted to the limitless benefits of this international standard such as increased financial market competitiveness (Moser, 2014).

Hassan, Crawford, and Power (2014) claimed that IFRS convergence is a good new to the audit market as it brings new opportunity to earn more audit premium. Corporations keen to hire more audit expertise to deal with harmonization of accounting standard as they believed the decision making of report users especially investor and shareholders may have been influenced by this IFRS adoption. Thus, the increasing trend in audit fees around the world can be partly explained by this IFRS convergence (Hassan et al., 2014; Cameran et al., 2013; Yaacob et al., 2012).

2.2.2 Audit Fees

The study of El-Gammal (2012) explained that audit fees are usually ascertained beforehand the audit process, in accordance to the agreement between the auditor and its client in terms of the services, time and labour resources in conducting the audit process. The study of Chersan et al. (2012) explored that both Code of Ethics for Professional Accountants (IFAC, 2010) and Code of Professional Conduct (AICPA, 2009) point out it is ethical if an auditor's pricing is lower than others but provide audit quality corresponding to the audit fee charged.

Furthermore, Ebrahim (2010) illuminates the argument of Simunic and Stein (1996) where audit fee comprises cost of resources and expected cost of future litigation from audit failure. Due to the intrinsic trade-off, to avoid the expected litigation cost, bigger audit efforts are needed which lead to the rising of resources to conduct audit process and eventually its costs.

Griffin et al. (2009) have studied the relationship between New Zealand IFRS and its local firms' audit and non-audit fees. It is found that audit pricing in New Zealand rose over the period between 2002 and 2006. Last but not least, the studies about impact of IFRS adoption on audit pricing in Jordan by Risheh and Al-Saeed (2014) also concluded that there is a significant growth in audit fees for Jordanian public listed industrial companies as result of IFRS adoption.

2.2.3 Auditee Size

Friis et al. (2010) have investigated the changes in audit cost after application of IFRS standards in Danish companies. They have collected 1593 published financial statements for years 2001 to 2008. Stepwise regression model was utilized and found there has no significant

relationship between IFRS adoption and audit cost but they did discover higher auditor remuneration were paid by larger and complex companies compared to those small companies.

The study of Cameran et al. (2013) aimed to measure the association between IAS/IFRS adoption and the audit pricing in Italian banking industry. 227 sets of questionnaires were distributed to Italian banks to obtain audit fee data with response rate of 69%. Besides, financial statements data of 136 banks were collected from *Bankscope*. The panel model with firm-fixed effect confirmed the positive relationship between audit fees and the auditee size.

Moreover, Yaacob et al. (2012) have investigated the impact on audit fees after IFRS adoption in Malaysia. 3050 firm-year observations from listed companies were targeted and data collected from annual reports on Bursa Malaysia from year 2004 to 2008. The panel data regression revealed the truth that larger companies were charged higher audit fees by their auditors.

In addition, Pop et al. (2007) have studied on audit cost determinants such as firm size, complexity and auditor size in Romanian audit service industry. 99 surveys were collected from 401 targeted respondents who have participated in CPA exam from year 2004 to 2006. Besides, 60 audit engagements of both big and small-to-medium audit firms were gathered and a cross sectional econometric model has confirmed these determinants did affect the audit cost in Romania.

Besides, Naser et al. (2007) have examined the factors which may affect audit fees. 202 companies' annual reports listed on the Amman Stock Exchange (ASE) were collected with only 181 reports received. Ordinary least square (OLS) regression revealed the factors like corporate size, the degree of corporate complexity, profitability and etc were positively related to the audit fees.

2.2.4 Auditor Size

Yaacob (2013) had investigated whether adoption of FRS 139 will affect audit pricing in Malaysia. 1050 companies-year observations from non-financial companies listed on Bursa Malaysia for year 2006 to 2008 were collected. Generalized Least Square (GLS) claimed there is no significant association between FRS139 adoption and audit pricing. However, 9 out of 12 control variables were positively related to audit pricing, including the auditor size.

Furthermore, Hassan et al. (2014) have studied on cost of IFRS adoption and global financial crisis of 2007/8 in term of audit fees in UK listed companies. The final sample comprises of 1028 domestic companies listed on London Stock Exchange (LSE) which yielded 7958 firm-year observations for the period 2003 to 2011. The panel data reported that Big Four firms charged a higher audit and non-audit fees compare to non-Big Four firms.

In addition, Bae et al. (2013) have analyzed on how audit firm size and associate-to-partner ratio affect audit quality and audit fees. Final sample is 10,387 with Big 4 auditors and 2048 with non-Big four auditors' firm-year observations for the period of 2007 to 2011. Auditor's identity and clients' financial information were obtained from *Compustat* databases and Audit Analytics databases for audit fee data. The cross-sectional regression model concluded that audit firm size is positively associated with audit quality and audit fees.

Besides, Hallak and Silva (2012) have examined the determinants of auditing and consulting expenses in Brazil. 219 public listed Brazilian companies in 2009 have been selected as final sample and data about accounting and market were taken from *Economática*. The Generalized

Method of Moments (GMM) regression has reported a higher audit and consulting fees were associated with hiring a Big Four firm as auditors.

Lastly, the study of Andre, Broye, Pong, and Schatt (2011) aims to examine the impact of national regulation of audit market on audit fees and the Big four premium in different countries. Audit fees paid by 273 French companies were compared to 364 British companies in both year 2005 and 2009. The result revealed a great difference between the audit remuneration charged by Big Four and non-Big Four auditors.

2.2.5 Client Complexity

Kim et al. (2012) examined the consequences of IFRS adoption on audit pricing. A final sample of 2860 firm-years observations from 11 European countries for the years 2004 to 2008 was attained. Pooled cross-sectional audit fee regression models were developed with result of audit fees are directly proportional to clients with complex audit driven by IFRS adoption.

Wieczynska (2014) studied about the association between mandatory IFRS adoption and the audit markets in the European Unions with empirical data of 6272 client and audit firms obtained from Worldscope for year 1998 to 2010. Logistic regression models resulted that firms with higher complexity choose larger audit firms that charge higher audit fees. Thus, client complexity is positively corresponding to audit pricing.

The study of Hassan and Naser (2013) aims to examine the determinants of audit pricing charged to non-financial companies listed on Abu Dhabi Stock Exchange (ADX), using data from 65 listed companies in year 2011 annual and corporate governance reports. Backward regression analysis was adopted to come out with the result showing that client complexity is directly proportional to audit fees.

Moreover, Badertscher, Jorgensen, Katz, and Kinney (2012) investigated the linkage between audit fees and litigation risk. A final sample of 229 private firms with publicly traded debt from year 2000 to 2009 was obtained. The sample data was analyzed using cross-sectional regression model and have revealed client complexity is positively associated with the audit pricing.

Vermeer et al. (2009) set out to study on the audit fees at United States non-profit organization. The audit fee research was conducted using audit fee regression model with a total of 125 largest non-profit organizations in year 2002 and 2003 as final sample data. Results indicated that auditee complexity is directly corresponded to audit fees charged.

2.2.6 Client risk

Vieru and Schadewitz (2010) examined the adoption of IFRS and affiliation towards audit and non-audit fees based on SMEs in Finland. Client business risk was included and the result obtained from regression analysis was that it will affect audit fees. The sample they used consisted of 73 firms based on years 2004 and 2005.

Stanley (2011) studied about whether audit fee disclosure is an indicator of clients' risk. By using a sample of firms that have reported assets of more than \$1 million in the period of 2000 to 2008 obtained from *Compustat* and the result, using audit fee model supported the objective whereby client risk will affect audit fees.

Besides, Tahir and Paino (2013) have researched about the effect on audit pricing and fraud from business risk. The sample consists of 100 companies with their financial information gathered from their annual report, accessible at Bursa Malaysia website. The result obtained through

stepwise logistic regression supported that client risk and audit fees are related.

Based on the research by Ethridge, Marsh, and Revelt (2007) which investigated the strategies taken by audit firms whenever there is a client risk; the results showed that audit fees would increase along with the risk. The researchers used a questionnaire with a sample size that consist of 90% male and 10% female with the results generated using 5-point Likert Scale.

Li, Simunic, and Ye (2014), studied about the association of audit fees and client's environmental risk with a positive result whereby higher audit fees will be charged to client with higher risk. They came out with the result using data from the Superfund liability data, TRI data and ASSET4 data with results generated from using the Pearson correlation model and regression model.

2.2.7 Auditor industry specialization

Hall (2013) used Jones (1991) model of cross-sectional model with estimating discretionary accruals from year 2001 to year 2011 with a sample of 15,487 firm year observations and proved there is a positive relationship between auditor industry specialization and audit fees after IFRS adoption.

Based on Yu, Gul, and Krishnan (2012), their study found that auditor industry specialization and audit fees are related. A sample of 17,207 firm year observations Big N audit firms for the period of 2000 to 2007, obtained from Audit Analytics database supported their study of implications of city-level audit-firm industry specialization to audit fees using regression model.

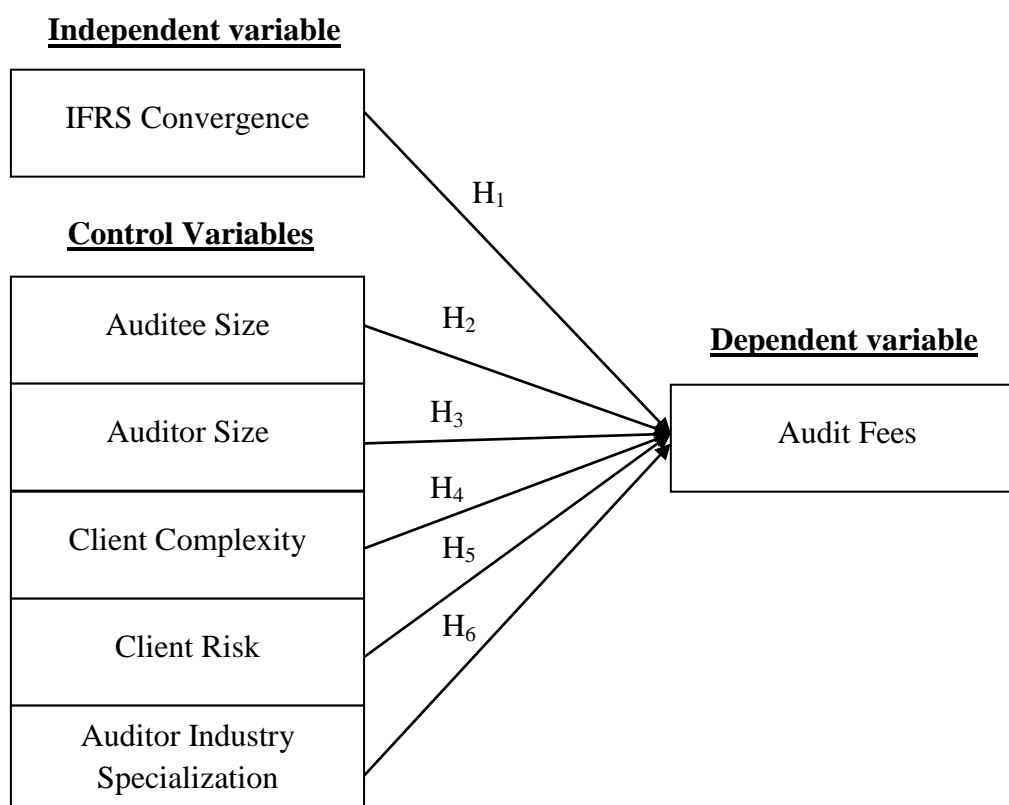
Dutillieux et al. (2009), with their final sample of 11,362 firm year observations Belgian audit engagements gathered through BELFIRST database in year 2004 found auditor industry specialization will affect audit fees for their study of the impact of auditor industry specialization towards audit fees for Belgian audit market's private segment using regression analysis.

Huang, Liu, Raghunandan, and Rama (2007) restudied the research of Casterella, Francis, Lewis, and Walker (2004) regarding auditor industry specialization, client bargaining power and audit pricing. The final sample used for years 2000, 2001, 2003 and 2004 are 936, 993, 1,345 and 1,345; taken from the Audit Analytics database. By using the regression model, they supported that audit fees increased with auditor industry specialization.

According to Zerni (2012) researched on audit partner specialization and audit fees with sample from year 2003 and 2007 based on the data obtained from The Swedish Financial Supervisory Authority and annual reports of listed companies. Using Ordinary Least Squares regression, the variables showed that auditor industry specialization positively associated with audit fees.

2.3 Proposed Conceptual Framework

Figure 2.2: The impact on audit fees after IFRS convergence with five control variables



Source: Yaacob et al. (2012); El-Gammal (2012); George et al. (2013); Kim et al. (2012); Griffin et al. (2009); Simunic (1980); Hall (2013)

2.4 Hypotheses Development

According to past empirical studies, there are six (6) hypotheses have been developed as shown below:

H₁: There is a **significant difference** on audit fees between pre and post-IFRS convergence.

H₂: There is a **positive relationship** between auditee size and audit fees.

H₃: There is a **positive relationship** between auditor size and audit fees.

H₄: There is a **positive relationship** between client complexity and audit fees.

H₅: There is a **positive relationship** between client risk and audit fees.

H₆: There is a **positive relationship** between auditor industry specialization and audit fees.

2.5 Conclusion

In short for this chapter, the proposed conceptual framework is developed based on the Audit Fee Model with amendments made to suit this research. Furthermore, six hypotheses are developed based on prior empirical studies. Continue on in Chapter 3 is the research methodology for this study.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

This chapter provides a framework for how the research is to be carried out, comprises the research design, sampling procedure, data collection method, measurement of variables and data analysis techniques.

3.1 Research Design

This research is focused on audit pricing effect after IFRS convergence. Explanatory study is applied for causal cases to explain specific phenomena using pattern-matching (Zainal, 2007) and data are obtained for multiple time periods (Barratt, Choi, & Li, 2011). This research is based on longitudinal study, thus data will be collected twice in years 2011 and 2013, which are pre and post-IFRS convergence to examine the variation in audit pricing.

Archival research is used since the data obtained from annual reports of sample firms which contain historical and financial records (Calantone & Vickery, 2010). The unit of analysis for this study is the trading and services public listed firms in Malaysia.

Quantitative approach is selected because numerical data were collected from annual reports with statistical techniques involved in the analysis. Besides, deductive research allows summarization of large amount of data and presents empirical data in solid statistical tables (Eisenhardt & Graebner, 2007).

3.2 Population, Sample and Sampling Procedures

3.2.1 Target Population

Target population is researchers' overall group of interest in their study (Sekaran & Bougie, 2010). According to Table 3.1, the final sample after excluded those unused sample is 156. This study emphasizes on trading and services listed firms in Malaysia which have adopted IFRS and the amendments effective on 1 January 2013. Trading and services sector is selected because it is the largest contributor to the economy in terms of Gross Domestic Product (GDP) of 55.16% (Department of Statistics Malaysia, 2014).

Table 3.1 Computation of Sampling Size

<u>Sampling Size:</u>	<u>No.</u>
Sample of annual report received during the year 2011 & 2013	194
Less: Incomplete annual report reported in 2011 and 2013	(35)
Company which has reported in USD denomination	(1)
Company with error in downloading annual report	(1)
Amendments in company's name in year 2011 & 2013	(1)
Final Sample	156

Source: Developed for the research

3.2.2 Sampling Frame and Sampling Location

Sekaran et al. (2010) referred sampling frame to a comprehensive set of elements whereby sample is selected from the target population. It provides lists of items from which the sample is chosen (Teddlie & Yu, 2007). The 156 trading and services companies listed on Main Market of Bursa Malaysia will be the sampling frame in this research because all exchange traded stocks and derivatives in Malaysia are primarily regulated

by Bursa Malaysia (Ponnu, 2008) and Bursa Malaysia tends to enhance the Malaysia corporate governance standards (Saleh, Iskandar, & Rahmat, 2007). According to Sulong, Gardner, Hussin, Sanusi, and McGowan (2013), companies listed on the Main Market practice better corporate governance compared to those listed on the ACE Market.

Since the public listed companies under trading and services sector are scattered around different states in Malaysia, the sampling location for this study focused on West and East Malaysia.

3.2.3 Sampling Technique

Based on the analysis above, the sampling technique used is census. According to Baffour and Valente (2012), census enables users to obtain data and its main purpose is to offer users precise assessments of a country's population. Besides, census is the best choice when it comes to small population group and areas, whereby the definition provided by the United Nations is a country's official count of population, to its smallest level of geographical details would be provided by census at even intervals (Baffour et al., 2012). Since the population for this research is small, census will be the most appropriate.

3.2.4 Sampling Procedures

Census based on full enumeration with annual updates is used (Baffour et al., 2012). As this study uses secondary data, the data requires for the research are annual reports which will have to be updated annually in order to provide an accurate and updated data to ensure the quality. Hence, the methodology will be whereby the data required, annual reports will be obtained through Bursa Malaysia. As for the census geography, it will be all 156 trading and services public listed companies in Malaysia.

3.3 Data Collection Method

Data with different values can be distinguished into three levels, primary, secondary and tertiary data accordingly (Cooper & Schindler, 2006).

3.3.1 Secondary Data

In this research, secondary data is used because data obtained are considered high-quality data and comparable (Saunders, Lewis, & Thornhill, 2012). Secondary data in the form of journal articles, textbooks and other sources will be used in this research.

In addition, annual reports are obtained from Bursa Malaysia to extract the companies' financial data such as total assets, auditors' identity and others. Lastly, external audit fees are gathered from Datastream at UTAR Perak Campus library.

3.4 Variables and Measurement

The independent variable, IFRS convergence; dependent variable, audit fees and the five control variables used and the measurement method are explained in Appendix B. Appendix B also provides the sources and description of the variables.

3.5 Data Analysis Techniques

3.5.1 Descriptive Test

In this research, descriptive test such as standard deviation, mean, frequency and percentage are used to analyze the audit fee, size, risk, complexity and auditors' size of 156 trading and services companies. Meanwhile, frequency and percentage are utilized to explain the auditor size and auditor industry specialization.

The scale measurements comprise of reliability test and normality test. According to Simon's study (as cited in Yaacob et al., 2012), the hand gathered data from annual reports would assure a more accurate data and reduce non-response bias generally arises in questionnaire survey. Therefore, those tests are not conducted in this study.

3.5.2 Inferential Analysis

In this research, Independent Sample T-test, Pearson Correlation Coefficient and Multiple Linear Regression analysis are conducted.

3.5.2.1 Independent Sample T-test

Based on Saunders et al. (2012), Independent Sample T-test is used to compare the differences in the means of two distinct groups, which are pre-IFRS convergence and post-IFRS convergence. Traditional t-test is presumed that samples are drawn randomly from normally distributed populations (Kruschke, 2013).

In order to determine whether the variances between two independent samples are significantly different, Levene’s t-test for homogeneity of variances are performed. It requires both groups have equal population variances, also known as homoscedasticity (Erceg-Hurn & Mirosevich, 2008).

The decision rule for t-test are as follow:

Table 3.2 Decision rule for Independent Sample T-Test

Description	Decision Rule
When p-value ≥ 0.05	Do not reject H_0 (Null Hypothesis)
When p-value < 0.05	Reject H_0 (Null Hypothesis)

Source: Saunders et al. (2012)

When the p-value is more than or equal to 0.05, then do not reject the hypothesis of there is significant difference in audit fee between pre and post-IFRS convergence and vice versa.

3.5.2.2 Pearson Correlation Coefficient

Pearson Correlation Coefficient is a statistical measurement tool used to measure the strength of relationship between one dependent variable (audit fees) and five control variables (auditee size, auditor size, client complexity, client risk and auditor industry specialization) (Bolboac & Jfntschi, 2006). Based on Saunders et al. (2012), coefficient value (r) can be obtained between +1 and -1. The positive +1 coefficient value (known as perfect positive correlation) indicates a direct relationship between the control variable and dependent variable and vice versa (Saunders et al., 2012).

However, multicollinearity problem will arise when two or more predictor variables are highly correlated (greater than 0.90) if the coefficient of regression is indeterminable (El-Dereny & Rashwan, 2011). Hence, coefficient value lesser than 0.90 is advisable to avoid multicollinearity problem (Hair, Black, Babin, Anderson, & Tatham, 2006).

Table 3.3 describes the rule of thumb for correlation coefficient value:

Table 3.3 Rule of Thumb for correlation coefficient value

Coefficient (r)	Correlation
±0.80 to ±1.00	Very strong
±0.60 to ±0.79	Strong
±0.35 to ±0.59	Moderate
±0.20 to ±0.34	Weak
±0.00 to ±0.19	None

Source: Hair et al. (2006)

3.5.2.3 Multiple Linear Regression Analysis

Based on Vesey, Stroter, Vesey, and Middleton (2011), multiple linear regression analysis is used to test the relationship between one or more predictors (control variables) and one criterion (dependent variable). In this data analysis technique, the least square method used to estimate regression coefficients (β_k , where $k= 1, 2\dots n$) which are unrelated contribution for each control variable in predicting dependent variable (Brown, 2009).

The following model is as follow:

Table 3.4 Multiple Linear Regression Equation

$\text{AUDFEE} = \beta_0 + \beta_1 (\text{AUDITEE}) + \beta_2 (\text{AUDITOR}) + \beta_3 (\text{COMPLEXITY}) + \beta_4 (\text{RISK}) + \beta_5 (\text{INDUSTRY}) + \varepsilon$	
<p><u>Where:</u></p>	
AUDFEE	= External Audit Fees
AUDITEE	= Auditee Size
AUDITOR	= Auditor Size
COMPLEXITY	= Client Complexity
RISK	= Client Risk
INDUSTRY	= Auditor Industry Specialization
ε	= Error term

Source: Developed for the research

3.6 Conclusion

Overall this chapter is about the methodology for the study, it provides insight on how to collect data and the decision rule to analysis the data generated in the following chapter.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

In this chapter, Statistical Analysis Software (SAS) has been used to generate the results for descriptive analysis and inferential analysis of this research. The analyses are mainly used to determine the characteristic of each variables and the relationship among them.

4.1 Descriptive Analysis

4.1.1 Characteristics of Independent Variable

4.1.1.1 IFRS Convergence

Table 4.1: IFRS Convergence

IFRS	AVERAGE AUDIT FEE (RM)	AVERAGE AUDIT FEE (Natural Log)
0 (2011)	477,878.31	12.3587
1 (2013)	671,610.05	12.6086
Difference (RM)	193,731.74	+0.2499
Difference (%)	40.54%	2.02%

Source: Developed for the research

Table 4.1 depicts the average audit fee of public listed companies from trading and services sector in 2011 and 2013. Based on the Table 4.1, average audit fees collected in terms of RM and natural logarithm have been increased by RM193,731.74 and 0.2499 respectively. The results also illustrated that there is an increase on average audit fees in RM and natural logarithm of 40.54% and 2.02% respectively between pre-IFRS convergence (dummy variable coded as 0) and post-IFRS Convergence (dummy variable coded as 1).

4.1.2 Characteristics of Control Variable

4.1.2.1 Auditor Size (AUDITOR)

Table 4.2: Auditor Size

AUDITOR	2011		2013	
	Frequency	Percentage (%)	Frequency	Percentage (%)
0	70	44.87	73	46.79
1	86	55.13	83	53.21

Source: Developed for the research

In the above Table 4.2, dummy variables coded 1 represents Big Four auditors and coded 0 if not. The numbers of target respondents that are audited by non-Big Four auditors in year 2011 is 70 or 44.87%, then rose to 73 out of 156 companies or 46.79% in year 2013. In contrast, trading and services companies that audited by Big Four auditors has been reduced from 86 or 55.13% in 2011 to 83 or 53.21% out of 156 companies in 2013. However, the amount of companies being audited by Big Four auditors is greater than those audited by non-Big Four auditors in both years.

4.1.2.2 Auditor Industry Specialization (INDUSTRY)Table 4.3: Auditor Industry Specialization

	2011		2013	
INDUSTRY	Frequency	Percentage (%)	Frequency	Percentage (%)
0	95	60.90	86	55.13
1	61	39.10	70	44.87

Source: Developed for the research

In order to determine the auditors' industry specialization, dummy variables coded 0 indicate auditors which lower than 10% specialization threshold and coded 1 indicates auditors who specialized in trading and services industry. Based on the Table 4.3, 95 out of 156 or 60.90% of auditors are found to be not specialized in this particular industry in 2011 whilst this has been reduced to 86 or 55.13% in 2013. In contrast, the number of specialized auditors has been increased from 61 or 39.10% in year 2011 to 70 or 44.87% in 2013. In other words, auditors' who specialized in trading and services industry has been increased in 2013 as compared to 2011. The specialized auditors are derived from Big-Four whereby Ernst & Young (EY) and PwC dominate the market share in 2011 while EY, PwC and KPMG dominate the market share in 2013.

4.1.3 Central Tendencies Measurement of Constructs

Table 4.4: Central Tendencies Measurement of Constructs for 2011

<i>N=156</i>				
Variable	Mean	Std. Deviation	Minimum	Maximum
<i>Dependent Variable</i>				
AUD_FEE	12.3586821	1.0421780	10.1697000	15.6073000
<i>Control Variables</i>				
AUDITEE	19.6322654	1.7336301	15.5971000	24.4576000
AUDITOR	0.5512821	0.4989650	0	1.0000000
COMPLEXITY	0.2326423	0.1920712	0.0068000	0.8579000
RISK	0.1309288	0.1349258	0	0.5941000
INDUSTRY	0.3910256	0.4895517	0	1.0000000

Source: Developed for the research

Table 4.5: Central Tendencies Measurement of Constructs for 2013

<i>N=156</i>				
Variable	Mean	Std. Deviation	Minimum	Maximum
<i>Dependent Variables</i>				
AUD_FEE	12.6085583	1.1191778	10.4458000	15.9318000
<i>Control Variables</i>				
AUDITEE	19.5939115	1.8768090	15.0524000	24.5694000
AUDITOR	0.5320513	0.5005787	0	1.0000000
COMPLEXITY	0.2246545	0.1911951	0	0.9041000
RISK	0.1313269	0.1393921	0	0.6586000
INDUSTRY	0.4487179	0.4989650	0	1.0000000

Source: Developed for the research

Table 4.4 and 4.5 reports the central tendency measurement of constructs for the dependent variable and control variables in this research for year 2011 and 2013 with a total number of 156 companies. The mean and standard deviation of AUD_FEE in 2011 reported 12.3586821 and 1.0421780 respectively have been increased to 12.6085583 and 1.1191778 in 2013. Meanwhile, the maximum and minimum values for AUD_FEE in 2011 are 15.6073000 and 10.1697000 have been increased to 15.9318000 and 10.4458000 in 2013.

In relation to AUDITEE, the mean in 2011 is 19.6322654 with a standard deviation of 1.7336301. It also reports that the maximum and minimum value for AUDITEE is 24.4576 and 15.5971 respectively. However, the mean value decreases to 19.5939115 whereas the standard deviation increases to 1.8768090. While the minimum value decreases to 15.0524, the maximum value increases to 24.5694.

Based on the above tables, the mean and standard deviation for AUDITOR in 2011 is 0.5512821 and 0.4989650 respectively. Nevertheless, the mean for AUDITOR has been decreased to 0.5320513 while the standard deviation has been increased to 0.5005787. Likewise, the maximum and minimum value for both 2011 and 2013 are 1 and 0.

In regards to COMPLEXITY, the mean and standard deviation have been decreased from 0.2326423 and 0.1920712 in 2011 to 0.2246545 and 0.1911951 in 2013. Similarly, the maximum value reported in the table has been increased from 0.8579000 to 0.9041000 and minimum value has been decreased from 0.0068000 in 2011 to 0 in 2013.

The mean and standard deviation for RISK have been increases from 0.1309288 and 0.1349258 to 0.1313269 and 0.1393921 in 2013 as compared to 2011. The minimum value for both 2011 and 2013 remain constant as 0 while the maximum value in 2011 has increased from 0.5941000 to 0.6586000 in 2013.

While the minimum and maximum values remain constant for both years with 0 and 1 for INDUSTRY, the average mean value increases to 0.4487179 for year 2013 compared to 0.3910256 of year 2011. The standard deviation also increases to 0.4989650 from year 2011's 0.4895517.

4.2 Scale Measurement

4.2.1 Reliability Test

This research is mainly based on secondary data as the data required were collected from year 2011 and 2013 published annual reports which are accessible from Bursa Malaysia. According to Akhtaruddin, Hossain, Hossain, and Lee (2009), several actions are undertaken by the Malaysian government in enhancing the standards of reporting and disclosure of annual reports with Bursa Malaysia also require public listed companies to fulfill the listing rules. Besides, Che-Ahmad and Abidin (2008) stated that financial statement error would be lower for big companies as they would usually have dependable internal control. Thus, reliability test does not apply in this research.

4.2.2 Normality Test

According to Harris's study (as cited in Nicholson and Bennett, 2008), information obtained from secondary data is clearly identified and they can withstand precise study. Che-Ahmad et al. (2008) stated that data's accuracy will be reduced if the financial disclosures are inaccurate or not disclose with substantial penalties imposed. Since the data used in this research is secondary data and collected from Bursa Malaysia, normality test does not apply.

4.3 Inferential Analysis

4.3.1 Independent Sample T-test

Table 4.6: Measurement in each group

IFRS	N	Mean	Standard Deviation	Standard Error	Minimum	Maximum
0	156	12.3587	1.0422	0.0834	10.1697	15.6073
1	156	12.6086	1.1192	0.0896	10.4458	15.9318
Diff(1-2)		-0.2499	1.0814	0.1224		

Source: Developed for the research

Table 4.6 illustrated the measurement in each group, which is pre-IFRS convergence and post-IFRS convergence. Based on the Table 4.6, the mean audit fees charged during pre-IFRS convergence is 12.3587 with a standard deviation of 1.0422. The minimum and maximum for pre-IFRS convergence is 10.1697 and 15.6073 respectively. In addition, the mean and standard deviation audit fees charged during post-IFRS convergence are 12.6086 and 1.1192 respectively. The minimum and maximum values are 10.4458 and 15.9318 respectively. Hence, the difference in mean and standard deviation on the audit fees charged are -0.2499 and 1.0814 respectively.

Table 4.7: Equality of Variances

Equality of Variances				
Method	Num DF	Den DF	F value	Sig.
Folded F	155	155	1.15	0.3758

Source: Developed for the research

Table 4.7 describes the equality of variances between pre and post-IFRS convergence. As indicated in the table, under the Levene's Test, the p-

value of 0.3758 (which is greater than 0.05) has concluded that the homogeneity of variances is met. Hence, the variances are equal.

Table 4.8: Model Summary

Method	Variances	DF	t Value	Sig.
Pooled	Equal	310	-2.04	0.0421
Satterthwaite	Unequal	308.44	-2.04	0.0421

Source: Developed for the research

Based on the t-test for equality means under Table 4.8 above, the p-value for the test is 0.0421, which is less than the statistical significance at $\alpha=0.05$. Therefore, the null hypothesis (H_0) has been rejected and the results demonstrate that there is a significant difference on audit fees between pre and post-IFRS convergence.

Table 4.9: Confidence Interval for Mean and Standard Deviation

IFRS	Method	95% CL Mean		95% CL Std. Deviation	
0		12.1939	12.5235	0.9379	1.1727
1		12.4316	12.7856	1.0072	1.2593
Diff (1-2)	Pooled	-0.4908	-0.00896	1.0025	1.1738
Diff (1-2)	Satterthwaite	-0.4908	-0.00895		

Source: Developed for the research

According to the homogeneity of variances result under Table 4.7, pooled method will be used. Based on the Table 4.9 above, the 95% confidence interval for mean and standard deviation differences are [-4.908, -0.00896] and [1.1738, 1.0025] respectively. Since the values does not contain zero, the results have concluded that there is a difference in mean and standard deviation between pre and post-IFRS convergence.

4.3.2 Pearson Correlation Analysis

Table 4.10: Correlations between variables for year 2011

	AUD_FEE	AUDITEE	AUDITOR	COMPLEXITY	RISK	INDUSTRY
AUD_FEE	1.00000					
AUDITEE	0.79860*	1.00000				
	< 0.0001					
AUDITOR	0.33904*	0.38257*	1.00000			
	< 0.0001	< 0.0001				
COMPLEXITY	-0.16508*	-0.04077*	-0.24934*	1.00000		
	0.0395	0.6133	0.0017			
RISK	0.36024*	0.35615*	0.14264*	-0.40210*	1.00000	
	< 0.0001	< 0.0001	0.0757	<0.0001		
INDUSTRY	0.41594*	0.39866*	0.72294*	-0.24248*	0.26272*	1.00000
	< 0.0001	< 0.0001	< 0.0001	0.0023	0.0009	

* Correlation is significant at the 5% level (2-tailed).

Source: Developed for the research

Table 4.11: Correlations between variables for year 2013

	AUD_FEE	AUDITEE	AUDITOR	COMPLEXITY	RISK	INDUSTRY
AUD_FEE	1.00000					
AUDITEE	0.79448*	1.00000				
	<0.0001					
AUDITOR	0.43123*	0.40967*	1.00000			
	< 0.0001	<0.0001				
COMPLEXITY	-0.22092*	-0.02912*	-0.24083*	1.00000		
	0.0056	0.7182	0.0025			
RISK	0.51897*	0.46919*	0.21662*	-0.33741*	1.00000	
	<0.0001	<0.0001	0.0066	<0.0001		
INDUSTRY	0.48772*	0.40461*	0.84610*	-0.23875*	0.27695*	1.00000
	<0.0001	<0.0001	<0.0001	0.0027	0.0005	

* Correlation is significant at 5% significance level (2-tailed).

Source: Developed for the research

Table 4.10 and Table 4.11 illustrates the strength of association between dependent variable (audit fee) and control variables (auditee size, auditor size, client complexity, client risk and auditor industry specialization) for year 2011 and year 2013, before and after IFRS Convergence. All of the five control variables are methodically reported to be significant when p-value is less than 0.05. According to the results above, the relationship between audit fees and five control variables are statistically significant. Figures in Table 4.10 and Table 4.11 do not depict any potential multicollinearity problem as the values of correlation between audit fees and all other respective control variables are less than 0.9 (Hair et al., 2006), where positive correlation ranging from 0.14264 to 0.79860 in year 2011 and from 0.21662 to 0.84610 in year 2013 while negative correlation ranging from -0.04077 to -0.40210 in year 2011 and from -0.02912 to -0.33741 in year 2013, hence satisfying the assumption of Multiple Linear Regression and allowing standard analysis of regression coefficients. The fulfillment of assumption is as well strengthened by the results in Multiple Linear Regression test.

In association between dependent variables (audit fee) and control variables before IFRS Convergence, the strongest correlation exists between auditee size and audit fee ($r = 0.79860$, $p < 0.0001$), followed by the moderate association between auditor industry specialization and audit fee ($r = 0.41594$, $p < 0.0001$) as well as client risk and audit fee ($r = 0.36024$, $p < 0.0001$). Weak correlation points to auditor size with audit fee ($r = 0.33904$, $p < 0.0001$) and there is no correlation between client complexity and audit fee ($r = -0.16508$, $p = 0.0395$).

As shown in Table 4.11 after IFRS Convergence, the correlation between auditee size and audit fee still appears to be the strongest with magnitude of 79.448% at p-value less than 0.0001. Relationship between client risk

and audit fee upsurges to the second place ($r = 0.51897$, $p < 0.0001$) at moderate level, followed by association between auditor industry specialization and audit fee ($r = 0.48772$, $p < 0.0001$) in addition to auditor size and audit fee ($r = 0.43123$, $p < 0.0001$). Correlation of audit complexity with audit fee improves from no relationship to weak magnitude ($r = -0.22092$, $p = 0.0056$).

Undeniably, IFRS Convergence has the largest impact on the association between audit fee and client risk with upsurge of 15.873%, after IFRS Convergence. Subsequently, the degree of correlation between auditor size and audit fee has a growth of 9.219%, from 33.904% weak magnitude to 43.123% moderate correlation after IFRS Convergence. Followed up is the relationship involving auditor industry specialization and audit fee with the surge of 7.178% compared to the correlation value of 0.41594 in year 2011. There is also an increase of 5.584% of negative correlation on the relationship between client complexity and audit fee. Instead of having improvements on the magnitude of correlation, IFRS Convergence has led to a decline of 0.412% of correlation between auditee size and audit fee.

4.3.3 Multiple Linear Regression Analysis

Table 4.12: Model Summary for 2011 and 2013

Model Summary^b

	2011	2013
Root MSE	0.61306	0.62124
Dependent Mean	12.35868	12.60856
Coefficient Variance	4.96055	4.92714
R-Square	0.6651	0.7018
Adjusted R-Square	0.6540	0.6919

a. Predictors: (Constant), AUDITEE, AUDITOR, COMPLEXITY, RISK, INDUSTRY

b. Dependent Variable: Audit Fees

Source: Developed for the research

Table 4.12 depicts that the coefficient of determination (R^2) for Multiple Linear Regression Model in 2011 is 0.6651, indicating that 66.51% of the variation in audit fees can be justified by auditee size, auditor size, client complexity, client risk and auditor industry specialization. The remaining 33.49% was explained by other variables that are not accountable in this research. In addition, the adjusted R^2 of 0.6540 has anticipated a minimal shrinkage in R^2 after taking into the consideration of all predictors variables in the model.

However, the further findings in Table 4.12 shows that R^2 in 2013 has increased to 0.7018, demonstrating that 70.18% of the variability in audit fees can be explained more by control variables whereas the balance of 29.82% will be justified by other variables. In addition, the adjusted R^2 has improvised to 0.6919, indicating that 69.19% of variability in audit fees can be explained by control variables after taking into account of all predictor variables. Hence, the results in 2013 have improved compared to 2011.

Table 4.13 Analysis of Variance for 2011

ANOVA^b

Source	DF	Sum of Squares	Mean Square	F Value	Sig.
Model	5	111.97476	22.39495	59.59	<.0001
Error	150	56.37616	0.37584		
Corrected Total	155	168.35092			

a. Predictors: (Constant), AUDITEE, AUDITOR, COMPLEXITY, RISK, INDUSTRY

b. Dependent Variable: Audit Fees

Source: Developed for the research

Table 4.14 Analysis of Variance for 2013

ANOVA^b

Source	DF	Sum of Squares	Mean Square	F Value	Sig.
Model	5	136.25552	27.25110	70.61	<.0001
Error	150	57.89111	0.38594		
Corrected Total	155	194.14662			

a. Predictors: (Constant), AUDITEE, AUDITOR, COMPLEXITY, RISK, INDUSTRY

b. Dependent Variable: Audit Fees

Source: Developed for the research

Table 4.13 and 4.14 demonstrate the analysis of variance for both year 2011 and 2013. Analysis of Variance will be performed in order to provide information about fitness model within a regression model. Based on the Table 4.13, it revealed that F critical value is 2.21 is obtained from F Distributions and Significance Tables, when F (5, 150) at $\alpha = 0.05$ [v_1 (degree of freedom in the numerator) is 5; v_2 (degree of freedom in denominator) is 150; α (significance level)]. Since the F test statistical value ($F = 59.59$) is greater than the F critical value of 2.21 ($F_{0.05} = 2.21$), it is ascertained that the model is fit. In addition, p-value of 0.0000 (less than 0.05) is proven to be statistically significant and model is fit.

However, the Analysis of Variance for 2013 in Table 4.14 has shown an increase in the F statistical value to 70.61. With the aid of F Distributions and Significance Tables, the F critical value of 2.21 is identified when F (5, 150) at $\alpha = 0.05$. Since the F statistical value of 70.61 is greater than critical value of 2.21, it implies that the multiple linear regression models are fit. In addition, the p-value of <0.0001 is less than $\alpha = 0.05$, ANOVA result concluded that it is statically significant. Therefore, significant

relationship between the explanatory variables and dependent variable (audit fees) will be conducted in this study.

Table 4.15: Parameter Estimates for year 2011

Parameter Estimates^a

Variable	Unstandardized coefficient		Standardized Coefficients β	t-Value	Sig.	Collinearity Statistics	
	β	St. Error				Tolerance	VIF
Constant	3.44414	0.61402	0	5.61	<.0001	-	0
AUDITEE	0.45963	0.03362	0.76458	13.67	<.0001	0.71381	1.40092
AUDITOR	-0.18140	0.14805	-0.08685	-1.23	0.2224	0.44434	2.25055
COMPLEXITY	-0.62031	0.29349	-0.11432	-2.11	0.0362	0.76306	1.31051
RISK	0.13227	0.43717	0.01712	0.30	0.7626	0.69692	1.43488
INDUSTRY	0.30164	0.15097	0.14169	2.00	0.0475	0.44391	2.25272

a. Dependent Variable: Audit Fees

Source: Developed for the research

Table 4.16: Parameter Estimates for year 2013

Parameter Estimates^a

Variable	Unstandardized coefficient		Standardized Coefficients β	t-Value	Sig.	Collinearity Statistics	
	β	St. Error				Tolerance	VIF
Constant	4.52900	0.59723	0	7.58	<.0001	-	0
AUDITEE	0.40972	0.03325	0.68707	12.32	<.0001	0.63927	1.56429
AUDITOR	-0.24342	0.19143	-0.10887	-1.27	0.2055	0.27116	3.68789
COMPLEXITY	-0.77935	0.29059	-0.13314	-2.68	0.0081	0.80662	1.23975
RISK	0.87372	0.44016	0.10882	1.98	0.0490	0.66144	1.51186
INDUSTRY	0.53814	0.19102	0.23992	2.82	0.0055	0.27409	3.64842

a. Dependent Variable: Audit Fees

Source: Developed for the research

4.3.3.1 Unstandardized Coefficients

Unstandardized coefficients were used to identify the effect of CVs towards the DV by developing the regression equation. The regression equation for the year 2011 has been generated from the Table 4.15 as follow:

$$Y_{2011} = 3.44414 + 0.45963 (\text{AUDITEE}) - 0.18140 (\text{AUDITOR}) - 0.62031 (\text{COMPLEXITY}) + 0.13227 (\text{RISK}) + 0.30164 (\text{INDUSTRY})$$

The linear equation above proven that AUD_FEE has a positive and significant relationship with AUDITEE and INDUSTRY whereby the p-values are reported at $p < 0.0001$ and $p = 0.0475$ respectively. However, the relationship between AUD_FEE and RISK shows positive but insignificant at $p = 0.7626$. Based on Table 4.15, the association between AUD_FEE and COMPLEXITY has reported a negative and significant at $p = 0.0362$ but insignificant for AUDITOR at $p = 0.2224$.

The equation shows that AUD_FEE is estimated to be 3.44414 in the absence of predictor variables. Based on Table 4.15, AUDITEE reported the largest positive beta weight ($\beta = 0.45963$) which demonstrates the largest contribution to the multiple linear regression equation as compared to other explanatory variables, *ceteris paribus*. In other words, AUD_FEE is presumed to be increased by 0.45963 when AUDITEE is increased by 1 unit individually. This will be followed by INDUSTRY ($\beta = 0.30164$), RISK ($\beta = 0.13227$), AUDITOR ($\beta = -0.18140$) and COMPLEXITY ($\beta = -0.62031$) respectively.

Based on the Table 4.16, the regression equation after IFRS convergence in 2013 is as follow:

$$Y_{2013} = 4.52900 + 0.40972 (\text{AUDITEE}) - 0.24342 (\text{AUDITOR}) - 0.77935 (\text{COMPLEXITY}) + 0.87372 (\text{RISK}) + 0.53814 (\text{INDUSTRY})$$

Table 4.16 reports the AUD_FEE has significant relationship with the above variables. The p-values for AUDITEE has remain unchanged after IFRS Convergence, which is statistically positive and significant at $p < 0.0001$. Meanwhile, The p-values for COMPLEXITY ($p = 0.0081$), RISK ($p = 0.0490$) and INDUSTRY ($p = 0.0055$) has improvised and move towards significance levels of less than 0.05 after post-IFRS Convergence. However, the p-value for AUDITOR ($p = 0.2055$) has remain insignificant even there is an increase in the audit fees.

In the absence of factors, the equation has proven that AUD_FEE is estimated to be $\beta = 4.52900$. Based on Table 4.16, RISK has reported the greatest contribution of positive beta weight to regression equation in 2013 ($\beta = 0.87372$), followed by INDUSTRY ($\beta = 0.53814$), AUDITEE ($\beta = 0.40972$), AUDITOR ($\beta = -0.24342$) and COMPLEXITY ($\beta = -0.77935$). In other words, AUD_FEE is presumed to be increased by 0.87372, 0.53814 and 0.40972 when RISK, INDUSTRY and AUDITEE are increased by 1 unit individually. However, AUD_FEE is predicted to be decreased by 0.24342 and 0.77935 when AUDITOR and COMPLEXITY increase by 1 unit individually.

4.3.3.2 Standardized Coefficients

In order to determine the contribution of every variable towards the conceptual model, standardized coefficients was analyzed in this research. A significant change on dependent variable is resulted from the high beta value of control variable.

The results in Table 4.15 show that the standardized beta coefficients of all five control variables in 2011 are less than 1. The control variables that has the highest beta value is AUDITEE (0.76458), followed by INDUSTRY (0.14169), RISK (0.01712), AUDITOR (-0.08685) and COMPLEXITY (-0.11432). However, the result generated in 2013 demonstrated that AUDITEE remain as the highest beta coefficients (0.68707), followed by INDUSTRY (0.23992), RISK (0.10882), AUDITOR (-0.10887) and COMPLEXITY (-0.13314) which are shown in Table 4.16.

4.3.3.3 Multicollinearity

In correspondence to this research, the results are expected to have a large correlation between AUDITEE, AUDITOR, COMPLEXITY, RISK and INDUSTRY. However, it does not demonstrate multicollinearity would be a serious problem (Ahmed et al., 2005; Naser, 2007). Hence, Variance Inflation Factor (VIF) and tolerance were calculated in the regression model. As reported in Table 4.15 and 4.16, highest VIF and lowest tolerance value in 2011 are calculated at 2.25272 and 0.44391 for INDUSTRY respectively; while 3.68789 and 0.27116 for AUDITOR are computed in 2013. Since these values are within the conservative benchmark of $VIF < 10.00$ (Hassan et al., 2013) and tolerance > 0.10 (O'Brien, 2007), no multicollinearity problem are held in the regression estimation.

4.4 Conclusion

From the analyses above, it is seen that three out of the five perceived control variables which are AUDITEE, RISK and INDUSTRY have positive relationship with audit fees in 2011 and 2013. However, based on the regression analysis, AUDITOR and RISK shows no relationship with AUD_FEE; hence it has been rejected. With the results, this will be discussed in the next chapter.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

Beginning with the summary of statistical analysis in the previous chapter, this chapter continues with the discussion on major findings, implications and limitations of this study with a recommendation for future research purpose. In the end, a brief overall discussion of this study will be concluded.

5.1 Summary of Statistical Analysis

5.1.1 Descriptive Test

156 public listed companies in trading and services sector are selected as the research sample for year 2011 and 2013. Based on Table 4.1 and 4.2, the independent and dependent variable both increased in terms of descriptive analysis with the average audit fees after IFRS Convergence by 40.54% and 2.02% respectively in both RM and natural logarithm.

As for the control variables, RISK and INDUSTRY have increase in the mean value with a difference of 0.0003981 and 0.0576923 respectively while the AUDITEE, AUDITOR and COMPLEXITY have decrease in the mean value. As for the standard deviations, AUDITEE, AUDITOR, RISK and INDUSTRY have increase while COMPLEXITY faces a reduction of 0.0008761.

In year 2013, the minimum value of AUDITEE has decrease to 15.0524 whereas the other control variables have a minimum value of 0 with AUDITOR, RISK and INDUSTRY remain constant as per year 2011 while COMPLEXITY decreases from 0.0068 to 0. The maximum value of AUDITOR and INDUSTRY remains constant at 1 for both years with the value of AUDITEE, COMPLEXITY and RISK increase in year 2013.

5.1.2 Inferential Analysis

5.1.2.1 Independent Sample T-test

Based on the test for equality of variances, the results concluded that the variances are equal with p-value of 0.3758 for pre and post-IFRS Convergence. According to Table 4.8, audit fees after IFRS Convergence have a difference compared to before IFRS convergence as the p-value recorded 0.0421 at 5% significance level. Based on Table 4.6 and 4.9, there is a difference for the mean and standard deviation values for both years with a -0.2499 and 1.0814 differences in the audit fees mean and standard deviation.

5.1.2.2 Pearson Correlation Analysis

The analysis shows the relationship strength of dependent variable and control variables pre and post-IFRS convergence. For pre and post-IFRS Convergence, AUDITEE and AUD_FEE have the strongest correlation with $r = 0.79860$ and 0.79448 respectively. However, the relationship between COMPLEXITY and AUD_FEE is the weakest for both years with $r = -0.16508$ and -0.22092 for pre and post-IFRS Convergence. In year 2011 and 2013, the relationship between AUD_FEE and INDUSTRY as well as RISK is moderate whereas AUDITOR shows weak association

with AUD_FEE in 2011 and moderate correlation in 2013. Based on the assumptions from the test attained, no multicollinearity problem exists in this research.

5.1.2.3 Multiple Regression Analysis

According to the analyzed findings, the recorded R^2 for year 2011 and 2013 are 0.6651 and 0.7018 respectively. Based on the results, audit fees could be justified by the control variables and the percentage increases after IFRS Convergence. With the F value for both years (2011: 59.59; 2013: 70.61) greater than the F critical value of 2.21, it is known that the models are fit.

The equation generated for year 2011 is $Y_{2011} = 3.44414 + 0.45963$ (AUDITEE) $- 0.18140$ (AUDITOR) -0.62031 (COMPLEXITY) $+ 0.13227$ (RISK) $+0.30164$ (INDUSTRY) and $Y_{2013} = 4.52900 + 0.40972$ (AUDITEE) -0.24342 (AUDITOR) -0.77935 (COMPLEXITY) $+ 0.87372$ (RISK) $+0.53814$ (INDUSTRY) for year 2013. Both years have shown AUDITEE, COMPLEXITY and INDUSTRY have significant relationship with AUD_FEE with less than 0.05 significance level except AUDITOR and RISK in 2011; AUDITOR in 2013. Hence, it is concluded that audit fees will decrease (2011: 0.18140; 2013: 0.24342) if AUDITOR increases by one unit individually. According to the standardized beta coefficients of all control variables, AUDITEE (2011: 0.76458; 2013: 0.68707) has the highest contribution towards the conceptual model for both years.

5.2 Discussions of Major Findings

Table 5.1: Summary Results of Hypothesis Testing – Independent Samples T-Test

Hypotheses	Significance level	Statistics Result
H1 There is a significant difference on audit fees between pre and post-IFRS Convergence.	0.0421	Do not Reject

Source: Developed for the research

Table 5.2: Summary Results of Hypothesis Testing – Multiple Linear Regression

Hypotheses	2011		2013	
	Significance Level	Statistics Results	Significance Level	Statistics Results
H2 There is a positive relationship between auditee size and audit fees.	<.0001	Do not Reject	<.0001	Do not Reject
H3 There is a positive relationship between auditor size and audit fees.	0.2224	Reject	0.2055	Reject
H4 There is a positive relationship between client complexity and audit fees.	0.0362	Do not Reject	0.0081	Do not Reject
H5 There is a positive relationship between client risk and audit fees.	0.7626	Reject	0.0490	Do not Reject

	There is a positive			
H6	relationship between	0.0475	Do not	0.0055
	auditor industry		Reject	Do not
	specialization and audit			Reject
	fees.			

Source: Developed for the research

5.2.1 Difference on audit fees between pre and post-IFRS Convergence

Based on the analyzed findings, the findings have supported and provide evidence that there is a significant difference on audit fees between pre and post-IFRS convergence at p-value of 0.0421. The results is similar with Griffin et al. (2009) indicating that audit fees has significantly increased after transition to New Zealand IFRS due to high demand of disclosure and detailed corporate reporting requirements. The underlying myths of the increased of audit fees after IFRS Convergence are due to the additional expenses incurred, which include training costs (Joshi et al., 2008), overtime expenditure incurred to perform additional audit working papers (Yaacob et al., 2012) and internal control and accounting information system assessment expenses (Stovall, 2010).

In addition, the findings of current studies have supported and provide anecdotal evidence made by Cameran et al. (2013) and Yaacob et al. (2012) whereby more audit effort is undertaken when revised standards are being introduced after convergence of IAS/IFRS which reflected by increase in audit fees. This is to ensure that the quality of financial reporting towards IFRS standards are maintained. Although the results are qualitatively unchanged, the pricing of audit fees after IFRS Convergence will keep increasing in the future because IFRS standards are relatively complex in nature (Kim et al., 2012).

5.2.2 Relationship between auditee size and audit fees

Based on the analyzed findings, the findings support the hypothesis and provide evidence that there is a positive relationship between auditee size and audit fees at p-value of less than 0.0001 in both 2011 and 2013 years. This result is similar with Hassan et al. (2013) and Naser et al. (2007) who reported that auditee size constitute to increase in audit fees due to auditors are greatly exposed to complex audit transaction and more detailed disclosures are needed in large sized companies. In addition, the finding is on par with prior literatures conducted by Gonthier-Besacier et al. (2007) and Yaacob et al. (2012), indicating there is a positive association between auditee size and audit pricing because large scale companies possess greater numbers of transactions which requires auditors to inspect for longer audit hours, hence more substantive testing samples are required. However, George et al. (2013) results were contradicted with the results of this study whereby small firms would experience the greatest increase in audit fees on material effect of IFRS adjustments by approximately 36 per cent as compared to large firms.

5.2.3 Relationship between auditor size and audit fees

Based on the analyzed findings, the results of the current studies indicates that there is no relationship between auditors size and audit fees in both years, pre and post-IFRS convergence. This is in line with prior studies conducted by Al-Harshani (2008). The author mentioned that auditor size is not statistically significant in determining the external audit fees paid due to different market scale for audit services especially in developing countries (Malaysia) compared to developed countries. However, the results contradict with Hallak et al. (2012) who found positive relationship between auditor size and audit fees because client would expense more on auditing cost when they appoint Big Four rather than non-Big Four. In

addition, Yaacob et al. (2012) has supported the counter-argument made by Hallak et al. (2012) indicates that Big Four auditors would charge higher premium audit fees compared to non-Big Four auditors due to the brand reputation and enhance quality of financial statements (Naser et al., 2007). Although there is a transition to IFRS standard, further studies made by Yaacob (2013) still proven positive relationship between auditor size and audit pricing. Hence, the effect towards selection of Big Four auditors on audit pricing after IFRS Convergence still does not improve in 2013.

Most contradiction and inconsistency studies have proven that there is positive relationship between auditor size and audit fees are due to wide magnitude of sample selection made such as 4,403 observation (Caneghem, 2010) and merely focus on trading and service sector such as banking sector in Italian market (Cameran et al., 2013).

5.2.4 Relationship between client complexity and audit fees

Based on the analyzed findings, the findings does not support the hypothesis above in both years 2011 and 2013. This is in line with the prior studies conducted by Al-Harshani (2008) whereby there is no association between client complexity and audit fees. In addition, the findings is similar with Karim et al. (2012) who found insignificant relationship and also stated there is no support because the authors believed that auditing receivables does not require much audit effort compared to auditing fixed assets that require revaluation and impairment test under MFRS 116. The transformation client complexity to IFRS/MFRS does not contribute to audit fees because audit staff has been well trained with sufficient background knowledge in dealing complex transaction. Hence, auditors may not spend more time in dealing those complex transaction and lower audit fees have been imposed.

However, the result contradicts with Gonthier-Besacier et al. (2007) and Goncharov, Riedl, and Sellhorn (2014) whereby it shows positive relationship between client complexity and audit fees because the evaluation of receivables and inventories categories are highly complex and require more inspection such as physical observation on current assets. Hence, those additional audit works made would likely impose greater audit fees. Nevertheless, the finding also contradicts with Vieru et al. (2010) indicate that client complexity constitute to increase in audit fees because derivation of total receivables and inventories require different level judgments and time consuming in developing the figures and materiality level; hence more audit effort is required and higher audit fees have been imposed.

5.2.5 Relationship between client risk and audit fees

Based on the analyzed results, the results indicate that client risk does constitute to increase in audit fees and shown positive relationship in 2011 and 2013. The result is on par with prior studies conducted by El-Gammal (2012) and Naser et al. (2007) who found positive association between client risk and audit fees because high leverage would lead to possibility of bankruptcy, hence higher possibility of potential litigation arise from external parties; more audit work would be performed in order to mitigate the potential litigation and indirectly the audit fees increase.

In addition, this findings are similar with Yaacob et al. (2012) and support the hypothesis whereby it shows the auditors are concerning on risk assessment when there is an imposition of audit fees. This is because the auditors are required to be alert about the litigation risk existence when there is a case of issuance incorrect audit report (Mellett, Peel, & Karbhari, 2007). Hence, more audit work is undertaken to mitigate the risk and expected to charge premium fees to client.

5.2.6 Relationship between auditor industry specialization and audit fees

Based on the analyzed findings, the results support the hypothesis and provide evidence that there is a positive association between auditor industry specialization and audit fees at p-value of 0.0475 and 0.0055 in 2011 and 2013 respectively. The results are on par with prior empirical studies conducted by Wang et al. (2009) indicating Big Four industry specialized accounting firm would earn premium on audit fees due to differential service quality provided to the client such as industry expertise compared to non-Big Four. In addition, the results are similar with Dutilleux et al. (2009) and Yu et al. (2012) concluded that those Big Four accounting firm specialists promote their expertise in that particular industry field to differentiate their product with the competitors (non-Big Four); hence, specialist auditors would charge higher audit fees compared to non-Big Four.

5.3 Implications of the Study

This empirical study contributes managerially and theoretically to the management parties in trading and services companies in Malaysia, practitioners in audit firms, regulatory bodies as well as theoretical implications.

5.3.1 Managerial Implications

By having deeper knowledge on how IFRS Convergence affect audit fees, companies are able to attain better vision on what they are charged for the increased audit fees and whether if the audit fees are within the acceptable range. Hence, the public listed companies in trading and services industry are able to weigh up the costs and benefits in order to select audit firms

which maximize the company's interests. Besides, the findings show that IFRS Convergence leads to higher client risk, lower client complexity and auditee size. This study acts as a stepping stone for the management teams to evaluate the condition of their companies after IFRS Convergence and set prudent budgets for their audit fees.

This study allows the auditors and managements in trading and services companies to have a clearer picture on the audit fees before and after IFRS Convergence and better insights on the elements that have significantly affect the audit pricing after IFRS Convergence. One of which is that, with the emergence of new accounting treatments and modifications of the existing treatments after IFRS Convergence, auditors have to bear an extra burden with more authentication of audit papers, trainings for audit staff and to resolve doubts faced by client companies to ensure true and fair view of financial statements. By that, auditors are able to set their audit pricing according to the increased audit efforts.

On top of that, this research provides a platform for the practitioners in Malaysia audit firms to lay foundation on audit pricing policies which conducive to making wise decision on audit pricing. Not only practitioners in audit firms, this research is also beneficial to the regulatory bodies in Malaysia. AASB may use this study as a benchmark to standardize the audit pricing charged by the audit firms after IFRS Convergence, according to the clients' features such as client size, risk, complexity. This paper may also contribute to the AASB's establishment of rules and regulations on the reasonable range of audit fees, corresponding to the provision of professional auditing and assurance services in Malaysia. Variation in audit pricing is a principal aspect to competition among the audit firms whereby audit fees are altered to draw interests of more new customers. With the policies regarding audit pricing, the intense competition among audit firms is able to be resolved.

5.3.2 Theoretical Implications

The improved model in this study provides further implications for the researchers, with integration of new control variables specifically auditor industry specialization. Findings in this research paper indicate that auditor industry specialization is significantly associated with audit fees. It adds value to the literature of the impact of audit pricing after IFRS Convergence and may be used as academic reference in further studies. Recommendations in this study might as well contribute to the researchers in their studies to prevent the shortcomings confronted in this research and come out with better and more precise results in the future.

5.4 Limitations of the Study

There are few limitations have been discovered from this research. One of the limitations in this study is statistical analysis consists of small sample size. Based on the sampling size, 156 companies listed in Bursa Malaysia for 2011 and 2013 does constitute relatively small sample size due to the missing or incomplete annual reports in Bursa Malaysia. This would bring to the effect of diminishing power of statistical tests applied (Al-Harshani, 2008). Hence, the statistical result may lead to inaccurate indication on audit fees after IFRS Convergence.

The second caveat in this current study is the behavior of short term trend on audit fees after IFRS Convergence. The development of convergence period does not portray the exact impact on audit fees since it only focuses on two years data, which is 2011 and 2013. This research does not consider those years after 2013 which may coincide with revised IFRS and other economic factors in the future period. Hence, it does not portray a complete picture on impact of audit fees in long term.

Third caveat in this current study is non-existence of qualitative measurement. Based on Tsalavoutas and Evans (2010), it is insufficient to indicate the impact of

transitional IFRS on audit fees using quantitative measurement because principle based accounting standards are difficult to establish in practice. Even though data collected from secondary sources like annual reports are reliable and non response bias, it still does not portray clearer picture in the current study as compared to qualitative measurement (Saunders et al., 2010).

Lastly, the findings for this current study unable to generalize the overall impact on audit fees after IFRS Convergence because it focuses on trading and services sector only. The results produced may contribute differently if other sectors such as banking industry, manufacturing sector and unlisted firms are included. Hence, this study would not able to define complete and comprehensive details on the impact on audit fees after IFRS Convergence.

5.5 Recommendations for Future Research

Firstly, the future researchers should obtain the missing or incomplete annual reports from the respective client website. In addition, changes of companies name during the financial year should be notified by writing an email to the client management in order to avoid any exclusion from the sample selection. Hence, the sample size selection would be higher as compared to the current study.

Secondly, longer trend of audit fees should be examined by expanding the data collection period to three or five years data in order to see the real effect on audit fees after IFRS Convergence. This would contribute better insights for the users of financial statements as revised IFRS standards are complied.

Third, future studies are recommended to extend the data collection methods by including the qualitative method such as questionnaire and interviews. Interviews with professional auditor and regulators enable the researchers to collect their opinions on IFRS convergence and point of view on changes in audit fees. With this information, researchers can have a deeper understanding in current audit market and accounting regulations.

Lastly, future researchers should extend the unit of analysis to other capital market when determining the impact on audit fees after IFRS Convergence. Since IFRS standards are applied to all capital markets, the results would provide better and accurate results as compared to focusing on trading and service sector. In addition, the introduction of Malaysia Private Entity Reporting Standards (MPERS) in line with IFRS for SMEs (Small Medium Enterprise) effective from 1st January 2016 should be included in the future research as auditors are required to acquire more sets of skills and knowledge in preparation of audited financial statements for unlisted firms (Mak, 2014). Hence, future studies may contribute better insights to determine the difference on audit fees after IFRS Convergence in listed and unlisted firms.

5.6 Conclusion

The research purpose of investigating the impact on audit fees after IFRS convergence in Malaysia have been accomplished with the research objectives fulfilled. Based on the hypotheses developed and the analysis results, all the hypotheses have been satisfied except for the relationship between AUDITOR and AUD_FEE as they have a negative relationship, unlike the positive one stated in the hypotheses development. Furthermore, few limitations have been found in this research and recommendations in order to improve this study have also been presented. In short, IFRS convergence does have an impact on audit fees.

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Appendix A: Summary of Past Empirical Studies

<i>Studies</i>	<i>Country</i>	<i>Data</i>	<i>Major Findings</i>
Yaacob et al. (2012)	Malaysia	A sample of 3,050 companies year observations from listed companies on Main and Second Board of Bursa Malaysia. An advanced data structure, panel data analysis for 5-year period (2004-2008) was utilized.	Panel data regressions analysis results found out that there is a significant increase in audit fees after the IFRS adoption period concerning with the control variables used.
Vieru et al. (2010)	Finland	A sample of 133 was collected from Finland listed companies, but the sample was decreased due to several reasons like early adoption of IFRS and firms which have undergo large restructuring activities. The final sample consists of 146 observations from 73 firms with complete information requested. These data are based on years 2004 and 2005.	Regression results shown IFRS adjustments, as a measure between FAS and IFRS, positively and significantly affect total audit fees paid.
Griffin et al. (2009)	New Zealand	Annual audit fee, non-audit fee and financial data for companies in the OSIRIS database with fiscal year ends from 2002-2007 are analyzed. A total of 724 company-year observations obtained and at least 5 years of data are analysed. Where necessary, missing data from companies' annual reports were manually collected. It yields a final sample of 653 company year observations.	Audit fees increased in New Zealand (NZ) over 2002-2006. Such increases associate reliably with the transition to and adoption of NZ IFRS and not with earlier overseas governance reforms. There is also a decrease in non-audit fees over the same period, but study finds no IFRS effect for non-audit fees.
George et	Australia	Sample consists of all companies	A significant increase in audit

al. (2013)		publicly traded on the Australian Stock exchange (ASX) that adopted IFRS from 1 January 2005 and have sufficient available data for the specifications. A sample of 907 firms (4,535 firm-years) from 2002 through 2006 for our primary analysis as of 30 June 2006.	fees in the year of IFRS adoption. Firms with greatest IFRS exposure exhibit the greatest increase in audit fees. Firms with the greatest IFRS adjustments have a significant increase in audit fees relative to increases experienced by firms with no material IFRS adjustments.
Kim et al. (2012)	European Union countries	A sample of 3,693 include the adoption year and 2,860 exclude the adoption year firm years observations from 11 countries were obtained via Worldscope for the period of 2004-2008.	The result shown a higher audit fee paid due to IFRS adoption. As audit complexity brought by IFRS adoption but on the other hands audit fee was reduced by a higher financial reporting quality arising from IFRS.
Cameran et al. (2013)	Italy	The study focus on a sample of Italian banks from 1999 to 2006. The financial statements are gathered from Bankscope. The selection procedure results in 136 banks, corresponding to 527 yearly observations.	The results indicate that higher fees are paid after the adoption of IAS/IFRS, in line with the findings reported by practitioner journals. The researchers conclude that real fee increase after IAS/IFRS adoption approximately equal to 19.29 per cent.
Friis et al. (2010)	Denmark	1,593 financial statements representing 269 large Danish companies during the period 2001 to 2008 were obtained.	Audit fees increased due to the stricter enforcement and more procedures after the adoption of IFRS.
Hassan et al. (2014)	United Kingdom	The final sample comprises of 1028 companies which yielded 7958 firm-	The panel data reported a significant positive

		year observations for the period 2003 to 2011.	relationship between increased audit fees and IFRS adoption and recent global financial crisis.
Pop et al. (2007)	Romania	99 surveys were collected from 401 targeted respondents who have participated in CPA exam and data collected is for the year from 2004 to 2006. Besides, 60 audit engagements of both big and small-to-medium audit firms with 2004-2006 fiscal-year ends were gathered for this study	A cross sectional econometric model has confirmed client size, client complexity and audit firm size did affect the audit cost in Romania.
Badertscher et al. (2012)	United States	A final sample of 229 private firms with publicly traded debt from year 2000 to 2009 was obtained. The sample data were analyzed using the cross-sectional regression model.	The results showed that client complexity is positively associated with the audit pricing.
Hallak et al. (2012)	Brazil	219 out of 242 public listed Brazilian companies in 2009 have been selected to become the final sample and data about accounting and market were taken from <i>Economática</i> .	The Generalized Method of Moments (GMM) regression has reported a higher audit and consulting fees were associated with hiring a Big Four firm as auditors.
Hall (2013)	European Union (EU)	Jones (1991) model of cross-sectional model with estimating discretionary accruals from year 2001 to year 2011 with a sample of 15,487 firms was used.	There is a relationship between auditor industry specialization and audit fees after IFRS adoption.
Naser et al. (2007)	Jordan	A number of 202 companies' annual reports which listed on the Amman	There is a positive relationship between the

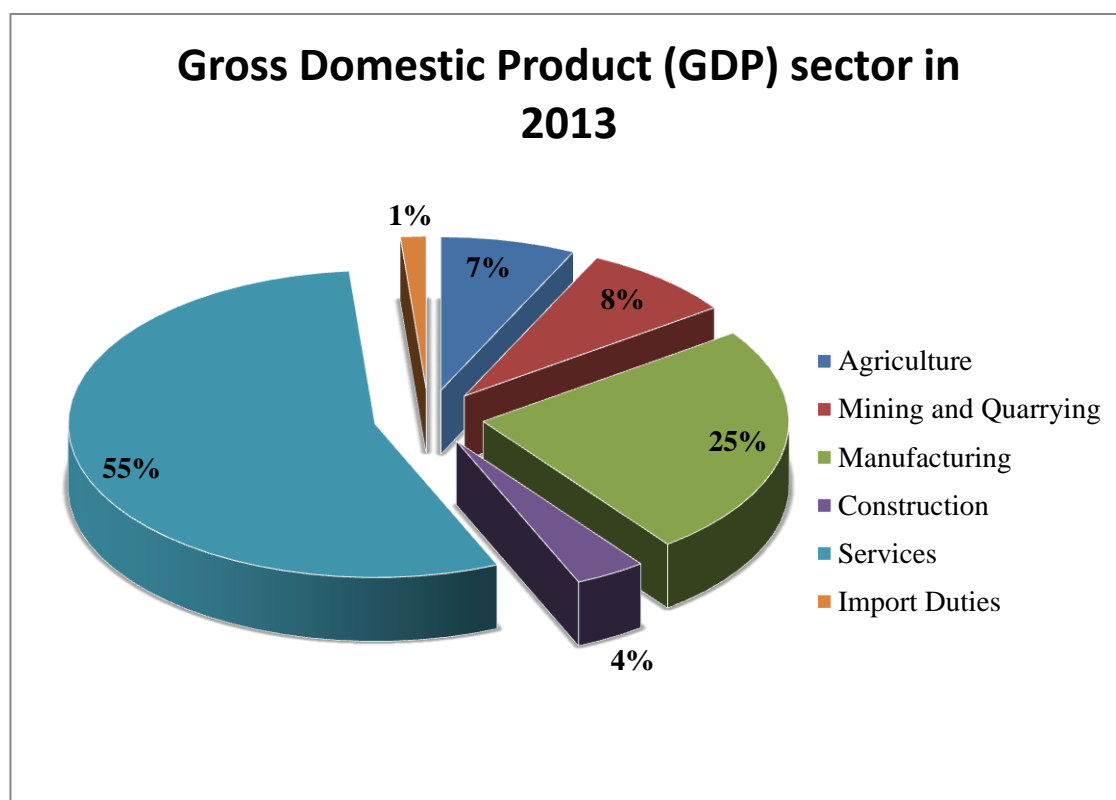
		Stock Exchange (ASE) were collected and only 181 reports were received.	factors and the audit fees, such as corporate size, the degree of corporate complexity, profitability and others.
Simunic (1980)	United States	Data were collected in year 1977 from a sample of 397 public companies in United States and analyzed via least-squares regressions.	Client complexity, client size and client risk are the determinants of audit fees.

Appendix B: Operationalization of model variables

<i>Variable</i>	<i>Item</i>	<i>References</i>	<i>Description</i>	<i>Measurement</i>
IFRS Convergence (IFRS)	IV	Yaacob et al. (2012)	IFRS is the new standard issued by IASB by conciliating some existing standards and IFRS plays its roles in promoting fully convergence between local GAAP and international accounting standards.	Nominal data whereby code 1 for data after IFRS convergence and code 0 for before IFRS convergence.
Audit Fees (AUDFEE)	DV	Chersan et al. (2012); Kim et al. (2012)	The International Standards on Auditing defines audit fees as the compensations for the financial auditor's activity, specifically the certification of financial statements.	Ratio data by calculating the natural logarithm of audit fee in Ringgit Malaysia.
Auditee Size (AUDITEE)	CV ₁	Friis et al. (2010)	Items inside financial statements can be used as proxies for client size such as total revenues.	Ratio data by calculating the natural logarithm of total revenues.
Auditor Size (AUDITOR)	CV ₂	George et al. (2013)	Audit firm size can also be measured by distinguish them into Big 4 and non-Big 4 auditor.	Nominal data whereby code 1 if the firm is audited by a Big 4 auditor (Deloitte, Ernst & Young, PwC or

				KPMG) in the current year, code 0 if otherwise.
Client Complexity (COMPLEXITY)	CV ₃	Griffin et al. (2009)	Client complexity is measured by ratio of sum of inventory and receivables to total assets.	Ratio data by calculating the sum of total inventory and account receivables over total assets.
Client Risk (RISK)	CV ₄	Yaacob et al. (2012)	Client risk is measured by debt ratio.	Ratio data by calculating Long term debt over total assets.
Auditor Industry Specialization (INDUSTRY)	CV ₅	Iskandar et al. (2003)	Auditor industry specialization is measured by audit firms' market share where it can be determined by the amount of audit fee charged by auditor in a particular industry.	Nominal data whereby code 1 for specialized in the industry (when audit firm market share* is more than 10% threshold) and 0 if otherwise. <i>*Audit market share can be measured by amount of audit fee earned by firm in particular industry over amount of audit fee earned by all firms in the industry.</i>

Appendix C: Pie Chart of Gross Domestic Product in Year 2013



Source: Developed for the research

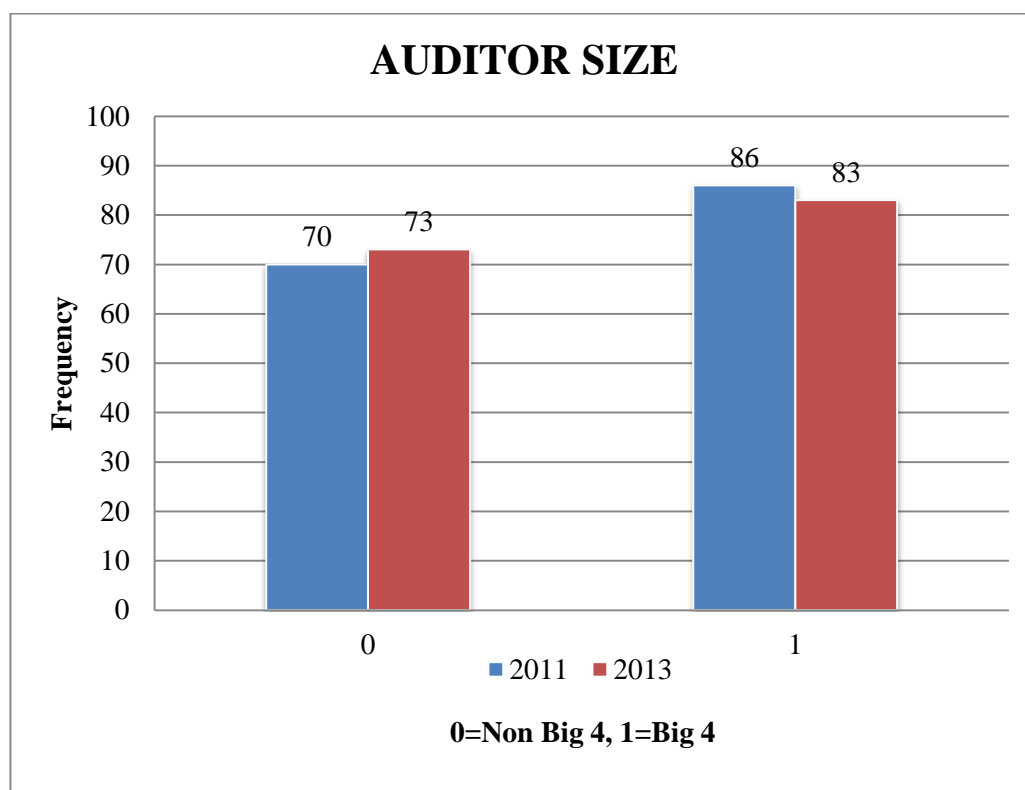
Sector	GDP at purchasers price (RM Million)	Percentage of GDP (%)
Agriculture	55,913	7.11
Mining and Quarrying	63,767	8.11
Manufacturing	193,006	24.53
Construction	29,422	3.74
Services	433,908	55.16
Import Duties	10,598	1.35
Total	786,696	100

Source: Department of Statistical Malaysia (2014)

Appendix D: Bar Chart of Frequency and Percentage Test for Auditor Size in Year 2011 & Year 2013

0 = Non-Big 4, 1= Big 4				
Year	2011		2013	
AUDITOR	Frequency	Percentage	Frequency	Percentage
0	70	44.87%	73	46.79%
1	86	55.13%	83	53.21%

Source: Developed for the research

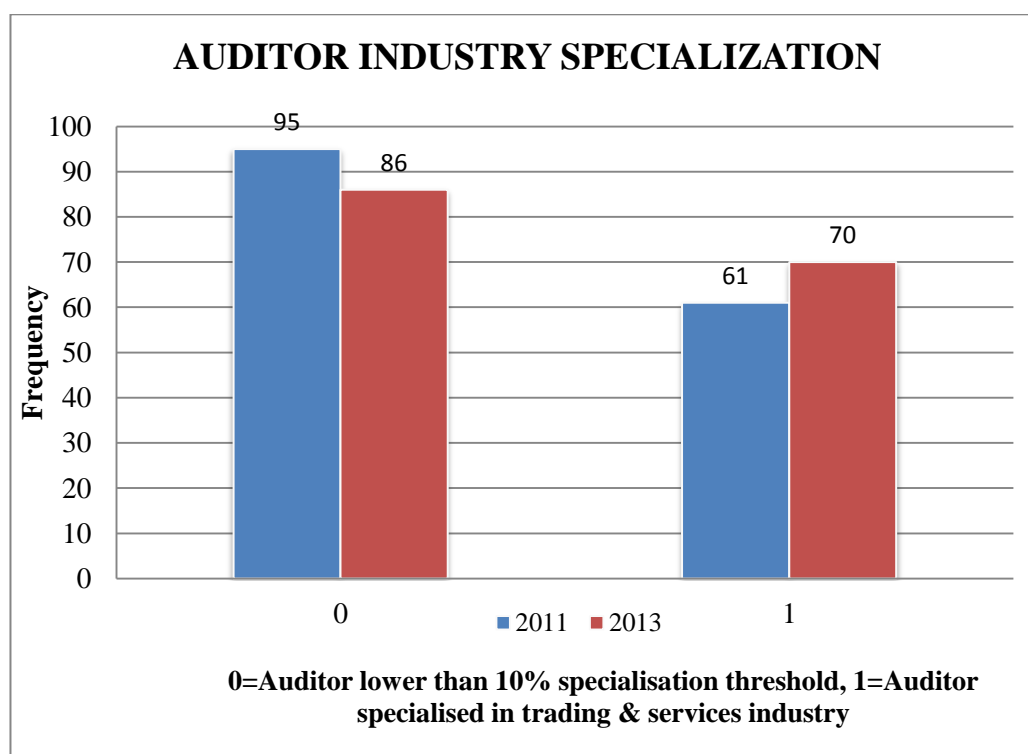


Source: Developed for the research

Appendix E: Frequency and Percentage Test for Auditor Industry Specialization in Year 2011 & Year 2013

0 = Less than 10% threshold, 1= More than 10% threshold				
Year	2011		2013	
INDUSTRY	Frequency	Percentage	Frequency	Percentage
0	95	60.90%	86	55.13%
1	61	39.10%	70	44.87%

Source: Developed for the research



Source: Developed for the research

Appendix F: Breakdowns of Auditor Firms

Audit Firms	Registration Number	2011	2013
<u>Big Four Audit Firms</u>			
PricewaterhouseCoopers (PwC)	AF1146	16	15
Ernst & Young (EY)	AF0039	46	41
Klynveld Peat Marwick Goerdeler (KPMG)	AF0758	13	14
KPMG Desa Megat & Co.	AF 0759	2	2
Deloitte Kassimchan	AF0080	9	11
Total Big Four Audit Firms		<u>86</u>	<u>83</u>
<u>Non-Big Four Audit Firms</u>			
Baker Tilly Monteiro Heng	AF 0117	3	7
SJ Grant Thornton	AF 0737	9	11
Crowe Horwath	AF1018	18	17
STYL Associates	AF1929	4	4
GEP Associates	AF1030	2	0
Ong Boon Bah & Co	AF0320	1	1
Moore Stephens AC	AF 001826	3	0
UHY	AF1411	2	3
BDO	AF0206	7	6
Russell bedford LC & Co	AF1237	1	2
McMillan Woods Mea	AF1995	1	1
TKNP International	AF001834	1	1
Wong Weng Foo & Co	AF0829	1	1
Hanafiah Raslan & Mohamad	AF0002	2	2
Morison Anuarul Azizan Chew	AF1977	2	3
Folks DFK & Co	AF0502	1	1
Paul Chuah & Co	AF1056	2	0
LLTC	AF1114	1	0
Hii & Lee	AF0123	1	0
AljeffriDean	AF1366	3	2

MAZARS	AF1954	2	1
HLB LER LUM	AF0276	2	2
Hasnan THL Wong & Partners	AF0942	1	1
PCCO PLT	AF1056	0	2
PKF	AF0911	0	2
Afrizan Tarmili Khairul Azhar	AF1300	0	1
Jamal , Amin & Partner	AF1067	0	1
SEKHAR & TAN	AF0926	0	1
Total Non- Big Four Audit Firms		<u>70</u>	<u>73</u>
Total		<u>156</u>	<u>156</u>

Source: Developed for the research

Appendix G: Breakdowns of Trading and Services Firms Listed on Bursa Malaysia in Year 2011 and 2013

<u>No.</u>	<u>Target Respondent/ Companies Name</u>
1	ADVANCE SYNERGY BERHAD
2	AEON CO. (M) BHD
3	AHB HOLDINGS BERHAD
4	AIRASIA BERHAD
5	ALAM MARITIM RESOURCES BERHAD
6	AMWAY (MALAYSIA) HOLDINGS BERHAD
7	ANALABS RESOURCES BERHAD
8	ASIA MEDIA GROUP BERHAD
9	AWC BERHAD
10	AXIATA GROUP BERHAD
11	BERJAYA CORPORATION BERHAD
12	BERJAYA FOOD BERHAD
13	BERJAYA LAND BERHAD
14	BERJAYA MEDIA BERHAD
15	BERJAYA SPORTS TOTO BERHAD
16	BHS INDUSTRIES BERHAD
17	BINTAI KINDEN CORPORATION BERHAD
18	BINTULU PORT HOLDINGS BERHAD

19	BORNEO OIL BERHAD
20	BOUSTEAD HOLDINGS BERHAD
21	BRAHIM'S HOLDINGS BERHAD
22	BUMI ARMADA BERHAD
23	CENTURY LOGISTICS HOLDINGS BERHAD
24	CHEETAH HOLDINGS BERHAD
25	CHUAN HUAT RESOURCES BHD
26	CNI HOLDINGS BERHAD
27	COMPLETE LOGISTIC SERVICES BERHAD
28	COMPUGATES HOLDINGS BERHAD
29	CYPARK RESOURCES BERHAD
30	DAYA MATERIALS BERHAD
31	DAYANG ENTERPRISE HOLDINGS BERHAD
32	DESTINI BERHAD
33	DIALOG GROUP BERHAD
34	DKSH HOLDINGS (MALAYSIA) BERHAD
35	ECOFIRST CONSOLIDATED BHD
36	EDARAN BERHAD
37	EDEN INC. BERHAD
38	EFFICIENT E-SOLUTIONS BERHAD
39	EITA RESOURCES BERHAD
40	EMAS KIARA INDUSTRIES BERHAD
41	ENGTEX GROUP BERHAD
42	ESTHETICS INTERNATIONAL GROUP BERHAD
43	FABER GROUP BERHAD
44	FIAMMA HOLDINGS BERHAD
45	FITTERS DIVERSIFIED BERHAD
46	FREIGHT MANAGEMENT HOLDINGS BERHAD
47	FRONTKEN CORPORATION BERHAD
48	FSBM HOLDINGS BERHAD
49	GD EXPRESS CARRIER BERHAD
50	GENTING BERHAD
51	GENTING MALAYSIA BERHAD
52	GEORGE KENT (MALAYSIA) BERHAD
53	GLOBAL CARRIERS BERHAD
54	GUNUNG CAPITAL BERHAD
55	HAI-O ENTERPRISE BERHAD
56	HAI SAN RESOURCES BERHAD
57	HANDAL RESOURCES BERHAD
58	HAP SENG CONSOLIDATED BERHAD

59	HARBOUR-LINK GROUP BERHAD
60	HARRISONS HOLDINGS (MALAYSIA) BERHAD
61	HEXAGON HOLDINGS BHD
62	HUBLINE BERHAD
63	INTEGRATED LOGISTICS BHD
64	INTEGRAX BERHAD
65	IPMUDA BERHAD
66	JOBSTREET CORPORATION BERHAD
67	KAMDAR GROUP (M) BERHAD
68	KBES BERHAD
69	KEJURUTERAAN SAMUDRA TIMUR BERHAD
70	KELINGTON GROUP BERHAD
71	KNUSFORD BERHAD
72	KONSORTIUM TRANSNASIONAL BERHAD
73	KPJ HEALTHCARE BERHAD
74	KPS CONSORTIUM BERHAD
75	KUB MALAYSIA BERHAD
76	KUMPULAN FIMA BERHAD
77	KUMPULAN PERANGSANG SELANGOR BERHAD
78	LFE CORPORATION BERHAD
79	LUXCHEM CORPORATION BERHAD
80	MALAYAN UNITED INDUSTRIES BERHAD
81	MALAYSIA AIRPORTS HOLDINGS BERHAD
82	MALAYSIA MARINE AND HEAVY ENGINEERING HOLDINGS BERHAD
83	MALAYSIAN AIRLINE SYSTEM BERHAD
84	MALAYSIAN BULK CARRIERS BERHAD
85	MARCO HOLDINGS BERHAD
86	MASTERSKILL EDUCATION GROUP BERHAD
87	MAXIS BERHAD
88	MBM RESOURCES BHD
89	MEDIA PRIMA BERHAD
90	MEGA FIRST CORPORATION BERHAD
91	MESB BERHAD
92	METRONIC GLOBAL BERHAD
93	MISC BERHAD
94	MMC CORPORATION BERHAD
95	MULPHA INTERNATIONAL BERHAD
96	MY E.G. SERVICES BERHAD
97	NAIM INDAH CORPORATION BERHAD

98	NATIONWIDE EXPRESS COURIER SERVICES BERHAD
99	NCB HOLDINGS BERHAD
100	OCB BERHAD
101	OGAWA WORLD BERHAD
102	OLDTOWN BERHAD
103	OLYMPIA INDUSTRIES BERHAD
104	PANSAR BERHAD
105	PANTECH GROUP HOLDINGS BERHAD
106	PARKSON HOLDINGS BERHAD
107	PBA HOLDINGS BHD
108	PDZ HOLDINGS BHD
109	PERAK CORPORATION BERHAD
110	PERDANA PETROLEUM BERHAD
111	PERISAI PETROLEUM TEKNOLOGI BHD
112	PERMAJU INDUSTRIES BERHAD
113	PETRA ENERGY BERHAD
114	PETROL ONE RESOURCES BERHAD
115	PETRONAS DAGANGAN BHD
116	PHARMANIAGA BERHAD
117	PJBUMI BERHAD
118	PRESTARIANG BERHAD
119	PROGRESSIVE IMPACT CORPORATION BERHAD
120	RELIANCE PACIFIC BERHAD
121	RGB INTERNATIONAL BHD
122	SALCON BERHAD
123	SAMCHEM HOLDINGS BERHAD
124	SCICOM (MSC) BERHAD
125	SCOMI GROUP BERHAD
126	SEE HUP CONSOLIDATED BERHAD
127	SEG INTERNATIONAL BHD
128	SENI JAYA CORPORATION BERHAD
129	SHIN YANG SHIPPING CORPORATION BERHAD
130	SIME DARBY BERHAD
131	STAR PUBLICATIONS (MALAYSIA) BERHAD
132	SUIWAH CORPORATION BERHAD
133	SUMATEC RESOURCES BERHAD
134	SURIA CAPITAL HOLDINGS BERHAD
135	SYMPHONY HOUSE BHD
136	TALIWORKS CORPORATION BERHAD

137	TANJUNG OFFSHORE BERHAD
138	TELEKOM MALAYSIA BERHAD
139	TENAGA NASIONAL BHD
140	TEXCHEM RESOURCES BERHAD
141	THE NOMAD GROUP BHD
142	THE STORE CORPORATION BERHAD
143	TIONG NAM LOGISTICS HOLDINGS BERHAD
144	TMC LIFE SCIENCES BERHAD
145	TRANSOCEAN HOLDINGS BHD
146	TURBO-MECH BERHAD
147	UMS HOLDINGS BERHAD
148	UNIMECH GROUP BERHAD
149	UTUSAN MELAYU (MALAYSIA) BERHAD
150	UZMA BERHAD
151	VOIR HOLDINGS BERHAD
152	WARISAN TC HOLDINGS BERHAD
153	WIDETECH (MALAYSIA) BERHAD
154	YINSON HOLDINGS BERHAD
155	YONG TAI BERHAD
156	YTL CORPORATION BERHAD

Source: Developed for the research