THE EFFECT OF INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) ADOPTION ON AUDIT PRICING AND AUDIT TIMELINESS: EVIDENCE FROM MALAYSIA

NAJIHAH MARHA BINTI YAACOB

DOCTOR OF PHILOSOPHY

UNIVERSITI UTARA MALAYSIA

November 2011

THE EFFECT OF INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) ADOPTION ON AUDIT PRICING AND AUDIT TIMELINESS: EVIDENCE FROM MALAYSIA

By

NAJIHAH MARHA BINTI YAACOB

Thesis Submitted to the Othman Yeop Abdullah Graduate School of Business,
Universiti Utara Malaysia,
In Fulfilment of the Requirements for the Degree of Doctor of Philosophy

Kolej Perniagaan
(College of Business)
Universiti Utara Malaysia

PERAKUAN KERJA TESIS / DISERTASI
(Certification of thesis / dissertation)

Kami, yang bertandatangan, memperakukan bahawa
(We, the undersigned, certify that)

NAJIHAH MARHA BINTI YAACOB

calon untuk Ijazah **DOCTOR OF PHILOSOPHY**
(candidate for the degree of)

telah mengemukakan tesis / disertasi yang bertajuk:
(has presented his/her thesis / dissertation of the following title):

THE EFFECT OF INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS) ADOPTION ON AUDIT PRICING AND AUDIT TIMELINESS: EVIDENCE FROM MALAYSIA

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.
(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan, sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada :
29 September 2011.
That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:
29 September 2011.

Pengerusi Viva *(Chairman for Viva)*	:	**Prof. Dr. Abdul Razak bin Chik**	Tandatangan *(Signature)*	
Pemeriksa Luar *(External Examiner)*	:	**Assoc. Prof. Dr. Mazlina Norzila binti Mat Zin**	Tandatangan *(Signature)*	
Pemeriksa *Dalam* *(Internal Examiner)*	:	**Dr. Shamharir bin Abidin**	Tandatangan *(Signature)*	Shamharir

Tarikh: **29 September 2011**
(Date)

Nama Pelajar *(Name of Student)*	:	**Najihah Marha binti Yaacob**
Tajuk Tesis *(Title of the Thesis)*	:	**The Effect of International Financial Reporting Standards (IFRS) Adoption on Audit Pricing and Audit Timeliness: Evidence from Malaysia**
Program Pengajian *(Programme of Study)*	:	**Doctor of Philosophy**
Nama Penyelia/Penyelia-penyelia *(Name of Supervisor/Supervisors)*	:	**Assoc. Prof. Dr. Ayoib bin Che Ahmad**

Tandatangan
(Signature)

PERMISSION TO USE

In presenting this thesis in fulfillment of the requirements for a post graduate degree from Universiti Utara Malaysia, I agree that the University Library may make it freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor or on his absence, by the Dean of the Othman Yeop Abdullah Graduate School of Business. It is understood that any copying or publication or use of this thesis or parts there of financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my thesis.

Request for permission to copy or to make other use of materials in this thesis, in whole or in part, should be address to:

Dean,

Othman Yeop Abdullah Graduate School of Business

Universiti Utara Malaysia

06010 Sintok, Kedah Darul Aman.

ABSTRACT

This thesis examines the effects of International Financial Reporting Standards (IFRS) adoption on audit fees and audit timeliness in Malaysia. In particular, there are six (6) objectives of the study: to explore whether there is an increase of audit fees and audit delay pre- and post- adoption of IFRS; to determine the effect of the number of IFRS adopted on audit pricing and audit delay. This study also examines the influence of both the adoption of FRS 138 and the voluntary adoption of FRS 139 on audit fees and audit delay. Finally, the thesis also investigates the influence of audit delay on audit fees, and tests the moderating effect of brand name auditors on the relationship between the number of IFRS adopted, FRS 138 adoption and FRS 139 voluntary adoption on audit pricing and audit timeliness. The sample of this study consists of 3,050 firm-year observations from 2004 to 2008. Panel data analysis is utilized and the panel regression results reveal that audit fees and audit delay increase significantly after IFRS adoption and that companies that adopted a higher number of IFRS are charged higher audit fees and it takes a longer time to complete the audit report. The findings also indicate that adoption of FRS 138, as a complex standard, increases the audit fees and lengthens audit delay. Moreover, the results provide support to the brand name theory in that the Big 4 auditors charge higher audit fees to companies that adopt a higher number of IFRS and FRS 138. This study contributes to the literature on whether the complexity of IFRS has an implication on audit works. Furthermore, the findings provide valuable input for the Malaysian Institute of Accountants (MIA) to consider a revision of the MIA By-Laws.

Keywords: IFRS, audit fees, audit delay, panel data analysis, Malaysia

ABSTRAK

Tesis ini mengkaji kesan Piawaian Pelaporan Kewangan Antarabangsa (IFRS) yang diterima pakai ke atas yuran audit dan ketepatan masa audit di Malaysia. Terdapat enam (6) objektif kajian: mengkaji sama ada terdapat peningkatan ke atas yuran dan kelewatan audit sebelum dan selepas IFRS yang diterima pakai; menentukan kesan bilangan IFRS yang diterima pakai ke atas yuran audit dan kelewatan audit. Selain itu, kajian ini meneroka kesan FRS 138 yang diterima pakai dan FRS 139 yang diterima pakai secara sukarela ke atas yuran audit dan kelewatan audit. Akhir sekali, kajian ini juga meneliti pengaruh kelewatan audit ke atas yuran audit, dan menguji pengaruh 'brand name auditors' ke atas hubungan antara bilangan IFRS yang diterima pakai, FRS 138 yang diterima pakai dan FRS 139 yang diterima pakai secara sukarela dengan yuran audit dan ketepatan masa audit. Sampel kajian ini terdiri daripada 3,050 pemerhatian dari tahun 2004 hingga 2008. Kaedah analisis data panel digunakan dan keputusan regresi mendedahkan bahawa yuran dan kelewatan audit meningkat dengan signifikan selepas IFRS diterima pakai dan syarikat yang menerima pakai lebih banyak IFRS dikenakan yuran audit yang lebih tinggi serta mengambil masa yang lama untuk menyiapkan laporan audit. Penemuan kajian ini juga menunjukkan bahawa FRS 138 yang diterima pakai sebagai piawaian yang rumit, meningkatkan yuran audit dan memanjangkan tempoh penyediaan laporan audit. Selain itu, hasil kajian menyokong 'brand name theory' di mana juruaudit 'Big 4' mengenakan yuran audit yang lebih tinggi ke atas syarikat yang menerima pakai IFRS yang lebih banyak dan FRS 138. Kajian ini menyumbang kepada literatur; sama ada kerumitan IFRS mempunyai implikasi ke atas kerja-kerja audit. Hasil kajian juga memberi input berguna kepada Institut Akauntan Malaysia (MIA) untuk mempertimbangkan semakan ke atas 'MIA By-Laws'.

Kata kunci: IFRS, yuran audit, kelewatan audit, analisa data panel, Malaysia

ACKNOWLEDGEMENTS

All praise and thanks to Allah, the Most Gracious, the Most Merciful. This appreciation is dedicated to those who have closely contributed their valuable assistance and support towards the completion of this thesis.

First and foremost, I am greatly indebted to my supervisor, Associate Professor Dr. Ayoib Che-Ahmad for his valuable guidance, opinions and insightful encouragement throughout my three (3) year journey. Thank you for your precious time and strong faith in my ability to complete this thesis.

My gratitude also goes to the Universiti Teknologi MARA and the Ministry of Higher Education of Malaysia for the study leave and scholarship. Thank you as well to Universiti Utara Malaysia for granting me a research grant.

I would like to express my deepest gratitude to my beloved husband, Fakhrul Zaman, who never failed to understand, support and sacrifice; otherwise my PhD would have been a very hard journey. To my parents and siblings, thank you for your support and assistance. My appreciation also goes to the rest of my family members, colleagues and friends who have helped in both direct and indirect means and for their prayers.

I dedicate this thesis to my son, Ikram Mukhlish and my daughter, Irdhina Faqihah to inspire their success in academic pursuits and in life. Beyond a simple thank you, I want them to know that I love them very dearly.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF ACRONYMS AND ABBREVIATIONS

2SLS	Two-Stage Least Square
ASEAN	Association of Southeast Asian Nations
BLUE	Best Linear Unbiased Estimator
CEO	Chief Executive Officer
CPI	Consumer Price Index
EU	European Union
FASB	Financial Accounting Standard Board
FRF	Financial Reporting Foundation
FRS	Financial Reporting Standards
FSRC	Financial Statement Review Committee
GAAP	Generally Accepted Accounting Principles
GLS	Generalized Least-Square
IAS	International Accounting Standards
IASB	International Accounting Standards Board
IASC	International Accounting Standards Committee
ICAEW	Institute of Chartered Accountants in England and Wales
ICFR	Internal Control for Financial Reporting
IFRS	International Financial Reporting Standards
IPO	Initial Public Offerings
MACPA	Malayan Association of Certified Public Accountants
MAS	Malaysian Accounting Standards
MASB	Malaysian Accounting Standard Board
MIA	Malaysian Institute of Accountants

MICPA	Malaysian Institute of Certified Public Accountants
OLS	Ordinary Least Square
R & D	Research & Development
RPG	Recommended Practice Guide
SC	Securities Commission
SEC	Securities of Exchange Rules
SOX	Sarbanes-Oxley Act
UK	The United Kingdom
US	The United States

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Globalization has led to greater demand for more uniform accounting standards throughout the world. A single global standard is vital for the investors who look for the best capital markets in which to invest, based on the financial reports available across the boundaries. Potential investors definitely prefer markets with understandable financial information (Bebbington and Song, 2007) and a high value relevance of the accounting numbers. Therefore, the harmonization of the accounting standards of different countries will facilitate a better comparison of financial information (Stovall, 2010). The importance of standardized standards has received considerable support from many international organizations such as the World Bank, the United Nations, the International Organization of Securities Commission and the World Trade Organization. The efforts of these organizations convey a positive signal to the International Accounting Standards Board (IASB) to eliminate the comparison barriers on investment decisions between countries. The IASB, which was formerly known as the International Accounting Standards Committee (IASC),[1] is an accounting standard setting body responsible for promoting a single accounting standard that could be applied worldwide (Jacob and Madu, 2009).

The IASC was established in June 1973 in accordance with an agreement signed by the accounting bodies in Australia, Canada, France, Germany, Mexico, the

[1]The IASC existed for 27 years until it was replaced by its successor, the IASB.

Netherlands, the United Kingdom (UK), Ireland and the United States (US) (Ball, 2006). It is the most well known standard setting body of International Accounting Standards (IAS). In 1998, IASC membership had reached 100 countries. Throughout the 27 years of its establishment, the IASC has issued 41 IAS and a Framework for the Preparation and Presentation of Financial Statements. According to Chamisa (2000), the IASC has been recognized by most of the international and local organizations including the European Community, the Organization for Economic Corporation and Development, the International Federation of Accountants and the United Nations. These organizations declare that the IASC is a suitable body to issue IAS standards. Support has been shown through the dismissal of issuing regional and international standards, directives and bulletins on accounting matters. However, the IASC standards are not enforceable by law and compliance is based on a voluntary basis (Dunk and Kilgore, 2000).

Garrido, Leon and Zorio (2002) examined the progress executed by the IASC to promote greater harmonization of accounting methods. The study revealed that the IASC has made a significant improvement in the degree of accounting harmonization through its accounting standards. The researchers segregated the IASC harmonization efforts into three (3) phases: (i) from 1973-1988 during which the IASC issued 26 general standards allowing companies to choose any available method; (ii) 1989-1995 when the IASC introduced ‘A Framework for the Preparation and Presentation of Financial Statements’ to evaluate certain ambiguities in the existing standards and decided to eliminate most flexible accounting methods through comparability and improvement projects; and (iii) 1995 onwards, IASC entered into an agreement with the International Organization of Securities Commissions in the development of core standards to eventually reduce the options of accounting methods and enhance comparability.

On 1 April 2001, the IASC was restructured and changed its name to IASB. Its vision is to bring further convergence between local Generally Accepted Accounting Principles (GAAP) and international accounting standards and practices. In 2001, there were 14 members with 12 full-time and two (2) part time members. Seven (7) board members were appointed as official liaisons to their respective countries. The mediators consisted of Australia and New Zealand, Canada, France, Germany, Japan, the US, and the UK. These liaison Board Members are responsible for keeping close contact with their local standard-setters and managing any issues that arise. The board, which was established in London, had amended some existing standards and adopted certain new standards in the name of the International Financial Reporting Standards (IFRS). The first IFRS– IFRS 1: First-time Adoption of International Financial Reporting Standards –was issued in June 2003.

Impressively, it is now a universal phenomenon for the convergence with the IFRS and the trend is growing further. The IFRS have been accepted as a mandatory transition in the European Union (EU), Australia, New Zealand, Russia, Africa, Bahrain, the US, Hong Kong, South Africa, Singapore and Malaysia (Bebbington and Song, 2007; Jacob and Madu, 2009; Cheong, Kim and Zurbruegg, 2010). Mintz (2011) stated that at the beginning of 2011, almost 120 countries have accepted the transition to IFRS. Such a positive evolution is in line with the proposition by Garcia-Ayuso (2003) who claims that the only solution to the imperfect market, which has a negative economic impact on the shareholders, is when international harmonization is achieved.

Similarly, the Malaysian Accounting Standards Board (MASB) made a decision to adopt 21 IFRS beginning 1 January 2006. This endeavour by MASB aimed to close the gap between the local standards and a single international standard. In enhancing the transparency of financial statements, these universal standards demand for more meaningful presentation of financial statements and detailed disclosure requirements. Azmi (2008) believes that the adoption of the newly revised IFRS means that the financial reporting environment has experienced a change, particularly to fair value accounting. When the convergence is achieved the public listed companies would benefit from the transparent and analogous financial reports, which, later on, would perhaps turn Malaysia into a benchmark country. In line with this belief, the Malaysian Accounting Standards Board (MASB) is targeting for full convergence with IFRS by 2012.

In respect of IFRS convergence, auditing works have become too complicated in the way auditors are burdened with so many changes of standards. Undoubtedly, auditors' involvement is greatly demanded to assess the success of IFRS adoption. Carlin, Finch and Laili (2009) believe that the implementation of international standards is substantially more complex in the nature of the standards themselves, the structure of reporting and also the disclosure requirements. Moreover, these difficulties are attributable to the demand for high quality audit services by the clients. Hoogendoorn (2006) argues that the complexity of IFRS might cause the auditors to collaborate in preparing financial statements and be jointly responsible for any discrepancies of financial statements.

The auditors, as 'watchdogs' of the company, are deemed to equip themselves with sufficient knowledge, techniques and tools to assess any material discrepancies of audited financial statements corresponding to the standards. They are under statutory obligation to report to the Securities Commission (SC) or Stock Exchange any activity or affair of the company that in their professional opinion constitutes an irregularity or non-compliance with any listing requirements or securities law.

According to Section 240.2A of the Malaysian Institute of Accountants (MIA) By-Laws,[2] the fees charged by the auditors should be fair and reflect the value of work performed for the client. The By-Laws specify four (4) guidelines to be taken into consideration in setting audit fees:

(i) The auditor's skill and knowledge needed for the type of work involved,

(ii) The extent of audit staff training and experience required to engage in the client's audit work,

(iii) The degree of time allocated by each audit staff engaged in the work,

(iv) The extent of responsibility and urgency of the work concerned (MIA By-Laws, 2011).

With the enforcement of new standards, it certainly demands greater auditing skills and knowledge, increases in audit training staff costs and more hours required in performing audit engagement. These attributes would perhaps result in an increase in

[2] The revised MIA By-Laws became effective on 1 January 2011.

audit fees[3] and, in turn, delay the issuance of the audit report. As Lawrence and Glover (1998) note, audit timeliness is also a factor that determines audit efficiency and is of great concern to the users of financial statements. Therefore, a study on the impact of IFRS transition on audit pricing and audit timeliness would provide valid evidence concerning the arguments regarding the complexity and ambiguity of the new standards.

1.2 Problem Statement

The transition to the single international accounting standards is regarded as a big transformation to some companies. Abdelsalam and Weetman (2003) stress that when a country's standards differ greatly from international standards, the familiarization problem prevails. The problem can only be addressed through an expensive approach in which training courses are conducted and the standards' technical support must be strong. According to Ian Hague, the principal of the Canadian Accounting Standards Board (AcSB), the complexity of IFRS is that it is too detailed in terms of contents (Bernhut, 2008). Unfortunately, some companies underestimate the complexity of IFRS and the compliance costs that are incurred (Hoogendoorn, 2006).

The issue of IFRS complexity has become a major concern among the preparers of financial statements, directors and auditors. Since the new IFRS drive requires increased disclosure, it demands for a higher effort and time to extensively verify and provide assurance on the audited financial statements (Hoogendoorn, 2006).

[3] The study conducted by Taylor and Simon (1999) has proven the significant impact of the increase in litigations and regulations to pressure the level of audit fees in the respective country.

Moreover, as the core attribute of IFRS is fair value accounting (Lhaopadchan, 2010), the anxiety grows immeasurably when the management has to exercise greater judgment in the IFRS environment, which, in turn, might lead to an increase in litigation by the regulatory authorities against the company as well as the auditor (Mintz, 2011). This can be seen in the statement made by Love and Eickemeyer (2009, p.57), "The 'transition auditing' period will carry a higher level of risks than auditing does currently, as both management and auditors will grapple with a financial reporting system that differs from the system to which they are accustomed…"

Schadewitz and Vieru (2010) stated that the problem of complexity and the lack of companies' preparation increase the risk in audit assignment and the problem becomes more serious for newly introduced standards. Even though some IFRS are comparatively similar to the local standards, they are actually more detailed and require more disclosure, which will entail more audit effort and increase the audit risk (Griffin, Lont and Sun, 2009). The complexity of IFRS has been conceded in the report by the Institute of Chartered Accountants in England and Wales (ICAEW), which highlighted that among the major IFRS related costs is the increment in auditing costs (ICAEW, 2007). Moreover, Ballas, Skoutela and Tzovas (2010) revealed a genuine concern of one (1) of the accountant's surveyed, who writes "there has been an increase in the accounting activities since the preparation of the financial statements is time consuming due to the amount of information that is required". Likewise, a longer delay is expected when an audit engagement deals with certain sensitive audit issues (Knechel and Payne, 2001).

In Malaysia, many parties have raised a similar concern. The accountants, the auditors and the management are in doubt as to whether all IFRS could be applied due to the complexity and vagueness of several standards. As the MIA By-Laws propose, audit pricing is a function of audit partners and staff responsibilities, skills, risks and the time needed on audit engagement (MIA By-Laws, 2011), IFRS complexity is expected to heighten all the elements. Therefore, due to the additional audit effort and risk imposed on the auditors, the question of whether IFRS adoption will increase audit pricing and affect audit timeliness remains questionable.

1.3 Motivation of the Study and Research Questions

This study is motivated by the complexity issue of IFRS, which has been debated and discussed by many parties. In respect of the complexity issue, the other considerations discussed below are the significant reasons that justify this study.

First, being a relatively recent phenomenon, studies addressing the influence of mandatory IFRS adoption are still in the early stage. Some researchers focus on the implications of the IFRS adoption on the stock market (Armstrong, Barth, Jagolinzer and Riedl, 2010), accounting quality (Paananen and Lin, 2009; Barth, Landsman and Lang, 2008; Christensen, Lee and Walker, 2008; Soderstrom and Sun, 2007; Daske and Gebhardt, 2006); elements of financial statements (Stent, Bradbury and Hooks, 2010) and several studies stress the significance of IFRS adoption to their countries (Jones and Higgis, 2006; Joshi, Bremser and Al-Ajmi, 2008; Tyrrall, Woodward and Rakhimbekova, 2007; Mir and Rahaman, 2005). In contrast to the above studies, this study intends to fill the gap in the literature by extending our knowledge on the question of audit works due to the IFRS complexity and how this issue might affect audit pricing and audit timeliness.

Second, in respect of the Malaysian context, the transition to IFRS is a new issue and a worthwhile study. Different institutional, cultural and jurisdiction settings between Malaysia and other countries would provide a rich understanding on the audit fee premium and the extent of audit delay due to IFRS adoption. Malaysia is regarded as a developing country with an emerging capital market characterized by concentrated shareholding. Johl, Jubb and Hougton (2007) argued that Malaysia is an under researched area with weaker and less transparent governance structures compared to developed economies such as the UK, the USA and Australia. Malaysia applies different auditing and reporting practices and is more influenced by common law (Callao, Jarne and Lainez, 2007). It is a country with a different regulatory framework and a poor level of public scrutiny (Shailer, Willet, Yap and Wade, 2001). In addition, Malaysia has a unique historical background due to the British colonization as well as the influence from countries that have traded in Malaysia such as India and China. Thus, Malaysian citizens who consist of various races, religions, languages, beliefs (Abdul Rahman and Mohd Ali, 2006) and ethnic groups (Che-Ahmad, Houghton and Yusof, 2006) have led to this unique environment (Abdul Wahab, Mat Zain, James and Haron, 2009). Despite all the unique characteristics, the accounting standards in Malaysia greatly rely on the international accounting standards such as IAS and IFRS, hence, it promotes better comparability with the studies from the Western World (Johl et al., 2007). In addition, this study will contribute to the international audit fee determinants literature using data from Malaysian public listed companies.

Third, it is claimed that auditors in Malaysia are less professional and more reserved compared to the auditors of other countries. This has been proven by the study conducted by Shailer et al. (2001) in which the researchers investigated the perceptions of auditors from Malaysia, New Zealand and Australia concerning the exposure of litigation risks. Their study revealed that Malaysian auditors are exposed to a much lower level of litigation risk and, to the best of the researcher's knowledge, only a small number of litigation actions have been taken against them. The reason being that Malaysian auditors worry more about the liability from statutory authorities than the investors (Shailer et al., 2001). This implies that the reputation damage due to litigation claims by the public is different in Malaysia compared to Western countries (Johl et al., 2007). This exceptional feature of Malaysian auditors makes it interesting to identify whether an increase in the litigation risks setting due to the complexity of IFRS environment would affect audit pricing and timeliness differently from the West.

Fourth, the complexity of IFRS adoption is mainly derived from certain standards that have received considerable criticism from the preparers and the auditors due to the ambiguous measurements and recognitions. Two (2) standards that are widely discussed in respect of the complexity of measurement and recognition are IFRS 138 and IFRS 139. In the Malaysian context, these two (2) standards are the new IFRS[4] adopted on 1 January 2006. IFRS 138 defines intangible as a non-monetary asset

[4] From 21 IFRS adopted by MASB on 1 January 2006, 16 are amended standards, while five (5) are new standards.

without physical substance held for use in the production or supply of goods and services, for rental to others, or for administrative purposes: (i) that are identifiable; (ii) that are controlled by an enterprise as a result of past events; (iii) from which the future economic benefits are expected to flow to the enterprise; and (iv) the cost of intangibles can be measured reliably (Lazar, Choo and Arshad, 2006). Even with the availability of IFRS 138, accounting debates on the definition, measurement and recognition (Tollington, 2008; Gallego and Rodriguez, 2005; Grasenik and Low, 2004) of intangible assets are a never-ending story. Moreover, the accounting treatment of intangible assets are labelled as "one of the most controversial and intractable issues in accounting" (Lhaopadchan, 2010, p.123), and has been discussed in literature for over a century with no consensus on the true meaning of intangible assets and how they should be accounted and reported. Tollington (2008) claimed that even after the issuance of IFRS 138, conflicting opinions remain, especially concerning the complexity of recognition. IFRS 139 on Financial Instruments: Recognition and Measurement is moving towards full fair value accounting. The new reporting paradigm regards fair value as the most significant attribute for the financial instruments. Fair value accounting is an advanced alternative to the historical cost. Fair value reflects the market's assessment of current economic conditions, where the value is determined in an open and competitive market. Barlev and Haddad (2003) regard the transition to fair value measurement as a shift of paradigms, to the extent that the instruments do not have direct market value, and that management judgment and estimates are taken into consideration (Narayanan, 2008; Ball, 2006). Lhaopadchan (2010) revealed that the discretion involved in measuring fair value negatively encourages earnings management. Moreover, the different techniques used to measure fair value in different industries hampers its usefulness (Kumarasiri and

Fisher, 2011). Consequently, it would affect the financial position of the companies that are dealing with financial instruments. According to Armstrong et al. (2010), IFRS 139 gives rise to two (2) types of controversy requirements. First, fair value is used as a measurement attribute and any changes in the value should be recognized in the profit and loss account. Second, the qualifying criteria for hedge accounting are specific and complex to meet. The complexity issue of the two (2) standards discussed above has stimulated a further investigation on the impact of these two (2) standards on audit pricing and audit timeliness. The adoption of these standards is expected to increase the audit fees and lengthen the time to issue the audit report. Moreover, the different attributes between FRS 138 and FRS 139[5]–FRS 138 is a mandatory standard while FRS 139 is a voluntary standard – adoption is another interesting issue to address.

Fifth, auditors are perceived by the management and investors as specialists in evaluating financial statements produced by public listed companies, which, in turn, means providing a true and fair audit opinion (Firth, 1990). With this belief, auditors are bound to meet the expectation of the accounting information users, such as shareholders, creditors and potential investors. In line with this context, one (1) of the key findings in Oxera's (2006) report is that reputation is a vital aspect in choosing the Big 4 auditors. Higher reputation or brand name auditor is compensated by higher audit fees (Beatty, 1989; Peel and Roberts, 2003; Naser and Nuseibeh, 2007) and gaining more contracts (Firth, 1990). For example, Brozovsky and Richardson (1998) conducted a laboratory experiment to examine the influence of auditor's reputation on audit prices, firm's profit and contracts. The researchers found that reputation

[5]FRS 139 was initially issued on 1 January 2006, however, due to many comments and arguments, the standard was deferred to 1 January 2010.

enhancement audit firms are able to charge higher prices and obtain more contracts. Similarly, brand name auditors have large resources, hire high quality audit staffs and proper audit scheduling which normally resulted to shorter time to issue audit report. Thus, Big 4 auditors are expected to charge higher audit fees and lessen the audit delay for the higher number of IFRS adopters, FRS 138 adopters and FRS 139 voluntary adopters.

Based on the motivations discussed above, this study attempts to address the research questions as follows:

(1) What is the influence of IFRS adoption and the number of IFRS adopted on audit fees and audit delay?

(2) Does the complexity of FRS 138 and FRS 139 affect audit fees and audit delay?

(3) Do brand name auditors moderate the relationship between the number of IFRS adopted, FRS 138 adoption and FRS 139 voluntary adoption and audit fees (and audit delay)?

1.4 Objectives of the Study

The main objective of this study is to investigate the impact of IFRS adoption on Malaysian audit pricing and audit timeliness after the adoption years. In addition, the association between IFRS variables and audit fees and delay is to be examined. Thus, the specific objectives of this study are:

(1a) to determine the effect of IFRS adoption on audit pricing.

(1b) to determine the effect of IFRS adoption on audit timeliness.

(2a) to determine the influence of the number of IFRS adopted on audit pricing.

(2b) to determine the influence of the number of IFRS adopted on audit timeliness

(3a) to ascertain the influence of FRS 138 adoption on audit pricing.

(3b) to ascertain the influence of FRS 138 adoption on audit timeliness.

(4a) to determine the influence of FRS 139 voluntary adoption on audit pricing.

(4b) to determine the influence of FRS 139 voluntary adoption on audit timeliness.

(5) to ascertain the influence of audit timeliness on audit pricing.

(6a) to determine the interaction effect of brand name auditors with the number of IFRS adopted, FRS 138 adoption and FRS 139 voluntary adoption on audit pricing.

(6b) to determine the interaction effect of brand name auditors with the number of IFRS adopted, FRS 138 adoption and FRS 139 voluntary adoption on audit timeliness.

1.5 Significance of the Study

According to Jensen and Meckling (1976), auditing is one (1) of the means to reduce agency costs. An auditor also acts as a governance role to ensure that the financial statements on the economic activities of the firm are presented fairly. The auditor is expected to provide a high quality audit so that the users are able to make the right decision based on the audited financial statement. Audit quality reduces the uncertainty concerning the reliability of the information in the financial statements. The definition of audit quality, among others, covers the probability of discovering and reporting material errors in the financial statement (DeAngelo, 1981), the accuracy of reported information (Balsam, Krishnan and Yang, 2003) and the extent to which the audit adheres to auditing standards (Krishnan and Schauer, 2001). There are two (2) types of audit quality: actual quality and perceived quality. Jackson, Moldrich and Roebuck (2008) remark that actual quality refers to the extent of minimum risk of reporting material errors by the auditors, while perceived quality is the extent of users' confidence that auditors can mitigate material misstatements. During the phase where IFRS penetrated most countries, the users anticipated that the transition would enhance both actual and perceived quality. Ken Pushpaanathan, as chairman of the Audit and Assurance Standard Board (AASB), stressed that "part of the journey to becoming fully competitive would be to become proficient in the technicalities and impacts of IFRS in ensuring high quality audits" (Izma, 2009, p.9). Thus, research in the auditing area is significant to provide better assurance to the users concerning the validity and reliability of financial statements, which, in turn, reflects accurate decision making. Datuk Seri Azmi Khalid, Public Accounts Committee Chairman stated that "high quality audits should be a priority to avoid unexpected financial scandals which eventually lead to further erosion of public trust in the profession" (Accountants Today, 2009, p.49).

Audit fees represent one (1) of the proxies of audit quality (O'Sullivan, 2000; Watkins, Hillison and Morecroft, 2004; Abdul Wahab, Mat Zain, James and Haron, 2009). For instance, Goodwin-Stewart and Kent (2006) revealed a significant positive relationship between corporate governance and audit fees. This positive relationship implies that an increase in audit fees is due to higher demand by the directors to the auditors to extensively examine the financial statements, assuming other things are equal. Mitra, Deis and Hossain (2009) revealed that both expected and unexpected audit fees are significantly associated with reported earnings quality. Thus, the researchers concluded that the auditors have succeeded in their role as a mechanism of corporate governance in providing the best quality service and alleviating management tendency to deceive financial statements. In the context of audit timeliness, lengthening the time to complete an audit report would impair the ability of the users to make timely evaluations and decisions based on the audited financial statements. For that reason, the quality of financial statements diminishes as the information is less relevant to the users of financial reports.

In line with the above argument, the contributions of this study can be divided into three (3) categories, namely, practical contributions, contributions to the existing literature and methodological contributions.

1.5.1 Practical Contributions

In practice, the results are expected to benefit the accounting profession and corporate sector as a whole. First, the findings from this study provide valid evidence of the complexity of IFRS adoption, thus, recommendations will be forwarded to the MIA to improve MIA By-Laws. For this reason, the MIA is expected to incorporate a clause on the complexity of standards' adoption as one (1) of the decisive factors in the definition of complexity. At present, under Recommended Basis for Determining Audit Fees in the revised Recommended Practice Guide 7 (RPG 7) appendices, complexity is listed as one (1) of the benchmarks to charge fees in an audit assignment. Nevertheless, the MIA does not detail matters that contribute to the complexity of audit works. A clear definition of complexity would be important for the audit firms and the management to reach an acceptable fees amount that satisfies both parties. In addition, the MIA and Malaysian Institute of Certified Public Accountants (MICPA) could collaborate and aggressively organize seminars or discussion groups focusing on certain complex standards. In addition, special committees might be set up by the MASB to make assessments and get feedback or comments from the preparers of financial statements.

Second, the enforcement of new standards or regulations by various means have greatly affected the way auditors carry out their tasks. New standards have added another layer of difficulty on the part of management and auditors. This study provides some insights for the auditors to gauge the complexity of the financial statements verification process according to IFRS. As Ken Pushpanathan commented, "auditors will have to be up to speed with IFRS in order to be effective…. they can't have their heads in the sand" (Izma, 2009, p.11). At the same time, auditors should understand the implications of full convergence on their practices and decisions, especially to embrace the insurance function (insurance hypothesis) and litigation risk function (litigation risks hypothesis) tied to them. To the corporate entities, proper strategic planning in terms of staff proficiency and technology fitness might be scheduled.

1.5.2 Contributions to the Existing Literature

The literature on audit fee determinants has been well established since 1980 in many developed countries' audit markets including the US, Australia, the UK, New Zealand, Canada as well as Singapore. Pop and Raluca-Iosivan (2008) claim that little attention has been given to studies of the audit market in developing countries. A number of published studies have documented the audit fee determinants for the Malaysian market (see for example: Simon, Teo and Trompeter, 1992; Che-Ahmad and Derashid, 1996; Hariri, Abdul Rahman and Che-Ahmad, 2007), however, to the best of the researcher's knowledge, this is the first study that attempts to examine the relationship between audit fees and IFRS adoption in Malaysia.

On the audit delay determinants, there are only a few published journal articles in Malaysia (see for example: Abdullah, 2007; Che-Ahmad and Abidin, 2008), nevertheless, both studies utilized data prior to 2001 where the requirement to report financial statements to Bursa Malaysia[6] was six (6) months instead of four (4) months. Zulkarnain (2009) reveals that the respondents in the interviews, which consist of auditors, loan officers and senior managers regard the duration to complete the audited financial statements in Malaysia as being rather tight. Because the filing commitment was shortened in 2001 and with the introduction of IFRS in 2006, it is interesting to determine whether public listed companies in Malaysia[7] could manage to report within the stipulated period with more stringent requirements and the transition to the new standards.

For this reason, new independent variables on the aspect of IFRS complexity are added in both the audit fee and audit delay models in order to ascertain the influence on this latest development to accounting and, specifically, to the auditing field.

---

[6] Bursa Malaysia was formally known as Kuala Lumpur Stock Exchange (KLSE).
[7] Conover, Miller and Szakmary (2008) discovered that out of ten common law countries, Malaysia took the longest time to release annual reports with the medium of 122 days as compared to only 38 days in the US for the period 1986-1996.

1.5.3 Methodological Contributions

In this study, panel data analysis is used to provide richer interpretation and a powerful understanding of the effect of IFRS on audit pricing and timeliness. Panel data analysis mitigates the problem of omitted variable bias by capturing the unobserved effect and mitigates heterogeneity bias. Chou and Lee (2003) stressed that panel data provides more concise and powerful conclusions on the relationship between audit fees and their independent variables. When the ordinary least squares (OLS) method was used on the audit pricing model, the results tended to lessen the effect of foreign subsidiaries and exaggerate the effects of the ratio of account receivables to total assets on audit fees (Chou and Lee, 2005). Recently, Adelopo (2009) proved the significance of the panel data approach and claimed that the use of a-single linear equation might cause error of measurement in studying audit fee relationships. In the context of audit timeliness, Henderson and Kaplan (2000, p.159) acknowledged the usefulness of panel data analysis and the high explanatory power of the panel data audit delay model.

In addition, the endogeneity relationship between audit fees and audit delay endogenous variables is tested. Studies in governmental sectors have proven the existence of joint determinants between audit fees and delay (Johnson, 1998; Johnson, Davies and Freeman, 2002). However, as yet, in addition to the lack of theoretical underpinning for the endogeneity problem in the earlier literature, it has not been established empirically in the private sector studies. Furthermore, to my knowledge, there is no attempt to examine the endogeneity issue that uses longitudinal data. This study will test the endogenous relationship of audit delay in the audit fee model.

1.6 Scope of Study

The final sample for this study consists of 3,050 company-year observations from the companies listed on the main board and the second board of Bursa Malaysia.[8] The study covers the period of five (5) years from 2004 to 2008. The financial and non-financial data was hand collected from the annual reports of Bursa Malaysia to ensure the accuracy and reliability of data (Simon et al., 1992). The annual reports were downloaded from the Bursa Malaysia Company Announcement Webpage. The hypotheses of the study were tested in two (2) research models; the audit fee model originated from Simunic (1980) and the audit delay model from Ashton, Graul and Newton (1989). The static panel data regression analysis was utilized, which involved the constant variance model,[9] the random effects model and the fixed effects model. The Lagrangian Multiplier test signifies the existence of unobserved effects in both audit fees and the audit delay model, which validate the use of the random effects model. Furthermore, the results of the Hausman Specification tests are in favour of fixed effects (within) regression for both audit fees and the audit delay model.

1.7 Organization of the Study

The remainder of the thesis will be organized as follows:

Chapter Two discusses the issues of comparability and convergence of IFRS, its pros and cons, arguments concerning the suitability of IFRS in emerging countries, as well as providing an overview of the development of accounting standards in Malaysia and

---

[8] Bursa Malaysia is the Malaysian Stock Exchange.
[9] Constant variance model is a synonym of the pooled OLS model (Gujarati and Porter, 2009).

relevant literature on IFRS adoption. Subsequently, it reviews the literature pertaining to audit pricing and audit timeliness including the relationship with the regulatory change, as well as the relationship with Big Firms and studies concerning their determinants and the explanatory variables. In addition, several theories that guide the relationship between hypotheses variables and audit fees and delay are discussed. Lastly, this chapter presents the joint determinants of both pricing and timeliness.

Chapter Three presents the hypotheses development and the theoretical framework that represents the overall relationship between the variables. There are six (6) main hypotheses developed based on relevant theories such as the complexity theory, the agency theory, the insurance theory and the brand name reputation theory.

Chapter Four outlines the research models, the measurement of variables and the method of data analysis, which is the panel data analysis.

Chapter Five presents the results of the study, which includes the results of the descriptive statistics, the diagnostic tests for panel data results and, most importantly, the results of the panel data regression analysis for both the audit fee and audit delay models. Moreover, additional analysis and the sensitivity analysis are also presented.

Chapter Six provides the discussions concerning the hypotheses results together with the summary of the first five (5) chapters. This chapter also delineates the contributions of this study to the body of knowledge, the real world and also the methodological aspect, as well as the limitations pertaining to this study and suggestions for future studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter begins with a discussion on the literature pertaining to IFRS adoption such as the issue of comparability and harmonization, the pros and cons of IFRS transition from the viewpoint of various countries, IFRS adoption in developing countries and Malaysia, in particular, and reviews past studies on this recent development. The chapter proceeds with the literature on audit fee changes over several periods, determinants of audit fee studies, the pertinent explanatory variables of the audit fee model, the linkage between Big Firm auditors and audit fees and the effect of regulations. In addition, this chapter reports on the review of literature on audit timeliness including the significance of audit timeliness, determinants that influence the length of audit report issuance and its explanatory variables and also some past studies on the association between regulatory impact and audit delay. Then, underlying theories pertinent to the study are discussed. Finally, some studies that jointly incorporate audit fees and audit delay are reviewed.

2.2 IFRS Adoption

European countries embarked on their IFRS convergence beginning 1 January 2005, which is also parallel to Australia (Jones and Higgis, 2006; Daske and Gebhardt, 2006). Malaysia started their IFRS transition on 1 January 2006 (Carlin et al., 2009) and New Zealand from 1 January 2007 (Cheong et al., 2010), while Canada set an effective deadline for convergence of 1 January 2011. In addition, 1 April 2011 is the target date for IFRS adoption by Indian companies, and Japan and Korea have also agreed to comply with IFRS by 2011 (Thomas, 2009). Recently, the Securities and Exchange Commission (SEC) completed its roadmap and decided to mandate IFRS transition in the US by 2015 (Aguilar, 2011).

The issues of full and partial convergence have been subject to numerous comments and debates from business entities, professional bodies and academic interest (Jones and Higgis, 2006). Most of the concerns concern the pros and cons of IFRS adoption in their countries, for instance in the EU (Jones, Rahman and Wolnizer, 2004; Daske and Gebhart, 2006), Australia (Jones and Higgis, 2006) and Bahrain (Joshi, Bremser and Al-Ajmi, 2008). The question of whether the benefits of adopting IFRS outweigh the costs (Taylor, 2009) of implementation becomes crucial (Jones and Higgins, 2006) to the entities, especially for small business entities. The compliance costs include the training costs of accountants to comply with fair value accounting and the increase in external auditors' costs, as they are required to put more effort into verifying complicated items such as financial instruments (IFRS 132 and 139).

2.2.1 Comparability and Convergence

There is no specific definition in accounting concerning the true definition of comparability even though it is difficult to understand (Zeff, 2007). In general, comparability is when two (2) different things can be looked alike. Zeff (2007) raises the issue of comparability and harmonization as the challenges in the process on IFRS convergence. The researcher highlights four (4) major cultural obstacles that hinder international comparability. These include:

(i) Diversity in business and financial culture is defined as how the way in which business is conducted and supported by financial markets differs across countries. For instance, incentives and disincentives in the income tax law and other laws or differences between business customs and corporate structure.

(ii) Accounting culture differences include the tradition of adding on the minimization of the income tax burden and reluctance to implement the percentage of completion accounting method for long-term contacts.

(iii) Auditing culture differences include the situation where auditors in some countries are inclined not to issue qualified reports when companies are not using national accounting standards. In certain countries, companies could simply depart from IFRS when they know that no auditor's qualification will be issued to them.

(iv) Diversity in regulatory culture refers to differences in the regulatory practice across countries, which requires both public and private sectors to take aggressive and constructive efforts towards companies' financial reports. There are countries where regulations are strong and companies are less willing to depart from the IFRS, while some countries, with a more flexible regulation experience with companies, opt for their domestic standards.

Chua and Taylor (2008) note that the degree of comparability is regarded as a desirable attribute to financial reporting by the advocates of harmonization of accounting standards. Nevertheless, there is no specific meaning on comparability and the explanation is not clear. Literature tends to explain comparability as an equal value of accounting properties, in which comparability is perceived as being when the financial reporting of a respective country is similar to the levels of value relevance, conservatism and earnings management.

Convergence, formerly known as harmonization, is the process enhancing comparability between international accounting standards and national standards. It is not a process to achieve identical standards, but targets generally comparable standards that become analogous over time (Thomas, 2009). The main motivation of convergence is to increase the quality of accounting standards (Zeff, 2007) and enhance the compatibility of accounting practice with a limited degree of variation (Smith, 2008). Ding, Jeanjean and Stolowy (2005) suggest that the increase in demand for international convergence is due to: (i) high awareness concerning the importance of the financial information disclosed in the market to affect market efficiency, (ii) the high degree of cross-listing among multinational companies, and (iii) the tendency for institutional investors to enter foreign markets.

Nevertheless, several complications hamper the convergence process. These include problems concerning interpretation, language, terminology, and adjusted earnings measures, SEC participation and political influence (Zeff, 2007). Furthermore, Chand and White (2007) contend that due to diverse users' interest in financial reports, a harmonized regulatory framework to meet all their needs for financial reporting is improbable. Abdelsalam and Weetman (2003) stressed the importance of official language translation to achieve greater harmonization. The researchers claim that the low degree of IFRS harmonization in Egypt is due to the language barrier. A step towards an official Arabic translation in 1999 was seen as a constructive effort to promote greater convergence and has gained support from 22 Arab countries.

Carmona and Trombetta (2008) urged that in fitting differences in cultures and reporting traditions, some technical features must be introduced to meet IFRS convergence. For that reason, a principles-based system is perceived to be superior to rules-based standards since it focuses on economic substance rather than the legal form (Mintz, 2011). The advocates of principles-based standards claim that the principle supports the transactions and economic events in gaining a fundamental understanding of the accounting process. Since the systems promote flexibility and openness, it has been accepted internationally. Moreover, this principle's influence keeps any uncertainty of the major practices into record keeping and measurement without considering every controversial issue (Carmona and Trombetta, 2008). However, for countries with a rules-based accounting system such as Germany and the US, IFRS adoption might be seen as a change of mindset that is very different from the national standards and regulatory settings (Carmona and Trombetta, 2008). Moreover, principles-based standards require managers to use their own professional judgments (Mintz, 2011), thus, it will create some ambiguity in the reporting process. Chand and White (2007) remarked that principles-based standards cause companies in the Fijian elite caste to request the accountant to exercise judgments that demonstrate a better financial position of the company as compared to economic reality.

2.2.2 Benefits and Obstacles of Convergence

There is a range of benefits from adopting international accounting standards, as Street, Gray and Bryant (1999) delineated: (i) it improves the investors' ability to make valuable decision making by reducing confusion arising from different measures used in preparing financial statements across countries, (ii) costs of multiple reporting should be lower, (iii) it enhances international investment, and (iv) the allocation of savings worldwide should be more efficient. Harvey and Keer (1983) believe that the existence of universal standards weakens the accountants' burden resulting from pressure from the management and directors to favour certain accounting policies and practices. At the same time, standards help to enhance the quality of the accountants' work and serves as a working manual for them.

The IFRS provides considerable advantages to many parties, such as large companies and their shareholders, regulators, financial professionals as well as local and international investors (Thomas, 2009). Tyrrall et al. (2007) listed several advantages of IFRS adoption: (i) enhancing the perceived quality and status of financial reports, (ii) set up costs to develop local standards are eliminated, and (iii) boosts national and international financial markets' efficiency due to increased understandability, comparability and reliability of financial statements. For instance, Aljifri and Khasharmeh (2006) provided an answer to the question of whether the public listed companies in the United Arab Emirates are capable of adopting international standards to their market. The study revealed that the majority of the respondents[10] agreed that the main benefit of adopting IAS was to enhance the comparability of financial reporting and the major consensus between preparers and users of financial statements was the appropriateness of IAS to the United Arab Emirates economy. Likewise, Zeghal and Mhedhbi (2006) asserted that harmonization with international accounting standards promotes a higher quality of financial reports and enhances the comparability of accounting information with the international setting.

[10] The respondents include the preparers and users of financial statements such as accountants, brokers, finance managers and financial analysts.

Despite the advantages, many researchers are also concerned about the disadvantages of IFRS adoption, especially for developing countries. Tyrrall et al. (2007) used the triangulation approach to investigate the importance of IFRS implementation in Kazakhstan as a developing country. The researchers concluded that there are four (4) main difficulties concerning IFRS implementation in that country.

(i) There is a perceived gap between IFRS and Kazakhstan Accounting Standards (KAS). It is argued that some of the accounting issues that arise in Kazakhstan are not covered by IFRS. In addition, some standards such as IAS 29, 32, 39 and 36 do not have a KAS equivalent.

(ii) The lack of clear guidelines from the Kazakh regulatory bodies on IFRS implementation, especially concerning some complex standards, such as IFRS 132 and IFRS 139, have resulted in a demand for the application of standard guidelines in European countries. Furthermore, the lack of some codes needed in the application of IFRS, such as no codes for finance costs or impairment, has caused reluctance on the part of accountants to adopt IFRS.

(iii) The lack of translations from English to the Russian and Kazakh languages is a concern of the interviewees, international agencies and survey respondents in complying with IFRS. It is a big problem for the preparers of financial statements in Kazakhstan since Kazakh and Russian are the official languages that are used by over half of Kazakhstan's population.

(iv) IFRS adoption is a costly process. The important expenses involved with IFRS compliance are the costs to train personnel including accounting employees and managers, costs to equip staff with a proper IT system and demand for consulting services. These compliance costs are important in order to support positive future outcomes following the adoption of the standards.

Mir and Rahaman (2005) argued that the complexity of international standard adoption is not only because of the content of individual accounting standards but the difficulty arising from the actual adoption process itself. The researchers noticed that communication plays a vital part in the process of adoption. In Bangladesh, the lack of effective consultation and communication from the government and SEC further hinder the level of compliance. Furthermore, the IAS does not cover certain important elements that are unique to Bangladesh, for instance, there is no specified IAS standards for the garment sector, which continues to grow in Bangladesh. Therefore, the researchers concluded that the international standard (IAS) is not a 'one-size-fits-all' solution to emerging countries, and that the country's standards and corporate law are required to be adjusted for the implementation to become effective.

Chand and White (2007) expressed their view on certain obstacles of IFRS adoption in Fiji, which is only a small developing country with 16 listed companies on the local stock market. Some of the issues raised are the lack of developed capital markets in order for Fiji to move to fair value accounting, and that the IFRS is created to suit the requirements of large organizations and developed economies, and, thus, not applicable to Fiji. In addition, the Accounting and Auditing Standards Committee, as an Institute to promulgate accounting standards in Fiji, is perceived as a failure to meet the needs of Fijian local users of accounting information, such as no regulation for the indigenous Fijians to disclose rents paid for the use of land and the resources from coastal waters. Finally, Chand and White (2007) concluded that the main beneficiaries of IFRS are the accounting profession, in general, and, specifically, for the Big 4 accounting firms. However, although Fiji is not a country against IFRS, the difficulty in its application hampers its success.

Ball (2006) noted that the lack of an enforcement mechanism is an impediment to IFRS implementation. The regulatory bodies of the individual countries are perceived as not adequately ensuring that the companies adhere to the standards. Furthermore, the issue will become more serious when the supervisory bodies of the capital market are weak, thus, the compliance costs might exceed the benefits of convergence with the international standards (Abdelsalam and Weetman, 2003).

Despite numerous arguments concerning the advantages and limitations of IFRS convergence, Thomas (2009) suggested that the benefits of using IFRS are enormous and supersede the cost of not complying with them.

2.2.3 International Standards in Developing Countries

Some developing countries simply adopt IFRS standards without considering the suitability of such standards to the local needs. This is due to the fact that such countries do not have national standard setting bodies. There are various differences concerning the appropriateness of international standards between developed and developing countries. Chamisa (2000) listed four (4) major divergences on the attributes of developing countries: (i) dispersed in geographical locality, such as Asia, the Middle East, Africa and Latin America, (ii) differences in historical development and economic philosophies, for instance, companies in colonized and imperial countries (Zimbabwe and Portugal) and communist and capitalist countries like Egypt, (iii) vary in the phase of economic growth, which includes developed countries like Singapore and less industrialized countries such as Bangladesh, (iv) divergence on the richness of natural resources like Kuwait with abundant oil and gas resources compared to countries with poor natural wealth.

In order to gain some insights into the willingness of accounting professionals in developing countries to adopt a single set of standards, Joshi et al. (2008) sent questionnaires to survey the accountants and auditors to obtain their feedback on IFRS adoption. The researchers claim that it is important to understand the acceptability of IFRS in the Kingdom of Bahrain as the country is the financial hub of the Middle East, thus, its experience in IFRS adoption is likely to influence other countries. The responses received were 42 usable answers from companies' accountants and 28 replies from auditors. The majority of the respondents agreed that the decision to adopt IFRS is a valuable endeavour for Bahrain, however, its accomplishment could take some time due to several challenges faced by their country. Some of the obstacles are the increased cost of training for staff in order to equip them with sufficient knowledge in the implementation of IFRS, cost of providing the infrastructure and resources as a supporting mechanism for accounting professionals and matching the auditor's current quality control procedures to the new standards quality-control procedures. Similarly, due to the claim that IFRS is not suitable for the Greek environment, Ballas et al. (2010) examined the relevancy of such standards from questionnaires sent to the top 100 listed companies in Greece. Based on the responses received, the majority of the participants agreed that IFRS enhance the quality of financial statements, such as improving comparability, reliability and transparency.

There is also the issue of whether the adoption of international standards will enable harmonization of the accounting practices of the developing countries. The harmonization is a myth when some countries fail to comply with the standards. Peng, Tondkar, Lan Smith and Harless (2008) addressed the issue by employing 1999 and 2000 annual reports of listed companies in China that issued both A and B shares. The researchers constructed a checklist that consists of 77 items, and which comprises IFRS 1 until IFRS 40. In order to assess the level of compliance, and the degree of consistency and comparability, three (3) indices were computed, namely, Compliance Index, Comparability Index and Consistency Index. The change in these three (3) IFRS indices between 1999 and 2002 was regressed against five (5) independent variables in the multiple regression model. The study found a significant increase in the level of compliance from 1999 to 2002, improvement in the consistency indices between two (2) years although full compliance is not yet achieved and comparability indices showed a reduction in the gap between earnings reported under Chinese GAAP and net income under IFRS for 2002, as compared to 1999. These three (3) scientific facts prove that the transition from local GAAP to IFRS leads to the convergence of accounting practices with IFRS in developing countries.

Various groups of users, such as local and global harmonization organizations are usually interested to know the factors that influence the adoption of IFRS in developing countries. Information on the main drivers for IFRS compliance can be used by IASB to strategize its plan in enhancing and facilitating the IFRS transition. For that reason, Mir and Rahaman (2005) utilized a variety of archival data and constructed interviews with preparers and users of financial reports, members of SEC and members of professional accounting bodies for the purpose of assessing the motivation behind the decision to adopt IAS by the Bangladeshi government and accounting professionals. The study revealed that institutional legitimization was found to be a significant factor that influenced the decision to adopt IAS. This is because pressure was put on the Bangladeshi government by key international financial institutions and professional accounting bodies. More specifically, Zeghal and Mhedhbi (2006) examined five (5) factors that might influence 64 developing countries to adopt international accounting standards. The factors include the country's economic growth, level of education, extent of economic openness, Anglo-American culture and the existence of a capital market. In order to differentiate between countries adopting and not adopting IAS, a dichotomous variable was used, taking the value of '1' for countries adopting IAS and '0' if not. Based on the analysis of logic regression model, developing countries with highest literacy rate, the existence of capital market and under Anglo-American culture are the main influential factors for adopting universal accounting standards.

It is important to note that international standards appear to be irrelevant to the communist developing countries due to the fact that these countries do not have capital markets and enlistment of money and outlays are controlled by the state. Unlike capitalist developing countries where the IASC standards are pertinent, as the market is well established and the economy is dominated by the private sector. When some communist developing countries such as Indonesia and Sri Lanka changed to capitalist ideology, they created new socio-culture, politic, legal and education factors, which caused the accounting system to change (Chamisa, 2000). In addition, there is evidence that countries that are not under Anglo-America are more reluctant to adopt international standards (Zeghal and Mhedhbi, 2006). This might be due to the minor influence of non Anglo-American countries in the development of international standards and the language barrier, as English is the means of communication for international standards.

2.2.4 Accounting Standards in Malaysia

In Malaysia, the development of accounting standards began in 1957 with the formation of the MICPA.[11] In earlier years, the development of the accounting profession was under British influence (Zulkarnain and Shamsher, 2008). MICPA has been actively involved in providing technical guidelines, as well as conducting training and professional examinations for its members (Susela, 1999). MICPA's membership contains mainly chartered accountants (CAs) from Australia and the UK and only a few Malaysians. Malaysian accountants were trained by various overseas bodies as well as local examinations and training conducted by MICPA. Since its commencement until 1967, there was no legislation to regulate the accounting professions, until the Accountant Act came into effect. MICPA has received strong support from international accounting firms, namely Big Firms by encouraging its local trainees to sit for MICPA examinations (Susela, 1999).

In 1967, the Malaysian government enacted the Accountants Act 1967. As a result, MIA was established with the statutory authority to regulate the Malaysian accounting practices. Since its commencement, MIA's involvement in the development of

[11] On 6th July 1964, MICPA changed its name to the Malayan Association of Certified Public Accountants (MACPA). Later, on 6 July 2002, MACPA was renamed as MICPA again (MICPA, 2011).

standards was not unsatisfactory. Unlike MIA, MICPA[12] was the only leading body in the development of the accounting profession and the issuance of accounting standards. Malaysia's earliest accounting pronouncements, namely, Recommendations on the Presentation of Accounts, was issued by MICPA in 1972. The objective of such a pronouncement was to ensure that the financial reporting of public listed companies complied with the requirements of the Malaysian Companies Act 1965. Later, in 1977, MICPA started to issue Approved Accounting Standards in line with IAS and the Malaysian Accounting Standards (MAS). Malaysia and Singapore are considered the earliest countries from among the Association of Southeast Asian Nations (ASEAN) to adopt IAS and show support for the IASC's efforts (Saudagaran and Diga, 2000).

In 1985, MIA and MICPA came up with their proposal to merge in order to form a stronger accounting body. Unfortunately, their attempt failed as it was rejected by the cabinet. Nevertheless, in 1986 a practicing accountant was appointed as MIA president. The decision made by the Ministry of Finance was to replace the Accountant General as the MIA president with an accountant, who was previously a Council member of MICPA and a partner of Big 6 firms, from 1967 onwards. In 1987, the first Annual General Meeting was held and received considerable support from Association of Chartered Certified Accountants members to transform MIA into an active regulatory professional body. This reactivation process aimed to strengthen the MIA roles. The evolution has brought about changes to the accounting profession, especially with the decision to adopt IAS issued by IASC. Most of the IAS were adopted as Approved Accounting Standards. Due to the joint association between the

[12] For consistency purposes, MICPA also refers to MACPA (6 July 1964 – 28 Jan 2002)

two (2) bodies, Saudagaran and Diga (2000) contend that the standard setting process in Malaysia is much more complicated because it requires the approval of two (2) accounting bodies. The MIA and MICPA have to decide on the applicability of a particular IAS and whether any changes are needed. Therefore, in meeting the Malaysian legal and regulatory requirements, they have revised and reviewed selected IAS in accordance with the relevancy and applicability to the local context. For instance, among the IAS that were not been adopted were IAS dealing with government grants, inflation accounting, related parties disclosures and accounting for financial institutions. In addition, when certain standards were not covered by IAS, the MIA and MICPA also issued MAS. MAS were drafted after technical committees had identified specific areas that warrant accounting standards. For example, standards that were applicable to unique industries like aquaculture and insurance.

The standards setting process begins with the circulation of proposed IAS-based standards and MAS to members, relevant government agencies and the private sector. A period of six (6) months is allocated for the pertinent parties to provide feedback and comments on exposure drafts. Next, the MIA and MICPA revise the proposed standards in accordance with the responses received. Then, the proposed standards are approved by the respective Councils of both bodies. Finally, within six (6) months of the approval, MIA and MICPA issue the approved accounting standard (Saudagaran and Diga, 2000).

On 1 March 1993, the SC was set-up under the Securities Commission Act 1993. It is a statutory body with power to examine and compel the operation of Malaysian securities and the financial futures market. The commission issued its own disclosure requirements for companies listed on the stock exchange. The scope covered by the SC are Corporate Disclosure Policy, Post Listing Obligation and mandated adherence to approved accounting standards by the MIA and MICPA and other statutory requirements. Corporate Disclosure Policy demands that companies maintain a high level of disclosure. The Post Listing Obligation requires public listed companies to submit interim reports, annual reports and related parties' transactions. The SC is responsible to and reports to the Minister of Finance and presents its financial statement every year to the Parliament.

A similar enforcement was introduced by the Kuala Lumpur Stock Exchange (KLSE), which was renamed as Bursa Malaysia. The Bursa Malaysia requirements are applicable to all public listed companies. Companies that fail to comply with the Bursa Malaysia Listing Requirements might be de-listed. The body also demands that public listed companies comply with the accounting standards, requirements of the Company Act 1965 and mandates for the submission of reports and additional disclosures.

In 1997, under the Financial Reporting Act 1997, MASB and the Financial Reporting Foundation (FRF) were formed. The main objective of MASB is to enhance the quality of accounting standards in Malaysia and to contribute to the development of international accounting standards. At the same time, the FRF acts as an overseeing body for the operating activities of MASB. MASB has been given the responsibility to issue accounting standards, issue statement of principles, develop a conceptual framework and continue the work that was done prior to 1997. Initially, 24 IAS and MAS were adopted with the status of approved accounting standards. In addition, the

Company Act 1965 was amended to require companies to comply with approved accounting standards.

In 2004, a number of exposure drafts and specific exposure drafts known as ‘Proposed Improvements to MASB Standards’ were issued. The purpose of this exposure draft was to be consistent with changes made by the IASC on IAS standards. The improvements affected 13 MASB standards. In addition, MASB also issued Interpretation Bulletins to assist users to further understand different interpretations or applications of particular standards with IAS. For instance, Interpretation Bulletin 1 focuses on preliminary and pre-operating expenditure within the coverage of MASB 1, Presentation of Financial Statements. The pronouncements issued by MASB include Technical Releases, Statement of Principles, Urgent Issue Abstracts and Guidance Notes. The MASB pronouncements serve as guidelines when particular accounting issues are not included in either IAS or MAS.

Up to January 2005, 32 MASB standards had been issued and adopted. The standards issued by MASB were referred to as MASB 1, MASB 2 and so on. Nevertheless, beginning January 2005, all MASB standards were renamed as Financial Reporting Standards (FRS). The main reason for the change of name was to converge with IFRS. At the same time, the number assigned was renumbered to match with the IFRS. For instance, MASB 1 Presentation of Financial Statements was renumbered FRS 101, IFRS 1 is known as FRS 1, IFRS 138 is FRS 138 and so forth. As at January 2006, MASB had adopted 21 new IFRS with the effective date for the use of these new standards being 1 January 2006. Compliance with IFRS is legislated under the Financial Reporting Act 1997. Up to 2007, 10 years after MASB commencement, the body had issued 208 technical pronouncements.

The regulatory bodies in Malaysia include the Companies Act 1965, the Income Tax Act 1967, the Securities Commission Act 1993, the Accountant Act 1994, the Financial Reporting Act 1997, the Bursa Malaysia Listing Requirements, the Securities Industry Act 1983, the Banking and Financial Institution Act 1989 and the Islamic Banking Act 1983. These bodies are responsible for regulating the accounting and reporting practices of public listed companies in Malaysia. Therefore, all companies incorporated under the Companies Act 1965 are required to provide income statement accounts and balance sheets in accordance with the requirement of the Ninth Schedule of the Company Act 1965. Bank Negara Malaysia (Central Bank) is another government agency, which issues its own financial reporting rules for banks and financial institutions. The guidelines deal specifically with non-performing loans and interest and the sample of financial statements for banks. The operations of banks and financial institutions are governed by The Banking and Financial Institutions Act 1989. In addition, the Inland Revenue Board is in-charge of income and losses ascertainment and the collection of taxes.

Lazar et al. (2006) stressed that some requirements of the regulatory authorities apply to specific requirements or specific companies, thus, they are less comprehensive. For that reason, companies have to apply the GAAP in order to produce high quality financial reporting. In terms of quality assessment on the financial reporting, the Financial Statement Review Committee (FSRC) was established under the MIA, which is responsible for reviewing the financial reporting behaviour of the companies.

The committee reviews a sample of companies' annual reports every year to ensure that they comply with the approved accounting standards and legislation requirements. In a case of non-compliance, auditors and executive officers are informed of such departures. Consequently, they are observed and monitored vigilantly in the subsequent periods (Saudagaran and Diga, 2000). In order to regulate the conduct of MIA members, the statutory body has issued standards of conduct, namely, By-Laws (On Professional Ethics, Conduct and Practice) and also other standards such as Malaysian Approved Standards on Auditing (MASA). It is important to note that professional accounting bodies and accounting standard setters in Malaysia receive continuous and strong support from the Malaysian government.

In the Malaysian context, there has been very scarce research carried out to examine the IAS or IFRS adoption among Malaysian listed companies. Regrettably, some of the existing studies merely utilized descriptive analysis with a small sample size. For instance, Wan-Hussin, Che-Adam, Lode and Kamardin (2003) examined the compliance level of new standards effective on or after 1 January 2002. The researchers focused on one (1) standard, namely MASB 22 on segment reporting. Using 32 early adopters of MASB 22 in 2001 and 2002 annual reports, their segments disclosure were analysed in detail. The results reveal that more than half of the early adopters companies did not fully adhere to the disclosure requirements under MASB 22.

In the recent IFRS environment, Carlin et al. (2009) investigated the compliance level of mandatory FRS 136 on public listed companies audited by Big 4 auditors since the transition to FRS 136 became mandatory on 1 January 2006. The final sample, which consists of 34 companies with goodwill in the balance sheet, were analysed to determine the extent of IFRS adherence. Surprisingly, the study revealed that the majority of the public listed companies in Malaysia did not comply with hardly any of the basic requirements under FRS 136 in the first year of adoption. Both Carlin et al.'s (2009) and Wan-Hussin et al.'s (2003) study concentrated on one (1) specific standard and small sample size, however, their study provides insight into compliance with a certain FRS. Accordingly, more studies using larger samples, longer period and involving the testing of hypothesis might be more meaningful to generalize the results.

2.2.5 Past Studies on IFRS Adoption

Past research on the adoption of IFRS mainly concentrated on the effect of adoption on accounting quality and financial statements quality (Paananen and Lin, 2009; Christensen et al., 2008; Soderstrom and Sun, 2007; Daske and Gebhardt, 2006), the market reaction (Armstrong et al., 2010), the forecast accuracy (Hodgdon, Tondkar, Harless and Adhikari, 2008; Cheong et al., 2010), the value relevance of accounting numbers (Taylor, 2009; Stent et al., 2010), the economic consequences (Daske, Hail, Leuz, and Verdi, 2008) and the perception of the preparers of accounts on convergence (Jones and Higgins, 2006). Accounting quality is associated with economic consequences, such as efficiency of capital allocation, cost of capital and tax reporting incentives. Soderstrom and Sun (2007) claimed that three (3) factors affect accounting quality: the quality of the standards, a country's legal and political system and the financial reporting incentives. Daske and Gebhardt (2006) compared the disclosure quality scores obtained from detailed analysis of annual reports of

Austrian, German and Swiss companies to assess the quality of financial statements after the IFRS implementation. The researchers found that the quality of financial statements of all three (3) European countries has increased significantly for the cross sections and for firms that switch to IFRS from local standards. The results are identical for voluntary and mandatory adopted IFRS standards as fulfilment of the German Stock Exchange requirements. Paananen and Lin (2009) compared accounting quality in three (3) different phases: IAS period, voluntary IFRS and mandatory IFRS. The measurements for accounting quality are income smoothing, value relevance and timely loss recognition. In contrast to Daske and Gebhardt's (2006) study, Paananen and Lin (2009) revealed that IFRS adoption reduced all accounting quality attributes during the IFRS mandatory period as compared to the IAS era and IFRS voluntary phase. The contradictory results of these two (2) studies might be due to the different measurements of quality used, in which the former utilized disclosure quality scores and the latter market-based measurement.

Instead of using consensus or mean forecast, Hodgdon et al. (2008) used individual-analyst forecast level to measure the forecast accuracy in order to examine the effect of firm level disclosures' compliance on analysts' earnings forecast errors. The researchers employed 2-year panel data for 87 firms so that they could control for the known and unknown factors for each individual analyst that might affect the forecast. Both weighted and unweighted disclosure scores were used to measure the compliance level. The study revealed that there is a highly significant relationship between analyst forecast error and IFRS compliance. Therefore, complying with IFRS lessens the information asymmetry and the forecast accuracy becomes more accurate. In a similar vein, Cheong et al. (2010) examined earnings' forecast accuracy in three

(3) countries, namely, Australia, Hong Kong and New Zealand over a longer period (2001 to 2008). Using 66 sample companies, the results are consistent with Hodgdon et al.'s (2008) study that there is a negative relationship between post-IFRS period and earnings' forecast errors. Hence, both studies signal that IFRS transition enhances the quality of financial statements.

The impact of IFRS adoption on the value relevance of accounting numbers has been investigated by Taylor (2009) and Stent et al. (2010). Taylor (2009) employs cross-country data for the first time of IFRS adoption in the UK, Hong Kong and Australia. The final sample consists of 50 companies from each country with a total of 150 companies in 2005. Surprisingly, the results reveal weak support concerning the capacity of IFRS to provide higher value relevance as compared to local GAAP. In a similar vein, Stent et al. (2010) examined whether the IFRS adoption might increase the quality of financial statement elements and accounting ratios. New Zealand data for 56 listed companies from 2005 until 2008 were utilized. The results indicate that several main ratios are greatly affected, such as return on assets, return on equity, debt ratio and return on sales. Thus, contradicting Taylor (2009), the researchers conclude that the transition of IFRS in New Zealand enhances the value of accounting numbers. Nevertheless, the small sample of Stent et al.'s (2010) study might mean that generalization of the results is questionable.

Based on the event-study research design, Armstrong et al. (2010) investigated the reaction of the stock market on 16 events associated with the adoption of IFRS on 3,265 European firms. Referring to the overall investors' reaction, the study revealed that there is a positive association between stock market reaction and IFRS adoption.

Moreover, cross sectional differences disclose a positive relationship between the companies with less information quality and higher information asymmetry prior to IFRS adoption. The researchers concluded that investors in European countries support that the benefits of IFRS adoption outweigh the costs to comply with the standards.

Despite considerable resistance to the IFRS proposal by some countries, which relate to the lower quality of the country's current accounting standards, Jones and Higgins (2006) examined the perception of the most responsible personnel to implement IFRS adoption – the accountants. There are four (4) major findings from the study: (i) larger firms are more knowledgeable than smaller firms are, concerning the emphasis of IFRS on firm's reporting and more advanced in the implementation process; (ii) the IFRS give greater emphasis to the financial reporting of the firms, which is absent in the Australian Accounting Standards, for instance, recognition of financial instruments, intangible assets and share-based compensation; (iii) compliance costs associated with IFRS implementation is significant for most firms but benefits cannot be determined clearly, and (iv) the extent of IFRS implementation will be greater for larger entities.

To summarize, while many studies have been conducted utilizing the issue of IFRS adoption, there is still no solid evidence to answer the question concerning the impact of IFRS on accounting quality, market reaction, forecast accuracy and value relevance on accounting numbers. For instance, there is a conflict between the results of Daske and Gebhardt (2006) versus Paananen and Lim (2009) where the former found an increase in accounting quality and the latter discovered that there is reduction in quality. Likewise, Stent et al. (2010) revealed that IFRS enhance the value relevance of accounting numbers, while Taylor (2009) did not find that the accounting numbers based on IFRS are significant to the users. Hence, it is difficult to reach one (1) concrete conclusion on the position of IFRS transition due to the conflicting results of the earlier literature.

Moreover, previous studies have shown that there is still a gap in the IFRS studies, in which the impact of IFRS complexity on audit pricing[13] has not been given serious attention. Thus, the next section provides a discussion on the trends, determinants and earlier studies on the impact of regulations on audit fees, which, in turn, directs to the development of the hypotheses and research model.

2.3 Audit Pricing Literature

2.3.1 Long-Term Trends of Audit Fees

Evolution towards the competitive environment in audit pricing began as early as 1972, which initially documented a long-term downward trend in audit fees, as proven from a study conducted by Maher, Tiessen, Colson and Broman (1992). The researchers investigated the trend of audit fees during a period of increased competition in the audit services market. They utilized data from 78 companies using first difference design to determine whether the real audit fees decreased between 1977 and 1981. The study revealed a significant decrease in the real audit fees for the period under study. Nevertheless, the study only utilized data for two (2) years

[13] Schadewitz and Vieru (2010) examined the association of IFRS adjustments using comparability index (CI) on audit and non-audit fees, focusing merely on the first year of adoption and the sample consists of small and medium size companies.

covering a 5-year period. Furthermore, the researchers did not use the log form of audit fees (assumes linear relationship exists between audit fees and total assets), which, in turn, resulted in a misspecified first-difference audit fee model.

Subsequently, Sanders, Allen and Korte (1995) extended Maher et al.'s (1992) time frame from 1985 to 1989 to assess the impact of competitive tendering of 159 municipal cities on the long-term trend of audit pricing. The researchers used the 'fee change' metric to determine the difference between predicted and actual audit fees over the five (5) year period. They assumed that stationary assumption was met in the audit fee model. In line with Maher et al.'s (1992) study, the results also indicated that the municipal audit fees decreased over the 5-year period. The researchers assert that the restructuring that occurred in the industry during the second half of the decade could have resulted in a slower rate of fee decline because it left fewer competitors in the market. Nevertheless, the results should be generalized carefully since the validity of stationary assumption was questionable.

A study conducted by Menon and Williams (2001), provided a systematic verification on long-term trends in audit fees from 1980 through 1997. The study covered a much longer period (18 years) compared to the studies of Maher et al. (1992) and Sanders et al. (1995).[14] They analysed four (4) subsamples (1980-1988; 1983-1991; 1986-1994 and 1989-1997) and made adjustments for changes in size, complexity and risk of client. In contrast to the studies discussed above, the researchers reveal the dynamic movements in audit fees in which 1983-1991 audit fees were higher than the 1980s

[14] Similar to Maher et al. (1992) and Sanders et al. (1995) used data for two (2) years to represent a five-year period.

level and the 1990s level was not significantly different from that of the 1980s fee level.

Analogous to Menon and Williams (2001) time-span, McMeeking, Peasnell and Pope (2007) conducted a study to examine the long-term relationship between market structure, competition and pricing in the UK accounting service market over 18-years. Based on the 7,255 firm-year observations, the data from 1985 until 2002 were pooled, and dummy variables designating pre and post merger observations were included in the audit fee model. They revealed a significant increase in audit fees over the period of reduced competition among Big accounting firms.

Hence, the vibrant evidence in fee movements between the different past studies discussed above provides an important avenue to investigate fee changes in the long-term trend over different periods.

2.3.2 Determinants of Audit Fees' Studies

Many studies have been carried out investigating the determinants of audit fees paid by client companies across countries. Past research has been reported using data from developed countries including the US (Simunic, 1980; Palmrose, 1986; Francis and Simon, 1987; Turpen, 1990), the UK (Chan, Ezzamel and Gwilliam, 1993; Pong and Whittington, 1994; Che-Ahmad and Houghton, 1996; Peel and Roberts, 2003; Mellett, Peel and Karbhari, 2007), Canada (Anderson and Zeghal, 1994; Beauliue, 2001), Australia (Francis, 1984; Francis and Stokes, 1986; Craswell, Francis and Taylor, 1996; Jubb, Houghton and Butterworth, 1996), France (Gonthier-Besacier and

Schatt, 2007), Belgium (Caneghem, 2010), New Zealand (Firth, 1985) and Singapore (Low, Tan and Koh, 1990; Killough and Koh, 1991); developing countries such as, Bahrain (Joshi and Al-Bastaki, 2000), Jordan (Naser and Nuseibeh, 2007), Romania (Pop and Raluca- Iosivan, 2008), Kuwait (Al-Harshani, 2008), Bangladesh, India and Pakistan (Ahmed and Goyal, 2005) as well as cross-nation comparison (Haskins and Williams, 1988; Simon et al., 1992; Taylor and Simon, 1999).

Most of the studies have been undertaken to develop models to explain the variation in the extent of audit fees paid by companies and the majority utilised multivariate analysis. Some findings indicated that an auditee size variable or auditor's workload is strongly significant in explaining the level of audit fees and that these are consistent across the majority of earlier studies. Many studies also suggested that auditee complexity is an important determinant to represent the extent of audit efforts. The risk measurement that is normally represented by the leverage, loss of client or liquidity ratio would also result in mixed evidence.

Simunic (1980) is the author of a seminal study on audit pricing and provided a theoretical underpinning for the audit fee model that later was widely used. The seminal study was carried out on 397 public listed companies in the US during 1977. A series of least squares regression was conducted on the demand-based audit fee determinant model developed by the researcher. The results documented that the control variables that significantly determine audit fees were total assets, number of subsidiaries, type of industry, ratio of foreign sales to total assets, ratio of account receivables to total assets, ratio of inventories to total assets, loss in the past three (3) years and audit opinion. Later, Gist (1992) used multiple regression analysis to regress audit the fee model of US public listed companies from 1983 to 1985. The results of 95 US public listed companies revealed that variables that were significant as determinants of external audit fees are classified as size and complexity factors (total assets, the number of audit locations, percentage of foreign assets to total assets), risk factors (return on investment and long term debt to total assets), regulation factor (number of security registration forms filed annually with the SEC) and auditor size factor (Big 8 or non-Big 8).

In the New Zealand market, the first attempt to investigate the determinants of audit pricing was conducted by Firth (1985) in which 96 manufacturing companies were used as a final sample. Aligned with Simunic's (1980) study, the researcher tested the validity of three (3) determinants, namely, size, complexity and risk, for the New Zealand public listed companies for 1981 and 1983. The study revealed that total assets to represent size factor, ratio of accounts receivable to total assets and current costs under complexity factor and unsystematic stock market risks as measurement for auditee risks were significant determinants in explaining audit fees. In contrast, a study conducted by Johnson, Walker and Westergaard (1995) based on the audit fee regression model for the full sample of 179 companies found that risk factor was not significant in determining audit pricing in New Zealand. However, other attributes are comparable to Firth's (1985) findings, in which total assets, ratio of inventory and accounts receivable to total assets, number of subsidiaries, company listing status, and auditor size were significant and had the predicted effect on audit fees.

The initiators of audit fee literature in Australia were Francis (1984), and Francis and Stokes (1986). Both studies concentrated on the fee premium difference between the

Big Firms and non-Big Firms of Australian publicly traded companies. The final sample for Francis (1984) was 150 companies from 1974-1978 and 192 companies for Francis and Stokes (1986) for 1983 data. Francis (1984) modified Simunic's (1980) audit fee model where the control variables consisted of total assets, square root of subsidiaries, quick ratio, ratio of stockholders' equity to total debt, current assets to total assets, audit opinion, return on investment, loss in any of the three (3) most recent reporting years and accounting year end. Francis and Stokes (1986) utilized the similar control variables except the use of ratio of receivables plus inventory rather than current assets to measure complexity. Out of nine (9) control variables, Francis (1984) found four (4) significant independent variables: log of total assets, number of subsidiaries, ratio of current assets to total assets and Big 8 auditors whereas Francis and Stokes (1986) revealed that three (3) variables, namely, total assets, square root of subsidiaries and ratio of receivables plus inventory significantly influence audit fees for both 96 small and 96 large clients.

All the past studies discussed above provided evidence on the fee determinants for both small and large auditee companies. More specifically, Francis and Simon (1987) concentrated just on the small auditee segment with total revenues less than $125 million. The final sample consisted of 220 companies for the accounting year-end 1 January 1984 until 30 June 1985. Five (5) control variables were incorporated in the audit fee model with all control variables significantly associated with audit fees. The significant variables were log of total assets, square root of subsidiaries, ratio of foreign subsidiaries to total subsidiaries, ratio of account receivables and inventories to total assets and subject to audit opinion.

In the UK, Pong and Whittington (1994) collected data from 577 UK listed companies for eight (8) years, 1981-1988. The researchers incorporated all audit fee determinant variables: (i) auditee size, which was measured by client's assets and sales, (ii) complexity was measured by number of subsidiaries, and (iii) risk factor was measured by pre-tax profits. The panel data analysis revealed that auditee size and complexity were fundamentally important with regard to the determinants of audit fees charged while risk factor was not statistically significant. In contrast to Pong and Whittington's (1994) study, Che-Ahmad and Houghton (1996) discovered that all determinant factors, namely, auditee size (total assets), complexity (number of consolidated subsidiaries plus one) and risk (systematic risk) were found to be significant in explaining the UK audit fee model. In addition, the auditor location significantly contributed to the fees charged even though the association was not strong.

Since no empirical study had been conducted in Norway prior to that of Firth (1997), the researcher was motivated to examine factors that influence audit fees paid by companies listed on the Oslo Stock Exchange in Norway. Based on the 1991 and 1992 data, the audit fee determinant model was constructed using a sample of 157 to predict future fee charges. The regression analysis revealed that the size of client as measured by total assets was the most important factor in the model. Surprisingly, both complexity and risk factors were not statistically significant. In conjunction with the recent requirement to disclose audit fees from 2007 onwards in Belgium, Caneghem (2010) took the opportunity to study the audit pricing determinants in his country. The researcher discovered that the determinant variables explain 64% of the

Belgium audit fees with all three (3) factors (size, complexity and risk) being highly significant.

When reaching the 1990's, the number of audit fee determinant studies were growing in emerging countries, however, they were still far behind the empirical research in developed countries. Among the earliest literature were studies conducted in Singapore (newly industrialized country in 1986). In this context, Low et al. (1990) predicted the model of audit fees in the Singapore audit services market. The data was obtained from 291 companies covering six (6) major industries. The results showed a strong association between audit fees and three (3) variables: total assets (client size), type of industry (complexity) and loss (risk) in any of the previous three (3) years. From 2000 onwards, quite a few scholarly articles were published, for instance, Ji-hong (2007) investigated the audit pricing factors in China using the stepwise OLS method.[15] The data for 144 companies listed on Market A of the Shanghai and Shenzhen Stock Exchange were initially tested on 15 variables. Subsequent to removal, only four (4) variables were maintained in the regression. The important variables consisted of square root of total assets multiplied by total assets, square root number of consolidated subsidiaries, quick ratio and the Big 4 firms.

Naser and Nuseibeh (2007) examined the variability factors to determine audit pricing in the unique setting of Jordan. The sample was derived from the Amman Stock Exchange (ASE) for the fiscal year 2001/2002. Out of 202 companies, 181 copies of the latest annual report were received to represent the final sample. In line with previous studies, the determinant variables tested were categorized into client size,

[15] The OLS stepwise deleted some variables in model one when the p-value was more than 0.05 of each variable.

complexity and risk as well as a few other variables. Multivariate analysis discovered that the significant determinants of audit fees include corporate size measured by the number of subsidiaries; complexity measured by the ratio of accounts receivables to total assets and ratio of inventory to total assets; and risk measured by leverage ratio and other determinants such as type of industry and Big Firms auditors. The first empirical evidence of audit pricing literature in Kuwait was conducted by Al-Harshani (2008). The survey method was carried out on six (6) audit firms for the financial year ended 2005. The data for 49 audit engagements was obtained, consisting of financial and non-financial data to construct an audit fee model. Four (4) variables were found to be significantly related to audit fees: total assets, which was the dominant factor; quick ratio; debt ratio and the ratio of net profit to shareholders' equity.

Overall, earlier studies have consistently provided evidence that three (3) determinants are significant in the audit fee model from different audit markets: auditee size, complexity and risks.

2.3.3 Explanatory Variables of Audit Fees

The majority of the previous studies have demonstrated that three (3) core variables are the important attributes in the audit fee model. The variability of audit pricing is normally associated with the client size, complexity and risk. In addition, certain other factors such as audit firm attributes, auditor's change, industry effect and several governance characteristics might contribute to the model significantly.

2.3.3.1 Auditee Size

Che-Ahmad and Houghton (1996) asserted that there is a positive relationship between the client size and the audit fee. There are several reasons for this relationship, first, the increase in audit work that has to be carried out, second, it is easier for the auditor to achieve economies of scale, and third, an increase in audit sample is required for compliance and substantive testing. Naser and Nuseibeh (2007) contended that large companies depend more on financial markets to raise their capital compared to small companies. For this reason, they have to provide a detailed high quality disclosure, which requires additional audit work. Furthermore, large companies are exposed to political costs and such costs can be reduced by appointing an established audit firm with additional costs. Moreover, their operations are also much more complex than small companies and require extensive audit work and time.

In most previous research, the results show that the auditee size is the most important explanatory variable to determine audit fees (Turpen, 1990; Mellett et al., 2007; Caneghem, 2010). There are several indicators of auditee size and the most common are total assets and total sales. Some studies have used net profit before tax (Low et al., 1990) and the number of employees (Taylor and Simon, 1999).

There is evidence to support that the majority of the prior studies have used total assets as a measure of size. According to Pong and Whittington (1994) total assets are used as a proxy for auditing efforts expended to validate the physical existence of the assets and to verify the carrying value (Joshi and Al-Bastaki, 2000). For instance, prior studies conducted by Simunic (1980), Francis (1984), Francis and Wilson

(1988), Haskins and Williams (1988), Davis, Ricchiute and Trompeter (1993), Gist (1994), O'Keefe, Simunic and Stein (1994), Johnson et al. (1995), Taylor and Simon (1999), Joshi and Al-Bastaki (2000), Gul and Tsui (2001), Ahmed and Goyal (2005), Gonthier-Besacier and Schatt (2007), Al-Harshani (2008), Khalil, Magnan, and Cohen (2008), Feldmann, Read and Abdolmohammadi (2009) and Caneghem (2010) used natural log of total assets as an indicator of auditee size. Other studies, such as Firth (1985), Low et al. (1990) and Gist (1992) utilized square root of total assets as the size indicator in their audit fee model. All of them found a strong and positive correlation between total assets and the level of audit fees.

Chan et al. (1993) suggested differently in that the log turnover was used as an indicator of auditee size instead of log total assets. The reason being that a measure of size based on revenue may be a superior explanatory variable if auditors employ a transaction-based approach to the audit. Gonthier-Besacier and Schatt (2007) pointed out that since audit pricing is set based on the basis of time spent to complete the works, bigger companies require more hours due to greater transactions. For this reason, Maher et al. (1992), Myrteza and Zhang (1996), Ezzamel, Gwilliam and Holland (1996) and Peel and Roberts (2003) used client's revenue or turnover to represent auditee size in the fee model. Multivariate tests also indicate that revenue has a positive coefficient and is significantly related to fees. The use of revenue is regarded as a proxy for audit transaction efforts (Pong and Whittington, 1994). Nevertheless, using sales as an indicator has been criticized, as the definition of sales might not be the same between companies, which leads to comparability problems. However, this does not have any effect on the results of the study in which natural log of sales was the most significant in explaining the audit fee variability.

In addition, in a first-difference regression model conducted by Maher et al. (1992) and Iyer and Iyer (1996), the change in real revenues was used to measure the change in size. The reason for using revenues instead of assets to measure the size was because total assets are recorded in the books at historical cost, thus, it would be inappropriate to deflate the total assets by the consumer price index to reflect the changes in price. Another study, that of Palmrose (1989), utilized log of separate audit report as a surrogate for client size. Notwithstanding the various measures discussed above, this current study uses the log of total assets (InSIZE) as a proxy for the increase in verification on larger companies.

2.3.3.2 Audit Complexity

Mellett et al. (2007) argued that complexity has no direct measure, thus, proxies have to be used to represent the probable number of sub-systems in the accounting process to be examined. Most of the previous research used either factors related to the number of subsidiaries and locations of the company or to a particular balance sheet's composition measures, such as the ratio of accounts receivable to total assets or the ratio of inventory to total assets.

Earlier studies proved a positive relationship between audit fees and complexity factors, such as the number of subsidiaries and audit locations (Simunic, 1980; Francis, 1984; Haskins and Williams, 1988; Palmrose, 1989; Gist, 1992; Maher et al., 1992; Gist, 1994; Taylor and Simon; 1999; Menon and Williams, 2001; Gul and Tsui, 2001; Knechel and Willekens, 2006; Al-Harshani, 2008; Khalil et al., 2008; Zulkarnain and Shamsher, 2008; Caneghem, 2010), industrial diversification (Low et al., 1990; Chan et al., 1993), issued separate audit reports (O'Keefe et al., 1994), ratio of inventory to total assets (Simunic, 1980; Low et al., 1990; Feldmann et al., 2009), ratio of accounts receivable to total assets (Myrteza and Zhang, 1996), ratio of inventories and receivables to total assets (Firth, 1985; Taylor and Simon; 1999, Naser and Nuseibeh, 2007; Feldmann et al., 2009; Caneghem, 2010), current cost data reporting (Firth, 1985), foreign sales (Maher et al., 1992; Iyer and Iyer, 1996; Kealey, Lee and Stein, 2007), foreign operations (Joshi and Al-Bastaki, 2000), foreign assets to total assets (Gist, 1994; O'Keefe et al., 1994) and clients' extent of integrity (Beauliue, 2001).

The greater the complexity through decentralisation and diversification of the companies, the greater will be the number of decision centres in an organisation whose activities need to be monitored (Maher et al., 1992). For instance, Davis et al. (1993), Khalil et al. (2008), and Zulkarnain and Shamsher (2008) found that the number of subsidiaries was positively related to the audit fees and the relationship was very significant. This is because as the number of subsidiaries grows, auditors require more testing and verification and, thus, increase the audit price charged to the client.

Chan et al. (1993) argued that the actual number of subsidiaries or locations are not likely to be a completely reasonable measurement of the complexity indicator since the subsidiaries in a group might be influenced by legal and taxation issues. Some researchers suggest that certain types of current assets such as inventory and accounts receivable are more difficult to audit compared to other current assets like cash or near cash assets (Chan et al., 1993). With regards to inventories, they normally encompass a great variety of items, hence, it is difficult to determine the appropriate cost, verifying the existence of ownership and measuring net realisable value. Similarly, debtors usually consist of a large number of transactions, thus, making it difficult to ensure the accuracy of the account balances or the recoverable amount of recorded transactions. Based on this argument, Simunic (1980), Firth (1985) and Low et al. (1990) integrated an inventory to total assets in the audit fee model to measure the relationship between audit fees and complexity.

In this study, complexity was represented by the square root of the number of subsidiaries (SQSUBS) (Simunic, 1980; Francis, 1984; Gist, 1992; Maher et al., 1992; Menon and Williams, 2001) as a proxy for the degree of audit extensiveness. In addition, inventory to total assets (INV) and accounts receivable to total assets (REC) (Simunic, 1980; Firth, 1985; Low et al., 1990; Myrteza and Zhang, 1996; Feldmann et al., 2009) were used due to the complexity in verification and accurateness of transactions.

2.3.3.3 Audit Risk

Risk is the most significant factor for the demand of audit services (Knechel and Willekens, 2006). There are two (2) types of risk, namely, audit risk and business risk (Thornton and Moore, 1993) and the most frequent risk associated with audit engagement is the possibility of auditors being sued due to the audit failure (Mellett et al., 2007). When engaging high risk clients, the degree of riskiness on the auditor's part can be expected to increase due to the fact that the audit firm will have to undertake more detailed work to mitigate the risk or perhaps as a compensation for a high risk engagement (Al-Harshani, 2008). The higher risk would motivate auditors to produce a more comprehensive audit in terms of better documentation and extensive verification testing (O'Keefe et al., 1994). Stice (1993) contended that companies risk is regarded as a proxy for expected benefits from recovery of losses. Higher risk companies provide a superior incentive for investors to hunt for a legal recovery in the absence of audit failure. According to Naser and Nuseibeh (2007) business risk is complicated to measure. Some researchers might argue that the micro-economic measures, such as client's financial position and performance, would be a good proxy for client's business risks (Simunic, 1980; Francis, 1984; O'Keefe et al., 1994), while some might contend that market-based measures such as beta and unsystematic risks are better business risk proxies (Che-Ahmad and Houghton, 1996; Firth, 1985).

The greater the proportion of total assets being financed by leverage, the greater the auditor's risk and the greater need for extensive audit procedures. For this reason, Naser and Nuseibeh (2007) used the gearing ratio to measure the riskiness of the auditee's balance sheet and found a significant association with audit fees. Other studies, such as Taylor and Simon (1999), O'Keefe et al. (1994) and Joshi and Al-Bastaki (2000), also proved a significant positive association between debt ratio and audit fees. However, Francis and Simon (1987) did not find the existence of a significant relationship.

Similarly, companies that experience loss in the current year would become an indicator for the tendency to bankrupt, thus, exposing the auditors to risk of litigation (Gul and Tsui, 2001). Moreover, the presence of loss might trigger the auditor to suspect that the client is involved with suspicious activities (Firth, 1985), thus, the poor companies performance, the higher auditor's risk and, subsequently, the higher audit fees (Caneghem, 2010). Some studies have provided evidence of a significant positive relationship between financial losses and audit fees, such as Simunic (1980), Low et al. (1990), Kasai (2009) and Caneghem (2010). In contrast, studies by Gul and Tsui (2001) and Firth (1985) failed to prove a significant relationship between the losses variable and audit fees.

The extent of the liquidity position of the companies, measures the ability of the clients to meet the short-term obligation on time when it is due. Less liquid clients might suggest to the auditor that the client is short of cash or needs cash to repay short-term obligations, which, in turn, places the auditor in a risky position (Al-Harshani, 2008). The higher audit fees charged due to poor liquidity position has been proven by studies of Ji-hong (2007), even though Low et al. (1990) and Al-Harshani (2008) found no significant association between the liquidity ratio and audit fees.

Other measurements to represent the riskiness of an audit engagement would include the return on assets (Simunic, 1980; Francis, 1984; Firth 1985; Gist, 1992; Gist, 1994; Chan et al., 1993), loss incurred (Simunic, 1980; Francis, 1984; Firth, 1985; Low et al., 1990; Taylor and Simon; 1999; Gul and Tsui, 2001), qualified audit opinion (Simunic, 1980; Francis, 1984; Low et al., 1990; Palmrose, 1989; Gist, 1992), debt to equity ratio (Al-Harshani, 2008); leverage ratio (Francis, 1984; Low et al., 1990; Gist, 1992; Gist, 1994; O'Keefe et al., 1994; Joshi and Al-Bastaki, 2000; Taylor and Simon; 1999; Naser and Nuseibeh, 2007), beta and unsystematic risk (Firth, 1985; Gist, 1992), ownership (Chan et al., 1993), liquidity ratio (Francis, 1984; Low et al., 1990; Al-Harshani, 2008), inventory to total assets (Iyer and Iyer, 1996; Kealey et al., 2007), receivable to total assets (Knechel and Willekens, 2006; Kealey et al., 2007), company's growth (Gonthier-Besacier and Schatt, 2007), type of industry (Palmrose, 1989; Gonthier-Besacier and Schatt, 2007); public limited companies (Palmrose, 1989; O'Keefe et al., 1994) and return on investment (Gul and Tsui, 2001; Al-Harshani, 2008; Khalil et al., 2008).

Despite various proxies to measure the risk of audit works, this current study utilizes leverage ratio (DR) as a measure of client's exposure to default risk (Francis, 1984; Low et al., 1990; Gist, 1992), current ratio (CR) (Francis, 1984; Low et al., 1990) to represent the ability of companies to meet immediate payments and qualified loss in the current year (LOSS) as an indicator for tendency for bankruptcy.

2.3.3.4 Other Variables

Besides the three (3) basic categories of audit fee determinants, namely, client size, risk and complexity, previous studies have included other determinants that are expected to contribute to the changes in the magnitude of audit charge. Among the well-known surrogates are the accounting year-end, the auditor change and the type of industry.

According to Chan et al. (1993), most of the public listed companies in the UK close their accounts on 31 December every year, thus, the period between 31 December until 31 March is commonly associated with the peak audit season. During this constraint time, audit firms have to incur extra operating costs such as increase in overtime period or engage more audit staff. Nevertheless, Chan et al. (1993) did not find any significant relationship between peak audit period and audit fees. Similarly, a study by Che-Ahmad and Houghton (1996) derived a positive insignificant influence of the busy season in UK medium size companies. The insignificant effect of highest demand period has also been found in the smallest clients of the UK manufacturing companies (Peel and Roberts, 2003).

Gonthier-Besacier and Schatt (2007) argued that when many companies close their accounts on the same date, the fees charged might be higher compared to other year-end dates. The researchers believe that having the audit process in the normal period instead of the peak period would provide better opportunities to the French audit firms in terms of time arrangement. The results did support their claim concerning the positive effect on audit fees, however, the relationship was not significant. In a developing country like Jordan, the majority of the listed companies have 31 December as the accounting year end and the audit firms are anticipated to be busy in January and February every year. Surprisingly, Naser and Nuseibeh (2007) revealed an insignificant negative relationship between the closing period and audit fees. Other studies that have taken into account busy season variables and did not find any significant influence on audit fees are Francis and Stokes (1986), Palmrose (1989), and Ferguson and Strokes (2002). Nevertheless, some studies, such as Francis (1984), Hamilton, Li and Stokes (2008), and Basioudis and Francis (2007), documented a significant association between corporate year-end and audit fees.

Auditors, regardless of their type, have a high tendency to cut down audit fees as a form of appreciation to their new client for granting audit tenure. Such a situation is known as the 'low-balling effect', which commonly occurs at the time of change to the new auditor. The study by Simon and Francis (1988) was the first to document the existence of a price discount scenario for a sample of 214 companies for six (6) years (1979-1984). The reduction in price continued until the third year of the new engagement and went up to the normal price in the fourth year. Later, using similar US data but with a small sample size and a shorter period compared to Simon and Francis's (1988) study, Turpen (1990) examined the effect of auditor change on audit fees using only 57 changing auditor companies. Data from 1982 until 1984 were used to compare changing auditor companies with a group of 89 continuing auditor companies. The regression analyses proved the existence of 'price cutting' on the new client's audit fees as compared to the audit fees of a similar period of continuing engagements. In addition, the lower fees continued up to the second year of new appointment and were practised by both the Big Firms and non-Big Firms.

In the UK audit market, Pong and Whittington (1994) revealed a significant negative relationship between the first year of new auditor and audit fees. In contrast to Turpen (1990), Pong and Whittington (1994) revealed that the effect of price-cutting differs between auditor types. Likewise, the results also indicated that audit fees for the new engagement of the Big 8 firms were slightly lower than the continuing auditor. Recently, Feldmann et al. (2009) included auditor change as a control variable in the audit fee model. The results based on 114 US public listed companies in 2003 confirmed the significance of the auditor change variable, which reacted negatively towards audit fees. Similarly, Behn, Lee and Jin (2009) revealed a significant negative influence of initial auditor variable on audit fees for 1,195 firm-year observations of firms listed on the Korean Stock Exchange from 1999 to 2004. In contrast, no evidence of audit fee cutting was found in Kasai's (2009) study, which was the first study that attempted to reveal audit fee discount in Japan.

Anderson and Zeghal (1994) believed that different industries might require different audit extensiveness. Palmrose (1988) claimed that high risk industries, such as banks, savings and loans, real estate companies and computer or electronic firms, have a higher risk of litigation than others. For this reason, Anderson and Zeghal (1994) divided the financial and communication sector and also the transportation and utilities sector in the audit fee model to represent the specialized audit needed in those two (2) categories. The study revealed that the communication, transportation and utilities industries have a significant fee difference across industries in the large auditee segment. This is due to the firm or industry-specific characteristics that demand distinctive audit activities. Turpen (1990) argued that companies in regulated industries, for instance, the finance industry are easier to audit and a lower charge is anticipated for this type of industry. In this context, Taylor and Simon (1999) included dummy variables, namely, finance sector, utility sector and mining sector, as these three (3) sectors are expected to have lower audit fees. The results proved the significant negative influence of the finance and utility sector and the insignificant determinant of the mining industry on the audit fees for a 20-country sample. Naser and Nuseibeh (2007) also found a significant difference between the types of industry, namely, banking, insurance, service and manufacturing in determining the fees charged. A recent study by Griffin et al. (2009) classified the finance and investment sector as one (1) group and other industries as another category. The study found an insignificant negative association between the industry category and audit fees for pooled data from 2002 to 2007. Nevertheless, when researchers segregate the sample into larger and smaller segments, the larger clients document a negative correlation while the smaller segment derives positive effect, albeit a weak influence.

In this current study, the year-end (YEND), the auditor change variables (AUDCHG) and the industry effect (INDUST) are chosen to enhance the explanatory power of the audit fee model.

2.3.3.5 Corporate Governance Variables

The corporate governance attributes permeate the literature on audit quality due to the extreme cases of fraudulent financial reporting among many of the largest organizations. The agency theory of separation between the owners and the agents leads to the tendency of the agents to grant inaccurate financial statements. For this reason, Carcello, Hermanson, Neil and Riley (2002) believe that the characteristics of the board of directors would influence the auditor's judgment on control risks and the extent of audit procedures, which, in turn, affects the level of audit pricing. Several studies such as Carcello et al. (2002), Goodwin-Stewart and Kent (2006), Boo and Sharma (2008), and Bliss, Muniandy and Majid (2007) tested the proposition that the characteristics of the board of directors would impact the level of audit fees using two (2) governance attributes, namely, the percentage of independent directors on the board and the number of board meetings. According to Carcello et al. (2002), the outside or independent directors on the board would act as a higher quality monitoring mechanism to reduce the tendency of fraudulent financial reporting.

In addition, the effectiveness of the board could be measured based on the number of board meetings, which indicates the effectiveness of the board in carrying out their duties. Goodwin-Stewart and Kent (2006) and Carcello et al. (2002) found a significant positive association between the percentage of outside directors on the board and the number of board meetings and audit pricing. Moreover, Zulkarnain and Shamsher (2008) discovered that the proportion of non-executive directors only positively influences audit fees for companies listed on the second board of Bursa Malaysia. Nevertheless, Boo and Sharma (2008) did not reveal a significant impact of the two (2) directors' attributes on audit fees.

The joint position between the Chief Executive Officer (CEO) and the board of directors is expected to impair the independence of the board of directors, as the board is also responsible to evaluate the effectiveness of the CEO (Bliss et al., 2007). Fama and Jensen (1983) noted that the leadership duality derives from the managerial opportunism by the board, which results in agency loss. Bliss et al. (2007) incorporated the CEO duality variable to measure any impact on the auditor's risk assessment and audit efforts. Both studies found that the existence of the CEO duality has a strong positive relationship with audit pricing. In contrast, Boo and Sharma (2008) found an insignificant association between the dual role as chairman of the board and the CEO using 357 samples of bank holding companies. The researchers concluded that regulated industries such as the banking and financial sector do not require extensive audit efforts.

According to Jensen and Meckling (1976), the existence of management ownership in the organization directs the agents to act in alignment with the interests of the shareholders, thus, reducing the agency conflict. O'Sullivan (2000) claimed that there is a negative association between the percentage of ordinary shares held by inside directors and the audit extensiveness. Gul and Tsui (2001), and O'Sullivan (2000) provided evidence that the management ownership significantly lessens the agency costs from the reduction in audit pricing.

The presence of blockholders acts as a monitoring mechanism on behalf of the principals (shareholders). Boo and Sharma (2008) believe that the blockholders are capable of observing any management activities that would shrink the company's value. The studies by O'Sullivan (2000), and Boo and Sharma (2008) examined the negative relationship between the percentage of independent blockholders and audit pricing. Nevertheless, both studies failed to provide significant evidence concerning the influence of blockholder ownership and audit fees. However, Abbott, Parker, Peters and Raghunandan (2003) found that blockholders' shareholding significantly reduces the ratio of non-audit fees to the total audit fees.

Hence, this study incorporates five (5) corporate governance variables in the audit fee model, which includes the percentage of independent directors on the board (INDBD), the number of board meetings (BDMTG), the CEO duality (DUAL), inside directors' shareholdings (SH-INS) and blockholders shareholdings (SH-BLOCK). The association between the Big Firms indicator and the audit fees is discussed in the next section.

2.3.4 Big Firms and Audit Fees

In less than two (2) decades, the public accounting industry has consolidated from the Big 8 (Arthur Andersen, Arthur Young, Coopers and Lybrand, Deloitte Haskins & Sells, Ernst & Whittney, Peat Marwick, PriceWaterhouse and Touche Ross) to the Big 4 (Deloitte, Ernst and Young, KPMG and PricewaterhouseCoopers). The Big 4 auditors are considerably larger than other mid-tier and small auditors (Mellett et al., 2007). The larger audit firms are perceived to offer high quality service (Geiger and Rama, 2006; Naser and Nuseibeh, 2007), which allows them to differentiate themselves from smaller firms (Beatty, 1989). They are more sophisticated, commonly engage high quality employees (Chan et al., 1993) and do not depend much on clients (Caneghem, 2010). DeAngelo (1981) asserts that higher quality services provided by Big Firms are associated with extensive investment in brand name reputation. The superior reputation and the excellent service are captured through the premium on audit pricing. Most companies are willing to pay higher fees to preserve their reputation in the eyes of the investors and the public. In addition, Big International Firms incur more overhead costs, which are embedded in the client's fees (Gonthier-Besacier and Schatt, 2007; Naser and Nuseibeh, 2007).

DeAngelo (1981) provided an underlying theory on audit firm quality differentiation. The researcher defined quality of audit as "the market assessed joint probability that a given auditor will both (a) discover a breach in the client's accounting system, and (b) report the breach" (DeAngelo, 1981, p.186). The researcher asserts that auditor size has a positive link with audit quality. For instance, Soule (2008) claimed that small auditors are still less competent and short of the technical expertise that most of the clients require from a quality auditor. In addition, past studies provide evidence that large incumbent auditors are exposed more to the loss of credibility. Thus, they are expected to provide a higher quality audit and they are less likely to act in favour of their own interests.

Simunic (1980) used a regression model of audit fees for the US audit market and found that the market was generally competitive. Seven (7) of the Big 8 audit firms charged lower fees than small audit firms, which is consistent with the economies of scale. Nevertheless, the researcher did not find any differences in fee structure between the large and small audit firms after the client control costs were taken into account. Thus, the researcher concluded that the Big 8 firms do not monopolize the audit market in the US.

In the UK setting, Che-Ahmad and Houghton (1996) conducted a study using 84 medium-size UK companies to examine the existence of audit fee premium. The researchers did not find any significant influence of Big Firm auditors on audit fees based on matched-paired samples. In a similar vein, while utilizing 708 smaller auditees in the UK market, Peel and Roberts (2003) found that small clients are willing to pay extra on the audit pricing in exchange for the Big Firms brand name reputation. These two (2) studies in a UK setting are contradictory and the difference is most probably due to the different sized groups of clients. Peel and Robert (2003) limit their study solely to manufacturing firms.

A study conducted by Firth (1985) on the New Zealand audit market provides some ambiguous results concerning the effects of audit firm size and client size. The researchers examined the relationship between audit firm size and audit fees in New Zealand for 1981 and 1983, reporting no overall audit firm size effect or for large vs. small companies. However, certain methodological issues might have affected these results. For instance, the researcher only examined manufacturing companies with a small sample size of 96. This sample was then split into two (2) groups based on company size – large companies and small companies. Since the researcher did not report what criteria were used to select the split point, it is less promising to draw specific conclusions about the differences in audit fee determinants between these segments of the New Zealand market. Recently, Griffin et al. (2009) conducted an additional test by splitting companies into the Big 4 and non-Big 4 auditors in order to identify the reaction of these two (2) different levels of auditor on the new regulation reforms in New Zealand. Based on a large sample of 653 firm-year observations, they found that the Big 4 auditors represented a significant increase in audit fees during the IFRS adoption years. The result signifies that the Big 4 accounting firms devote more effort and time in order to comply with the IFRS compared to the non-Big 4 firms, in line with the quality differentiation theory.

Several studies included Big Firms as a dichotomous variable in the audit fee model to examine the association of these two (2) variables. Earlier literature, including Francis and Simon (1987), Peel and Roberts (2003), Anderson and Zeghal (1994), Jubb et al. (1996), Ahmed and Goyal (2005), and Naser and Nuseibeh (2007), reveals the existence of Big Firm premium. Firth (1985), Chan et al. (1993) and Al-Harshani (2008) discovered that a significant price premium does exist in the Big Firms as opposed to non-Big Firms.

This section shows that the literature on the Big Firm premium is broadly established, however, some empirical evidence is mixed and contradictory albeit in a similar setting. However, it is interesting to examine whether the premium price of Big 4 auditors over non-Big 4 holds in Malaysia, especially during the period after the IFRS adoption.

2.3.5 Regulation Effect on Audit Fee Studies

Enforcement of new or more stringent legislation would be expected to enhance the auditor's independence and improve financial reporting quality. For instance, it is anticipated that mandatory auditor assignments will improve the quality of audited financial statements from impartial external auditors. However, some would argue that mandatory auditor assignment would eliminate auditor-client negotiation and raise auditor pricing control, which, in turn, could lead to higher audit fees. In this context, Jeong, Jung and Lee (2005) examined the consequences of the revised Act of External Audit in 1989. The amended Act of External Audit mandated the mandatory auditor assignment system in order to maintain the degree of competition among Korean auditors. However, the researchers predicted that this new regulation would bring more bargaining power to the auditor since the assigned auditors have a monopoly of power on audit engagement. The data consisted of 2,025 firm-year observations of the Korean Stock Exchange from 1999 to 2002. A dummy variable was included in the audit fee model to designate the mandatory auditor assignment during the year. Both the pooled regression and two (2) from the four (4) yearly regression results support the claim that mandatory assigned auditors lead to higher audit fees compared to the freely selected auditors. In addition, the relationship becomes stronger when a company engages the joint provision of audit and non-audit services.

The introduction of the Sarbanes-Oxley Act 2002 (SOX) was regarded as the most noteworthy transformation in the accounting regulations for US public listed companies. The extensive requirements under SOX 2002 definitely affect the audit effort that an auditor should undertake to accomplish the tasks. Since audit fees are a reflection of auditor’s effort, Cosgrove and Niederjohn (2008) examined the effect of SOX 2002 on the cost of audit that companies should bear. The study employed a cross sectional data for two (2) years (2003 and 2004) immediately following SOX 2002 of active US companies. The OLS analysis was conducted on 6,838 observations with the SOX binary variable included in the audit fee model. The results revealed that the audit fees increased sharply by 51% during the first year after compliance, that is, in 2003. Therefore, the researchers concluded that the new regulation under SOX had a significant positive effect on audit fees.

Subsequently, on 15 November 2004, SOX 404 was passed, which requires public listed companies in the US to report any material weaknesses of internal control. It is suspected that disclosing internal control problems in Internal Control for Financial Reporting (ICFR) would increase the audit risks on financial statements. The issue was investigated by Hoitash, Hoitash and Bedard (2008) in which the researchers examined the relationship between the internal control risk and audit pricing. The annual report, effective from the date SOX 404 enforcement, November 2004, until October 2005, was obtained for a final sample of 2,501 companies. The OLS regression provided evidence that disclosing ICFR problems under SOX 404 is positively associated with audit fees. This finding indicates that reporting material weaknesses under SOX 404 demands greater audit effort, and increases audit risk, which, in turn, is reflected in higher audit pricing. Due to the fact that the long-term effect of regulatory changes would bring meaningful results, Ebrahim (2010) investigated the impact of SOX over a 7-year period from 2000 to 2006. The finding is quite interesting since the significant increase in audit fee premium during the earlier years of SOX compliance started to decline in 2006. Hence, the researchers suggested that when the clients and auditors recover their initial outlay on investments and settle down with their internal control and testing procedures, the premium on audit pricing will reduce.

In the case of Initial Public Offering (IPO), the going public companies in the US are subjected to the Securities Act 1933. Some parties claim that the litigation risks exposure under Securities Act 1933 is higher than the Securities Exchange Act 1934. In this context, Venkataraman, Weber and Willenborg (2008) examined the relationship between mandatory compliance with the Securities Act 1933 and audit quality and audit fees. Based on the sample of 284 companies, the results revealed that the audit fees before the companies went public were higher than those after becoming public listed companies. The results are robust and endorse the validity of litigation risks charged by the auditors. The researchers conclude that in the position of a higher litigation regime, the audit quality and audit fees increase substantially, which is consistent with the effect of litigation exposure on auditors.

The recent transition to the new IFRS was regarded as a significant regulatory transformation in the accounting field. Since changes to the new regulation have a significant link to the audit fees level, Griffin et al. (2009) utilized a data for six (6) years from 2002 to 2007 in order to examine any significant effects of three (3) different policies: (i) spillover effect of SOX 2002 in the US, (ii) Corporate Law Economic Reforms Act of 2004 in Australia or local New Zealand Stock Exchange governance rules 2004, and (iii) transition to New Zealand IFRS 2007 with early adoption, effective 1 January 2005, on the New Zealand audit and non-audit fees. A series of year indicator variables are included in the pooled cross sectional regression audit and non-audit fee models of 653 firm-year observations. The regression results revealed that audit fees did not change in 2002 to 2003 but increased significantly from 2004 to 2007. The results provide evidence that a significant increase in audit fees is associated with the year prior to IFRS adoption, the adoption year and in the following IFRS adoption years. At the same time, the stringent requirements under the New Zealand Stock Exchange governance rules in 2004 is another contributory factor for the rise in the audit fee trend.

However, a contradictory impact is found in the study by Craswell et al. (1996) who examined the impact on audit pricing due to the amendment in professional rules on advertising, marketing practices and audit tendering. Panel data was constructed for six (6) years from 1982 until 1987 giving rise to 534 observations. The Seemingly Unrelated Regression (SUR) approach discovered that the real audit fees reduced by an average of 30% over that period. The researchers concluded that the reduction in fees was consistent with the increase in competition resulting from the amendment in professional rules in 1982 and 1983.

In conclusion, much of the evidence discussed above supports the significant impact of regulatory changes on audit pricing, which, in turn, affects the level of audit quality and financial statement quality. The relationship is anticipated to be valid to the enforcement of other new regulations or standards and applicable in different states of affair. While the increase in audit costs due to IFRS adoption is the main concern of the public listed companies (ICAEW, 2007), the delay in audit efficiency has attracted equal attention as well (see for example: Stovall, 2010; Ballas et al., 2010). Thus, the next section continues with the literature on audit timeliness, which is pertinent to developing the hypotheses and audit delay model.

TABLE 2.1

Summary of Studies Investigating the Relationship between Change in Regulations and Audit Fees

Paper	Issue	Hypothesis Variable	Sample	Country	Year	Research Design	Main Findings
Craswell et al. (1996)	Professional deregulation	Dummy for Big 8 Firms	534 firm-year observations	Australia	1982-1987 (6 years)	Pooled OLS of Panel Data Regression	Premium for audit fees does not change for Big 8 firms even after deregulation
Jeong et al. (2005)	Mandatory auditor assignment	Dummy auditor assignment variable (DESIGN)	2,025 firm-year observations	Korea	1999-2002 (4 years)	Multiple Regression	Higher audit fees for mandatory auditor assignment as compared to freely selected auditors
Davis (2007)	SOX	-	100 companies	US	Nov 2001-Oct 2006 (3 years preceding SOX, 2 years post SOX)	Descriptive Statistics	Increase audit fees by 91% in the post SOX years
Cosgrove and Niederjohn (2008)	SOX Big 4 effect	Dummy SOX Compliance, Year 2004 and Interaction SOX and Big Firms	8,638 firm-year observations	US	2003- 2004 (2 years)	Multiple Regression	Increase in audit fees by 51% in the first year of compliance No significant difference between audit fees of Big 4 auditors and non-Big 4 auditors

TABLE 2.1

Summary of Studies Investigating the Relationship between Change in Regulations and Audit Fees (continued)

Paper	Issue	Hypothesis Variable	Sample	Country	Year	Research Design	Main Findings
Hoitash et al. (2008)	ICFR problem of SOX and material weakness of Section 404	Dummy variable for internal control problem	2,501 companies	US	November 2004 to October 2005 (1 year)	Multiple Regression	Positive relationship between ICFR and audit fee. Positive relationship between material weaknesses of Section 404 and audit fees
Venkataraman et al. (2008)	Securities Act 1933 for IPO firms	Dummy variable for IPO year	284 companies	US	1 January 2000 to 31 December 2002 (3 years)	Multiple Regression	Higher audit fees for IPO companies than before became public listed companies
Asthana et al. (2009)	SOX and Big 4 premium	Dummy SOX Year 2001 and 2002	771 US firms and 2313 firm-year observation	US	2000-2002 (3 years)	Multiple Regression	Increase in audit fees in 2002 in conjunction with SOX. Increase in Big 4 premium over non-Big 4 in 2002

TABLE 2.1

Summary of Studies Investigating the Relationship between Change in Regulations and Audit Fees (continued)

Paper	Issue	Hypothesis Variable	Sample	Country	Year	Research Design	Main Findings
Ghosh and Pawlewicz (2009)	SOX	Dummy SOX variable and AUDITOR variable	23,273 firm-year observations	US	2000-2005 (6 years)	Multiple Regression	Increase in audit fees by 74% after SOX compliance. Big 4 firms have 24% higher fees than non-Big 4 firms
Griffin et al. (2009)	(i) SOX 2002 in the US (ii)Corporate Law Economic Reforms Act of 2004 (CLERP 9) in Australia or local New Zealand Stock Exchange (NSX) governance rules 2004 (iii) New Zealand IFRS	Dummy variables –pre IFRS year, IFRS year 2, IFRS year 2&3 and dummy for each year from 2003-2007	653 firm-year observations	New Zealand	2002-2007 (6 years)	Multiple Regression	Increase in audit fees from 2004 to 2006 during the IFRS transition in New Zealand

TABLE 2.1

Summary of Studies Investigating the Relationship between Change in Regulations and Audit Fees (continued)

Paper	Issue	Hypothesis Variable	Sample	Country	Year	Research Design	Main Findings
Hay and Knechel (2010)	Advertising and Solicitation Big 8 effect	Dummy year 1986 (D86) due to advertising and dummy year 1992 (D92) due to solicitation. Interaction with Big 8 firms	3,419 firm-year observations	New Zealand	1980 – 2001 (21 years)	Pooled OLS Regression	Increase in audit fees due to the advertising and solicitation Increase in Big 8 firms
Ebrahim (2010)	SOX	Dummy for Big 4 Firms	29,253 firm-year observations	US	2000-2006 (7 years)	Multiple Regression	Premium for audit fees is larger for Big 4 firms and more apparent for small clients. The premium declines in 2006
Botica-Redmayne and Laswad (2010)	IFRS	-	295 firm-year observations	New Zealand	2001-2009 (9 years)	Descriptive Statistics and t-tests	Increase in audit fees for local authorities around 19% and energy companies around 35% during the first year of IFRS adoption

2.4 Audit Timeliness Literature

2.4.1 The Significance of Audit Timeliness

Audit timeliness is acknowledged as one (1) of the quality characteristics of corporate financial reporting. It is an indicator to measure whether financial statements convey information to the investors as promptly as possible. The regulatory bodies and researchers are placing more attention on the issue of timeliness (Knechel and Payne, 2001) and they regard it as the most influential factor to assess the quality of financial statements (Owusu-Ansah, 2000). In Malaysia, Chapter Two and Chapter Nine of the Bursa Malaysia Listing Requirement demand the timely issuance of financial reporting.

Information reaching the investors diminishes when there is an increase in reporting lag as timely disclosure of accounting information in the annual report plays an important role in reducing information asymmetry between the preparers and the users of financial statements. Carslaw and Kaplan (1991) believe that there is a strong relation between timeliness of information release and investors' decision based on the audited financial statements. For instance, Givoly and Palmon (1982) found that the market reacts positively to early earnings announcements, which are embedded with rich information. Lawrence and Glover (1998) asserted that information must be reliable, relevant and timely in order for the information to be useful to the users.

Audit timeliness is a reflection of the number of hours needed to perform the tasks that are influenced by the extent of the interim audit work required, the number of auditors assigned and the amount of extra hours needed on a particular engagement

(Lawrence and Glover, 1998). Audit timeliness is usually linked to the audit efficiency, which measures how competent the auditors are in performing their duty to arrive at an audit opinion that represents the true picture of company operation. Newton and Ashton (1989) investigated the influence of audit technology and the length of time between accounting year-end until the date auditors signed the audit report. The study was conducted on the Canadian companies audited by the Big 8 firms for a 5-year period from 1978 until 1982. The focus is only on Big 8 accounting firms since there was no measure of the degree of audit structure for small firms. The results on the association between the influence of audit structure (as a proxy for efficiency) and audit lag were significant for all five (5) years.

In sum, emphasis should be given to the issue of audit timeliness as an indicator of high quality financial statements, particularly during the evolution age of IFRS in developing countries.

2.4.2 Determinants of Audit Delay

The issue of audit report timeliness has been investigated for the past 30 years. The evidence documented from the data of different countries, includes developed countries like the US (Givoly and Palmon, 1982; Ashton, Willingham and Elliot, 1987; Behn, Searcy and Woodroof, 2006; Henderson and Kaplan, 2000; Knechel and Payne, 2001), New Zealand (Carslaw and Kaplan, 1991), Hong Kong (Jaggi and Tsui, 1999), Canada (Ashton, Graul and Newton, 1989); France (Soltani, 2002), Australia (Dyer and McHugh, 1975; Whittred and Zimmer, 1984), the UK (Abdelsalam and Street, 2007), Spain (Bonsón-Ponte, Escobar-Rodríguez and Borrero-Domínguez,

2008) as well as developing countries such as Zimbabwe (Owusu-Ansah, 2000), Greece (Leventis, Weetman and Caramanis, 2005), Bangladesh (Iman, Ahmed and Khan 2001), Bahrain (Al-Ajmi, 2008; Khasharmeh and Aljifri, 2010), Egypt (Ezat and El-Masry, 2008; Afify, 2009), Malaysia (Abdullah, 2007; Che-Ahmad and Abidin, 2008) and the United Arab Emirates (Khasharmeh and Aljifri, 2010).

Studies on audit timeliness frequently centre on ascertaining the determinants of audit report lag. Most of these researches contribute to the audit timeliness issue in the public companies of the respective countries and the majority of them have utilized publicly available data. Dyer and McHugh (1975) are pioneers in annual report timeliness studies. The researchers examined the timeliness of annual audit reports to ascertain the major explanatory factors of audit efficiency from 1966 until 1971 in Australian public companies. The researchers focused on three (3) corporate attributes: corporate size, the year-end closing date and the profitability, based on the questionnaires distributed to audit firms and commercial and industrial companies. The results reveal that corporate size is negatively related to audit lag, however, the relationship was not strong. Companies that closed their accounts on 30 June have some impact on audit delay for the first two (2) years, 1966 and 1967, but it is not significant for the next three (3) years. In addition, there was a weak association between the profitability of the clients and audit delay. Dyer and McHugh's study has been replicated by Davies and Whittred (1980) based on the same market, that is, Australian companies. The researchers extended the period of analysis for another six (6) years, from 1972 until 1977. The size and relative profitability variable has been redefined and examined against intermediate lag and total lags. The study confirmed the significance of client size in determining the timeliness of audit report. In addition, the largest and smallest companies report more timely compared to middle-sized companies.

Whittred (1980) concentrated solely on qualified audit reports to ascertain their influence on the timeliness of Australian annual reports from 1965 until 1970. The researcher compared 120 companies with qualified audit reports and companies that have not received such qualification. The results reveal that 'first year' qualified reports lengthen the issuance of companies preliminary profit report and final annual reports. Based on a similar issue, Keller (1986) hypothesized that subject to qualification caused the release of audit reports in the US companies to take longer for the period 1973 until 1977. The sample was classified into three (3) groups: qualified group, qualification removed group and unqualified group as a control group to match the first and second group. Unlike Whittred's study, Keller (1986) did not find any delay in the timing of annual report release date. In more extreme cases, Whittred and Zimmer (1984) compared firms in financial distress with firms not in financial distress in Australia. The 37 matched pair samples revealed that the firms in financial distress reported longer audit report lags two (2) years before they failed.

The previous literature discussed above only utilized univariate statistical tests to assess the relationship between audit lag and certain companies attributes, nevertheless, the method was improved by multivariate analysis and model development so that the variability of the audit delay model could be examined. In this context, the first attempt was a study by Ashton et al. (1987) who tested 14 variables that might represent determinants of audit delay among US companies audited by only one (1) Big Firm, that is, Peat, Marwick, Mitchell & Co. The data consisted of 488 US listed companies for 1981 and 1982. The possible determinants included both publicly and privately available information from the perspective of the auditors themselves. Three (3) tests were conducted: descriptive, univariate and multivariate analysis with an adjusted R^2 of 26.5%. The study concluded that audit delay is lower when clients: (i) received unqualified opinion, (ii) from financial institutions as opposed to industrial sectors, (iii) public companies traded in the stock exchange, (iv) supported by strong internal control, (v) employ more data processing technology, and (vi) less relative audit work performed. The study of Ashton et al. (1989) revealed different factors that significantly determine audit delay. Their study was conducted based on a larger sample and longer period compared to Ashton et al. (1987). A total of 465-listed companies on the Toronto Stock Exchange was investigated for six (6) years (1977 – 1982). Four (4) significant variables were found to influence audit delay, namely, size of auditor, industry classification, extraordinary items and sign of net income. Nevertheless, the audit delay model provided low adjusted R^2 with 12.3% in 1977 to 8.8% in 1982.

Jaggi and Tsui (1999) incorporated auditor business risks and audit firm technology in the audit delay model in order to identify any significant relationship between both variables. The organization's business risk was measured by firm's financial condition and ownership control. The data used were 393 companies listed on the Hong Kong Stock Exchange over the three (3) year period from 1991. The study found that firm's size, financial condition, degree of diversification, audit opinion and audit approach, which was measured by degree of structure, are significant determinants of audit lag in Hong Kong. In the French context, Soltani (2002) examined the trend of audit delay over a 10-year period and also investigated the influence of the type and nature of audit qualification on timeliness of audit reports. The study utilised a total sample of 5,801 companies for 10 years. The analysis revealed that the long-term trend of audit delay improved significantly over the period. In addition, audit qualification did influence the length of time to issue audit report and the effect was larger for more serious qualification, namely, the disclaimer opinion. In Spain, Bonsón-Ponte et al. (2008) only discovered two (2) determinants that are significant in determining Spain audit timeliness. Based on 105 sample companies, the researchers found that size of clients and clients under regulated sectors are associated with the longer time to sign the audit report.

Instead of using the publicly available data, Behn et al. (2006) sent a questionnaire survey to the partners of one (1) US assurance international audit firm to get some insights into the obstacles that limit auditors to issue timely audit reports. The researchers examined three (3) new factors that might reduce audit delay, namely, personnel, audit process and audit technology. The survey revealed that the major impediment raised by the auditors was a shortness of staff resources in the client companies and audit firms. In addition, it was important that the auditor's and client's mindset changed in order to accept a new audit approach. A change in mindset would influence an improvement in skill set, and, in turn, enhance flexibility in the scheduling process.

2.4.3 Audit Delay Determinants in Developing Countries

A limited number of studies on determinants of audit timeliness have been conducted in emerging markets. According to Leventis et al. (2005), the timeliness of the audit report is an important aspect in emerging markets since investors have no other reliable choice of information other than the audited annual report. One (1) of the earlier studies in emerging markets was conducted by Owusu-Ansah (2000). The researcher investigated the time taken by the companies in Zimbabwe to issue audit reports. Based on the small sample size, which was only 47 public listed companies, the Two-Stage Least Square (2SLS) regression model was used due to the endogeneity[16] problem between audit report date and earnings announcement date or date of audited annual report submission. The researcher revealed three (3) factors that significantly influence the timely issue of audit report: company size, profitability and company age. In addition, Iman et al. (2001) utilized 115 listed companies of the Dhaka Stock Exchange in order to test the influence of audit firms' links with international firms on audit timeliness in 1998. The researchers concluded that other factors might influence audit timeliness since there was a weak relationship between audit delay and Big Firms' link with local auditors.

Later, Leventis et al. (2005) extended the study with four (4) new determinants of audit delay, namely, the type of auditor, audit fees, 'subject to' or 'except for' audit report and the existence of extraordinary items. The study focused on 171 companies listed on the Athens Stock Exchange with accounting year-ends on 31 December 2000. The results of regression analysis revealed that all four (4) hypotheses variables significantly influenced the variation in audit timeliness of the annual report. In the Saudi Stock Market, Almosa and Alabbas (2007) contributed a few more determinants to the audit delay model in developing countries. The researchers believe that the client's size, profitability, industry, auditor size and audit opinion are

[16] When the F-value of Hausman Simultaneity Specification test is significant.

the factors that influence the Saudi Arabian joint public listed companies. The data for four (4) years (2003-2006), which consists of 76, 86, 90 and 91 companies, respectively. The multiple regression analysis results revealed that the client's size, profitability and type of industry (financial and non-financial sectors) are the significant determinants of the Saudi Arabian audit delay model, which is consistent with Owusu-Ansah's (2000) study.

Recently, Ezat and El-Masry (2008) conducted a study in Egypt to ascertain the audit timeliness on the new avenue of corporate reporting, that is, via the Internet. Comparable to Owusu-Ansah (2000), the sample size used was 50 Egyptian companies that were most actively traded in the Egyptian Stock Exchange. The researchers regressed two (2) determinant categories of audit delay –firm's characteristics and corporate governance attributes – against the corporate Internet reporting index. The results found that four (4) firm's characteristics were significantly related to the corporate Internet reporting index: size of the company, liquidity position, ownership structure and service activity, and two (2) corporate governance attributes: board composition and board size, were positively associated with the corporate Internet reporting index. Likewise, Afify (2009) examined the determinants of audit report lag in Egypt and the influence of corporate governance factors on the audit delay in the country. Based on the data of 85 listed companies, the regression analysis revealed that board independence, CEO duality and audit committee are significantly related to audit delay. At the same time, auditee size, type of industry and auditee sign of income are the significant control variables in determining audit report lag. In a different perspective, Wang, Gu and Chen (2008) examined the influence of management disclosure and information transparency on the timeliness of Chinese annual reports. The data for three (3) years (2004-2006) from the A Stock Market was utilized. The results found that there was a significant positive relationship between the degree of disclosure and the transparency of information with the timeliness of its annual report.

In the Malaysian context, Abdullah (2007) incorporated corporate governance attributes in the audit timeliness model, namely, board composition, audit committee independence and CEO duality. The panel data analysis was used to combine two (2) years data (1998 and 2000) with 731 firm-year observations from non-financial public listed companies on the main board of Bursa Malaysia. The results signified that the independence of board of directors and the separation between the board chairman and CEO role would contribute significantly to the timeliness of audit report. In addition, the study also revealed that the 1997 financial crisis had resulted in many companies failing to release their audited financial statements within the stipulated time. In order to control the effect of financial crisis, Che-Ahmad and Abidin (2008) utilized 343 public listed companies prior to the economic crisis in 1993. Unlike Abdullah (2007), Che-Ahmad and Abidin's study included both financial and non-financial companies that were listed on the main and second board of Bursa Malaysia. The results of the descriptive statistics indicate that Malaysian companies experienced a longer delay as compared to developed countries. Moreover, the multivariate analysis results revealed that the determinants were similar to the audit delay model established within the developed countries, which included, client's size, complexity, number of ordinary shares held by directors, type of auditors, audit opinion and income position. Nevertheless, the significant audit delay attributes varied between the financial and non-financial sector due to differences in the regulation for banking and financial companies.

2.4.4 Explanatory Variables of Audit Delay

The earlier literature discussed above identified several factors that are associated with audit delay. During the earlier years, the most common factors are client size, client financial performance, client complexity, qualified opinion, debt structure and type of industry (Dyer and McHugh, 1975; Ashton et al., 1987). On further investigation to ascertain whether there are other determinants, the studies revealed that ownership of companies, less experienced staff, incremental audit effort, audit technology auditor's international link (Newton and Ashton, 1989; Bamber, Bamber and Schoderbek, 1993; Jaggi and Tsui, 1999) and corporate governance attributes (Abdullah, 2007; Ezat and El-Masry, 2008) were also contributory factors that influence the ability of auditors issue the audit report in a timely manner.

Almosa and Alabbas (2007) segregated all these factors into two (2) categories, namely, company's attributes and auditor's attributes (Owusu-Ansah, 2000). In this study, a company's attributes consists of company size, leverage, audit opinion, sign of income, accounting year-end, number of subsidiaries, industry effect and corporate governance indicators. The type of auditor and auditor change are the variables under auditor's attributes.

2.4.4.1 Client Size

Company size is the common factor used to ascertain the extent of audit timeliness. There are several proxies that can be utilized to represent a company's size, which include total assets, total revenues and log total assets. Total assets are most frequently used to measure size (Ashton et al., 1989; Davies and Whitted, 1980; Newton and Ashton, 1989; Carslaw and Kaplan, 1991; Cullinan, College and Smithfield, 2003; Almosa and Alabbas, 2007; Afify, 2009). Total assets are found to be negatively related to audit delay (Dyer and McHugh, 1975; Ashton et al., 1989; Owusu-Ansah, 2000; Leventis et al., 2005; Al-Ajmi, 2008; Bonsón-Ponte et al., 2008; Khasharmeh and Aljifri, 2010). In order to reduce the wide discrepancy between large and small asset amounts, Bamber et al. (1993) transformed total assets into a log form. However, Bamber et al. (1993) found that auditee size has an insignificant influence on audit delay. Some researchers believe that instead of assets, total revenue is a proper indicator to ascertain the extent of the audit works required (Knechel and Payne, 2001; Behn et al., 2006; Ashton et al., 1987). This might be due to the limitation of asset value in the balance sheet where they do not reflect the current position of companies due to a historical cost basis.

The majority of the previous studies have proven a negative association between the size of a company and audit delay (Davies and Whitted, 1980). Large companies might have strong internal control, which, in turn, reduces the degree of substantive testing allocated to audit engagement. In addition, larger companies have more power to pressure auditors so that the audit can be completed in a timely manner (Carslaw and Kaplan, 1991). Another reason is that large companies are normally exposed to extra scrutiny from the investors, regulatory agencies and the community (Dyer and McHugh, 1975). Therefore, they have to demonstrate a superior image to the public via reporting their annual reports as quickly as possible. In this study, the natural log of total assets (InSIZE) is utilized to measure size.

2.4.4.2 Leverage

Leverage represents the extent of debt utilization in the company as compared to the total investment in assets. Carslaw and Kaplan (1991) conducted the first study that incorporated the proportion of debt in the audit delay model. The high proportion of total debts exposes the company to the risk of default and, consequently, to the risk of bankruptcy. The auditors might perceive that these types of companies have the tendency to commit management fraud and unintentional misleading in the conduct of a company's operation. Therefore, when a detailed assessment is required, the audit engagement process will be delayed. In addition, high debt companies are expected to incur more agency costs, which, in turn, demand a more quality audit to satisfy long-term creditors and to eradicate debt-holders suspicions about wealth transfer. At the same time, the degree of debt owed by the company will also influence the complexity of audit works. Accordingly, the more debt due to many sources of debt holders, the longer the time taken to complete the audit, which lengthens the issuance of the audit report accordingly. Recently, Ettredge, Li and Sun (2006), Al-Ajmi (2008), and Khasharmeh and Aljifri (2010) revealed a significant positive association between the debt proportion ratio and audit timeliness.

2.4.4.3 Audit Opinion

The type of audit opinion issued by the auditor might influence the auditors' judgment on the perceived risks that must be borne by them. Past studies have demonstrated that qualified audit opinion extends the length of time to issue the audit report (Whittred, 1980; Ashton et al., 1987; Bamber et al., 1993; Carslaw, Mason and Mill, 2007). Receiving a qualified opinion is regarded as bad news and the company tends to delay the audit report so that the investors' decision is not influenced by the negative news (Wang et al., 2008). In addition, qualified opinion is an indicator of the existence of conflict between the management and the auditor (Carslaw and Kaplan, 1991). The management might lobby the auditors due to their reluctance to accept a qualified audit opinion and this process consumes extra time. Whittred (1980) supported that the more serious the qualification, the longer the audit lag due to the client-auditor negotiation and extra time is needed to audit transactions as well as for protection from litigation risks (Leventis et al., 2005). Carslaw and Kaplan (1991) found that audit opinion is significant at the 10% confidence level in explaining the variability of audit delay for 1987. While Newton and Ashton (1989) and Jaggi and Tsui (1999) revealed a significant negative association for the 1979-1981 audit delay model, Bamber et al. (1993) and Carslaw et al. (2007) documented a positive relation between qualified audit opinion and the timely issue of the audit report.

2.4.4.4 Sign of Income (Loss)

Ashton et al. (1989) stated that the sign of reported income differentiates between good news and bad news resulting from one-year of a company's operation. The bad news causes auditors to delay releasing the information (Carslaw and Kaplan, 1991). Delay in disclosure would ensure that managers have ample time to prepare possible strategies for any critics of bad news (Wang et al., 2008). In addition, companies that incurred losses would ask auditors to reschedule the audit process so that such a process could be deferred. On the auditors' part, they are in doubt of the possibility of poor financial performance, which induces management fraud (Carslaw and Kaplan, 1991). Therefore, more time is allocated by the auditor for obtaining sufficient evidence to produce a suitable audit opinion. In contrast, high profit companies normally insist that the auditor completes the audit as quickly as possible so that good news can be utilized by the investors. The literature has documented a significant association between audit delay and weak financial condition (Ashton et al., 1989; Bamber et al., 1993; Jaggi and Tsui, 1999; Afify, 2009).

2.4.4.5 Accounting Year End

Many studies have employed accounting year-end to ascertain whether audit work conducted within the busy season is significant in explaining audit delay. It is important to note that a busy season varies between one (1) country to another and between the private sector and the public sector. For example, in New Zealand, the period between March and June is considered a peak season (Carslaw and Kaplan, 1991) and Australia documented June as a busy season (Dyer and McHugh, 1975;

Davies and Whitted, 1980). In contrast, most Malaysian companies close their accounts on 31 December, which makes the period between January and March a busy season (Abdullah, 2007; Che-Ahmad and Abidin, 2008).

For the public sector, Johnson (1998) revealed that September is the busiest time while Johnson et al. (2002) found that the peak audit season is June and December. In the private sector, December is normally anticipated as the busy season (Newton and Ashton, 1989; Knechel and Payne, 2001). Ashton et al. (1989) suggested that auditing in a busy season leads to two (2) consequences: (i) increased audit delay due to increased audit works or (ii) reduced audit delay when more works are compensated for by the increase in audit staff and more overtime. Ashton et al. (1987) and Ashton et al. (1989) proved the latter, where audit delay is reduced during the busy season. Both studies documented weak evidence for the influence of the busy season to delay the audit report. While Carslaw and Kaplan (1991), Abdullah (2007), and Che-Ahmad and Abidin (2008) found no significant relationship between audit lag and accounting year end, Knechel and Payne (2001), Dyer and McHugh (1975), and Payne and Jensen (2002) did reveal that longer delays are experienced by busy season audits.

2.4.4.6 Number of Subsidiaries

A large number of subsidiaries, particularly when they are located over a diverse geographical area, makes the audit work more complex and difficult for the auditors to carry out. The complexity results from the fact that the auditors have to spend more time conducting audit engagements. The auditors have to ensure that the verification and testing procedures on the companies' subsidiaries are done satisfactorily. Jaggi and Tsui (1999) found a significant positive association at the 5% significant level between the number of subsidiaries and the timeliness of the annual report. In Malaysia, Che-Ahmad and Abidin (2008) revealed that the number of subsidiaries significantly affects audit delay at the 1% significant level with a positive relationship. In contrast, no significant relationship was found by Leventis et al. (2005), which deviates from the researcher's expectation. Even though the use of this variable is not as popular as other indicators in the audit delay model, some researchers have demonstrated the importance of the subsidiaries' magnitude in judging the complexity of audit work.

2.4.4.7 Industry Effect

Different industries normally have different levels of audit difficulties and unique audit risks assessments. Bamber et al. (1993) claims that the complexity of audit depends on the client's industry and, thus, affects the extent of audit work attached to audit engagement. Many studies have investigated the effect of industries on the length of time to issue audit reports (Ashton et al., 1987; Ashton et al., 1989; Givoly and Palmon, 1982; Carslaw and Kaplan, 1991; Bamber et al., 1993; Owusu-Ansah and Leventis, 2006; Bonsón-Ponte et al., 2008; Khasharmeh and Aljifri, 2010). In order to determine the extent of audit report efficiency attached to different industries, Ashton et al. (1987) segregated industries into industrial sectors and the financial industry. The industrial sectors consist of manufacturing, merchandising and oil and gas companies while financial industries consist of commercial banks, savings and loan and mutual savings banks, and insurance companies. The results prove that there are significant differences in the lag of audit reports between the two (2) categories of industry. Ashton et al. (1989), and Newton and Ashton (1989) found a significant difference between financial and non-financial industries. Further, instead of segregating the categories into financial and non-financial sectors, Owusu-Ansah and Leventis (2006) included two (2) types of industry in the audit delay model – services sector and construction sector. The results show that both industries have a statistically significant coefficient value, and, thus, the researcher concluded that the industry type has a significant impact on audit timeliness. However, Leventis et al. (2005) found no evidence of industry effect on the two (2) sectors, namely, the manufacturing and other sectors.

2.4.4.8 Auditor Change

Switching to a new audit firm requires the auditors to spend more time on familiarising themselves with the client's business operation, risk assessments and to plan the audit process. There are a number of studies that have tested the auditor's change variable of audit timeliness. For instance, Wang et al. (2008) included a dummy variable 'switch auditor' in order to determine the impact of auditor change on the audit timeliness in China. The result found no significant relationship between the auditor switch and audit delay. Similarly, Leventis et al. (2005), Henderson and Kaplan (2000), and Che-Ahmad and Abidin (2008) did not find any impact on the auditor change variable. Despite many insignificant results concerning the auditor change effect, a very recent study by Tanyi, Raghunandan and Barua (2010) examined the influence of voluntary and mandatory auditor change on audit timeliness. The researchers revealed that both types of auditor change have significantly lengthened the issuance of the audit report with the magnitude of mandatory change being higher than the voluntary auditor change.

2.4.4.9 Corporate Governance Attributes

The function of audit timeliness to measure the quality of financial statements motivated a few studies to examine the influence of corporate governance attributes on audit efficiency. Givoly and Palmon (1982) stressed that the management has some power to exercise their own judgment such as the tendency to delay the issuance of the audit report in the case of any bad news. Thus the independent management is perceived to alleviate the opportunistic behaviour by the board of directors. For this reason, previous studies such as Abdelsalam and El-Masri (2008), Abdullah (2007) and Afify (2009) examined the impact of the proportion of non-executive directors on the board and audit timeliness. Afify (2009) and Abdullah (2007) revealed a significant negative association between the independence of the board of directors and audit timeliness in Egypt and Malaysia, respectively. In contrast, Abdelsalam and El-Masri (2008) found a significant positive impact of board independence on the timeliness of Internet reporting in Ireland.

As discussed before, the dual roles of the CEO and the board chairman would limit the board's functions to assess the effectiveness of the CEO in managing the day-to-day operations of the company (Bliss et al., 2007). Thus, the CEO duality is expected to impair the board governance function (Fama and Jensen, 1983), which, in turn, requires a more extensive audit and lengthens the audit report. Past studies have shown mixed findings concerning the duality role variable. For instance Abdelsalam and El-Masri (2008) and Abdullah (2007) revealed a significant positive association between role duality and audit timeliness, while Afify (2009) discovered the opposite result – a negative relationship.

Past studies have tested two (2) variables as a measurement for the company ownership structure, namely, the managerial ownership and the blockholders ownership. Both indicators are perceived to be dominant in reducing the agency conflict between the agents and the principals, which, in turn, reduces the monitoring costs of the agent. Much of the earlier literature incorporated managerial ownership in their audit timeliness studies, including Ashton et al. (1987), Bamber et al. (1993), Leventis et al. (2005), Owusu-Ansah and Leventis (2006), Abdelsalam and El-Masry (2008), and Afify (2009). The findings of these studies are mixed, as Abdelsalam and El-Masry (2008), and Bamber et al. (1993) found a significant negative relationship between the managerial shareholdings and audit delay while Ashton et al. (1987), and Owusu-Ansah and Leventis (2006) revealed a significant positive relationship. Nevertheless, Leventis et al. (2005) and Afify (2009) failed to provide evidence on the influence of management shareholding on audit timeliness. In contrast to audit fee literature, limited research examined the relationship between blockholders' shareholdings and audit timeliness. Abdelsalam and El-Masry (2008) attempted to examine the influence of blockholders ownership on the timeliness of corporate reporting. The study reveals that a higher percentage of blockholders outstanding shares significantly reduces audit timeliness.

In this study, four (4) corporate governance variables were incorporated in the audit delay model including the percentage of independent directors on the board (INDBD), the CEO duality (DUAL), managerial shareholdings (SH-INS) and blockholders' shareholdings (SH-BLOCK). The importance of auditor's attribute, namely, Big Firms is discussed in the subsequent section.

2.4.5 Big Firms and Audit Delay

Extant literature in both the private and public sectors has tested the association between audit engagement conducted by Big Accounting Firms and the timeliness of the audit report. It is common for both sectors to engage high quality audit firms in order to appreciate the management efforts in serving high quality reporting to the users (Payne and Jensen, 2002). Big Firms are expected to take less time in conducting the audit due to the more resources that they possess (Almosa and Allabas, 2007), and they normally hire higher quality audit staff (Chan et al., 1993). Moreover, Big Firms are facilitated by the use of sophisticated audit technology (Newton and Ashton, 1989) and granted the motivation to improve the audit timeliness (Iman et al., 2001).

In the public sector audit, some studies examined the influence of Big Auditing Firms on the governmental audit delay. For instance, Payne and Jensen (2002) utilized a sample of 410 municipal financial statements of the south-eastern part of the US. The researchers classified accounting firms into Big 6 and non-Big 6 firms in order to test for the association between Big Firms and audit delay. Nevertheless, the multiple regression results did not reveal a significant effect of Big 6 audit firms on the audit delay in 1992. More specifically, Carslaw et al. (2007) focused on the audit timeliness issue in the school districts of the US for a period of five (5) years (1998-2002). The study examined the audit compliance of 36,367 school districts and evaluated the influence of several audit delay indicators including the type of audit firm. Based on the data from Federal Audit Clearinghouse database, the Big 5 variable could be connected to a shorter delay in only one (1) of the five (5) years studied. Both studies demonstrated that the influence of Big Firms in the public sector study is not strong.

Past studies in the private sector that have incorporated Big Firms in the audit delay model include Ashton et al. (1989), Carslaw and Kaplan (1991), Iman et al. (2001), Leventis et al. (2005), Almosa and Allabas (2007), Abdullah (2007), Che-Ahmad and Abidin (2008), and Khasharmeh and Aljifri (2010). Evidence of the significant attributes of Big Auditor's variable in the audit delay model of private sector studies are mixed. Carslaw and Kaplan (1991) failed to provide a significant impact of the large international audit firms to improve audit timeliness in the New Zealand market. In one (1) of the developing countries, Almosa and Alabbas (2007) revealed no association between Big 4 audit firms and audit delay.

Leventis et al. (2005) revealed that audit report lag was significantly shorter for Greek companies with big international audit firms and Khasharmeh and Aljifri (2010) discovered that international auditing firms in the United Arab Emirates reduced the audit delay. Ashton et al. (1989) documented a significant negative influence of Big 8 firms in only one (1) year (1982) out of five (5) years of analysis (1977-1982). In contrast, Iman et al. (2001) signified that engaging international accounting firms in Bangladesh would result in a longer audit delay instead of shorter. The results for the Malaysian environment are consistent, for example, Abdullah (2007) documented a significant association between type of auditor, namely, Big 5 firms and audit timeliness in a sample of 731 non-financial companies listed on the main board. Similarly, Che-Ahmad and Abidin (2008) revealed a significant influence of Big Firms in the sample of non-financial main and second board companies.

The argument on the past studies above shows mixed findings[17] of the audit firm type effect on audit timeliness, thus, further investigation is warranted to further add to the body of knowledge.

2.4.6 Change in Regulation and Audit Timeliness Studies

Any changes in regulation would either lengthen or shorten the time taken in the audit engagement. Some changes, such as the introduction of Section 404 of SOX (2004), demand greater audit work and, thus, are expected to increase the audit delay (Ettredge et al., 2006). In contrast, a change in organizational structure, such as restructuring, is predicted to shorten the delay due to the improvement of a company's efficiency and effectiveness. In this context, Lawrence and Glover (1998) investigated the synergy effect of audit firm's merger in reducing the length of time to issue an audit report. The study was grounded on the organizational theory where synergy was regarded as the main motivation for corporate merger. The researchers believed that the increase in firm efficiency from the combination of skills, expertise and resources caused the audit firm to become more efficient in conducting the audit process. The analysis between pre merger 1986 and post 1991 using matched-paired design found that only non-merged firms reported a significant decline in audit delay. The result is in conflict with organizational theory, which claims that mergers enhance the

[17]Consistent evidence for Malaysian's studies (see: Che-Ahmad and Abidin, 2008; Abdullah, 2007).

operational efficiency of merged firms. In contrast, the study of Hariri, Abdul Rahman, Fauzi and Che-Ahmad (2006) has proven that the merger between PriceWaterhouse and Coopers and Lybrand shortened the audit timeliness. The researchers used Malaysian data for six (6) years and the panel data regression was run on 184 observations.

In the US, the SEC is proposing to mandate a change from the year-end review of financial statements to each-quarter review in order to improve the regulatory structure of US companies. The proposal was aimed to enhance the quality of financial reporting and improve the scrutiny role of the auditor. Nevertheless, such a plan has been criticised by some managers on the basis that the shift would delay the quarterly earnings announcements. Relying on the issue, Ettredge, Simon, Smitch and Stone (2000) examined the validity of management allegation that the change will affect the timely issue negatively. The questionnaire survey was sent to 708 company controllers with 434 responses received. Based on the two-stage regression method by Heckman, the results proved that a mandatory timely review, which was a quarterly review, would lengthen the earnings announcement by three (3) days. The result suggested that some changes in the regulation would sacrifice one (1) of the quality features of financial statements.

In conjunction with the three (3) major regulatory changes within a 5-year period in Bangladesh, Karim, Ahmed and Islam (2006) believe that such changes have had a significant positive impact on the timely provision of audit reports. The study utilized a combined sample for 10 years and a matched-pair sample for companies that have data available for each year over the 10-year period in order to examine the effect of the new Companies Act enactment, stock market crash and Securities Exchange Rules amendment on audit timeliness. However, the findings reveal that the trend of audit delay over 10 years did not show any significant improvement. Moreover, post Securities Exchange Rules amendment from 1997 to 1999 has documented a significant deterioration in the timely reporting in Bangladesh. Therefore, the researchers concluded that the introduction of new regulations devoid of stringent enforcement would not guarantee a better quality of annual reports.

The high profile accounting scandals, such as Enron, WorldCom and Lehman Brothers, have intensified investors' interest in the quality of financial reporting. In the US, the SOX 404 was passed as a mechanism to assess the internal control quality by the management and external auditors. Given the fact that timely reporting is one (1) of the tools to judge the quality of the financial report, Davis (2007) compared the audit delay between before and after the SOX enactment years. The sample consisted of 100 companies selected from three (3) different groups: Dow Jones Index, Standard and Poor's Mid Cap Index and Standard and Poor's Small Cap Index. The descriptive statistics revealed that the average audit delay of the entire sample increased from the non-SOX period to the SOX period by 68% (39 days to 65 days) and the major increase was recorded during the first year of transition (2004). In addition, the largest increase in audit delay was experienced by Small Cap companies with an increment of 66%, as compared to Dow Jones companies. Nevertheless, a study conducted by Almosa and Alabbas (2007) proved that the introduction of more stringent regulations would result in better audit timeliness. The study centred during the introduction period of the Capital Market Authority as the main governing body in the Saudi Arabia stock market. The study provided evidence that the introduction of the Capital Market Authority led to a significant decline in the audit delay time.

In conclusion, from the literature discussed above, the majority of the studies are in line with the complexity issue of the new regulations as an impediment to the timely issuance of audit reports.

TABLE 2.2

Summary of Studies Investigating the Relationship between Change in Regulations and Audit Delay

Paper	Issue	Hypothesis Variable	Sample	Country	Year	Research Design	Main Findings
Kinney and McDaniel (1993)	Correction quarterly earnings	Dummy variable indicating whether interim earnings are understated, overstated with increased or decreased earnings	85 companies	US	1976- 1988 (13 years)	Multiple Regression	Longer audit delay for companies with correction quarterly earnings with decrease in previous earnings
Ettredge et al. (2000)	Change from year-end review to quarterly review	Dummy variable for loss from operations and abnormal adjustments	434 companies	US	1991 (1 year)	Multiple Regression	Increased quarterly earnings around 3 days
Ettredge et al. (2006)	SOX 404 Material weaknesses under in ICFR	Dummy year – pre and post SOX	6,488 firm-year observations	US	2003- 2004 (2 years)	Multiple Regression	Longer audit delay in 2004 (post-SOX year) Positive relationship between material weakness under ICFR and audit delay

TABLE 2.2
Summary of Studies Investigating the Relationship between Change in Regulations and Audit Delay (continued)

Paper	Issue	Hypothesis Variable	Sample	Country	Year	Research Design	Main Findings
Karim et al. (2006)	Companies Act enactment, stock market crash and Securities of Exchange Rules (SER) amendment	-	1,200 firm-year observation	Bangladesh	1990-1999 (10 years) i. cut-point 1995, 1996 and 1999	Descriptive Statistics and t-test	Increase in audit delay from 188 days to 198 days after stock market crash and 191 days to 195 days after SER amendments
Almosa and Alabbas (2007)	CMA – Capital Market Authority	-	230 firm-year observations	Saudi Arabia	2003-2006 (4 years)	Descriptive Statistics	Decline in audit delay after introduction of CMA by approximately 7.5 days
Davis (2007)	SOX	-	100 companies	US	Nov 2001-Oct 2006 (3 years preceding SOX, 2 years post SOX)	Descriptive Statistics	Increased audit delay by 68% in the post SOX years

TABLE 2.2
Summary of Studies Investigating the Relationship between Change in Regulations and Audit Delay (continued)

Paper	Issue	Hypothesis Variable	Sample	Country	Year	Research Design	Main Findings
Krishnan and Yang (2009)	10-K and 10-Q filling 2003	Dummy year variable 2002, 2003, 2004, 2005 and 2006	8,358 firm-year observations	US	2001-2006 (6 years)	Multiple Regression	Increase in both audit report lag and earnings announcement lag
Botica-Redmayne and Laswad (2010)	IFRS	-	295 firm-year observations	New Zealand	2001-2009 (9 years)	Descriptive Statistics and t-tests	Increase in audit hours for local authorities by approximately 47% and energy companies of around 31% during the first year of IFRS adoption

2.5 Limitations of Past Studies

To summarize, in both audit fee determinants and audit delay determinants literature, past studies have proven that the complexity and the risk components are the significant attributes to affect audit pricing and audit timeliness. Thus, many studies have been conducted to take into consideration the situations that possibly increase complexity and risk factors on audit engagement. As discussed in this chapter (Chapter Two), mandatory compliance or enforcement of stringent regulations has been proven to have a significant impact to the extent of audit works. Moreover, prior research has also investigated the impact of IFRS adoption on the aspects of financial statements' quality, value relevance of accounting number and forecast accuracy. Nevertheless, past studies have ignored the relationship between the complexities of IFRS adoption and audit pricing (and audit timeliness). It is important to provide evidence that the IFRS would increase the level of audit works, in which it might affect both audit costs and also the time taken to issue the audit report. Thus, this study aims to address the limitations and gaps in the past studies by examining the impact of IFRS complexities on both audit pricing and audit timeless.

2.6 Established Theories in the Literature

The audit pricing literature has been developed since the 1980s, however, there is no well-known theory that accurately portrays fee determinants. Palmrose (1986, p.99) states, "I know of no theory which specifies the determinants of audit fees". Consequently, there is no single theory that explains why the auditors charged higher prices due to higher complexity and increase in audit efforts. Nevertheless, the reason can be explained by assessing several theories that are related to the development of the hypothesis testing. There are four (4) main theories pertinent to this study, namely, the complexity theory, the agency theory, the insurance theory and the brand name theory.

2.6.1 Complexity Theory

The theory of complexity originates from a field that is remote from accounting. It is well established in the field of biological and chemical sciences and began to be applied in economics and organizational studies in the late 1990s (Murray, 1998). Nunn (2007, p.93) lists the disciplines of published studies that have incorporated the complexity theory in their studies, which includes "…meteorology, biology, geology, mathematics, physics, medicine, history, sociology, economics, education, business management and political science". To date, the application of this theory has been commonly used in financial market studies (Zeidan and Richardson, 2010). Nevertheless, the understanding of the complexity theory in the accounting field is still in its infancy stage. Wallis (2009) believes that the reason for the limited use of the complexity theory in social science studies is due to no consensus concerning the definition of this theory. The researcher acknowledges that the understanding of this complexity theory is as complex as the name of the theory itself. Likewise, Nunn (2007) agrees that the complexity theory has no unanimous definition and no accepted criteria to be recognized as a complex structure. Nevertheless, Nunn (2007) believes that it is not important to have a formal definition as it allows researchers to freely argue and develop new ideas and opinions.

According to Murray (1998) the complexity theory originated from the mathematical model introduced by Edward Lorenz in 1963. As weather behaviour depends on numerous factors, Edward Lorenz created a model to forecast the weather by using three (3) complex equations. For instance, the weather prediction of the next three (3) days should take into consideration today's situation and the previous weather behaviour (Murray, 1998). Nunn (2007) proposes three (3) characteristics of the complex system, in which the system is normally not linear (Anderson, 1999), is unpredictable and subject to the previous occurrences. The theoretical foundation of the complexity theory implies that even though the prediction is based on a simple rule, the future outcomes might deviate far from the forecast. Although the applicability of the complexity theory in the field of economics or accounting is not as clear-cut as a mathematical model, the characteristics of this theory could be applied to the case of new transformation and evolution experienced by organizations (Murray, 1998). In a recent study by Zeidan and Richardson (2010), the researchers incorporated the complexity theory to analyse the state of the recent financial crisis. They introduced two (2) underpinning concepts in explaining the dynamics of financial markets, namely, econophysics and econobiology approaches. Zeidan and Richardson (2010) concluded that the lack of understanding concerning the financial market environment leads to ignorance of the nature of systematic risk by the central banks, which, in turn, causes a financial crisis. Hence, this study is considered as a pioneer research in the accounting field in that it relates the complexity theory to the case of the complexity of new standards and their possible impact on audit costs and audit timeliness.

2.6.2 Agency Theory

The agency theory derives from the proposal of a separation between the owners and the managers of the organization, in which the agent (managers) would act on behalf of the principal (shareholders and debt holders). According to Jensen and Meckling (1976, p.308), the agency relationship is defined as "a contract under which one (1) or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent". The contact is reliable when the accounting numbers reported in the financial statements is accurate (Lennox, 2005). The agency relationship between the principals and the agents drives to several agency costs, which include monitoring costs and bonding costs of the contract as well as residual loss when the contract costs are more than the benefits (Jensen and Meckling, 1976).

In auditing market research, there is a lack of specific theories that could explain the factors to influence audit pricing and audit timeliness. Thus, previous studies have incorporated agency theory as a basis for audit fee determinants (Schwartz and Menon, 1985; Chan et al., 1993; Nikkinen and Sahlstrom, 2004; Piot, 2005; Abdul Wahab et al., 2009) and audit delay determinants (Owusu-Ansah, 2000; Owusu-Ansah and Leventis, 2006; Al-Ajmi, 2008). The monitoring or stewardship hypothesis under the agency theory theorizes that the principals will provide the monitoring mechanism (Chow, 1982) to ensure that the agents act towards the creation of the firm's wealth. One (1) of the mechanisms is to narrow the gap between the principals and the agents' preferences is an audit (Watts and Zimmerman, 1983). The auditor is seen to be a suitable person to ensure that the principal produces a reliable contract and, thus, reduces the agency costs, accordingly the agency conflict. Francis and Wilson (1988) revealed a significant positive association between the agency costs and the demand for a high quality audit. The results imply that a high quality audit is required when a firm is exposed to high agency costs, thus, audit is seen to be a superior mechanism to reduce such costs. Schwartz and Menon (1985) revealed that changing to a better quality auditor is a means to reduce agency costs. The unsuccessful organizations would have a high tendency to switch to the brand name of Big Firms in order to share some of the liability with the auditor in the case of bankruptcy (Jensen and Meckling, 1976).

In order to prove the suitability of the agency theory in audit pricing studies, Nikkinen and Sahlstrom (2004) examined whether the agency theory could be used as a framework for audit pricing. The panel data regression was conducted using a sample of 8,299 firm-year observations in seven (7) different markets. The results provide support to the agency theory in which, to some extent, the theory explains the behaviour of audit pricing. In this study, the agency theory acts as a ground theory for the existence of the insurance theory.

2.6.3 Insurance Theory

The theoretical model on audit fees was developed by Simunic (1980), and provides significant empirical contributions to the audit pricing studies. Simunic (1980) contended that the audit function is a type of insurance. The insurance demands results from the auditor's professional liability exposure and is regarded as a way to dispense risk (Schwartz and Menon, 1985). The management regards the insurance function as an advantage due to liability evasion to the financial statements' users and limits its liability exposure (Schwartz and Menon, 1985) in the case of litigation. To the investors, the insurance hypothesis is a means to recover investment losses from financial statement misrepresentations by charging auditors (Hillison and Pacini, 2004; Houston, Peters and Pratt, 2005). The burden becomes more serious when it comes to bankrupt companies, in which the auditors are exposed to added allegations when they fail to detect any reporting deficiencies (Schwartz and Menon, 1985).

Two (2) attributes that are perceived to provide value added to the audit environment: assurance and insurance. Assurance is a function of the audit objective that is to reduce information asymmetry between the management and the auditor in which the reliability of financial statements can be achieved through the higher quality services (Peursem and Hauriasi, 1999) and minimizing inventors' risks (King and Schwartz, 1998). Whereas, insurance is a function of auditors' liability to be sued by investors to recover investment losses in the case of misleading financial statements (Brown, Shu and Trompeter, 2008). The latter is referred to as the 'insurance hypothesis' or 'insurance theory', as used by Piot (2005).

In auditing, the insurance hypothesis asserts that auditors are viewed as a guarantor of financial statements on behalf of the enterprise and they are also a guarantor for investors' investments (Menon and Williams, 1994) and credit losses (Hillison and Pacini, 2004). Their insurance function was demonstrated clearly from the case of lawsuits from their clients. For instance, in the Andersen case, the audit firm was fined more than $110 million due to the lawsuits claim from Sunbean shareholders and paid $220 million to Waste Management to settle a class action case due to

Andersen's wrongdoing in overstating income by approximately $1 billion (Chaney and Philipich, 2002). Such examples are consistent with the claim made by Hillison and Pacini (2004) in which the auditor is the only bankrupt defendant in the litigation case.

According to Brown et al. (2008), eventhough the audit might perfectly protect clients in the form of insurance, there is still a lack of empirical evidence to embrace the extent of the insurance hypothesis. Occasionally, literature has tested the insurance hypothesis to provide empirical evidence on its validity in the auditing area. The majority utilized the reaction of market price to ascertain the reaction of investors to reflect the insurance hypothesis embedded in the auditor's liability (Menon and Williams, 1994; Chaney and Philipich, 2002; Hillison and Pacini, 2004; Brown et al., 2008; Nelson, Price and Rountree, 2008). Early empirical contributors to the insurance hypothesis in auditing are Menon and Williams (1994). In this study, the researchers investigated the market price effect on the clients of Laventhol and Horwath resulting from two (2) announcement events: their auditor's bankruptcy and the replacement of the auditor. The results reveal that the market did not react significantly to the disclosure to replace the auditor but declaring Laventhol and Horwath bankrupt had a negative impact on the client's market price. This study provides strong support for the investors marking their reaction to the capacity to recover losses on their investment. The investors' decision is attributable to the deficiency insurance coverage expected from auditors.

Schwartz and Menon (1985) investigated the reasons for insolvent firms to change their auditors during the period 1974 until 1982. This study utilized matched-pair design to compare 137 insolvent firms with solvent firms. The researchers found that the main motivation for the auditor switch was not because of audit qualification or management changes but the failure firms opting to shift to other types of auditor. The result is consistent with insurance hypothesis where enterprises require more guarantee from auditors in the event of failure. Recently, Brown et al. (2008) tested the continuation of the insurance premise by concentrating on a single setting, that is, KPMG's settlement on deferred prosecution due to aggressive tax shelters. Time series regression for the period beginning 1 January 2005 until 30 June 2006 was conducted to investigate the relationship between the clients' market price reaction and the ability of the investors to cover investors' losses. The result found that during the days surrounding a new settlement, KPMG clients experienced positive abnormal returns. In addition, researchers used the litigation risk index and financial distress index to ascertain the consistency with the insurance hypothesis. The study revealed that the abnormal return for companies with higher litigation risks was 0.94% higher and financial distress companies were more likely to engross auditors in litigation risks.

In addition, there is evidence that enterprises switch from smaller to larger Big Accounting Firms in the case of failure in order that they can provide greater assurance to the investors and creditors. Dye (1993) claims that the existence of Big Firms provides more implicit insurance protection against investors' losses due to audit failure. A similar situation was found for the companies that were to go public; they prefer to hire high quality Big Firms in an attempt to guarantee to investors that the financial statements are prepared in accordance with GAAP. Furthermore, larger accounting firms are perceived to have a 'deep pocket' to cover litigation losses in the case of bankruptcy. At the same time, they have the ability to diversify clients' risks into a greater number of other clients and they have the expertise in legal and technical advisory (Schwartz and Menon, 1985). Hillison and Pacini (2004) conclude that market participants place value on the Big Firms' auditors to provide insurance for investor losses.

2.6.3.1 Insurance Theory and Audit Pricing

In auditing, insurance-based demand requires audit fees to include implicit insurance premium (Willenborg, 1999). Menon and Williams (1994, p.341) noted, "it appears to be important for auditors to price their product to reflect their insurance service". From the auditors' perspective, the most influential determinants of audit pricing are attributes that give rise to the auditor's loss exposure resulting from litigation risks. Simunic (1980) recognized four (4) factors that influence the auditor's loss exposure, namely: (i) the clients' size, (ii) the complexity of clients operation, (iii) the risks of the clients' operation, and (iv) the clients' industry. Schwartz and Menon (1985) claimed that an increase in insurance demand leads to an increase in audit pricing to compensate the auditors for offering additional assurance against litigation claims. Similarly, Gonthier-Besacier and Schatt (2007) agreed that a higher premium bill by auditors corresponds to the amount of insurance premium against future legal proceedings. Thus, the only way to detect material misstatements so that litigation risks are diminished is by increasing audit efforts, which leads to an increase in audit fees (Venkataraman et al., 2008).

It is important to recognize the role of auditors as an insurance function where the responsibility of the auditors is to insure the investors in the case of incorrect decisions based on deceptive financial statements. In addition, the auditors understanding on insurance hypothesis is vital for them to reflect the value in the audit pricing decision. For instance, Willenborg (1999) tested two (2) characteristics of audit, namely, informational signalling and insurance signalling on the audit fees of Development Stage Enterprises. Based on OLS regression, the researchers found that both the characteristics are important in auditing, however, insurance demand has a stronger impact compared to information-based demand. The study provides evidence concerning the importance of insurance-based demand in both small and large IPO markets.

In conclusion, the above discussions denote that the insurance theory provides, to some extent, guidelines to determine audit pricing. Assuming other things are held constant, the higher the litigation risk of the respective clients, the higher the insurance premium, which results in higher audit fees. In addition, the higher premium for audit fees might also be associated with the higher auditor reputation that gains a viable advantage over less reputable auditors.

2.6.4 Brand Name Theory

Francis and Wilson (1988) argued that there are two (2) theories that can best differentiate the quality of audit services provided by auditors – either brand name theory or auditor quality-differentiated theory. The brand name theory was introduced by Klein and Laffler (1981), in which the researchers described how the brand name premium acts as a guarantor for the quality services provided and how incentives are created by firms to fulfil the implicit contract. The model developed by Klein and Laffler (1981) shows how reputation affects the price and quality of goods produced. They stress that a positive reputation would enable a firm to charge a higher price to compensate for the cost of creating reputation. A positive reputation can be gained through advertising or acquisition of brand name or buying non-salvageable productive assets such as training programmes for the workers. For instance, Beatty's (1989) study revealed that the firm's price is affected by the reputation of the firm. In contrast, firms that failed to meet such quality might depreciate their brand name value through the loss of reputation and experience loss of future expected income benefits. Klein and Laffler (1981, p.618-619) claimed that:

> "the economy consists of consumers who consider buying a product x each period, where the length of a period is defined by the life (repurchase period) of product x, and who are assumed to costlessly communicate quality information among one another. Therefore, if a particular firm supplies less than contacted quality to one consumer, the next period all consumers are assumed to know. In addition, this information is assumed not to depreciate over time".

Furthermore, Getzen (1984) suggested that reputation plays an important role in influencing customers' decisions and that any sellers' faults are punished via the negative present value of future expected gains.

In auditing, brand name reputation is commonly connected to large, higher quality, well-known, more famous clients (Moizer, Garcia Benau, Humphrey and Martinez, 2004) and well capitalized international accounting firms. Brand name reputation derives from the ability of auditors to provide assurance beyond what is required under GAAP and generally accepted auditing standards (GAAS) (Bandyopadhyay and Kao, 2001). The majority of research on auditors' reputation claims that larger auditors provide better monitoring to the clients and provide superior information quality and more credibility (see for example: DeAngelo, 1981; Beatty, 1989; Francis, 1984; Moizer et al., 2004). Higher quality is derived from the investment in sophisticated technology, training and facilities (Chaney, Jeter and Shivakumar, 2004). However, Moizer et al. (2004) discovered different attitudinal traits of brand name firms, which appear to be more arrogant, more casual, more ruthless, more unfriendly and more prejudiced.

Several studies have proven the existence of auditors' reputation by relying on the audit fee measurement. Simunic (1980) made the first study that examined the fee premium provided by higher reputation auditors, namely, Big 8 firms as compared to non-Big 8 firms. The result revealed no price premium charged by Big 8 firms and non-Big 8 firms in the US small and large audit markets. It was further extended by Francis (1984) using 136 Australian data; the researcher found that brand name auditors did charge more. Francis and Stokes (1986) tried to resolve the conflicting results of Simunic and Francis. They contended that the different results were due to the different auditee size grouping between large and small clients where Simunic's small clients' size (177 million) was almost double that of the large assets client size (90 million) of Francis. The sample consisted of the 96 smallest and 96 largest public listed companies in 1983 and the classification was made on the basis of total assets. The study supported the existence of Big 8 product differentiation and diseconomies of scale of non-Big 8 for small clients but not for large auditees.

Francis and Wilson (1988) examined the association between four (4) agency related audit incentives and audit quality proxies. The audit quality proxies were based on the

DeAngelo theory of audit firm size model and Klein and Leffler's theory on brand name model. The sample consisted of 57 upgrading auditors (Big 8 to non-Big 8) and 21 downgrading auditors (from non-Big 8 to Big 8) between 1978 and 1985. A probit regression was used to analyse the brand name model and OLS to test the auditor size model. The results provide support for the significance of the brand name model as a proxy for audit quality.

Recently, Basioudis and Francis (2007) documented fee premium differences between Big 4 non-city leader and second-tier national firms. The premium charged by Big Firms is consistent with Klein and Laffler's (1981) claim that the price can be used by customers to assess the quality of services from the contract. Nevertheless, most of the evidence of brand name premium prevail in public listed companies. For instance, Chaney et al. (2004) failed to reveal that private companies in the UK also viewed brand name auditors as a supplier of enough superior quality to substantiate fee premium. In addition, private companies tend to self-elect cost-effective auditors as a means to avoid brand name auditor's fixed costs embedded in audit pricing. Clatworthy and Peel (2007) supported Chaney et al.'s (2004) finding that quoted and unquoted public listed companies have significantly higher fees compared to private companies. In sum, as noted previously, while there is no single theory that can best explain the authentic factors to determine audit fees, this study combines several theories that are expected to explain the relationship between the complexity issue of new standards and the audit fees.

2.7 Joint Determinants of Audit Fees and Audit Delay

According to Johnson et al. (2002), the joint relation between audit fees and audit delay are subjected to audit quality and audit risks. Both factors have a positive effect on audit delay or audit fees or both. There have been extremely limited studies that have tested the joint determinants of audit delay as an explanatory variable in the audit fee model or audit fee variable in the audit delay model. In this context, Johnson (1998) examined the joint endogeneity between audit fees and delay. The Hausman specification test proposed by Hausman (1978) provides a significant fee-model residual in audit delay regression and a delay-model residual in audit fee regression. The 2SLS results found that the natural logarithm of audit fees in the audit delay model was not significant while the natural logarithm of audit delay in the audit fee model was significant in explaining the variation in audit fees. The researcher concluded that audit fees do not influence the length of audit delay, whereas audit delay does significantly influence the amount of audit fees.

Consistent with Johnson (1998), Johnson et al. (2002) utilized 2SLS for both endogenous variables of audit fees and audit delay model. The study specifically examined the influence of local government accounting year-end to the audit fees and audit delay. The researchers claimed that audit delay was a significant factor to explain the variation in audit fees and vice versa. The sample consisted of 302 US cities and countries for the financial year 1993. Simultaneous regression analysis was run, the results revealed a significant positive fee coefficient in the audit delay model, however, the delay coefficient was insignificant in explaining audit fees. The study provided contradictory findings to Johnson (1998). The difference might be due to some use of the measures to represent the size of local government. Johnson (1998) utilized government population as a size metric whereas Johnson et al. (2002) used revenues earned by local governments to represent size. Nonetheless, Johnson et al. (2002) claimed that their measure was superior because of the strong relation between revenues and the audit fee model, which, in turn, influenced audit delay.

To the best of the researcher's knowledge, there has been very limited study on public listed companies that directly examined the association between audit fees and audit delay by using the 2SLS method of analysis. For instance, Knechel and Payne (2001) employed data from 226 public listed companies for financial year-end 1991. The researchers investigated an additional three (3) factors that might influence audit delay, namely, additional audit hours (effort), which resulted in an increase in audit fees, resources allocated to audit team effort and the provision of non-audit services. Since audit hours, as a proxy for audit effort, correlated with audit delay, a two-stage technique was used to determine the incremental audit hours. The study found that there is a positive relationship between audit delay and the increase in audit work by auditors.

2.8 Summary

The first part of this chapter reviews the relevant literature pertaining to the IFRS transition that covers the need for convergence and harmonization towards uniform accounting standards, the feedback from preparers, management and auditors on the benefits and obstacles of IFRS adoption, the degree of IFRS acceptance in developing countries, the history of accounting standards in Malaysia and past studies that have taken into consideration the adoption international standards.

The second part discusses the literature on audit pricing, the issue of longitudinal trend in audit fees, review of all the determinants and the association with Big Firms as well as the earlier studies on the impact of the regulation effect on audit fees. The third part focuses on the issue of audit timeliness; several determinants are identified from the literature and also the effect of new regulations on audit timeliness. This is followed with the discussion on underlying theories applicable to this study. The last part looks at the studies that incorporate audit delay in the audit fee model or audit fees in the audit delay model or as a joint determinant. Most of the studies were found to incorporate audit delay as one (1) of the audit pricing determinants.

Overall, the review of the literature on IFRS transition has led to the issue of complexity of certain standards. Differences in business, financial, accounting and regulatory cultures between one (1) country and another might hamper the transition process. Moreover, the impact of transition on developing countries is enormous compared to developed countries due to several barriers including language, cost of infrastructure and resources and lack of local standard-setting bodies. At the same time, the audit fees and audit delay literature suggests that auditors are directly affected by any changes in regulations or compliance with certain standards. Thus, the gap between the issue of IFRS complexity and the question of increase in auditors' verification efforts have led to the endeavour to provide new evidence for complexity taxonomy in the audit fee and audit delay model.

Therefore, it is hypothesized that the transition from MASB to IFRS has an impact on the extent of audit fees charged and time taken to release the audit report. The following chapter presents the hypotheses development and theoretical framework delineated from past empirical studies.

CHAPTER THREE

HYPOTHESES DEVELOPMENT AND THEORETICAL FRAMEWORK

3.1 Introduction

In the previous chapter, the review of the literature related to audit pricing and timeliness is fundamental to support the objectives of the study. In conjunction, this chapter presents arguments to support the construction of the hypotheses and the design of a theoretical framework.

3.2 Hypotheses Development

3.2.1 The Effect of IFRS Adoption on Audit Fees and Delay (H1a and H1b)

Auditing is always connected with the uncertain business where auditors have to admit that audit engagement comprises the risk of an uncertain rate of return. The uncertainty results from undetected material misstatements included in the audited financial statements (Simunic and Stein, 1996). Thus, Simunic (1980) theorized that total audit costs should consist of: (i) the resource cost component, which depends on the level of audit effort and (ii) the liability loss component, which depends on the expected costs of the client's business risk. In line with the insurance theory, there are three (3) considerations that need to be taken by auditors in charging audit fees, in which auditors: (i) evaluate the expected liability loss components in the audit commitment, (ii) prepare a proposal based on the financial position of the clients, and

(iii) ascertain the level of audit verification needed in the engagement process (Pratt and Stice, 1994). Accordingly, the level of audit fees to be charged can be determined.

Seetharaman, Gul and Lynn (2002) provided evidence that there is a positive relationship between litigation risk and client's audit fees across the liability regime. The researchers conclude that the legal environment or local regime of the client's country contributes to the determination of the audit fees. The evaluation of the client's business risk is important in setting the audit process. The traits of the audit environment and client's business nature might influence the auditor's assessment in the audit plan. Thus, any changes in the regulatory environment and disclosure requirements possibly affect the audit-pricing decision (Schadewitz and Vieru, 2010). Similarly, Bhamornsiri and Guinn (2008) examined the impact of the new SOX 404 for the first two (2) years of compliance and revealed a significant increase in audit pricing by 65% in the first year and 9% in the second year of SOX 404 adoption. Likewise, Asthana, Balsam and Kim (2009) related that the increment in audit pricing in year 2002 was due to the SOX and the effect of the Enron case. The longer effect of SOX was also found in Ebrahim's (2010) study, however, the premium was reducing in the fourth year of enforcement.

As outlined by the complexity theory, any change in the environment, which is non-linear and unpredictable, is considered as a complex system (Anderson, 1999; Nunn 2007). Ding, Jeanjean and Stolowy (2008) believe that the transformation from IAS to IFRS is regarded as a major accounting event in the auditing arena that will undoubtedly affect audit fees. The change in standards and regulations has increased the difficulty in the audit process. Moreover, Hay and Knechel (2010) investigated the impact of regulations, namely, deregulation of advertising and solicitation on audit fees. The six (6) years data indicates that the existence of new regulations on advertising caused audit fees to increase, which reflects the quality-based regulation.

Schadewitz and Vieru (2010) noted that debates on the extra work and hours demand on auditors started from the day IFRS was released when the IFRS adherence on the part of managers, auditors and regulators was still at a low level (Ball, 2006). The complexity problem of IFRS convergence has been raised by many researchers (Hoogendoorn, 2006; Ball, 2006; Armstrong et al., 2010) due to the lack of preparation. Therefore, auditors are exposed to extra risk of litigation and the burden of additional work. Dopuch and King (1992, p.98) believe that the existence of new standards might boost auditors' litigation exposure, they state that:

> "some of the new standards, however, may actually increase liability exposure by extending auditors responsibilities to the service not previously considered a legal basis for assessing auditors liability (e.g. extending auditors' responsibilities for detecting managerial fraud".

The increase in the auditors' burden due to compliance with the standards might not only affect audit pricing but also lead to auditors taking a longer time to issue the audit report. This is true, especially for mandatory regulations, in which auditors must put in extra effort to comply with the requirements. In the US, the enforcement of SOX in 2002 greatly influenced the way public companies are governed. More specifically, Ettredge et al. (2006) directly utilized the external auditor assessment of internal control over financial reporting (ICFR) by comparing a year preceding (2003) and first year (2004) of Section 404 enforcement and discovered that companies that reported material weaknesses in ICFR are positively associated with longer audit report lag, thus, they concluded that the introduction of new regulations resulted in a significant delay in the issuance of audit reports.

It is further supported by Krishnan and Yang (2009), who investigated the impact of 10-K and 10-Q filling requirements[18] in the US on the audit report lag and earnings announcement lags. The researchers revealed that the new regulations delay both audit report issuance and earning announcements after enforcement in 2003. The findings of other earlier studies, such as Kinney and McDaniel (1993), and Botica-Redmayne and Laswad (2010), also suggest that new regulations have added another level of difficulty in reaching timely audit reports. It is important to note that the value of the annual reports released by the public listed companies do not depend solely on the effectiveness of accounting numbers to influence the users' decision, but, also on how rapid the decisions can be made. Due to the verification of details needed in the audit process, it is anticipated that IFRS transition will influence the time allocated by auditors to perform their duties.

From the factors discussed above, it is expected that audit pricing and audit timeliness will be higher in the post-IFRS adoption year due to the increase in agency costs. Hence, the hypotheses are:

H1a: There is an increase in audit fees after IFRS adoption.

H1b: There is an increase in audit delay after IFRS adoption.

[18] 10-K and 10-Q filing refer to the reports to be filed with the US SEC. The 10-K is the annual report while 10-Q is the quarterly report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Effective on 15 December 2003, the SEC mandated accelerated firms to file 10-K reports within 75 days of the company's financial year-end, instead of 90 days (You and Zhang, 2011).

3.2.2 The Association between Number of IFRS Adopted and Audit Fees and Delay (H2a and H2b)

The preceding hypotheses looked at the impact of IFRS adoption from the pre-IFRS adoption period to the post-IFRS adoption period. This section is an extension of hypothesis one (1) as it focuses on the relationship between the number of IFRS adopted with the audit pricing and the timely issuance of audit report.

As discussed in the previous section, the adoption of IFRS can be considered a major revolution to the auditors since they have to follow the new regulatory and disclosure requirements. For this reason, Schadewitz and Vieru (2010) used a comparability index based on four (4) indicator variables to measure the extent of variation between local standards, that is, Finnish Accounting Standards (FAS) and IFRS. The researchers claim that the comparability index will be higher when the local standards require numerous adjustments to comply with IFRS. The study found a positive association between the extent of IFRS adjustments and audit fees paid to the auditors. Indeed, Harvey and Keer (1983, p.11) also pointed out that, "the more standards there are, the more costly the financial statements are to produce". The increase in the auditor's burdens due to the adoption will also influence audit timeliness to verify many adjustments from the amended or new standards. This allegation is congruent with the insurance theory, in which higher auditor's burden in the form of effort and time (higher extent of IFRS adoption) must be compensated by a higher degree of insurance.

Thus, it is predicted that the higher number of IFRS adopted by the clients, the more fees and time required in completing the audit works. Hence, the hypotheses are:

H2a: There is a positive association between the number of IFRS adopted and audit fees.

H2b: There is a positive association between the number of IFRS adopted and audit delay.

3.2.3 The Association between FRS 138 Adoption and Audit Fees and Delay (H3a and H3b)

The issue of intangibles has been the subject of considerable debate among academicians in scholarly research. Egginton (1990, p.193) claims that "accounting for intangible assets is one (1) of the most intractable problems of financial reporting". Similarly, Lhaopadchan (2010) believes that the value of intangibles is the most difficult to determine. The academic community normally argues about the definition of intangibles, should they be capitalized or expensed, what is the right basis for amortization and where intangibles should be presented in the balance sheet. Canibano, Garcia-Ayuso and Sanchez (2000) argued that the only way to counter the questions is by finding the generally accepted definition of intangible assets and liabilities. Traditionally, intangible assets were always allied to goodwill and recognized as the difference between the cost to acquire the enterprise and the fair value net tangible assets. Goodwill[19] arises when there is a purchase price premium

[19] FRS 138 does not deal with goodwill on business combination, which is covered in FRS 3 on 'Business Combinations'. Internally generated goodwill is not recognized as an asset since the market value cannot be determined reliably (Lazar et al., 2006).

over the net assets due to the brand names, good reputation and superior linkage between customers and suppliers.

According to Kaufmann and Schneider (2004), it is not just the lack of a unanimous meaning for intangibles but the terminology also varies. Among the terms used by most researchers are "intangibles, intangible assets, intangible capital, intangible resources, intellectual capital and intellectual property" (Kaufmann and Schneider, 2004, p.374). In some past studies, the researchers only provide a brief definition of intangible that offers little help to practitioners. For instance, Michalisin, Kline and Smith (2000) present an unclear definition of intangible, only stating that intangibles are assets that are costly to create and generate a stream of economic benefits over their useful life. In Garcia-Ayuso's (2003) study, no meaning of intangible was provided by the researcher. Hence, most of the definitions provided by the accounting regulatory bodies are somewhat related where intangibles are linked to assets with no physical existence and non-monetary sources, however, there is an apparent potential economic value that accrues to the enterprise arising from previous transactions (Canibano et al., 2000).

Currently, while many studies provide a wide range of elements to determine the value of intangible to the company, they fail to fit the definitions and do not match with the recognised criterion of intangible. Consequently, as no acceptable definition of intangible exists, the classification remains unresolved. Grasenik and Low (2004) pointed out that the lack of consensus concerning the definition and classification of intangibles is because of the dissimilar boundaries and perspectives of different interest groups concerning the purpose of an organization's assets. Hendriksen and

Van Breda (1992) suggest that intangibles might be classified into two (2) categories: (i) traditional intangibles, which include goodwill, brand names and patents, and (ii) deferred charges like advertising, research and development and training costs. Gallego and Rodriguez (2005) conducted a study to determine the most relevant intangible assets in Spanish firms. Questionnaires were sent to 257 firms consisting of 25 items related to intangibles. The researchers classified intangibles into three (3) categories: human capital, structural capital and relational capital, with four (4) indicators under each of the three (3) categories: (i) human capital consists of employee's experience, teamwork capacity, creativity and learning capacity, (ii) structural capital includes procedures and systems, databases and documentation services, use of information technologies and innovation capacity, and (iii) relational capital comprises brand image, supplier relationships, customer relationships and relation with other firms. Their study revealed the five (5) most significant intangible assets of Spanish firms, namely, customer relationships, employee's experience, information technologies, brand image and procedures and systems. The researchers concluded that Spanish firms have shifted from an industrial market to a knowledge-based market. Kaufmann and Schneider (2004) stressed the importance of developing a comprehensive classification of intangibles so that managers can structure the intangible approaches within the organizations.

The most crucial debates on intangibles concern the recognition and measurement in the financial statements. The main argument in recognizing intangibles is an issue of uncertainty to determine future economic benefits and to what extent intangibles are under the firm's control. Due to the uncertainty, some intangibles, such as training costs, might not be capitalized when a contractual relationship between the firms and the employees cannot be established. There are two (2) different views concerning the way intangibles should be accounted. On the one (1) hand, academicians argue that since intangibles are an asset, they should be treated and recognized as other tangible assets (Lev and Zarowin, 1999). While on the other hand, other supporters claim that intangibles cannot be treated like tangibles since the value is not separable, there are no alternative uses and the recoverable amount is subject to uncertainty.

Prior to IFRS convergence, there were many treatments across different countries that hindered the harmonization of financial statements. In 1975, the Financial Accounting Standard Board (FASB) in the US required firms to expense full Research & Development (R&D) costs because no direct relationship between R&D costs and definite future benefits were derived from the outlays. From the point of view of the advocates, this treatment reduces the chances for the managers to capitalize development costs, which do not give better prospects in future (Healy, Myers and Howe, 2002). In 1998, IASC issued IAS 38, which classified R&D as internally generated intangible assets and required full written off expense costs to income statements and certain development costs treated as assets to be capitalized over the period of 20 years. In contrast, the Australian Accounting Standards Board exposure draft 49 permits amortization of identifiable intangible assets over the period the asset might reasonably be expected to provide benefits. Similarly, the IV Directive of EU allows for capitalization of R&D costs without providing the criteria for recognition (Canibano et al., 2000). It is clear that the different methods used by the different national standards may hamper comparability, thus, motivating IASC to have a universal standard.

The unstandardized methods for the valuation of intangibles might significantly affect the enterprises and shareholders' decision-making process. Garcia-Ayuso (2003) stressed that the inefficient valuation of intangibles is due to the inexistence and imperfections of a capital market for intangible assets. When there is no capital market, the value may be determined based on the consent between parties. Additionally, a widely accepted valuation model for intangibles has not been established unlike tangible assets such as stocks, options and bonds. According to Lev and Zarowin (1999) there has been a significant decline in the usefulness of financial reporting over the last few decades. The researchers found that 18% to 22% of the variations in stock performance between companies are due to the discrepancies in their reported earnings, which might be attributable from the erroneous valuation of intangibles. The low quality of financial information, lack of managers, auditors and analysts' competence and their unethical conduct are other factors that contribute to the poor valuation of intangible assets (Garcia-Ayuso, 2003).

From the earlier arguments, the literature shows the complexity of the work concerning intangibles, from the definition and classification to the recognition and measurement (Bohusova and Svoboda, 2010). It is expected that the higher complexity and ambiguous treatments will cause the auditors to spend more time in tracing audit evidence, which, subsequently, will result in higher fees and a delay in the audit report. Hence, based on the complexity theory and agency theory framework, hypothesis 3 predicts that the higher complexity of the new standards will increase the monitoring costs. Thus, the hypotheses are:

H3a: There is a positive association between FRS 138 adoption and audit fees.

H3b: There is a positive association between FRS 138 adoption and audit delay.

3.2.4 The Association between FRS 139 Voluntary Adoption and Audit Fees and Delay (H4a and H4b)

A standard on financial instruments was released in December 1998 as IAS 39 Financial Instruments: Recognition and Measurement. The effective date of the standard's execution was 1 January 2001. IAS 39 is the second standard on financial instruments after the issuance of the first standard, IAS 32 Financial Instruments: Disclosure and Presentation. IFRS 132 defines financial instrument as "a contract that gives rise to a financial asset of one enterprise and a financial liability or equity instrument of another enterprise" (Lazar et al., 2006, p.426). IFRS 139 covers the initial recognition of financial assets and financial liabilities, subsequent measurement to initial recognition, impairment of financial assets, derecognition, and hedge accounting (Lazar et al., 2006). Generally, financial instruments include cash, commercial papers, accounts receivable, accounts payable, notes receivable, notes payable, debt, equity securities, asset backed securities like collateralized mortgage obligations, repurchase agreements, and securitized packages of receivables and derivatives, including options, rights, warrants, futures contracts, forward contracts, and swaps. The Joint Working Group of Standard Setters stress that it is important to have the appropriate measurement of financial instruments in the banking industry due to the dissimilar recognition between trading book (at fair value) and banking book (at historical costs) (Chisnall, 2001).

The majority of the international standard setters in the US, UK, Australia and EU have already issued standards asking for public listed companies to prepare balance sheets at fair value and that any changes in fair value should be recognized in the income statement. For instance, the FASB demands that US listed companies recognize some investment securities and derivatives at fair value measurement. Moreover, many US enterprises already make use of partial fair value application such as the use of derivatives to hedge changes in the fair value of inventories, loans and fixed least payments. The optimistic effort by FASB has received great support from the US SEC (Bonaci and Matis, 2008). More remarkable, is the collaboration between the IASB and FASB with the purpose of assessing the viability of mandating full fair value recognition of all assets and liabilities in financial statements. At the end of 2007, the IASB published the FASB's Preliminary Views 'Financial Instruments with Characteristics of Equity', to get feedback and comments from the board members. The responses received will be used by the two (2) bodies to determine the best way to develop and improve financial reporting for financial instruments with equity characteristics (FASB, 2007).

IAS 32 (IFRS 132) and IAS 39 (IFRS 139) are the standards that have been widely discussed on their practicality of implementation. The debates on the accounting treatment of financial instruments started in the 1990s among the financial institutions and banking industry. Several issues were discussed including offsetting assets and liabilities, discounting and disclosure. The most significant problem that received considerable attention concerns the recognition of fair value of the assets and liabilities in the balance sheet. IFRS 139 defines fair value as the "amount for which an asset could be exchanged or liabilities settled, between knowledgeable, willing parties in the arm's length transaction" (Lazar et al., 2006, p.540). It is common as well to define fair value as the present value of estimated annual cash flows discounted with the current market rate of return. Alternatively, when the market value of the financial instruments cannot be identified for the respective instrument, the value can be derived from its components and other instruments if that value is readily available on the market (Bonaci and Matis, 2008). The fair value measurement is claimed to have some degree of volatility within the economic results' structure and equity capital. In addition, the volatility of IFRS 139 differs from the real economic volatility (Bonaci and Matis, 2008). Nevertheless, Ebling (2001) claimed that high volatility means that the financial statements reflect the reality of what the accounts are supposed to show.

The advocates of historical cost accounting and fair value accounting normally struggle to defend their principle. The former normally argues that historical is more reliable since no subjectivity is involved in the valuation of assets and liabilities whereas the proponents of fair value state that the fair value of the financial assets and liabilities enhance the capacity of the investors, creditors and other users of financial reporting to evaluate the impact of the enterprise's investments and financing decisions (Bonaci and Matis, 2008). Harvey and Keer (1983) noted that the inflation factor means that the historical cost basis is less meaningful in making decisions. Given that the income statement and balance sheet are the key reference for the users, inflation distorts such accounts, which causes two (2) complications. First, when the value of money declines due to inflation, the assets value based on historical cost is less relevant. Second, overstating the income when a charge on historical cost is recognized as revenue. The standard setters argue that there is a lack of symmetry in the treatment of gains and losses under the historical cost convention. Under historical costs, when gains on financial instruments exist, they are not reported in that year but are recognized in a year other than the period in which they arise. Similarly, for assets arising from financial instruments bought at zero (0) cost, they are not to be taken into account. This problem causes financial statements to fail to satisfactorily declare the risk management of the enterprise's activities. From the standard setters' point of view, the root of the drawbacks in the recognition of financial instruments is due to the use of historical cost accounting (Ebling, 2001). Anagnostopoulos and Buckland (2005) investigated the usefulness, relevance, reliability of two (2) conflicting issues, between historical costs and full fair value accounting on measurement, recognition and disclosure of financial instruments in the banking books. The researchers revealed that the implementation of full fair value brings more benefits to the banking institutions (Stovall, 2010) as opposed to the practical difficulties in accomplishing such accounting treatment.

Even though the concept of fair value has been used since 1995 for some financial instruments (Anagnostopoulos and Buckland, 2005), the transition to full fair value accounting for all assets and liabilities is still at an early stage. According to Anagnostopoulos and Buckland (2005), the transition is a significant movement in the banking industry so that the weaknesses of historical cost accounting could be reverted. At the same time, the practitioners and scholars express their apprehension concerning the non-existence of active markets in determining the fair value of financial instruments, especially in less developed countries. In the case of the Czech and Romanian stock markets, the unavailability of market price is obvious since their countries are regarded as a poorly transparent environment (Bonaci and Matis, 2008).

The complexity theory delineates that the future outcome becomes very difficult to predict when the system (the financial statement) contains ambiguous or uncertain elements (accounting treatments and judgments) (Nunn, 2007). In this case, some of the IFRS, such as IFRS 139, involve management judgments and estimates (Narayanan, 2008), thus, the auditors need to put in extra hours in order to verify and resolve certain unclear matters before the audit opinion can be issued. As Love and Eickemeyer (2009, p.56) wrote, "the proposed transition period to IFRS will test an auditors' ability to ascertain whether management accounting judgments are reasonable and supportable and communicate any identified deficiencies to management and the audit committee". This statement provides a basis to judge the extent of auditors' burden, especially when some IFRS treatments are also new to the auditors. Hence, it is admitted that accounting for fair value is a complex process where enterprises require investing their time and effort in order to understand the IFRS 139 requirements, impact on systems, processes and documentation (Bonaci and Matis, 2008).

Therefore, the more audit efforts are devoted to complete the audit process due to the complexity of fair value measurements, the higher the audit price and the longer the delay expected from the auditors. Similarly, using the insurance theory and the monitoring hypothesis of the agency theory, hypothesis 4 postulates that the complexity of FRS 139 will increase the contract costs, that is, the monitoring cost of the agency relationship. Hence, the hypotheses are:

H4a: There is a positive association between FRS 139 voluntary adoption and audit fees.

H4b: There is a positive association between FRS 139 voluntary adoption and audit delay.

3.2.5 The Association between Audit Fees and Audit Delay (H5)

Empirical studies have shown that there is a significant association between the price paid to the auditor and the date of the auditor's report. Understandably, when the auditor allocates longer hours in performing the audit, the likelihood of charging more fees is higher. In view of the fact that audit fees are one (1) of the main sources of income for the accounting firm, higher fees must be expected by the clients in order to compensate for the extra effort put into the task. Two (2) UK studies found mixed results concerning the relationship between the audit delay variable and audit pricing. In this context, Ezzamel et al. (1996) used 314 samples of public listed companies and found a significant positive association between audit delay and log of audit fees. In contrast, Chan et al. (1993) did not find a strong effect of audit delay on audit fees based on 985 UK companies in 1989.

Recently, Caneghem (2010) used the number of days between the balance sheet date and the date of submitting financial statements to the National Bank of Belgium to examine the relationship between audit delay variable and the audit fees. Multiple regression analysis revealed that the audit report lag significantly influenced audit fees in the full sample. Other studies that support the positive relationship include Griffin et al. (2009), and Ettredge, Li and Scholz (2007). However, Naser and

Nuseibeh (2007) failed to provide evidence concerning the significant influence of audit delay on the audit fee model in the emerging Jordan market.

Despite the mixed results of earlier studies, there is a strong reason to believe that audit delay significantly affects audit fees. When an extra burden of work is assigned to auditors, they normally demand more hours to complete the tasks. The longer the hours consumed by audit engagement, the longer the time needed to issue the audit report (Knechel and Payne, 2001). Furthermore, extra hours mean that audit firms have to increase their operating costs for each audit engagement. As a result, an extra fee is charged to the clients to compensate for the lack of opportunity costs for not accepting other engagements. Therefore, it is anticipated that the additional hours consumed by the auditors would cause them to incur extra staff costs, higher overhead expenses and increased opportunity cost. These additional costs are then reflected in the price of audit engagements charged to the client to cover the increase in the monitoring requirements of the agency theory. Hence, the hypothesis is:

H5: There is a positive association between audit delay and audit fees.

3.2.6 Interaction Effect of Brand Name Auditors with the Number of IFRS Adopted, FRS 138 Adoption and FRS 139 Voluntary Adoption on Audit Fees and Delay (H6a and H6b)

The Klein and Laffler's (1981) brand name theory outlines the relationship between the reputation of products and services, the prices and the quality of products and services. The model of brand name theory signifies the positive relationship between the reputation, price and quality. In the auditing field, the brand name auditors are synonymous with the Big 4 accounting firms. At present, the Big 4 firms consist of Ernst and Young, Deloitte, KPMG and PricewaterhouseCoopers. In Malaysia, the Big 4 accounting firms are international affiliated firms that are supported by more technical experts from those international firms. Big Accounting Firms (Big 8 or 6 or 5 or 4) are related to the quality-differentiated audit in which they are perceived to produce a higher quality audit-reporting decision (Palmrose, 1986; Geiger and Rama, 2006; Basioudis and Francis, 2007). Simunic (1980) argues that different accounting firms provide different audit service quality and brand name auditors, namely, Big Firms are more credible than others. They are motivated to provide a higher quality audit in order to protect their brand name reputation (Leventis et al., 2005) and they have more clients to lose than the smaller accounting firms (Weigelt and Camerer, 1988; Caneghem, 2010).

Brand name auditors are expected to possess all the sophisticated expertise and skills to conduct the audit assessment in an efficient manner. There is evidence that investors perceive the quality of auditors from the positive or negative share price reaction. For instance, Knechel, Naiker and Pacheno (2007) investigated the market response due to auditor switches from the Big 4 to non-Big 4. The researchers revealed that the clients' firms suffer a negative abnormal return. The result is consistent with the perceived quality of the larger accounting firms by investors.

Firth (1985) claimed that the Big Firms charge higher fees because of the higher cost structure than the non-Big Firms. Such firms also have higher overhead costs (Naser and Nuseibeh, 2007) and are more exposed to litigation costs (Gonthier-Besacier and

Schatt, 2007). For instance, the Big Firms incur higher training expenses for the audit staff so that their auditors are of better quality than others. In addition, when they charge more, it is perceived that their attitudes and methods of audit measurement are more important to them compared to other auditors. Brand name auditors also provide assurance to the users on each hour attached to the audit engagement (Thornton and Moore, 1993).

Brand name auditors are more reserved and vigilant in making decisions. As noted by Geiger and Rama (2006), type II error costs are extensively affected by Big Accounting Firms, as compared to smaller firms due to more conservative decision-making. They are more likely to face litigation costs and may suffer from reputation loss when they fail to provide an adequate warning of the likelihood of the client's failure in the audit report. In contrast, Palmrose (1988) found that Big Firms are sued less frequently and receive fewer sanctions from the SEC. Krishnan (2003) reported that the earnings of a company audited by large accounting firms exhibit a lower level of discretionary accruals after controlling for factors, such as the size and industry effect. In addition, higher agency cost companies are more likely to be audited by the Big Firms to meet the greater needs for trustworthy monitoring (Francis and Wilson, 1988). A similar strategy has been used by IPO companies, which are inclined to engage the largest accounting firms to reduce information asymmetry and IPO underpricing (Beatty, 1989). The above-mentioned distinctive features of the Big Firms are balanced with the higher fees charged to the clients. Studies on audit pricing that have differentiated between brand name auditors and others include Simunic (1980), Francis (1984), Firth (1985), Thornton and Moore (1993), Pearson and Trompeter (1994), Che Ahmad and Houghton (1996), Gonthier-Besacier and Schatt

(2007), Naser and Nuseibeh (2007), and Chen, Su and Wu (2007). While some literature did not find any differences between the fees charged by the Big Firms, the majority of the studies (Francis, 1984; Chan et al., 1993; Pong and Whittington, 1994; Bandyopadhyay and Kao, 2001; Gonthier-Besacier and Schatt, 2007; Naser and Nuseibeh, 2007; Chen et al., 2007; Caneghem, 2010) reveal that the Big Firms did charge more and the quality of differentiated audit firms did exist in line with the proposition of the auditor quality differentiation theory.

As noted earlier, large accounting firms have high quality audit staff and greater resources compared to small firms. Knechel and Payne (2001) discovered that the less experienced audit staff are positively associated with audit delay. Carslaw and Kaplan (1991) noted that the Big Firms have more freedom to schedule their process so that audit works can be accomplished in a shorter time. In addition, the Big Firms normally concentrate on certain industries to become industry specialists, which, accordingly, reduce the time taken to be familiar with the audit process. For instance, Ashton et al. (1989) and Leventis et al. (2005) found a significant negative association between international accounting firms and audit delay.

Thus, this study anticipates that the higher quality audit provided by the Big 4 firms might have greater assurance on IFRS adoption and, thus, will result in a larger increase on audit fees. Based on similar arguments, the Big 4 firms will reduce the audit report lag to provide a high quality audit caused by the complexity of the IFRS adoption. Hence, the hypotheses are:

$H6a_i$: Brand name auditors charged higher audit fees to companies that adopted more IFRS.

$H6a_{ii}$: Brand name auditors charged higher audit fees to companies that adopted FRS 138.

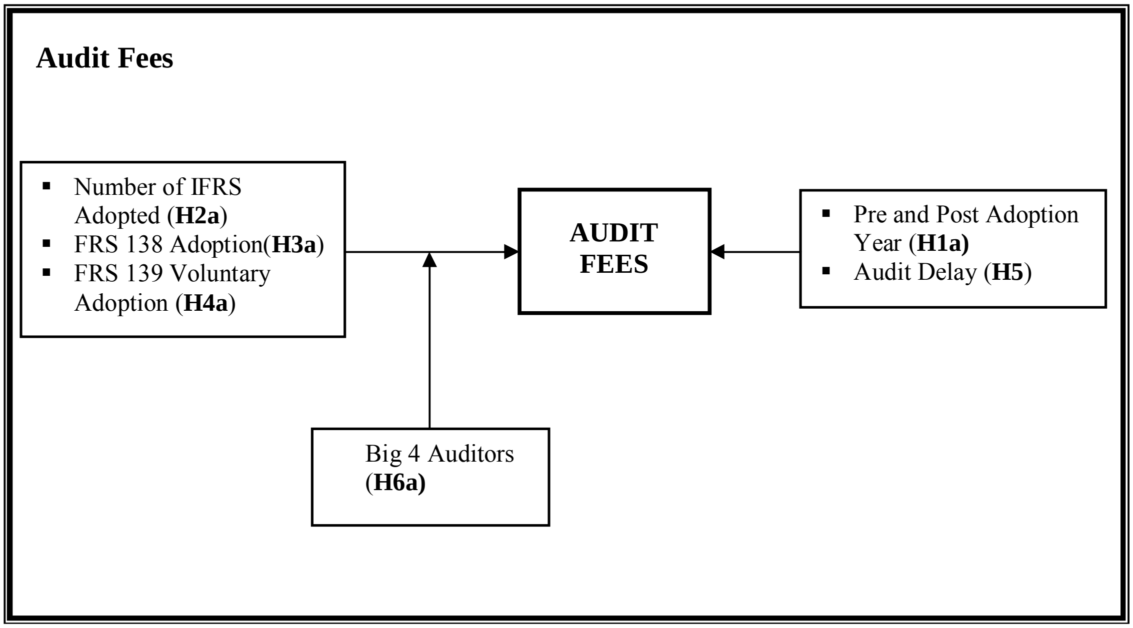
$H6a_{iii}$: Brand name auditors charged higher audit fees to companies that voluntarily adopted FRS 139.

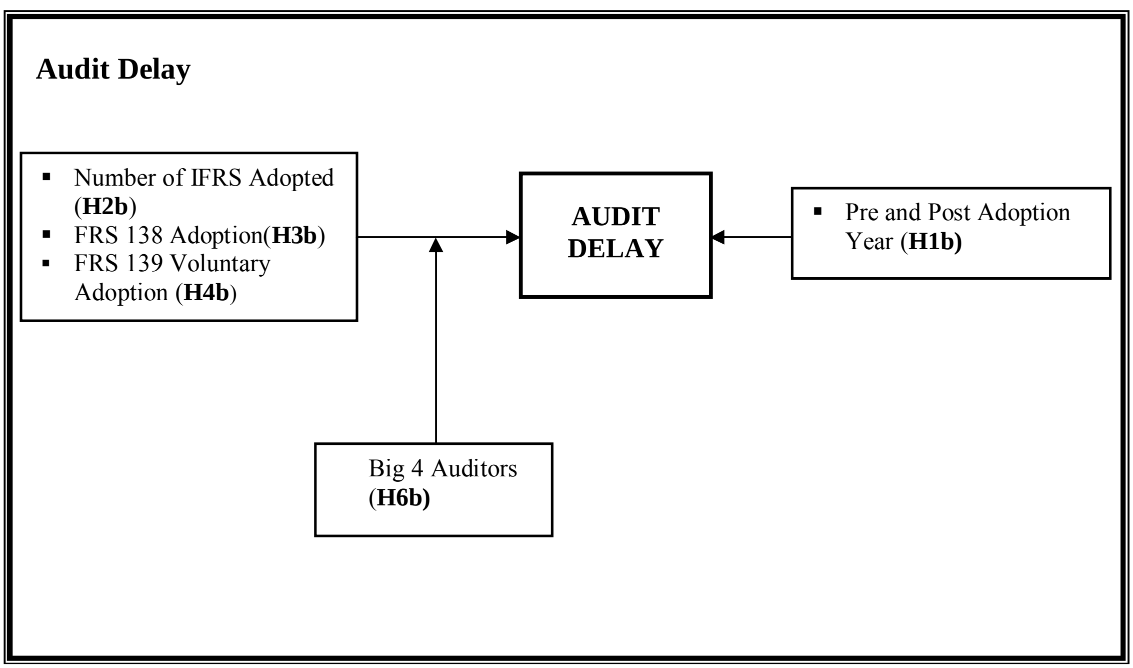
$H6b_i$: Brand name auditors reported shorter audit delay for companies that adopted more IFRS.

$H6b_{ii}$: Brand name auditors reported shorter audit delay for companies that adopted FRS 138.

$H6b_{iii}$: Brand name auditors reported shorter audit delay for companies that voluntarily adopted FRS 139.

3.3 Theoretical Framework





3.4 Summary

This chapter outlines six (6) main hypotheses[20] relating to the IFRS impact on the audit fees and audit delay. The first hypothesis (H1a and H1b) tests the effect of IFRS adoption by comparing audit fees and delay before and after IFRS adoption. Then, the second hypothesis (H2a and H2b) is meant to ascertain the influence of the extent of IFRS adoption on audit fees and delay during the post adoption period. Afterwards, the third hypothesis (H3a and H3b) and fourth hypothesis (H4a and H4b) are more focused on propositions where the testing is conducted on the client's companies that have complied with FRS 138 and FRS 139. The fifth hypothesis (H5) is used to ascertain the influence of audit delay on audit pricing. Lastly, the sixth hypothesis (H6a and H6b) proposes that the influence of the Big 4 auditors: (i) strengthens the association between the number of IFRS adopted, FRS 138 adoption and FRS 139 voluntary adoption and audit pricing; and (ii) weakens the association of the three (3) variables to the audit timeliness. This chapter also presents the theoretical framework that guides the thesis structure. The research model and measurement, sample selection and data collection and the application of panel data analysis will be discussed in Chapter Four.

[20] The six (6) main hypotheses are segregated into 15 hypotheses.

CHAPTER FOUR

RESEARCH METHOD AND DESIGN

4.1 Introduction

The preceding chapter lists 15 hypotheses and constructs the theoretical framework to underpin the research model and measurement, the procedures to choose the sample and collect data as well as the choice of appropriate data analysis. This chapter outlines the research models used together with the explanations for their measurements and, lastly, the method of panel data analysis together with its diagnostics tests.

4.2 Research Model and Measurement

4.2.1 Audit Fee Model (H1a, H2a, H3a, H4a, H5, H6a$_{i}$, H6a$_{ii}$ and H6a$_{iii}$)

The panel data for five (5) years is used to ascertain the effect of IFRS adoption on audit pricing. Data are pooled in the panel data analysis to allow for changes in time-dependent explanatory variables (Chou and Lee, 2003). The basic audit fee model developed by Simunic (1980) is modified to test the hypotheses related to audit fees.

$$
\begin{aligned}
\text{InFEE}_{it} = {} & \alpha + \beta_1 \mathbf{HVIFRS}_{\mathbf{it}} + \beta_2\text{InDELAY}_{it} + \beta_3\,\text{InSIZE}_{it} + \beta_4\text{CR}_{it} + \beta_5\text{DR}_{it} + \\
& \beta_6\text{LOSS}_{it} + \beta_7\text{REC}_{it} + \beta_8\text{INV}_{it} + \beta_9\text{SQSUBS}_{it} + \beta_{10}\text{YEND}_{it} + \\
& \beta_{11}\text{AUDCHG}_{it} + \beta_{12}\text{BIG4}_{it} + \beta_{13}\text{INDBD}_{it} + \beta_{14}\text{BDMTG}_{it} + \beta_{15}\text{DUAL}_{it} \\
& + \beta_{16}\text{SH-INS}_{it} + \beta_{17}\text{SH-BLOCK}_{it} + \beta_{18}\text{INDUST}_{it} + a_i + u_{it}
\end{aligned}
$$

(Equation 4.1)

β_1 **HVIFRS** $_{it}$ = IFRSYR, NUMFRS, FRS138, FRS139, NUMFRS* BIG4, FRS138* BIG4 and FRS139* BIG4; which are tested independently.

Subscript $_{it}$ represents panel data notation; $_i$ = cross-sectional units, $_t$ = period from 2004 -2008.

Where:

Variable(s)	Description	Exp Sign	Hypotheses
α	an intercept term, a constant		
β	a regression slope coefficient		
Dependent Variable			
InFEE	natural log of the external audit fee		
Hypotheses Variables			
HVIFRS:	hypotheses variables (tested independently)		
IFRSYR	post-IFRS adoption period (code 1 for data after IFRS adoption, 0 before IFRS adoption)	+	H1a
NUMFRS	number of IFRS adopted	+	H2a
FRS138	FRS 138 adoption (code 1 if FRS 138 was adopted, 0 otherwise)	+	H3a
FRS139	FRS 139 voluntary adoption (code 1 if FRS 139 has been adopted, 0 otherwise)	+	H4a
NUMFRS * BIG4	interaction between number of IFRS adopted and Big 4 auditor (code 1 when interaction exists, 0 otherwise)	+	$H6a_i$
FRS138 * BIG4	interaction between FRS 138 adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)	+	$H6a_{ii}$
FRS139 *BIG4	interaction between FRS 139 voluntary adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)	+	$H6a_{iii}$
InDELAY	natural log of the length of time between the company's financial year-end and the date of auditor's report	+	H5
Control Variables			
InSIZE	natural log of total assets	+	
CR	ratio of current assets to current liabilities	-	
DR	ratio of total debts to total assets	+	
LOSS	current year income (code 1 if company suffering losses, 0 otherwise)	+	
REC	ratio of accounts receivable to total assets	+	
INV	ratio of inventories to total assets	+	
SQSUBS	square root of the number of subsidiaries operated by clients.	+	
YEND	month fiscal year end (code 1 if the company fiscal year end in between 31 December until 31 March, 0 otherwise)	+	

AUDCHG	change of auditor variable (code 1 for new auditor, 0 otherwise)	-	
BIG4	firm's auditor (code 1 if client audited by Big 4, 0 otherwise)	+	
INDBD	proportion of independent directors on the board	+	
BDMTG	number of board meetings in a year	+	
DUAL	CEO duality (code 1 if CEO is also chairman of the board, 0 otherwise)	+	
SH-INS	percentage of shares owned by non-independent directors	-	
SH-BLOCK	percentage of shares owned by independent blockholders (> 5% shares)	-	
INDUST	industry effect (code 1 if the company is under technology, consumer and construction industry, 0 otherwise)	+	
a_i	unobserved company level effect		
u_{it}	disturbance term		

4.2.2 Audit Delay Model (H1b, H2b, H3b, H4b, H6b$_i$, H6b$_{ii}$ and H6b$_{iii}$)

The influence of IFRS adoption on audit timeliness is tested based on the modified audit delay model originating from Ashton et al. (1989).

$$\begin{aligned} \text{InDELAY}_{it} = {} & \alpha + \beta_1\mathbf{HVIFRS_{it}} + \beta_2\text{InSIZE}_{it} + \beta_3\text{LEVERAGE}_{it} + \beta_4\text{LOSS}_{it} + \\ & \beta_5\text{QUALIFIED}_{it} + \beta_6\text{SQSUBS}_{it} + \beta_7\text{YEND}_{it} + \beta_8\text{AUDCHG}_{it} + \\ & \beta_9\text{BIG4}_{it} + \beta_{10}\text{INDBD}_{it} + \beta_{11}\text{DUAL}_{it} + \beta_{12}\text{SH-INS}_{it} + \beta_{13}\text{SH-BLOCK}_{it} \\ & + \beta_{14}\text{INDUST}_{it} + a_i + u_{it} \end{aligned}$$

(Equation 4.2)

β_1 **HVIFRS** $_{it}$ = IFRSYR, NUMFRS, FRS138,FRS139,NUMFRS* BIG4, FRS138*BIG4 and FRS139* BIG4; which are tested independently.

Subscript $_{it}$ represents panel data notation; $_i$ = cross-sectional units, $_t$ = period from 2004 -2008.

Where:

Variable(s)	Description	Exp. Sign	Hypotheses
α	an intercept term, a constant		
β	a regression slope coefficient		
Dependent Variable			
lnDELAY	natural log of the length of time between the company's financial year-end and the date of auditor's report		
Hypotheses Variables			
HVIFRS:	hypotheses variables (tested independently)		
IFRSYR	post-IFRS adoption period (code 1 for data after IFRS adoption, 0 before IFRS adoption)	+	H1b
NUMFRS	number of IFRS adopted	+	H2b
FRS138	FRS 138 adoption (code 1 if FRS 138 was adopted, 0 otherwise)	+	H3b
FRS139	FRS 139 voluntary adoption (code 1 if FRS 139 has been adopted, 0 otherwise)	+	H4b
NUMFRS* BIG4	interaction between number of IFRS adopted and Big 4 auditor (code 1 when interaction exists, 0 otherwise)	+	$H6b_{i}$
FRS138* BIG4	interaction between FRS 138 adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)	+	$H6b_{ii}$
FRS 139*BIG4	interaction between FRS 139 voluntary adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)	+	$H6b_{iii}$
Control Variables			
lnSIZE	natural log of total assets	-	
LEVERAGE	ratio of total debts to total assets	+	
LOSS	current year income (code 1 if company suffering losses, 0 otherwise)	+	
QUALIFIED	audit opinion (code 1 if the company received going concern opinion, 0 otherwise)	+	
SQSUBS	square root of the number of subsidiaries operated by clients.	+	
YEND	month fiscal year end (code 1 if the company fiscal year end in between 31 December until 31 March, 0 otherwise)	+	
AUDCHG	change of auditor variable (code 1 for new auditor, 0 otherwise)	+	
BIG4	firm's auditor (code 1 if client audited by Big 4, 0 otherwise)	-	
INDBD	proportion of independent directors on the board	-	
DUAL	CEO duality (code 1 if CEO is also chairman of the board, 0 otherwise)	?	
SH-INS	percentage of shares owned by non-independent directors	?	
SH-BLOCK	percentage of shares owned by independent blockholders (> 5% shares)	-	

INDUST	industry effect (code 1 if the company is under technology, consumer and construction industry, 0 otherwise)	+	
a_i	unobserved company level effect		
u_{it}	disturbance term		

The endogeneity relationship between audit fees and audit delay is tested in equation 4.1. If the test proves that an endogeneity problem exists, it is suggested that the 2SLS analysis be conducted.

4.3 Measurement of Variables

4.3.1 Dependent Variables

The dependent variable for an audit fee model in the panel data regression is the audit fees (InFEE). The audit fee is measured by the ringgit value of the fees paid by the client's company to its auditor. In Malaysia, the amount of audit fees is required to be disclosed in the annual report of the company. This disclosure requirement is mandated by the subparagraph 1(q) of the 9^{th} Schedule of Companies Act, 1965 with substantial penalties for non-disclosure or inaccurate disclosure. The amount of audit fees is obtained from the Consolidated Income Statement in the annual report. The annual audit fees are deflated by the average Consumer Price Index (CPI) to account for a general price increase over the sample period.[21] The average CPI was obtained from the report published by the Department of Statistics, Malaysia. Then, a natural log transformation is required on audit fees due to the non-linear relationship between the fees and client's size. The log transformation process is important to ensure that the increase in fees is less than the proportion of increase in the company's size (Firth, 1985). Moreover, the log transformation is meant to cater for non-normality

[21]The CPI for 2004 until 2008 are 97.1, 100, 103.6, 105.7 and 111.4, respectively.

distribution of the fees and to remove the outliers (Anderson and Zeghal, 1994; Chan et al., 1993; Francis and Simon, 1987; Turpen, 1990).

For the audit delay model, the audit delay (InDELAY) represents the natural log of length of time from the date of accounting year end to the audit report date. The audit report date is stated clearly when the auditor signs the audit report. This information could be assessed from the 'Report of Auditor to the Member' section in the annual report. The InDELAY variable is stated in the natural log transformation in order to normalise the distribution of audit delay variable (Krishnan and Yang, 2009).

4.3.2 Hypotheses Variables

The first hypothesis variable, IFRSYR represents the cut off point between the pre adoption period and the post adoption period. It is a dummy variable indicating '1' for post-IFRS adoption years' data and '0' for pre-IFRS adoption years' data.

Second is NUMFRS to represent the number of IFRS adopted by the client. The variable is stated in numerical form from the minimum of one (1) IFRS to the maximum of 19 IFRS adopted at the end of 2006, 28 IFRS at the end of 2007 and 2008. The information is collected from the 'Basis of Preparation' section of the notes to accounts. The section contains the statement of compliance with IFRS and the specific IFRS adopted by the client companies. Hence, the number of IFRS adopted on the balance sheet date could be measured.

Third is the variable to measure the adoption of FRS 138, which is denoted as a dummy variable FRS138, indicating '1' for the adoption of FRS 138, and '0' for non-adoption of FRS 138. The variable is obtained from the notes to accounts under the 'Basis of Preparation' section. Fourth is the FRS139 variable, which represents the voluntary adoption of FRS 139. Initially, FRS 139 was released on 1 January 2006, however, the standard was deferred to 1 January 2010. Even so, it is anticipated that some companies are ready to adopt this standard. Similar to the NUMFRS and FRS138 variables, the data on the voluntary adoption of FRS 139 is extracted from the 'Basis of Preparation' section in the notes to accounts. FRS 139 is a dichotomous variable, which takes the value of '1' when FRS 139 is voluntarily adopted and '0' for non-adoption.

Fifth is the lnDELAY variable that is also a dependent variable[22] with the measurement as discussed in Section 4.3.1. Sixth, the interaction effect variables, which are derived when the NUMFRS, FRS138 and FRS139 variables are multiplied with the BIG4 variable. The BIG4 variable is a dummy variable denoting '1' for the use of Big 4 audit firms and '0' for the use of medium or smaller audit firms. Information on client auditor is disclosed in the 'Corporate Information' section of the annual report. Hence, the multiplication between NUMFRS, FRS138 and FRS139 with BIG4 variable are denoted as NUMFRS*BIG4, FRS138*BIG4 and FRS139*BIG4, respectively.

[22] lnDELAY – it will be determined later whether it is an endogenous variable by using the Davidson-MacKinnon test of exogeneity.

4.3.3 Control Variables

The size of the client company is measured by using the total assets (InSIZE). The total assets amount consists of non-current assets and currents assets. The data on total assets is obtained from the Consolidated Balance Sheet in the annual report. The variable is transformed into natural log amounts, consistent with past studies such as Simunic (1980), Francis (1984), Bamber et al. (1993), Al-Harshani (2008), and Caneghem (2010).

The variables that represent the client's risks are current ratio (CR), debt ratio or leverage (DR or LEVERAGE) and loss in the current year (LOSS). Current ratio is measured by calculating the proportion of current assets over current liabilities (Francis, 1984; Low et al., 1990). Debt ratio or leverage refers to the ratio of total assets to total liabilities (Taylor and Simon, 1999; Al-Ajmi, 2008). All asset and liability values are extracted from the Consolidated Balance Sheet disclosed in the corporate annual report. The loss of the client is examined from the Consolidated Income Statement, in which a client with a deficit in the income statement is coded as '1' and '0' otherwise (Kasai, 2009; Caneghem, 2010; Afify, 2009).

The ratio of accounts receivables to total assets (REC), the ratio of inventories to total assets (INV) and the number of subsidiaries (SQSUBS) are common measures of the extent of complexity to perform audit assessment. The accounts receivables (Myrteza and Zhang, 1996) refer to the net trade receivables under the current assets in the Consolidated Balance Sheet When the debtors' amount is aggregated as total debtors, the amount of trade debtors is extracted from the debtors' details in notes to accounts.

Similarly, the inventories are obtained from the current assets' elements in the Consolidated Balance Sheet (Simunic, 1980; Low et al., 1990; Feldmann et al., 2009). The list name of all subsidiaries, principal activities and percentage of equity interest in the client company are disclosed in the notes to accounts for the investment in the subsidiaries. Thus, the number of subsidiaries could be measured reliably and the real number is transformed into the square root figure (Simunic, 1980; Gist, 1992; Jaggi and Tsui, 1999).

Other variables include qualified opinion (QUALIFIED), accounting year end (YEND), auditor change (AUDCHG) and industry effect (INDUST). The QUALIFIED variable represents the client's audit report with qualified opinion (Bamber et al., 1993; Carslaw et al., 2007; Che-Ahmad and Abidin, 2008). In Malaysia, audit report is subjected to Unqualified Report, Emphasis of Matter Report and Qualified Opinion Reports. There are three (3) types of qualified opinion, namely, Except For Opinion, Disclaimer of Opinion Report and Adverse Opinion Report. The audit report with the paragraph 'Qualified Opinion' or 'Adverse Opinion' or 'Disclaimer of Opinion' represents the qualified opinion audit report, hence, indicated as '1' and '0' for other than qualified opinion. The Emphasis of Matter Report with emphasis of matter paragraph is sanctioned as unqualified opinion in accordance with RPG 4, which is incorporated together with International Standards on Auditing (ISA) 700.

YEND represents the companies with accounting year end in between 31 December and 31 March (Chan et al., 1993; Yaacob and Che-Ahmad, 2011) which indicates the sample companies with the peak audit season. The variable is dichotomous, with '1' representing accounting year end between the three (3) months period (31 December to 31 March), or '0' otherwise. The auditor change (AUDCHG) variable captures the situation where the client companies switch to the new auditor during the year (Feldmann et al., 2009; Kasai, 2009; Che-Ahmad and Abidin, 2008). The case of auditor change is examined from the preceding year 'Notice of Annual General Meeting' in the annual report, which normally states the appointment of a new auditor and retirement of the existing auditor. The change in the auditor is coded as '1' and '0' for the re-appointment of the existing auditor. The industry effect (INDUST) captures the industries (Naser and Nuseibeh, 2007; Griffin et al., 2009) that are regarded as sectors with higher business complexities, and, thus, difficult to audit. INDUST is a dichotomous variable indicating '1' for consumer, construction and high technology industries. The industry information is obtained from the Bursa Malaysia website.

The corporate governance variables include the independent directors on the board (INDBD), the number of board meetings (BDMTG), CEO duality (DUAL), directors' shareholding (SH-INS) and independent blockholder's shareholdings (SH-BLOCK). The independent status of the board of directors (INDBD) is measured from the 'Corporate Information' section in the annual report. The section provides details of the names of all the directors together with their position on the board. INDBD is calculated by dividing the number of independent non-executive directors over the total number of directors (Carcello et al., 2002; Afify, 2009). BDMTG captures the frequency of the board of directors' meetings during the current year (Goodwin-Stewart and Kent, 2006; Abdullah, 2007). The number of board meetings is normally disclosed under the 'Statement of Corporate Governance' section in the annual report.

DUAL represents the situation where the same person holds the position of CEO of the company as well as chairman of the board of directors (Bliss et al., 2007). The 'Chairman's Statement' is verified to determine the company's CEO or managing directors (MD). Then, the information is matched against the chairman of the board or the MD extracted from the 'Corporate Information' section. The variable is coded as '1' when the same person is appointed as its CEO and board chairman, and '0' for otherwise. Directors' shareholding (SH-INS) is measured as the percentage of ordinary shares owned by the insiders or the managers who serve on the board (Gul and Tsui, 2001; O'Sullivan, 2000; Bamber et al., 1993). The data on management shareholdings is obtained from the directors' shareholding information under the 'Analysis of Shareholdings' section of the annual report. In the case where no disclosure is made under 'Analysis of Shareholdings' section, the information is extracted from the 'Report of Directors' section. Similarly, the information on independent blockholders' shareholdings (SH-BLOCK) is obtained from the 'Analysis of Shareholdings' (Substantial Shareholdings) section. SH-BLOCK represents the percentage of ordinary shares held by 5% or more blockholders, other than the management (Abbott et al., 2003; Abdelsalam and El-Masry, 2008).

4.4 Sample Selection and Data Collection

The data in this study consists of publicly available information mainly obtained from the annual reports of the companies listed on the main board and the second board of Bursa Malaysia. The use of corporate annual report is categorized as a secondary source of data, which is the interpretation from the primary data (Cooper and Schindler, 2001). Most importantly, the secondary source ensures the accuracy and precision of the data other than through interviews or questionnaires (Sekaran, 1992). The annual reports were downloaded from the Bursa Malaysia Company Announcement Webpage. The financial data and non-financial data were mainly hand-collected from the Bursa Malaysia annual reports, in which hand collection of the secondary data is an eminent guarantee of much more accurate and reliable data (Simon et al., 1992) as a 'bonus' for the intense effort and extra time required to obtain such data (Stent et al., 2010).

The sample consists of non-financial companies listed on the main board and the second board of Bursa Malaysia, which were obtained from the Bursa Malaysia Webpage. The public listed companies were chosen for various reasons. The main reason is that the issuance of IFRS is mainly meant for the public listed companies,[23] which is legislated under the Financial Reporting Act, 1997. Moreover, the annual reports of public listed companies are publicly available and can be easily accessed from the Bursa Malaysia Webpage at http://www.bursamalaysia.com. In addition, the data in the published annual reports are properly presented in accordance with the Companies Act 1965 and GAAP.

The total initial sample consists of 839 companies in 2008, excluding banking and financial institutions (including REITS, closed-end fund and exchange traded fund). These types of industry are excluded from the sample since they are governed by other regulatory bodies, namely, Bank Negara Malaysia and the Banking and Financial Institutions Act 1989. The regulations for the banking and financial companies are different and more stringent compared to non-financial companies

[23] Private entities are subjected to Private Entities Reporting Standards (PERS), which became applicable on 1 January 2009.

(Zulkarnain, 2009). In addition, previous research has discovered a significant industry effect for banking, which means that the arrangement of audit fees is different in banks compared to other companies (Simunic, 1980). Table 4.1 shows the procedure to arrive at the final sample, in which, the companies that commenced and closed the business between 2004 to 2008 are excluded from the sample with a total of 140 companies. Moreover, in order to remain in the sample, the company must maintain the same accounting year over the sample period and all variables of interest must be available for five (5) years (2004 until 2008). For this reason, 64 change financial year companies and 25 incomplete data companies are removed from the sample. At the end, the final sample is 610 companies, which consists of 442 companies listed on the main board and 168 companies on the second board of Bursa Malaysia.

In this current study, a balanced panel was used, which is more desirable than an unbalanced panel (Greene, 2003),[24] thus, the same observations (companies) appear every year for the 5-year period (2004 to 2008). In the context of this study, the balanced panel seems to be desirable in order to maintain the same level of audit works that would affect audit costs and audit efficiency. For instance, inclusion on new listing companies would result in a higher level of audit costs due to the higher responsibilities on the part of the auditor towards IPO companies. Venkataraman et al. (2008) revealed that the audit fee for the IPO year is higher than the other years. The researchers concluded that higher audit fees are due to the increase in auditor's audit effort in an environment with a high risk of litigation. Similarly, the closure companies normally experienced financial difficulties for several years preceding

[24] The proposition by Greene (2003) should not be generalized to all panel data studies.

their cessation. Thus, auditors might consider that poor financial performance companies might commit management fraud (Carslaw and Kaplan, 1991) or misconduct of company's operation, which, in turn, demand detailed audit assessment. Consequently, a longer time is taken to complete the audit engagement and to issue the audit report.

The sample was collected from 2004 to 2008 for two (2) reasons. First, according to Baltagi (2005), 5-year annual data is sufficient for the short dimension of panel data. The use of 5-year data panel is consistent with a study by Abdul Wahab et al. (2009) using the Malaysian audit market. Second, since 2006 is the first year of mandatory compliance with IFRS, data for two (2) years prior and two (2) years after the mandatory adoption was also chosen to allow for a reasonable learning adjustment period before and after the adoption.

TABLE 4.1
Sample Selection Procedure

Non-financial companies identified from the Bursa Malaysia Webpage in 2008	839
Less:	
Companies that commenced or ceased operation between 2004- 2008	140
Change in accounting year in any year	64
Data not available in any year	25
Final Sample	**610**

4.5 Panel Data Analysis

According to Baltagi (2005), panel data[25] refers to the pooling of observations on a cross section over several times. In short, it is a hybrid of time series and cross sectional data structures, thus, enabling the researcher to study the dynamics of change over the short time series. In this study, panel data structure rather than cross sectional or time series is utilized due to the potential benefits provided by this approach, in particular it can enhance the quantity and quality of data that could not be provided with either a cross sectional or a time series alone (Greene, 2003). Moreover, panel data could control for variables that are not included in the model (Tarling, 2009).

As Henderson and Kaplan (2000, p.159) note, "panel data analysis both accounts for omitted variables and captures dynamics relationship between size and ARL. As well, the panel data model's explanatory power far exceeds that of cross-sectional model". The researchers further suggest that research on audit fees could be conducted by utilizing panel data analysis since it offers various benefits other than data structure, such as cross sectional and time series where panel data are capable, to some extent, of controlling for model specification (Henderson and Kaplan, 2000).

Baltagi (2005) lists several advantages of the panel data analysis: (i) individual heterogeneity could be controlled, (ii) data becomes more informative, more variability, less correlation among the variables, more degrees of freedom and more efficiency, (iii) accounts for multitude of change, (iv) identifies and measures the

[25] For panel data, Stata is suited with the prefix 'xt'. The 'x' is used to recognize the cross section data and't' is for Stata to recognize time series data.

effects, which are simply undetectable in pure cross section or pure time series data, (v) constructs and tests more complicated behavioural model compared to pure cross section or pure time series data, and (vi) reduces or eliminates bias due to aggregation over firms and individuals. Henderson and Kaplan (2000) revealed several significant differences between using the panel data analysis and cross sectional analysis, namely: (i) panel data analysis accounts for omitted variables bias, (ii) captures the dynamic in size-audit delay relationship over several time periods, and (iii) has higher audit delay model explanatory power. According to Chou and Lee (2003), pooling cross section and time series allows for changes in time-dependent explanatory variables to influence the dependent variable, thus, it provides a more dynamic analysis. However, the use of the panel data is not without limitations. The restrictions include the survey design and data collection matters, measurement errors, selectivity problems (i.e.: self-selection problems, non-response bias, attrition) and short time series dimension and cross section dependence (Baltagi, 2005). It is important to note that the first three (3) limitations are frequent problems that occur in the survey approach but rarely in the archival data. Chou and Lee (2005) asserted that when the OLS method was used on the audit pricing model, the results tended to reduce the effect of foreign subsidiaries ratio and exaggerate the effects of the ratio of account receivables to the total assets on audit fees. The researchers believe that the reason could be due to "the OLS estimators are in general biased due to the endogenous nature of regressors such as total assets (TA) and the variables on subsidiaries..." (Chou and Lee, 2005, p.433).

Many of the studies on audit pricing since the seminal work of Simunic (1980) used cross sectional data. For instance, Palmrose (1986), Francis and Simon (1987), Francis and Stokes (1986), and many more. Previously, the main constraint of these previous researchers was the lack of time-series data (Chou and Lee, 2005). Similarly, past studies on audit timeliness largely focused on a cross-sectional sample in regression analysis (see for example: Newton and Ashton, 1989; Lawrence and Glover, 1998; Carslaw and Kaplan, 1991; Jaggi and Tsui, 1999; Cullinan et al., 2003).

The first research on audit pricing literature that utilized the panel data option was conducted by Francis (1984). The study used pooled cross section and time series-section data in assessing the relationship between the audit firm size and audit fees. Later, Turpen (1990) investigated the fees paid to the auditors upon initial engagement with the pooled data for 1982-1984. Anderson and Zeghal (1994) examined Canadian audit fees over several periods of time, among the Big 8 auditors and different industries by pooling data for three (3) years, 1980, 1982 and 1984. Furthermore, Pong and Whittington (1994) utilized panel data for the period 1981 to 1988 to explore the effect of brand name auditors and low-balling on audit fees. Dummy variables representing specific years were added to the audit fee model to account for the time factor. For instance, Anderson and Zeghal (1994) designated '1' for 1980 data and '0' for 1982 and 1984. The researchers repeated the regression for 1982 and 1984 by coding '1' as the dummy variable. Similarly, Pong and Whittington (1994) incorporated a dummy variable 'year' for each year of observation besides 1981 as a base-year. Even though empirical studies using panel data in audit pricing studies seem to be well established, most of the research only utilized the pooled regression model (pooled OLS) instead of the random effects or fixed effects model. Henderson and Kaplan (2000) rejected the pooled OLS model because of the heterogeneity bias and omitted variables bias.

In contrast to audit pricing literature, limited research on audit timeliness has been conducted based on panel data structure. The originator in this line is Henderson and Kaplan (2000) and the most recent is Yaacob and Che-Ahmad (2011). The earlier study utilized data for six (6) years from 1988 until 1993 with 588 observations while the latter used panel data for five (5) years (2004 to 2008) with much larger observations of 3,050.

In the current study, all the data will be analysed by using Stata 10.1 statistical data analysis software. The analysis of static panel data[26] includes the constant variance, random effect and fixed effect analysis.

4.5.1 The Validity Tests for Panel Data Analysis

4.5.1.1 Constant Variance Model vs. Random Effects Model

The first stage of the panel data analysis involves determining the best panel approach to be used. The decision to use the constant variance model or random effects model is by conducting the Breusch Pagan Lagrangian Multiplier test for random effects. The Lagrangian Multiplier test was introduced by Breusch and Pagan (1980) and examines the presence of unobserved effects in the random effects model. If the calculated value of the test exceeds the critical value (in other words significant of chi-square), H_0 is rejected and the random effects model of panel data is chosen or vice versa. In other words, the more efficient model of panel data (the random effects

[26] Another type of panel data is the dynamic panel data model, which is suitable when the individual's past experience influences the current decision and is commonly applied in macroeconomic studies (Baltagi, 2005). Dynamic panel data includes the Arellano and Bond System Generalized Method of Moments (GMM) Estimator, which is a higher level and complex analysis even in econometric studies.

model) can only be used when the unobserved effect exists or the variance is not zero (0).

For instance, Baharom and Habibullah (2008) stressed that the constant variance model is a restricted approach and results in intricate error processes such as heteroscedasticity across the units (companies) and serial correlation within the panel units (companies). In contrast, the random effects model allows for heterogeneity across the panel units. Balestra and Nerlove (1966) were the proponents of the random effects model and their arguments have received positive feedback from the researchers in the applied study.

4.5.1.2 Fixed Effects Model vs. Random Effects Model

When audit delay analysis is based on panel data, the pooled OLS method is no longer appropriate (Abdullah, 2007). Accordingly, the random effects and fixed effects regression analysis would be the best approach to use. Likewise, Baltagi (2005) proposed the fixed effects model or random effects model to estimate the panel data. The fixed effects model is a regression with constant slopes, however, the intercepts differ according to the cross sectional unit while the random effects model would have a random constant term (Greene, 2003). The choice of the fixed effects model or random effects model can be tested based on the Hausman specification test proposed by Hausman (1978). This test is based on the difference between the fixed effects and random effects estimators. The fixed effect is preferable over random effect when the Hausman test result is significant in the model (Al-Ajmi, 2008). Wallace and Hussain (1969) were the early advocates of the fixed effects model, however, the applied researchers rejected the adoption of the fixed effects model during that time. Al-Ajmi (2008, p.222) notes that the fixed effects model "capture the possibility of an individual firm effect on reporting period or control for omitted variables that differ among firms but are constant over time".

The choice of the fixed effects model or random effects model is based on the assumption of whether a_i as the unobserved company level effect is independent of the explanatory variables or not. If we can assume there is no correlation, then the random effects model would normally provide more powerful and efficient estimation than the fixed effects model. In contrast, the fixed effects model is generally superior when there is a correlation between the unobserved firm-specific random effects and the explanatory variable, in which the fixed effects model normally provides consistent results.

4.5.1.3 Endogeneity Issue

As discussed in Chapter Three, earlier studies have proven the existence of an endogenous relationship between the audit delay and audit fees. According to Gujarati (1999, p.439),

> "endogeneity arises when the dependent variable that appears as an explanatory variable in another equation may be correlated with the stochastic error term the classical regression of that equation. As such it violates one of the critical assumptions of OLS in that the explanatory variable is assumed to be either fixed or non-random, or if random, it may be uncorrelated with the error term".

In this present study, as the audit delay is also one (1) of the explanatory variables in the audit fee model, the audit delay is expected to correlate with the error term of audit fees. For that reason, it is important to eliminate the possible correlation and this can be done by employing the 2SLS analysis (Gurajati and Porter, 2009). The 2SLS was developed by Robert Basmann to counter the endogeneity problem (Basmann, 1957). The 2SLS involves two (2) successive stages of analysis; the first stage is to regress the endogenous variable against all its independent variables, namely, the audit delay model. The first stage regression derives the predicted value of audit delay. Then, in the second stage, the predicted value of audit delay is used in the regression of the audit fee model.

Nevertheless, the validity of the 2SLS technique is subject to the diagnostic test pertinent to this method. In the instrumental variables estimation, the common validity test is the Wu-Hausman or Durbin Wu-Hausman test. This (Durbin-Wu-) Hausman endogeneity test compares the estimates (coefficient vectors) of OLS and the instrumental variables. As an alternative, for cross sectional analysis, an 'auxiliary regression' approach, namely, the Davidson-MacKinnon test of exogeneity provides equal power to the Hausman.

Most importantly, in the panel data regression the Davidson-MacKinnon test is a more powerful technique (Baum and Stillman, 2001). Stata statistical software provides the Davidson-MacKinnon[27] test for longitudinal data. The test is conducted after fixing the fixed effects instrumental variables regression (xtivreg,fe). The test compares the fixed effect regression (xtreg,fe) and a fixed-effect regression estimated via instrumental variables (xtivreg, fe) (STATA, 2003). The F-test of the regression results signifies that the coefficients of residuals are zero (0). The null hypothesis for both tests states that the OLS regression coefficient vectors (fixed effects regression

[27] In panel data analysis, the formulation for this auxiliary test is done using Stata command 'dmexogxt'.

vectors) yield consistent estimates as the instrumental variables regression vectors (STATA, 2003). The rejection of the null hypothesis indicates that the IV regression is needed since the endogeneity among the independent variables would have a harmful effect on the OLS estimates. However, when the p-value of the test is not significant (if the variables are exogenous), it is meaningless to apply the two-stage regression since it provides a less efficient estimation due to the large standard errors of the two-stage regression (Wooldridge, 2002).

In this study, the endogeneity of audit delay in the audit fee model is tested using the Davidson-MacKinnon test for exogeneity. The fixed effects instrumental variables result is derived when the audit delay endogenous variable is regressed against its independent variables, which are derived to the predicted value of audit delay. Then, the predicted value of audit delay is inserted in the audit fee model to run the regression. The Davidson-MacKinnon test of exogeneity can be easily conducted in Stata statistical software once fixed effects instrumental variables regression is fitted, using Stata command 'dmexogxt'.

4.5.2 Diagnostic Tests of Panel Data Analysis

Heteroscedasticity, multicollinearity and serial correlation are the common diagnostic tests to be conducted before analysis and econometric modelling can be done (Carneiro, 2006). These three (3) tests are required in order to prove that there is a high possibility that econometric assumptions are not violated and to obtain truthful results.

4.5.2.1 Heteroscedasticity

The test for heteroscedasticity of a group of variance is needed in the panel data analysis because such analysis is a combination of time series and cross sectional data. There are many heteroscedasticity tests available, namely, Park Test, Glejser Test, Spearman's Rank Correlation, Goldfeld-Quandt Test, Breush-Pagan Goldfrey Test and the White Heteroscedasticity Test. Consequently, Gujarati and Porter (2009) pointed out that there is no answer for the best and most powerful test to diagnose the problem. Greene (2003) suggested using the White Heteroscedasticity Test. The White's test itself has many alternatives and the choice of such a test depends on the statistical package used. In the panel data analysis using Stata statistical software, a modified Wald test for groupwise heteroscedasticity[28] in the residuals could measure heterogeneity from the significance of the chi-square value (Greene, 2003). When the test proves the existence of heterogeneity among the units (companies), a corrective measure could be undertaken by using the White Heteroscedasticity-corrected standard error (Pong and Whittington, 1994; Ezzamel et al., 1996) also known as robust standard errors (Gujarati and Porter, 2009). Interestingly, Stata statistical software easily provides White's heteroscedasticity robust standard error for both the fixed effects and random effects model (Tarling, 2009).

[28] It requires **xttest3** command (STATA, 2003)

4.5.2.2 Correlations

In order to check the presence of contemporaneous correlation among variables of different companies, the Breusch-Pagan Lagrangian Multiplier test of independence[29] was performed. The test was conducted after fitting the fixed effects model to test the hypothesis that there is no correlation across the companies. If the significant value of the chi-square of the test indicates the correlation between the explanatory variables, the random effect is not an appropriate model since the error term is correlated with one (1) or more explanatory variables included in the model.

4.5.2.3 Autocorrelation

Another diagnostic test that is pertinent to the panel data analysis involves checking the correlation between the disturbance term of observations in time or space (Gurajati and Porter, 2009). There are three (3) types of analysis available to OLS, namely, the Runs test, the Durbin-Watson d test and the Breusch-Godfrey (BG) test or Lagrange Multiplier test. In the panel data analysis, the test to ascertain the presence of autocorrelation in the panel is based on the Wooldridge test for autocorrelation[30] (Carneiro, 2006). The test involves checking the significance of null hypothesis that there is no idiosyncratic error of a linear panel data model. The significant F-value indicates the existence of autocorrelation in the model. This problem can be solved by using the random effect model or the fixed effects model since the model always provides consistent estimators (Wooldridge, 2002; Gujarati and Porter, 2009).

---

[29] It requires **xttest2** command (STATA, 2003)
[30] It requires **xtserial** command (STATA, 2003)

4.5.2.4 Multicollinearity

Although the panel data analysis, to some extent, is capable of reducing the multicollinearity problem (Baltagi, 2005), multicollinearity checking is a common diagnostic test to ensure that none of the independent variables are highly correlated, which can result in massive variance bias. The high correlation between two (2) independent variables would result in a huge bias in variance, thus, causing the estimations to be unreliable (Gujarati and Porter, 2009). The Variance in Factor (VIF)[31] is an example of the test that is common to examine such a problem. It treats one (1) of the independent variables as dependent variables and the remaining independent variables as independent variables. Other tests that have been used by many researchers include the Correlation Matrix and Condition Index (Anderson and Zeghal, 1994). Even though the multicollinearity issue is not the main concern of most researchers, since they argued that the independent variables had been selected based on underlying theories in their discipline, very extreme multicollinearity would hamper the generalization of the results (Gujarati and Porter, 2009).

In this study, the correlation values are used to determine the degree of correlation between the two (2) variables. It is anticipated that, by conducting a multicollinearity test for the panel data, one (1) of the basic requirements for econometric regression is met.

[31] The VIF is defined as 1/ (1-R Square) in which R^2 is obtained from the regression.

4.6 Summary

Chapter Four is divided into two (2) parts; the first part details the research models used and the explanation for all the variables used. The audit fee model and audit delay model are used to test all hypotheses variables. The explanations of the measurements for each variable are also presented in this chapter. In meeting the objectives, this chapter also describes the procedures used in the process of sample selection. The second part is the discussion of panel data analysis utilized to analyse the sample. For that reason, the constant variance model vs. random effects model; the random effects model vs. fixed effects model and validity test of endogeneity issue are explained. Then, the diagnostic tests that are applicable for the panel data regression are presented. The next chapter provides the results of descriptive statistics, univariate analysis, correlations analysis, diagnostic tests and the remedies, the panel data regressions results for the audit fee model and audit delay model and, lastly, the additional and sensitivity analysis.

CHAPTER FIVE

RESULTS

5.1 Introduction

The objective of this chapter is to present the empirical results of the study. The first part of the chapter reports the descriptive statistics and univariate analysis for both audit fees and audit delay model variables. Then, the second part shows the correlation among research variables. In the third part, the results of diagnostic tests for the panel data analysis are presented. The fourth part reports the validity tests results for the panel data analysis and panel regression results according to the hypotheses delineated in Chapter Three. The final part provides the additional analysis and the sensitivity analysis.

5.2 Industry Classification

The final sample consists of 3,050 firm-year observations for the period of five (5) years, 2004 to 2008. As shown in Table 5.1, the majority of the sample companies are from the industrial products sector (34.3%). This is followed by the trading and services sector (19.5%), consumer products sector (17.7%) and properties sector (12.8%). The remaining companies are associated with the construction sector (6.6%), plantation sector (5.2%), technology sector (2.5%), infrastructure project (0.8%) and hotel sector (0.6%).

TABLE 5.1
Industry Classification

Industry Classification	Sample Companies (Firm-Year Observations)	Sample Distribution (%)
Industrial Products	1,045	34.3
Trading and Services	595	19.5
Consumer Products	540	17.7
Properties	390	12.8
Construction	200	6.6
Plantation	160	5.2
Technology	75	2.5
Infrastructure Project	25	0.8
Hotel	20	0.6
	3,050	**100**

5.3 Descriptive Statistics

Table 5.2 below shows the descriptive statistics for all regression variables for the audit fee and audit delay model. Descriptive statistics, which consist of mean, standard deviation, minimum and maximum values of variables, are inspected to detect any errors – data entry mistake, missing values and extreme values (outliers).[32] For the purpose of descriptive statistics, the audit fee amounts are in the antilog and after adjustment for price level changes. Likewise, the audit delay is also stated in the antilog. The total assets and number of subsidiaries are stated in the natural logarithm and square root value, respectively.

[32] The inspection did not find any extreme values or outliers that presume to significantly affect the generalization of results. The reason being that the transformation of variables into the natural logarithm and square root value as well as conversion into a ratio form would minimize the effect of outliers (Francis and Simon, 1987; Turpen, 1990; Anderson and Zeghal, 1994).

5.3.1 Dependent Variables

The mean for audit fees (FEE) paid by clients is RM212,531.76 (RM542,681.24 standard deviation). The minimum audit fees paid to the auditor is RM7,239 and the maximum fees is RM15,983,842. Simon et al. (1992) reveal that in 1987 to 1988, the Malaysian public listed companies only paid average audit fees of RM114,000. The mean for audit fees is comparable to a study by Hariri et al. (2007) with RM191,437, RM210,495 and RM201,710 for 1997 to 1999, respectively.

The average audit delay (DELAY) is 100 days with the standard deviation of 25 days. The length of audit report period ranged from the minimum of 20 days to the maximum of 364 days. On average, the public listed companies in Malaysia managed to issue their audit reports 20 days earlier than the elapse time legislated by the Bursa Malaysia Listing Requirements of four (4) months. The mean delay is slightly lower than the Malaysian audit efficiency studies such as Che-Ahmad and Abidin (2008) of 114 days and Abdullah (2007) of 105 days. Nevertheless, comparing to other countries such as Bahrain of 48 days (Al-Ajmi, 2008), India of 92 days (Almosa and Allabas, 2007), Athens of 98 days (Leventis et al., 2005) and Egypt of 67 days (Afify, 2009), the Malaysian companies reported a longer mean audit delay.

5.3.2 Hypothesis Variables

On the whole, 51.9% of the firm-year observations represent the post-IFRS adoption (IFRSYR) sample while the remaining 48.1% represent the pre-IFRS adoption sample. For the post-IFRS years, the mean number of IFRS adopted (NUMFRS) by the clients is 18.84 IFRS (4.31 standard deviation). The minimum number of IFRS adopted is zero (0) and the maximum is 28 IFRS. The average FRS 138 adoption (FRS138) is 89% whereas 11% of the sample companies did not adopt FRS 138 and for the voluntary adoption of FRS 139 (FRS139), the mean variable is 1.7%.

5.3.3 Control Variables

The mean for the log total assets (InSIZE) is 19.65 with a standard deviation of 1.31. The assets amount ranges from the minimum of 15.78 to a maximum of 26.39. The average total assets is comparable to Abdul Wahab et al. (2009) with 20.34 and is much larger than Abdullah's (2007) study, which reported mean total assets of 13.27.

The average ratio of current assets to current liabilities (CR) is 2.75 times (4.67 times standard deviation) with a minimum of 0.02 times and a maximum of 111.22 times. The mean current ratio is slightly lower than both Abdul Wahab et al. (2009) and Bliss et al. (2007) who had a mean current ratio of 3.58 and 3.21, respectively. For the ratio of total liabilities over total assets (DR), the mean variable is 43.5% and the standard deviation is 30.5%, which is slightly lower than a study by Bliss et al. (2007) who reported a mean debt ratio of 53.2%. From 3,050 firm-year observations, the average companies with qualified opinion (QUALIFIED) is 1.2%, which is slightly lower than the ratio reported in Che-Ahmad et al. (2006) at 3.8% (Big Firms) and 2.3% (non-Big Firms), as well as Che-Ahmad and Abidin (2008) at 4.1%. The mean observations, which experienced losses (LOSS) in the current year is 22.5%, slightly higher than the result reported by Abdul Wahab et al. (2009) of 18.3% (38.7% standard deviation). The results could be due to the reflection of the recent economic crisis, which affected the financial performance of some companies.

The mean ratio of accounts receivables to total assets (REC) is 15.3% (12.3% standard deviation) ranging from the minimum of zero (0) to the maximum of 91.8%. The mean ratio for accounts receivable is comparable to a study conducted by Yaacob (2002) who had 14.8%. For the ratio of inventories to total assets (INV), the mean is 11.2%, which is considerably higher than the result reported by Yaacob (2002) at 7%. The average square root number of subsidiaries (SQSUBS) is 3.82 with a minimum of zero (0) and maximum of 17.69, which is comparable to Yaacob (2002) who reported a square root of subsidiaries of 3.63 and 3.99 using data for 1996 and 2000, respectively.

On average, 73.9% of the firm-year observations having accounting year end between 31 December until 31 March (YEND), which is consistent with a study by Che-Ahmad et al. (2006) of 69.7% (Big Firms); 75.4% (Non-Big Firms) and Che-Ahmad and Abidin (2008) of 70.3%. However, Abdul Wahab et al. (2009) reported a considerably lower mean busy period with 47.1% for only 390 observations from 1999 to 2003. The mean for auditor's change variable (AUDCHG) is 4.1% from 3,050 firm-year observations. The result for mean auditor change variables is comparable to Che-Ahmad et al. (2006) with 5.1% for the sample of Big 6 auditors and 4.4% for non-Big 6 auditors. On average, 65.2% of the observations are audited by the Big 4 auditors (BIG4) while the remaining 34.8% engaged the non-Big Firms. The result demonstrates that the Malaysian audit market is dominated by the Big 4 firms in line with the assertion made by Zulkarnain (2009). The mean Big Firms variable is consistent with Simon et al. (1992) and Abdul Wahab et al. (2009) with 68%, 68.9% of public listed companies in Malaysia being audited by Big Firms.

For the corporate governance variables, the mean for the proportion of independent directors on the board (INDBD) is 0.42 with a standard deviation of 0.12, which is comparable with Abdul Rahman and Ali (2006), and Bliss et al. (2007) with the mean for independent directors of 0.39 and 0.37, respectively. The mean (standard deviation) for number of board meetings (BDMTG) is 5.27 times (2.05 times) ranging from the minimum of zero (0) to the maximum of 30 times. However, comparing to Western countries such as the US, the mean board meeting is higher than Malaysia as revealed by Boo and Sharma (2008) at 9.89 times and as reported in Carcello et al. (2002) at 7.54 times. On average, 27.3% of the sample companies have CEOs who also hold the position of the chairman of the board (DUAL). The result is consistent with a study conducted by Abdullah (2007) at 22.0% and higher than Abdul Rahman and Ali (2006) at only 10%. The mean for shareholding held by inside directors of the board (SH-INS) is 11.0% (15.0% standard deviation), with the minimum of zero (0) to the maximum of 74.0% and the result is slightly higher than that of Abdul Wahab et al.'s (2009) study who had 7.68% of managerial ownership. For the block shareholdings (SH-BLOCK), the mean is 40.3% (22.5% standard deviation) with the minimum and maximum ratio of zero (0) and 99.8%, respectively. The average blockholdings is comparable to Abdul Rahman and Ali (2006) of 36.76%. On average, 26.7% of the observations are classified under consumer, construction and manufacturing sectors (INDUST).

Table 5.2

Descriptive Statistics of Regression Variables for Audit Fee Model and Audit Delay Model

Panel A: Descriptive Statistics for 5-Year Period (2004 to 2008)

Variables	Mean	Standard Deviation	Min	Max	Percent (%)
Continuous					
FEE	RM212,531.76	RM542,681.24	RM7,239	RM15,983,842	
DELAY	100.262	25.050	20	364	
NUMFRS	9.787	9.914	0	28	
lnSIZE	19.654	1.309	15.78	26.39	
CR	2.752	4.674	0.017	111.218	
DR	0.435	0.305	0.004	7.331	
REC	0.153	0.123	0	0.918	
INV	0.112	0.112	0	0.814	
SQSUBS	3.823	2.080	0	17.69	
INDBD	0.415	0.118	0	2.7	
BDMTG	5.273	2.047	0	30	
SH-INS	0.110	0.150	0	0.740	
SH-BLOCK	0.403	0.225	0	0.998	
Dichotomous					
IFRSYR					51.9%
FRS 138					46.3%
FRS 139					0.9%
QUALIFIED					1.2%
LOSS					22.5%
YEND					73.9%
AUDCHG					4.1%
BIG4					65.2%
DUAL					27.3%
INDUST					26.7%

Panel B: Descriptive Statistics for IFRS Variables - Post Adoption Period (2006 to 2008)

Variables	Mean	Standard Deviation	Min	Max	Percent (%)
Continuous					
NUMFRS	18.844	4.313	0	28	
Dichotomous					
FRS 138					89.0%
FRS 139					1.7%

Note: Refer to Table 5.5 and Table 5.6 for the variables description

5.4 Univariate Analysis

5.4.1 The Magnitude of Audit Fee Changes

Table 5.3 presents the magnitude and level changes in audit fees from the pre-IFRS period to the post-IFRS adoption period. It shows that audit fees increased from RM183,408 in the pre-IFRS period to RM239,521 in the post-IFRS period. On average, the audit fees increased by RM56,113 over the two (2) periods, which shows an increment of 31%. The t-test reveals a significant difference in the mean audit fees between pre-IFRS adoption and post-IFRS adoption (p=0.004). Since the mean audit fees for post-IFRS adoption is significantly larger than pre-IFRS adoption, it provides directional support to the hypothesis 1a (H1a) in the inferential analysis section discussed later.

TABLE 5.3
Magnitude of Change in Audit Fees and T-test Result

	Overall Mean (RM)	Pre-IFRS Mean (RM)	Post-IFRS Mean (RM)	Difference (RM)	Percentage Change (RM)	t-value
Audit Fees	212,532	183,408	239,521	56,113	31%	2.856[a]
Observations	3,050	1,467	1,583			

Note: [a] significant at 0.01 level

5.4.2 The Magnitude of Audit Delay Changes

Table 5.4 presents the magnitude and level changes in audit delay from pre-IFRS period to post-IFRS adoption period. The results show that the mean audit delay has increased from 99 days in pre-IFRS period to 102 days in the post-IFRS period. The t-test reveals a significant difference in the mean delay between pre-IFRS adoption and post-IFRS adoption (p=0.001). Since the mean audit delay for post-IFRS adoption is longer than the pre-IFRS adoption, there is a tendency for the hypothesis 1b (H1b) to be supported.

TABLE 5.4
Magnitude of Change in Audit Delay and T-test Result

	Overall Mean (Days)	**Pre-IFRS Mean (Days)**	**Post-IFRS Mean (Days)**	**Difference (Days)**	**Percentage Change (%)**	**t-value**
Audit Delay	100	99	102	3	3%	3.415[a]
Observations	3,050	1,467	1,583			

Note: [a] significant at 0.01 level

The descriptive statistics and univariate analysis results discussed above only provide a general overview and directional support to the hypotheses' results, while the multivariate analysis, which controls for other factors would give a more meaningful analysis.

5.5 Analysis of Correlations

Table 5.5 presents the correlation between the dependent variables and all the independent variables. There is a strong positive correlation between the audit fees and total assets (r=0.759, n=3,050, p< 0.01). This high correlation is expected and consistent with past studies such as Firth (1985) with r=0.750, Chan et al. (1993) with r= 0.762 and Caneghem (2010) at r=0.680. The correlation between these two (2) variables indicates that a larger amount of total assets is associated with a higher amount of audit fees. The number of subsidiaries variable also shows a very strong positive correlation with the audit fees ($r=0.773$, $n=3{,}050$, $p< 0.01$). Past studies have also reported higher correlation between audit fees and the number of subsidiaries (see for example: Chan et al., 1993 with $r=0.691$; Che-Ahmad and Houghton, 1996 with $r=0.634$).

All IFRS variables have small correlation value (r) with a positive relationship with audit fees and all correlations are significant at the 0.01 significant level. The number of IFRS correlation value is $r=0.126$, $n=3{,}050$, $p< 0.01$; the FRS 138 of $r=0.143$, $n=3{,}050$, $p<0.01$ and FRS 139 of $r=0.046$, $n=3{,}050$, $p<0.05$. In addition, there is a weak negative correlation between audit delay variable and audit fees with $r= -0.058$, $n=3{,}050$, $p< 0.01$).

For the audit delay model as shown in Table 5.6, all variables correlated weakly with audit delay including the total assets with $r= -0.219$, $n=3{,}050$, $p< 0.01$. The total assets correlated negatively with audit timeliness. Comparable to the audit fee model, all IFRS variables recorded a low correlation value with the audit delay model. There are positive associations between the number of IFRS ($r=0.061$, $n=3{,}050$, $p<0.01$) and FRS 138 ($r=0.056$, $n=3{,}050$, $p<0.01$) with the length of time to issue audit reports. However, the FRS 139 ($r=-0.014$, $n=3{,}050$, $p > 0.05$) is negatively correlated with the audit delay and the correlation is insignificant.

TABLE 5.5
Correlation Coefficients of Audit Fees and Independent Variables

	Variable	1	2	3	4	5	6	7
1	InFEE	1.000						
2	IFRSYR	0.092[a]	1.000					
3	NUMFRS	0.126[a]	0.949[a]	1.000				
4	FRS138	0.143[a]	0.890[a]	0.896[a]	1.000			
5	FRS139	0.046[b]	0.091[a]	0.125[a]	0.102[a]	1.000		
6	InDELAY	-0.058[a]	0.062[a]	0.061[a]	0.056[a]	-0.014	1.000	
7	InSIZE	0.759[a]	0.059[a]	0.080[a]	0.094[a]	0.037[a]	-0.219[a]	1.000
8	CR	-0.181[a]	-0.021	-0.030	-0.046[b]	0.098[b]	-0.142[a]	-0.075[a]
9	DR	0.160[a]	0.023	0.025	0.030	-0.013	0.153[a]	0.037[b]
10	LOSS	-0.123[a]	-0.004	-0.003	-0.018	-0.017	0.226[a]	-0.217[a]
11	REC	-0.112[a]	-0.030	-0.034	-0.030	-0.020	0.104[a]	-0.330[a]
12	INV	-0.121[a]	-0.007	-0.006	-0.002	-0.038[b]	0.016	-0.276[a]
13	SQSUBS	0.773[a]	0.040[b]	0.066[a]	0.082[a]	0.026	0.062[a]	0.594[a]
14	YEND	0.008	0.134[a]	0.113[a]	0.107[a]	0.0003	0.063[a]	0.021
15	AUDCHG	-0.008	0.104[a]	0.099[a]	0.091[b]	-0.002	0.065[a]	-0.035
16	BIG4	0.178[a]	-0.009	0.010	0.026	0.032	-0.163[a]	0.188[a]
17	INDBD	0.086[a]	0.110[a]	0.120[a]	0.115[a]	0.035	0.029	0.045[b]
18	BDMTG	0.222[a]	0.0422[b]	0.044[b]	0.040[b]	-0.023	0.034	0.228[a]
19	DUAL	-0.066[a]	-0.004	0.003	-0.002	-0.019	0.063[a]	-0.065[a]
20	SH-INS	-0.205[a]	-0.027	-0.027	-0.011	-0.026	0.151[a]	-0.266[a]
21	SH-BLOCK	0.133[a]	-0.010	-0.008	-0.017	0.047[b]	-0.254[a]	0.276[a]
22	INDUST	0.055[a]	-0.007	-0.010	0.010	0.014	-0.026	-0.113[a]

	Variable	8	9	10	11	12	13	14	15
8	CR	1.000							
9	DR	-0.320[a]	1.000						
10	LOSS	-0.116[a]	0.266[a]	1.000					
11	REC	-0.127[a]	0.133[a]	-0.015	1.000				
12	INV	-0.048[a]	-0.018	-0.036[b]	0.228[a]	1.000			
13	SQSUBS	-0.141[a]	0.137[a]	-0.036[b]	-0.151[a]	-0.181[a]	1.000		
14	YEND	-0.023	0.018	-0.014	0.002	-0.069[b]	-0.010	1.000	
15	AUDCHG	0.013	0.062[a]	0.042[b]	0.030	0.030	-0.001	0.029	1.000
16	BIG4	0.046[b]	-0.069[a]	-0.112[a]	-0.059[a]	-0.070[a]	0.019	0.066[a]	-0.139[a]
17	INDBD	-0.007	0.072[a]	0.101[a]	-0.030	-0.120[a]	0.083[a]	-0.009	0.041[b]
18	BDMTG	0.096	0.101[a]	0.010[a]	-0.099[a]	-0.122[a]	0.169[a]	0.045[b]	0.057[a]
19	DUAL	0.063[a]	-0.003	0.061	-0.097[a]	-0.069[a]	-0.008	-0.039[b]	0.006
20	SH-INS	-0.044[b]	-0.031	-0.0002	0.212[a]	0.105[a]	-0.154[b]	-0.058[b]	-0.014
21	SH-BLOCK	0.031	-0.083[a]	-0.148[a]	-0.164[a]	0.004	-0.044	0.031	-0.021
23	INDUST	-0.039[b]	0.0001	-0.026	0.185[a]	0.148[a]	-0.074[b]	-0.030	-0.014

TABLE 5.5
Correlation Coefficients of Audit Fees and Independent Variables (continued)

	Variable	16	17	18	19	20	21	22
16	BIG4	1.000						
17	INDBD	0.005	1.000					
18	BDMTG	0.005	0.105[a]	1.000				
19	DUAL	0.029	0.065[a]	0.048[a]	1.000			
20	SH-INS	-0.111[a]	-0.084[a]	-0.164[b]	-0.037[b]	1.000		
21	SH-BLOCK	0.149[a]	-0.046[b]	0.098[a]	-0.020	-0.626[a]	1.000	
22	INDUST	-0.126[a]	-0.040[b]	-0.035	-0.097[a]	0.063[a]	0.010	1.000

Note: Correlation is significant at [a]1% and [b]5% level (2-tailed)

Variable definitions:

InFEE	=	natural log of external audit fees
IFRSYR	=	post-IFRS adoption period (code 1 for data after IFRS adoption, 0 before IFRS adoption)
NUMFRS	=	number of IFRS adopted
FRS138	=	FRS 138 adoption (code 1 if FRS 138 was adopted, 0 otherwise)
FRS139	=	FRS 139 voluntary adoption (code 1 if FRS 139 has been adopted, 0 otherwise)
InDELAY	=	natural log of the length of time between the company's financial year-end and the date of auditor's report
InSIZE	=	natural log of total assets
CR	=	ratio of current assets to current liabilities
DR	=	ratio of total debts to total assets
LOSS	=	current year income (code 1 if company suffering losses, 0 otherwise)
REC	=	ratio of accounts receivable to total assets
INV	=	ratio of inventories to total assets
SQSUBS	=	square root of the number of subsidiaries operated by clients
YEND	=	month fiscal year end (code 1 if the company fiscal year end in between 31 December until 31 March, 0 otherwise)
AUDCHG	=	change of auditor variable (code 1 for new auditor, 0 otherwise)
BIG4	=	firm's auditor (code 1 if client audited by Big 4, 0 otherwise)
INDBD	=	proportion of independent directors on the board
BDMTG	=	number of board meetings in a year
DUAL	=	CEO duality (code 1 if CEO is also chairman of the board, 0 otherwise)
SH-INS	=	percentage of shares owned by non-independent directors
SH-BLOCK	=	percentage of shares owned by independent blockholders (> 5% shares)
INDUST	=	industry effect (code 1 if the company is under technology, consumer and construction industry, 0 otherwise)

TABLE 5.6
Correlation Coefficients of Audit Delay and Independent Variables

	Variable	1	2	3	4	5	6
1	lnDELAY	1.000					
2	IFRSYR	0.062[a]	1.000				
3	NUMFRS	0.061[a]	0.949[a]	1.000			
4	FRS138	0.056[a]	0.890[a]	0.896[a]	1.000		
5	FRS139	-0.014	0.091[a]	0.125[a]	0.102[a]	1.000	
6	lnSIZE	-0.219[a]	0.059[a]	0.080[a]	0.094[a]	0.037[b]	1.000
7	SQSUBS	0.062[a]	0.040[b]	0.066[a]	0.082[a]	0.026	0.594[a]
8	LEVERAGE	0.153[a]	0.023	0.025	0.030	-0.013	0.037[b]
9	QUALIFIED	0.117[a]	0.044[b]	0.058[a]	0.057[a]	-0.010	-0.042[b]
10	LOSS	0.226[a]	-0.004	-0.003	-0.018	-0.017	-0.217[a]
11	YEND	0.063[a]	0.134[a]	0.113[a]	0.107[a]	0.0003	0.021
12	AUDCHG	0.065[a]	0.104[a]	0.099[a]	0.091[a]	-0.002	-0.035
13	BIG4	-0.163[a]	-0.009	0.010	0.026	0.032	0.188[a]
14	INDBD	0.029	0.110[a]	0.120[a]	0.115[a]	0.035	0.045[b]
15	DUAL	0.063[a]	-0.004	0.003	-0.002	-0.019	-0.065[a]
16	SH-INS	0.151[a]	-0.027	-0.027	-0.011	-0.026	-0.266[a]
17	SH-BLOCK	-0.254[a]	-0.010	-0.008	-0.017	0.047[b]	0.276[a]
18	INDUST	-0.026	-0.007	-0.010	0.010	0.014	-0.113[a]

	Variable	7	8	9	10	11	12
7	SQSUBS	1.000					
8	LEVERAGE	0.137[a]	1.000				
9	QUALIFIED	0.007	0.294[a]	1.000			
10	LOSS	-0.036[b]	0.266[a]	0.166[a]	1.000		
11	YEND	-0.010	0.018	-0.011	-0.014	1.000	
12	AUDCHG	-0.001	0.062[a]	0.054[a]	0.042[b]	0.029	1.000
13	BIG4	0.019	-0.069[a]	-0.009	-0.112[a]	0.066[a]	-0.139[a]
14	INDBD	0.083[a]	0.072[a]	0.046[b]	0.101[a]	-0.009	0.041[a]
15	DUAL	-0.008	-0.003	0.056[a]	0.061[a]	-0.039[b]	0.006
16	SH-INS	-0.154[a]	-0.031	-0.021	-0.0002	-0.058[a]	-0.014
17	SH-BLOCK	-0.014	-0.083[a]	-0.071[a]	-0.148[a]	0.031	-0.021
18	INDUST	-0.074[a]	0.0001	0.010	-0.026	-0.030	-0.014

TABLE 5.6
Correlation Coefficients between Audit Delay and Independent Variables (continued)

	Variable	13	14	15	16	17	18
13	BIG4	1.000					
14	INDBD	0.005	1.000				
15	DUAL	0.029	0.065[a]	1.000			
16	SH-INS	-0.111[a]	-0.084[a]	-0.037[b]	1.000		
17	SH-BLOCK	0.149[a]	-0.046[b]	-0.020	-0.626[a]	1.000	
18	INDUST	-0.126[a]	-0.040[b]	-0.097[a]	0.063[a]	0.010	1.000

Note: Correlation is significant at [a]1% and [b]5% level (2-tailed)

Variable definitions:

InDELAY	=	natural log of the length of time between the company's financial year-end and the date of auditor's report
IFRSYR	=	post-IFRS adoption period (code 1 for data after IFRS adoption, 0 before IFRS adoption)
NUMFRS	=	number of IFRS adopted
FRS138	=	FRS 138 adoption (code 1 if FRS 138 was adopted, 0 otherwise)
FRS139	=	FRS 139 voluntary adoption (code 1 if FRS 139 has been adopted, 0 otherwise)
InSIZE	=	natural log of total assets
SQSUBS	=	square root of the number of subsidiaries operated by clients
LEVERAGE	=	ratio of total debts to total assets
QUALIFIED	=	audit opinion (code 1 if the company received going concern opinion, 0 otherwise)
LOSS	=	current year income (code 1 if company suffering losses, 0 otherwise)
YEND	=	month fiscal year end (code 1 if the company fiscal year end in between 31 December until 31 March, 0 otherwise)
AUDCHG	=	change of auditor variable (code 1 for new auditor, 0 otherwise)
BIG4	=	firm's auditor (code 1 if client audited by Big 4, 0 otherwise)
INDBD	=	proportion of independent directors on the board
DUAL	=	CEO duality (code 1 if CEO is also chairman of the board, 0 otherwise)
SH-INS	=	percentage of shares owned by non-independent directors
SH-BLOCK	=	percentage of shares owned by independent blockholders (> 5% shares)
INDUST	=	industry effect (code 1 if the company is under technology, consumer and construction industry, 0 otherwise)

5.6 Diagnostic Test Results

Similar to the other types of data structure, such as time series and cross section, panel data structure also requires an appropriate diagnostics test to be conducted in order to check the suitability of the panel data models. Carneiro (2006, p.74) states that, "… most recent studies use panel data method (instead of cross-sectional) but there has been very little reporting diagnostic tests on panel heteroskedasticity, correlation across panels and serial correlation". Unlike the multiple regression models, which are subjected to several regression assumptions, the panel data models are based on generalized least-squares (GLS) estimation techniques. Since, GLS is the transformed variable of OLS, the GLS model already meets the standard least-squares assumptions[33] (Gujarati and Porter, 2009). The results of the panel diagnostic test on the residuals of panel regression model are discussed below.

5.6.1 Heteroscedasticity Results

The homoscedasticity or the equal variance assumption rests on the basis that the disturbance term of the independent variables is constant. For the panel data model, the homoscedasticity assumption means that the unobserved variables are uncorrelated with the time variant and the time invariant variables. A modified Wald test for groupwise heteroscedasticity in the residuals of a fixed effects regression model is conducted on both the audit fee and audit delay model (Greene, 2003). If the value of chi-square of the test exceeds the critical value, in other words, if the chi-square value is significant, then there is heteroscedasticity. Based on the modified Wald's test statistic results, both models produce a significant chi-square value. The audit fees and audit delay resulted in χ^2 (610) =5.7e+05 and χ^2(610) =7.4e+06, respectively, both significant at 0.01 level, thus, the findings indicate the presence of heteroscedasticity. The remedy for heteroscedasticity is discussed in Section 5.7.1.

[33] In this current study, the assumption of normality and linearity should not be a major concern for three (3) reasons. First, the standard least squares assumptions are not applicable for the panel data model (Gujarati and Porter, 2009). Second, most of continuous variables have been converted into log form, square root form or ratio form (Turpen, 1990). Third, for a large sample size, even a deviation from normality will not make a substantive difference in the analysis (Tabachnick and Fidell, 2001).

5.6.2 Correlation Results

The Breusch-Pagan Lagrangian Multiplier test of independence was performed to check for contemporaneous correlation among the variables of different companies. After fitting the fixed effects model, the test was conducted to determine the significant value of chi-square. The Breusch-Pagan Lagrangian Multiplier test of independence shows the chi-squares of χ^2 (185745) = 2.85e+05 and χ^2 (185745) = 2.52e+05, significant at the 1% level for the audit fee and audit delay models, respectively. Thus, the null hypothesis of no cross section correlation is rejected at the 1% significant level. Section 5.7.2 provides a discussion addressing the issue of correlation.

5.6.3 Autocorrelation Results

The presence of autocorrelation is verified by using the Wooldridge test for autocorrelation in the panel data. The test checks for the first-order autocorrelation with a null hypothesis indicating no first order autocorrelation. For the audit fee model, the Wooldridge test of autocorrelation resulted in F (1,609) = 118.085 and the audit delay model with F (1,609) = 16.211, significant at the 0.01 significant level. The null hypothesis of no correlation between error terms is rejected and indicates the occurrence of first order autocorrelation in the audit fee and audit delay models. The remedy for the autocorrelation problem is explained in Section 5.7.2 below.

5.6.4 Multicollinearity Results

In the panel data study, multicollinearity should not be regarded as a serious issue since the panel data approach itself is a remedial tool to counter the problem of multicollinearity (Baltagi, 2005; Gujarati and Porter, 2009; Henderson and Kaplan, 2000). Nevertheless, in order to prove the results of the panel data analysis, the multicollinearity is verified based on the correlation coefficients (r) between two (2) independent variables (Tarling, 2009). As presented in Table 5.5 and Table 5.6, the majority of the IFRS hypotheses variables have high and significant correlations from one (1) to another. For example, IFRSYR and NUMFRS are positively correlated ($r=0.949$, $p < 0.001$), IFRSYR and FRS138 are highly correlated ($r=0.890$, $p < 0.001$), and NUMFRS and FRS138 are also positively correlated ($r=0.896$, $p <0.001$).

Pallant (2001) signified that the values between 0.5 to 1 or -0.5 to -1.0 are regarded as having large correlation between two (2) variables. Moreover, Gujarati and Porter (2009) stress that the pairwise correlation of more than 0.8 is considered a serious problem. Likewise, Tarling (2009) warns that a correlation of 0.6 or more would be the threshold for high correlation between variables.

Since most of the hypotheses variables are extremely correlated, including them together in the full model would increase the threat of multicollinearity (Gujarati and Porter, 2009). Thus, the discussions on the approach to address the multicollinearity problem are provided in Section 5.7.3.

5.7 Remedies for Panel Diagnostic Tests

In the case of panel data, most of the panel models are based on the GLS method of estimation, and, thus, capable of providing the Best Linear Unbiased Estimator (BLUE) (Baltagi, 2005; Carneiro, 2006). Gujarati and Porter (2009, p.371) stress that, "… a method of estimation, known as generalized least squares (GLS), takes such information into account explicitly and is therefore capable of producing estimators that are BLUE". In most cases, panel data models are able to account for contemporaneous correlations and the heteroscedasticity problem (Carneiro, 2006).

5.7.1 Fitting Heteroscedasticity

One (1) significant advantage of Stata statistical software is that it can easily address the heteroscedasticity problem by obtaining the White Heteroscedasticity-corrected standard error or robust standard error (Peel and Roberts, 2003). This is done by requesting for the robust standard errors option (Tarling, 2009). For panel data, Stata statistical package provides standard errors including asymptotic theory and bootstrap or jackknife methods (STATA, 2003). The bootstrap or jackknife methods compute the variance by using replication deviations from the observed value of the statistics based on the entire dataset. The default standard errors for panel data regressions conventionally derived variance estimators for generalized least squares regression (STATA, 2003). Thus, in this current study, all the panel regression results are derived based on robust standard errors.

5.7.2 Fitting Correlation and Autocorrelation

When the diagnostic tests reveal the existence of correlation among panel error components and also autocorrelation across both cross section and time series, the assumptions of no heteroscedasticity and no autocorrelation the random parameters model cannot be utilized (Gujarati and Porter, 2009). Instead, the fixed effects model provides the remedy to the problem as the model allows for the error terms to correlate with the individual effects (Tarling, 2009). The Hausman specification test results in Section 5.8.1.3 and 5.8.2.2 direct to the solution for the correlation and autocorrelation issue.

5.7.3 Fitting Multicollinearity

Multicollinearity causes a large variance and covariance of estimators, thus, the results are unlikely to obtain precise estimation (Tarling, 2009). Gujarati and Porter (2009, p.333) point out that the "when collinearity is high, tests on individual regressors are not reliable". The results normally tend to be statistically insignificant or significant results with the wrong sign. Gujarati and Porter (2009) suggest that multicollinearity could be countered by dropping the main effect variables or using other alternative measures of independent variables.

Moreover, the massive reaction of the standard errors with only a small change in the data would also be an indicator for near or high multicollinearity. In other words, when the results are not robust to only a slight difference of measurements or analysis or change in the data, the multicollinearity problem might exist. In this study, when the full sample is regressed with only selected IFRS variables, the results tend to be driven by the IFRS variables included. For instance, when the IFRSYR variable is regressed together with NUMFRS, the coefficient of IFRSYR is not significant (β=0.006, p= 0.816) and it also has a negative direction. However, when the test is re-estimated with FRS138, the coefficient of IFRSYR becomes significant (β=0.066, p=0.008) with a positive sign. Gujarati and Porter (2009, p.334) illustrate the situation of high collinearity between income (X_1) and wealth (X_2) to measure consumption (Y). When the two (2) variables are regressed at the same time, the high collinearity causes both the variables to be statistically insignificant. Moreover, the predicted relationship is also in the opposite direction. Thus, Gujarati and Porter (2009) urge that income and wealth be regressed independently. Consequently, the separate regression (one-at-a time) results reveal that both income and wealth have a significant impact on consumption and the directions are positive as predicted.

In order to produce reliable results and to alleviate the multicollinearity problem among the hypotheses variables (IFRSYR, NUMFRS, FRS138, FRS139) and interaction effects variables (NUMFRS*BIG4, FRS138*BIG4 and FRS139*BIG4), this current study applies the prudent models (Sharma, 2005) or 'the one-at-a time approach' (Choi, Kim, Kim and Zang, 2010), commonly known as 'independent regressions' (Gujarati and Porter, 2009).[34]

---

[34] Different terms are used by different researchers or authors.

5.8 Panel Regression Results

The constant variance model assumes that the intercepts are homogeneous (Henderson and Kaplan, 2000). Gujarati and Porter (2009) stress that the problem of heterogeneity in the constant variance model and the issue of heteroscedasticity and autocorrelation in the fixed effects least-squares dummy variable (LSDV) model might be minimized by using the fixed effects within-group estimator or the random effects model. Initially, both the audit fee and audit delay models are tested to determine the existence of unobserved effects. When the unobserved effects are not present, the constant variance model should be used. The random effects model is only valid when the variance of the model is not zero (0) (not constant).

After the validity assumption of random effects model is met, both the random effects and fixed effects analysis are conducted. The second discretion is either to rely on the random effects or the fixed effects results. The decision to choose an appropriate model is based on the Hausman specification test (Hausman, 1978). The significant value of chi-square of the Hausman test indicates the existence of correlation between the composite error term and the independent variables in the model. Thus, the random effects model is not a suitable model, instead the fixed effects model is deemed more suitable.

Since the hypotheses variables (except for hypothesis 5) are regressed independently[35] for both the audit fee and audit delay model, Table 5.7 to Table 5.13 present the results in seven (7) columns. Model 1 (column 1) presents the results for hypothesis 1,

[35]To cater for multicollinearity problem as discussed in Section 5.7.3.

Model 2 (column 2) for hypothesis 2, Model 3 (column 3) testing hypothesis 3, Model 4 (column 4) for hypothesis 4 and Model 5 to 7 (column 5 to 7) regress the interaction of NUMFRS*BIG4, FRS138*BIG4 and FRS139*BIG4 to answer hypothesis H6a and H6b.

5.8.1 Audit Fees

5.8.1.1 Endogeneity Test

Table 5.7 presents the significant value of the F test for the Davidson-MacKinnon test of exogeneity. The null hypothesis indicates that an OLS estimator (the fixed effects model-xtreg, fe) would yield a consistent estimate as the fixed effects estimated using instrumental variables (xtivreg, fe). The results show that the p-value is larger than $\alpha = 0.10$ for all models, thus, the null hypotheses cannot be rejected. The insignificant results of this diagnostic test indicate that the endogeneity relationship between the audit delay and audit fees does not have a destructive impact on the fixed effects estimators. In other words, the audit delay explanatory variable does not correlate with the stochastic error term of the audit fee model. Hence, the instrumental variables estimator is meaningless due to the large standard errors and is not required for any of the regression models.

TABLE 5.7
Davidson-MacKinnon Test of Audit Fee Model

H_o: OLS estimator is consistent and fully efficient							
	M1	**M2**	**M3**	**M4**	**M5**	**M6**	**M7**
F-stat	(1, 2423)	(1, 2423)	(1, 2423)	(1, 2423)	(1, 2422)	(1, 2422)	(1, 2422)
p-value	0.3972	0.3045	0.3875	0.7356	0.2108	0.2824	0.7634

5.8.1.2 Constant Variance Model vs. Random Effects Model

The first stage of panel data analysis requires the researcher to prove that the random effects model is significant and that the variance is not zero (0) (Baltagi, 2005). This validity assumption signifies that the model contains an unobserved effect (Wooldridge, 2002). If the criteria are not met (variance is zero), then the random effects model is not appropriate (Gujarati and Porter, 2009). In that case, the constant variance model is valid and would provide superior results. The Lagrangian Multiplier test provides the answer to determine the significance of the chi-square for the random effects model (Breusch and Pagan, 1980). The results of the Breusch Pagan Lagrangian Multiplier test for the audit fee model are shown in Table 5.8. The results show that the chi-square (χ^2= 3144.16, 3140.14, 3125.62, 3094.36, 3152.20, 3138.86 and 3095.59) for Model 1 to 7, respectively, are highly significant. Since the p-value = 0.000 for all models, thus, the null hypotheses are rejected. The rejection of these null hypotheses indicates that the variance of random effects is not equal to zero (0), thus, the random effects model is valid for the audit fee data set.

TABLE 5.8
Lagrangian Multiplier Test of Audit Fee Model

H_o: variance (u) = 0

	M1	**M2**	**M3**	**M4**	**M5**	**M6**	**M7**
Chi^2 (1)	3144.16	3140.14	3125.62	3094.36	3152.20	3138.86	3095.59
Prob > chi^2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

5.8.1.3 Random Effects Model vs. Fixed Effects Model

The second stage involves determining the best panel data regression to be used. The decision involves the comparison of the fixed effects and the random effects regression results (Tarling, 2009). This is important to determine whether there are significant differences between the coefficients of the two (2) models (fixed effects model and random effects model) (Gujarati and Porter, 2009).

The Hausman specification test provides an answer for a suitable panel model to choose. This is important because of the strict panel regression assumptions of the random effects model, which assume that there is no correlation between individual error components and no autocorrelation across the cross sectional and time series units (Gujarati and Porter, 2009). If the assumption is not met, the use of the random effects model will result in an inconsistent estimation. Hence, the Hausman test compares the coefficient of the fixed effects and random effects model (Kealey et al., 2007). The test is based on the null hypothesis that there is no difference between the coefficients of the two (2) models. Based on Table 5.9 below, the chi-square (χ^2 = 74.42, 88.17, 77.18, 50.34, 92.96, 87.71 and 66.63 for Model 1 to Model 7, respectively) of the Hausman test for audit fees is highly significant (p= 0.000) for all audit fee models. The results indicate that there is a significant difference between the coefficients of the random effects and the fixed effects model. Thus, the fixed effects regressions prevail for audit fees.

TABLE 5.9

Hausman Specification Test of Audit Fee Model

H_o: difference in coefficient not systematic

	M1	M2	M3	M4	M5	M6	M7
Chi^2 (17/18)	74.42	88.17	77.18	50.34	92.96	87.71	66.63
Prob > chi^2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

5.8.1.4 Fixed Effects Model Results for Audit Fees

The results for the Hausman test in the previous section reveal that the fixed effects model is more appropriate than the random effects model. Table 5.10 depicts that the R^2 for fixed effects regression for Model 1 to Model 7 are 37.43%, 37.65%, 37.27%, 36.09%, 38.27%, 38.04% and 36.27%, respectively. The results indicate the variation in audit fees that are explained by the independent variables. The finding also shows that the values are highly significant since the p-value for all models are 0.000. This indicates that the relationship between the dependent (audit fees) and its independent variables in the fixed effects regression model is highly significant. The low R^2 for the fixed effects results compared to the constant variance model and random effects model regression is due to the removal of the time invariant variables. For instance, the adjusted R^2 for the constant variance model[36] are 77.55%, 77.64%, 77.63%, 77.44%, 77.70%, 77.71% and 77.45% for Model 1 to Model 7, respectively and the random effects model[37] resulted in the adjusted R^2 of 76.47% (M1), 76.58% (M2), 76.54% (M3), 76.26% (M4), 76.62% (M5), 76.60% (M6) and 76.23% (M7). The results for the constant variance model and random effects model are higher than most of the past studies in Malaysia including Simon et al. (1992) at 68%, Yaacob (2002)

[36] See Appendix 1A
[37] See Appendix 1B

of 64.2% and 63.1%, and Hariri et al. (2007) at 67.06%, 68.87% and 69.05%. Nevertheless, the fixed effects results are still consistent with the previous studies conducted by Ahmed and Goyal (2005) at 34.4% in Bangladesh, Gonthier-Besacier and Schatt (2007) between 36.3% to 39.3% using the French audit market and Francis and Stokes (1985) at 44.6% based on the Australian market.

Table 5.10 reports the significant effect of the hypotheses variables on audit fees. The hypotheses developed in Chapter Four are stated again here:

H1a: There is an increase in audit fees after IFRS adoption.

H2a: There is a positive association between the number of IFRS adopted and audit fees.

H3a: There is a positive association between FRS 138 adoption and audit fees.

H4a: There is a positive association between FRS 139 voluntary adoption and audit fees.

H5: There is a positive association between audit delay and audit fees.

$H6a_{i}$: Brand name auditors charged higher audit fees to companies that adopted more IFRS.

$H6a_{ii}$: Brand name auditors charged higher audit fees to companies that adopted FRS 138.

$H6a_{iii}$: Brand name auditors charged higher audit fees to companies that voluntarily adopted FRS 139.

Result of H1a

The finding of this study shows that the IFRSYR variable is significant at the 1% level of significance. The p-value of 0.000 is smaller than $\alpha = 0.01$, thus, hypothesis 1a is supported with the predicted direction. Other things being equal, the result suggests that the adoption of IFRS significantly increased the amount of audit fees by 6.20%[38] in the post IFRS adoption years.

Result of H2a

Hypothesis 1a tests the effect of IFRS after the adoption years. While, hypothesis 2a examines whether the extent of adoption would affect the level of audit pricing differently. The result shows that at the 1% significant level, the p-value (0.000) of the number of IFRS adoption (NUMFRS) is smaller than α=0.01. Thus, hypothesis 2a is supported and the result indicates a strong positive relationship between the number of IFRS and audit fees. The result implies that for every additional FRS adopted, audit fees increase by 0.4%, assuming other things being equal.

Result of H3a

The coefficient of FRS 138 is significant at the 1% significant level, with the p-value of 0.000, which is lower than the tabulated value of 0.01. The positive coefficient of 0.004 indicates a positive relationship between FRS 138 and audit fees. Hence, hypothesis 3a is supported and it can be concluded that, on average, audit pricing for the FRS 138 adopters is 6.11% higher than for the non FRS 138 adopters.

Result of H4a

The fixed effects regression result reports an insignificant association between FRS 139 voluntary adoption and audit fees with a p-value of 0.504. Since the calculated p-

[38] The magnitude of audit fee changes was obtained from the conversion of the variables coefficient for IFRSYR, NUMFRS, FRS138, lnDELAY, NUMFRS*BIG4 and FRS138*BIG4 using the formula suggested by Simon and Francis (1988). The formula is = 1- $1/e^x$ (see: Simon and Francis, 1988, p. 263).

value is higher than α=0.10, hypothesis 4a is not supported. The result suggests that voluntary adoption of FRS 139 has not influenced audit pricing.

Result of H5

The regression results derive a highly significant coefficient for all the models (p=0.000) with a positive direction. Since the calculated value is lower than the p-value of 0.01, hypothesis 5 is also supported. The results suggest that the length of time to issue the audit report influences the fees charged to the clients with an average increment of 16.4% to 18.6% for every 1% increase in audit delay.

Result of H6a_{i}, 6a_{ii}, 6a_{iii}

From hypothesis Model 5, the two-way interaction of NUMFRS*BIG4 variable shows a significant positive relationship with the audit fees (p=0.000). Hence, at the 1% significant level, there is strong evidence to support hypothesis 6a_{i}. The results suggest that the brand name auditors charged 0.4% more audit fees to the higher number of IFRS adopters. The coefficient also increases from 0.0009 for the NUMFRS variable to 0.004 for its interaction effect (Model 5). Similarly, the interaction effect of FRS138*BIG4 reveals a significant positive relationship with audit fees. At the 1% significant level, the p-value of 0.000 is lower than 0.01, thus, hypothesis 6a_{ii} is also supported. The positive coefficient of 0.101 suggests that the brand name auditors charged 9.61% more audit fees to companies that adopted FRS 138. Moreover, there is an increase in the coefficient from the main effects variable of 0.004 to the interaction effects variable of 0.097.

The result for hypothesis $6a_{iii}$ shows a p-value of 0.145, which is insignificant at the 10% level of significance, thus, not supporting $6a_{iii}$. On the whole, the results suggest that the Big 4 firms do charge higher audit fees for companies with a higher number of IFRS adopted and FRS 138 adoption than the non-Big 4 firms.

Results for Control Variables

There are 16 control variables for the audit fee model, which represent the client's size, risks and complexity as well as other relevant variables that are associated with audit pricing. As expected, a control variable to measure the client's size, the total assets (InSIZE), significantly influences audit fees. The variable shows a significant positive relationship with audit pricing at the 1 % level of significance (p= 0.000) for all models, indicating that the larger the size of the companies, the higher the audit fees charged.

The second element of audit pricing is the risk component, which consists of the current ratio (CR), debt ratio (DR) and the loss in the current year (LOSS). All three (3) client's risk measurements are significantly associated with the audit fees at the 10% level of significance with a p-value lower than α= 0.10 for all models. The direction for all risks component is as predicted. The results suggest that the higher the risks (represented by lower current ratio, high debt ratio and client's losses) associated with the clients, the higher the audit fees charged.

In respect of the complexity measurement, the ratio of inventories to total assets (INV) and the number of subsidiaries (SQSUBS) are significantly associated with the audit fees, while the ratio of account receivables to the total assets (REC) is not significant. For all models, at the 5% significant level, the ratio of inventories to total assets (INV) and the number of subsidiaries (SQSUBS) are positively related to the audit fees (p-value < 0.05). The results indicate that as the level of complexity is higher, the audit pricing is also increased.

Another control variable on the client's attributes is the change of auditor in the current year (AUDCHG). This does not significantly affect the audit fees (p > 0.10 for all models). The two (2) time-constant variables, namely, accounting year end (YEND) and industry effect (INDUST) are removed in the fixed effects regression. Concerning the aspect of auditor quality, the Big 4 firms (BIG4) is significant at the 10% level of significance for all models,[39] and positively influences the audit fees.

Five (5) control variables represent the corporate governance attributes of the clients. The board independence (INDBD), which is measured by the proportion of non-executive directors on the board is found to have a significant positive relationship with the audit fees at the 1% level of significance (p=0.000) for all models. The directors' shareholdings (SH-INS) is also significant (p < 0.10) in four (4) models with a negative direction. The other three (3) corporate governance variables: the number of board meetings (BDMTG), CEO duality (DUAL) and blockholders' shareholding (SH-BLOCK) are not significant at the 10% significant level for all models.

[39]except for Model 6, insignificant with p= 0.137

TABLE 5.10
Fixed Effects (Within) Regression Results for Audit Fees (n=3,050)

$$\ln FEE_{it} = \alpha + \beta_1 \mathbf{HVIFRS_{it}} + \beta_2 \ln DELAY_{it} + \beta_3 \ln SIZE_{it} + \beta_4 CR_{it} + \beta_5 DR_{it} + \beta_6 LOSS_{it} + \beta_7 REC_{it} + \beta_8 INV_{it} + \beta_9 SQSUBS_{it} + \beta_{10} YEND_{it} + \beta_{11} AUDCHG_{it} + \beta_{12} BIG4_{it} + \beta_{13} INDBD_{it} + \beta_{14} BDMTG_{it} + \beta_{15} DUAL_{it} + \beta_{16} SH\text{-}INS_{it} + \beta_{17} SH\text{-}BLOCK_{it} + \beta_{18} INDUST_{it} + a_i + u_{it}$$

$\beta_1\mathbf{HVIFRS_{it}}$ = IFRSYR, NUMFRS, FRS138, FRS139, NUMFRS* BIG4, FRS138* BIG4 and FRS139* BIG4; which are tested independently.

Variables	H	Exp Sign	M1 β(t)	M2 β(t)	M3 β(t)	M4 β(t)	M5 β(t)	M6 β(t)	M7 β(t)
Constant			2.543	2.636	2.451	1.858	2.709	2.541	1.800
			(3.28[a])	(3.40[a])	(3.18[a])	(2.32[b])	(3.51[a])	(3.32[a])	(2.24[b])
IFRSYR	H1a	+	0.064						
			(5.43[a])						
NUMFRS	H2a	+		0.004			0.001		
				(5.62[a])			(0.65)		
FRS138	H3a	+			0.063			-0.004	
					(5.06[a])			(-0.24)	
FRS139	H4a	+				0.033			0.277
						(0.37)			(1.20)
NUMFRS * BIG4	$H6a_i$	+					0.004		
							(3.99[a])		
FRS138* BIG4	$H6a_{ii}$	+						0.101	
								(4.68[a])	
FRS139* BIG4	$H6a_{iii}$	+							-0.348
									(-1.46)
lnDELAY	H5	+	0.166	0.164	0.169	0.186	0.166	0.171	0.185
			(3.74[a])	(3.71[a])	(3.82[a])	(4.16[a])	(3.76[a])	(3.87[a])	(4.14[a])
lnSIZE		+	0.385	0.382	0.389	0.415	0.380	0.387	0.418
			(9.28[a])	(9.22[a])	(9.44[a])	(9.52[a])	(9.24[a])	(9.47[a])	(9.57[a])
CR		-	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006	-0.006
			(-1.73[c])	(-1.76[c])	(-1. 81[c])	(-1.75[c])	(-1.91[c])	(-1. 93[c])	(-1.67[c])
DR		+	0.064	0.063	0.066	0.074	0.059	0.061	0.075
			(2.19[b])	(2.14[b])	(2.27[b])	(2.55[b])	(2.02[b])	(2.09[b])	(2.59[a])
LOSS		+	0.047	0.046	0.046	0.044	0.048	0.048	0.044
			(3.00[a])	(2.94[a])	(2.95[a])	(2.83[a])	(3.08[a])	(3.09[a])	(2.84[a])
REC		+	0.094	0.108	0.104	0.067	0.095	0.082	0.068
			(0.78)	(0.90)	(0.87)	(0.57)	(0.81)	(0.71)	(0.58)
INV		+	0.529	0.524	0.531	0.536	0.533	0.540	0.538
			(2.10[b])	(2.06[b])	(2.12[b])	(2.12[b])	(2.12[b])	(2.18[b])	(2.13[b])
SQSUBS		+	0.137	0.136	0.137	0.146	0.136	0.137	0.145
			(3.61[a])	(3.57[a])	(3.61[a])	(3.68[a])	(3.62[a])	(3.67[a])	(3.69[a])
YEND		+	-	-	-	-	-	-	-
AUDCHG		-	-0.030	-0.030	-0.028	-0.014	-0.022	-0.021	-0.016
			(-0.91)	(-0.92)	(-0.84)	(-0.43)	(-0.68)	(-0.63)	(-0.50)
BIG4		+	0.119	0.121	0.114	0.107	0.068	0.059	0.106
			(3.24[a])	(3.29[a])	(3.07[a])	(2.87[a])	(1.72[c])	(1.49)	(2.84[a])
INDBD		+	0.332	0.316	0.339	0.411	0.312	0.330	0.418
			(4.59[a])	(4.24[a])	(4.69[a])	(5.47[a])	(4.17[a])	(4.57[a])	(5.60[a])
BDMTG		+	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002
			(-0.40)	(-0.42)	(-0.41)	(-0.32)	(-0.43)	(-0.37)	(-0.35)

TABLE 5.10
Fixed Effects (Within) Regression Results for Audit Fees (n=3,050) (continued)

Variables	H	Exp Sign	M1 β(t)	M2 β(t)	M3 β(t)	M4 β(t)	M5 β(t)	M6 β(t)	M7 β(t)
DUAL		+	-0.027	-0.027	-0.028	-0.032	-0.027	-0.028	-0.032
			(-0.98)	(-1.00)	(-1.05)	(-1.18)	(-1.00)	(-1.03)	(-1.18)
SH-INS		-	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002
			(-1.55)	(-1.61)	(-1.55)	(-1.81[c])	(-1.76[c])	(1.73[c])	(-1.73[c])
SH-BLOCK		-	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
			(-1.23)	(-1.31)	(-1.26)	(-1.58)	(-1.27)	(-1.25)	(-1.49)
INDUST		+	-	-	-	-	-	-	-
R Square			0.3743	0.3765	0.3727	0.3609	0.3827	0.3804	0.3627
F-Ratio			33.52	33.31	33.02	31.63	31.35	31.28	29.84
Significant F			0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: The coefficient values are presented with the t-statistics in the parenthesis; significant at [a]1%, [b]5% and [c]10%; the significance of the p-value is arrived at based on robust standard errors; probabilities represent one-tailed when the direction of the coefficient is consistent with expectations; IFRSYR(M1),NUMFRS(M2), FRS138(M3), FRS139(M4), NUMFRS* BIG4(M5), FRS138* BIG4(M6) and FRS139* BIG4(M7).

Variable definitions:

InFEE	=	natural log of external audit fees
α	=	an intercept term, a constant
β	=	a regression slope coefficient
HVIFRS	=	hypotheses variables (tested independently)
IFRSYR	=	post-IFRS adoption period (code 1 for data after IFRS adoption, 0 before IFRS adoption)
NUMFRS	=	number of IFRS adopted
FRS138	=	FRS 138 adoption (code 1 if FRS 138 was adopted, 0 otherwise)
FRS139	=	FRS 139 voluntary adoption (code 1 if FRS 139 has been adopted, 0 otherwise)
NUMFRS*BIG4	=	interaction between number of IFRS adopted and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
FRS138*BIG4	=	interaction between FRS 138 adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
FRS139*BIG4	=	interaction between FRS 139 voluntary adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
InDELAY	=	natural log of the length of time between the company's financial year-end and the date of auditor's report
InSIZE	=	natural log of total assets
CR	=	ratio of current assets to current liabilities
DR	=	ratio of total debts to total assets
LOSS	=	current year income (code 1 if company suffering losses, 0 otherwise)
REC	=	ratio of accounts receivable to total assets
INV	=	ratio of inventories to total assets
SQSUBS	=	square root of the number of subsidiaries operated by clients
YEND	=	month fiscal year end (code 1 if the company fiscal year end in between 31 December until 31 March, 0 otherwise)
AUDCHG	=	change of auditor variable (code 1 for new auditor, 0 otherwise)
BIG4	=	firm's auditor (code 1 if client audited by Big 4, 0 otherwise)
INDBD	=	proportion of independent directors on the board
BDMTG	=	number of board meetings in a year
DUAL	=	CEO duality (code 1 if CEO is also chairman of the board, 0 otherwise)
SH-INS	=	percentage of shares owned by non-independent directors
SH-BLOCK	=	percentage of shares owned by independent blockholders (> 5% shares)
INDUST	=	industry effect (code 1 if the company is under technology, consumer and construction industry, 0 otherwise)
a_i	=	unobserved company level effect
u_{it}	=	disturbance term

5.8.2 Audit Delay

5.8.2.1 Constant Variance Model vs. Random Effects Model

The Breusch Pagan Lagrangian Multiplier test is a diagnostic test to determine the validity of the random effects model. When a model does not contain an unobserved effect, the random effects model is not valid, and the constant variance model is preferred. Table 5.11 shows that the calculated value is more than the critical value for all the models (p=0.000), thus, the null hypothesis is rejected. The significance of chi-square (χ^2 =2685.57, 2685.73, 2678.91, 2663.03, 2686.18, 2679.28 and 2662.28 for Model 1 to Model 7, respectively) of the Lagrangian Multiplier test signifies that the variance of the random effects model is not zero (0). Hence, the random effects model is more suitable than the constant variance model.

TABLE 5.11

Lagrangian Multiplier Test of Audit Delay Model

H_o: variance (u) = 0							
	M1	**M2**	**M3**	**M4**	**M5**	**M6**	**M7**
Chi^2 (1)	2685.57	2685.73	2678.91	2663.03	2686.18	2679.28	2662.28
Prob > chi^2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

5.8.2.2 Random Effects Model vs. Fixed Effects Model

Similar to the audit fee model, the second stage for the panel data analysis involves the discretion analysis to choose either the random effects or the fixed effects model. Both types of model are powerful options in panel data analysis. The constant variance model was a common approach utilized in a few past studies on audit delay.

Nevertheless, the constant variance model analysis is considered a limited approach since this option is unable to encounter the problem of heterogeneity and the serial of correlation (Baharom and Habibullah, 2008; Gujarati and Porter, 2009).

Subsequently, the Hausman test is conducted in choosing the best model that suits the data. The results for the Hausman test (fixed effects – random effects), as stated in Table 5.12, show χ^2= 69.73, 69.20, 71.18, 80.65, 69.20, 77.32 and 102.72 for hypothesis Model 1 to Model 7, respectively. The p-value of the χ^2 are 0.000 for all the models. Since the chi-square values are highly significant, the null hypothesis should be rejected, which indicates that there is a significant difference between the coefficients of the random effects and fixed effects models. Hence, it is risky to assume that there is no correlation between the error terms of the audit delay model and its independent variables. Thus, the stricter assumption of the random effects model cannot be used; instead the fixed effects model supports the assumption for correlation to exist.

TABLE 5.12
Hausman Specification Test of Audit Delay Model

H_o: difference in coefficient not systematic							
	M1	**M2**	**M3**	**M4**	**M5**	**M6**	**M7**
Chi^2 (12/13)	69.73	69.20	71.18	80.65	69.20	77.32	102.72
Prob > chi^2	0.000	0.000	0.000	0.000	0.000	0.000	0.000

5.8.2.3 Fixed Effects Model Results for Audit Delay

The audit delay model, as shown in Table 5.13 has significant F-statistics (p-value = 0.000) for all the models, which indicates the significance of the explanatory variables in explaining audit delay. Models 1 to 7 has adjusted R^2 of 3.89%, 3.89%, 3.71%, 3.20%, 3.93%, 3.74% and 3.22%, respectively, which represents the degree of deviation in the audit delay that can be explained by its explanatory variables. The low adjusted R^2 is due to the requirement to use the fixed effects model when the Hausman test indicates that the unobserved variables correlated with one (1) of the explanatory variables. Since the fixed effects model eliminates time-constant variables, it is normal to obtain a low R^2 as compared to the constant variance model regression or the random effects model regression. The adjusted R^2 for the constant variance model[40] are 17.82% (M1), 17.84% (M2), and 17.82% (M3), 17.56% (M4), 17.85% (M5), 17.82% (M6) and 17.57% (M7). Similarly, the random effects model[41] resulted in adjusted R^2 of 17.08%, 17.11%, 17.06%, 16.59%, 17.12%, 17.06% and 16.60% for hypothesis Model 1 to Model 7, respectively, which is consistent with many of the previous studies. The result for the constant variance model is slightly higher than a study conducted by Abdullah (2007), who also used Malaysian data, with an adjusted R^2 of 15%. Moreover, in contrast to a well-established audit fee model, there is a norm for the audit delay model to report a low adjusted R^2. The low R^2 is also reported by Ahmed (2003) at 1% for Bangladesh, 7.9% for India and 23% for Pakistan. Che-Ahmad and Abidin (2008) utilized the Malaysian audit delay data and resulted in an adjusted R^2 of 19.5%. The hypotheses developed in Chapter Four are repeated below:

[40] See appendix 2A
[41] See appendix 2B

H1b: There is an increase in audit delay after IFRS adoption.

H2b: There is a positive association between the number of IFRS adopted and audit delay.

H3b: There is a positive association between FRS138 adoption and audit delay.

H4b: There is a positive association between FRS 139 voluntary adoption and audit delay.

$H6b_i$: Brand name auditors reported shorter audit delay for companies that adopted more IFRS.

$H6b_{ii}$: Brand name auditors reported shorter audit delay for companies that adopted FRS 138.

$H6b_{iii}$: Brand name auditors reported shorter audit delay for companies that voluntarily adopted FRS 139.

Result of H1b

The p-value of 0.000 for the post-IFRS year is lower than α= 0.01. With a positive coefficient of 0.024, hypothesis 1b is supported at the 1% level of significance. Thus, the result suggests that the adoption of IFRS has significantly increased the length of time to issue the audit report. The audit delay in post-IFRS year is longer by 2.37%[42] compared to the pre-IFRS adoption period, when other things are held constant.

Result of H2b

Hypothesis 2b is also supported with a significant positive coefficient for NUMFRS at the 1% level of significance (p-value = 0.000). Since the p-value is lower than α= 0.01, the results indicate a strong positive relationship between the number of IFRS adopted and number of days to issue the audit report. The positive coefficient also implies that, other things being equal, audit delay lengthens on an average of 0.1% for every additional number of FRS adopted.

[42] Similar to the audit fee model, the magnitude of audit delay changes for IFRSYR, NUMFRS and FRS138 variables were converted based on the Simon and Francis (1988) conversion formula, that is, $r = 1- 1/e^x$.

Result of H3b

The finding for hypothesis 3b indicates that the coefficient of FRS138 is highly significant (p-value=0.002) with a positive direction, thus, hypothesis 3b is supported. The result implies that the adoption of FRS 138 has significantly increased the audit timeliness with a magnitude of 2.18% longer audit report date for FRS 138 adopters as opposed to non FRS 138 adopters.

Result of H4b

Hypothesis 4b is not supported as the coefficient for the FRS139 variable is insignificant at the 10% level (p=0.951). The result indicates that there is no significant relationship between FRS 139 voluntary adoption and audit timeliness.

Result of H6b_i, 6b_{ii}, 6b_{iii}

None of the interaction effect variables on the audit delay support hypothesis 6b. The result for the NUMFRS*BIG4 variable shows that the coefficient (-0.001) is insignificant at the 10% significant level. The FRS138*BIG4 variable shows a p-value of 0.452, which is larger than the significant level of 10%. Thus, hypothesis 6b_{ii} is not supported. Similarly, there is no statistical evidence to support hypothesis 6b_{iii}. The interaction effect of FRS139*BIG4 denotes an insignificant relationship (p= 0.285) with audit timeliness. Overall, the regression results suggest that the brand name auditors do not report shorter audit delay for the companies with a higher number of IFRS adopted, FRS 138 adoption and FRS 139 voluntary adoption.

Results for Control Variables

In terms of control variables, three (3) out of the 11 (excluding time-constant variables) variables are significantly associated with audit delay in the predicted direction. It is important to note that since the fixed effects model is chosen, the time invariant control variables are dropped. In this model, two (2) variables, namely, the accounting year end (YEND) and industry effect (INDUST) are dropped due to no changes of the variables over the 5-year period.

The client's losses in the current year (LOSS) are significant at the 1% level of significance, and have a positive relationship with audit timeliness ($p = 0.000$) for all models. The qualified opinion (QUALIFIED) is also found to be significantly related to audit delay. At the 1% significant level, the qualified opinion is positively associated with audit delay ($p < 0.01$ for all models), suggesting that a client with a qualified opinion requires more time to be audited. The final control variable that is significantly associated with audit delay is the number of subsidiaries (SQSUBS). This variable proves to have a positive relationship with audit delay with a p-value lower than $\alpha = 0.05$ for all models. Thus, at the 5% level of significance, the result indicates that the higher the number of subsidiaries, the more time required for completing the audit report.

Other variables such as the total assets (SIZE), the proportion of total liabilities to total assets (LEVERAGE), the auditor change variable (AUDCHG) and the use of Big 4 auditors (BIG4) are not found to have a significant association with audit delay at the 10% significant level.

The results on corporate governance variables reveal that the proportion of independent non-executive directors on the board (INDBD) is only significant in hypotheses Model 4 and Model 7. The positive direction of the relationship is contradictory to the prediction. Other corporate governance variables; CEO duality (DUAL), directors shareholdings (SH-INS) and blockholders' shareholdings (SH-BLOCK) are not significant ($p>0.10$ for all models).

TABLE 5.13
Fixed Effects (Within) Regression Results for Audit Delay (n=3,050)

$lnDELAY_{it} = \alpha + \beta_1 \mathbf{HVIFRS_{it}} + \beta_2 lnSIZE_{it} + \beta_3 LEVERAGE_{it} + \beta_4 LOSS_{it} + \beta_5 QUALIFIED_{it} + \beta_6 SQSUBS_{it} + \beta_7 YEND_{it} + \beta_8 AUDCHG_{it} + \beta_9 BIG4_{it} + \beta_{10} INDBD_{it} + \beta_{11} DUAL_{it} + \beta_{12} SH\text{-}INS_{it} + \beta_{13} SH\text{-}BLOCK_{it} + \beta_{14} INDUST_{it} + a_i + u_{it}$

$\beta_1 \mathbf{HVIFRS_{it}}$ = IFRSYR, NUMFRS, FRS138, FRS139, NUMFRS* BIG4, FRS138* BIG4 and FRS139* BIG4; which are tested independently.

Variables	H	Exp Sign	M1 β (t)	M 2 β (t)	M 3 β (t)	M 4 β (t)	M 5 β (t)	M6 β (t)	M7 β (t)
Constant			4.326 (14.15[a])	4.344 (14.00[a])	4.280 (14.03[a])	4.084 (13.35[a])	4.333 (14.02[a])	4.270 (14.03[a])	4.075 (13.28[a])
IFRSYR	H1b	+	0.024 (3.60[a])						
NUMFRS	H2b	+		0.001 (3.62[a])			0.002 (2.85[a])		
FRS138	H3b	+			0.022 (3.14[a])			0.029 (2.54[b])	
FRS139	H4b	+				-0.002 (-0.06)			0.037 (2.23[b])
NUMFRS* BIG4	$H6b_i$	-					-0.001 (-0.82)		
FRS138* BIG4	$H6b_{ii}$	-						-0.011 (-0.75)	
FRS139* BIG4	$H6b_{iii}$	-							-0.055 (-1.07)
lnSIZE		-	0.008 (0.50)	0.007 (0.45)	0.010 (0.65)	0.020 (1.25)	0.008 (0.47)	0.011 (0.67)	0.020 (1.28)
LEVERAGE		+	0.004 (0.23)	0.004 (0.23)	0.005 (0.28)	0.007 (0.39)	0.005 (0.24)	0.006 (0.30)	0.007 (0.39)
LOSS		+	0.043 (4.26[a])	0.043 (4.21[a])	0.043 (4.23[a])	0.043 (4.19[a])	0.043 (4.19[a])	0.427 (4.22[a])	0.043 (4.19[a])
QUALIFIED		+	0.155 (2.82[a])	0.153 (2.77[a])	0.156 (2.82[a])	0.166 (2.93[a])	0.154 (2.80[a])	0.157 (2.84[a])	0.166 (2.93[a])
SQSUBS		+	0.015 (2.13[b])	0.015 (2.12[b])	0.016 (2.17[b])	0.019 (2.53[b])	0.015 (2.14[b])	0.016 (2.18[b])	0.019 (2.52[b])
YEND		+	-	-	-	-	-	-	-
AUDCHG		+	0.009 (0.40)	0.009 (0.41)	0.010 (0.45)	0.015 (0.67)	0.008 (0.37)	0.009 (0.42)	0.014 (0.65)
BIG4		-	-0.022 (-1.36)	-0.022 (-1.32)	-0.024 (-1.49)	-0.027 (-1.68[c])	-0.015 (-0.76)	-0.018 (-1.00)	-0.027 (-1.68[c])
INDBD		-	0.046 (1.08)	0.042 (1.00)	0.050 (1.20)	0.077 (1.82[c])	0.042 (1.01)	0.514 (1.22)	0.078 (1.85[c])
DUAL		?	0.003 (0.13)	0.002 (0.12)	0.002 (0.09)	0.001 (0.03)	0.002 (0.11)	0.002 (0.08)	0.001 (0.03)
SH-INS		?	0.0001 (0.18)	0.0001 (0.13)	0.0001 (0.17)	0.0001 (0.06)	0.0001 (0.16)	0.0002 (0.19)	0.0001 (0.08)
SH-BLOCK		-	-0.0001 (-0.14)	-0.0000 (-0.20)	-0.0001 (-0.17)	-0.0002 (-0.35)	-0.0001 (-0.20)	-0.0001 (-0.17)	-0.0002 (-0.32)
INDUST		+	-	-	-	-	-	-	-

TABLE 5.13
Fixed Effects (Within) Regression Results for Audit Delay (n=3,050) (continued)

Variables	H	Exp Sign	M1 β (t)	M 2 β (t)	M 3 β (t)	M 4 β (t)	M 5 β (t)	M6 β (t)	M7 β (t)
R Square			0.0389	0.0389	0.0371	0.0320	0.0393	0.0374	0.0322
F-Ratio			4.790	4.820	4.520	3.630	4.510	4.230	3.870
Significant F			0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: The coefficient values are presented with the t-statistics in the parenthesis; significant at [a]1%, [b]5% and [c]10%; the significance of the p-value is arrived at based on robust standard errors; probabilities represent one-tailed when the direction of the coefficient is consistent with expectations; IFRSYR(M1),NUMFRS(M2), FRS138(M3), FRS139(M4), NUMFRS* BIG4(M5), FRS138* BIG4(M6) and FRS139* BIG4(M7).

Variable definitions:

lnDELAY	=	natural log of the length of time between the company's financial year-end and the date of auditor's report
α	=	an intercept term, a constant
β	=	a regression slope coefficient
HVIFRS	=	hypotheses variables (tested independently)
IFRSYR	=	post-IFRS adoption period (code 1 for data after IFRS adoption, 0 before IFRS adoption)
NUMFRS	=	number of IFRS adopted
FRS138	=	FRS 138 adoption (code 1 if FRS 138 was adopted, 0 otherwise)
FRS139	=	FRS 139 voluntary adoption (code 1 if FRS 139 has been adopted, 0 otherwise)
NUMFRS*BIG4	=	interaction between number of IFRS adopted and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
FRS138*BIG4	=	interaction between FRS 138 adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
FRS139*BIG4	=	interaction between FRS 139 voluntary adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
lnSIZE	=	natural log of total assets
LEVERAGE	=	ratio of total debts to total assets
LOSS	=	current year income (code 1 if company suffering losses, 0 otherwise)
QUALIFIED	=	audit opinion (code 1 if the company received going concern opinion, 0 otherwise)
SQSUBS	=	square root of the number of subsidiaries operated by clients
YEND	=	month fiscal year end (code 1 if the company fiscal year end in between 31 December until 31 March, 0 otherwise)
AUDCHG	=	change of auditor variable (code 1 for new auditor, 0 otherwise)
BIG4	=	firm's auditor (code 1 if client audited by Big 4, 0 otherwise)
INDBD	=	proportion of independent directors on the board
DUAL	=	CEO duality (code 1 if CEO is also chairman of the board, 0 otherwise)
SH-INS	=	percentage of shares owned by non-independent directors
SH-BLOCK	=	percentage of shares owned by independent blockholders (> 5% shares)
INDUST	=	industry effect (code 1 if the company is under technology, consumer and construction industry, 0 otherwise)
a_i	=	unobserved company level effect
u_{it}	=	disturbance term

5.9 Additional Analysis

5.9.1 Dummy 2006, 2007 and 2008

In the main analysis, the effect of IFRS complexity on the audit fees and audit delay was tested on pre-IFRS adoption and post-IFRS adoption period, where the post adoption period started from 31 December 2006 onwards. The results reveal that the post-IFRS adoption significantly increased both audit fees and audit timeliness.

In order to determine which of the three (3) post adoption years contribute to the large increase in audit fees and audit timeliness, dummy variables 2006, 2007 and 2008 were included to replace IFRSYR variable in the hypothesis Model 1. The 2006 was coded as ‘1’ and the other years as ‘0’. Similarly, for dummy variable 2007 (2008), year 2007(2008) was coded as ‘1’ and ‘0’ for other years. The results reveal that the year 2006 did not significantly increase audit fees (β=0.017, p= 0.140) while 2007 and 2008 had a significant positive relationship with audit fees (β=0.082, p=0.000 and β=0.102, p=0.000, respectively).

Similar to audit fees, the audit delay did not increase significantly during 2006 (β=0.011, p=0.114) but it significantly lengthened the audit timeliness during 2007 (β=0.028, p= 0.001) and 2008 (β=0.026, p=0.003). This is due to the fact that not all companies were required to comply with IFRS during financial year ended 2006, but only companies with accounting year end 31 December 2006 would be the first IFRS adoption companies. Hence, the impact of IFRS on audit fees and audit timeliness is larger in the years 2007 and 2008.

5.9.2 The First Year (IFRSYR1) and Second Year & Third Year (IFRSYR23) Dummy Variables

Following Griffin et al. (2009), two (2) dummy variables were introduced to ascertain whether the impact of IFRS adoption is trivial only in the first year of adoption or would prolong to the second and third year. The IFRSYR1 variable is dichotomous, indicating ‘1’ for the first year of adoption and ‘0’ for the other years. In addition, the IFRSYR23 represent the second and the third year of adoption with a dummy variable coded ‘1’ for the second and third year of IFRS adoption and coded ‘0’ if not. The regression analysis for Model 1 was re-estimated with the inclusion of IFRSYR1 and IFRSYR23 variables to replace the IFRSYR variable. It is interesting to discover that the audit fees have-not increased significantly during the first year of adoption (β=0.016, p= 0.118), and that the increment started in the second and the third year (β=0.072, p= 0.000).

Similarly, the audit delay did not report a significant lengthening in the audit delay for the first year of adoption (β=0.009, p= 0.145), however, the delay began in the second and third year (β=0.026, p= 0.000). The results contradict the New Zealand study by Griffin et al. (2009), which showed an increase in audit fees occurring immediately in the first year of adoption ($p < 0.05$) and extremely significant in the second and third year ($p < 0.001$). However, Griffin et al.’s (2009) study used pooled OLS regression where the results might be subjected to some heteroscedasticity and serial correlation problem (Baharom and Habibullah, 2008). Moreover, the impact for the first year of adoption is minimal, which is possibly due to a staged convergence being practiced in Malaysia compared to full convergence in New Zealand.

5.9.3 The First Year (IFRSYR1), Second Year (IFRSYR2) and Third Year (IFRSYR3) Dummy Variables

In order to ascertain whether the increment of audit fees and lengthening in audit delay would extend to the third year, dummy variables IFRSYR2 and IFRSYR3 are added in audit fee model in addition to dichotomous IFRSYR1. The combined IFRSYR23 variable, as discussed in 5.9.2 above is segregated into the dummy variables IFRSYR2, which represent the second year and IFRSYR3 for the third year of adoption with a dummy variable coded ‘1’ for the second (third) year of IFRS adoption and coded ‘0’ for the other years. The regression analysis for Model 1 was re-estimated with the inclusion of IFRSYR1, IFRSYR2 and IFRSYR3 variables to replace the IFRSYR variable. Consistent with the results in 5.9.2, the audit fees did not increase significantly during the first year of adoption (β= 0.013, p= 0.221). The significant increase in audit fees began in the second (β=0.061, p=0.000) and prolonged to the third year (β=0.082, p=0.000) of adoption. Likewise, there is no delay in audit report for the first year of adoption (β=0.011, p= 0.107), however, delay was found in the second (β=0.031, p= 0.000) and continued to the third year (β=0.021, p= 0.013) of adoption. The results are consistent with the arguments in the preceding section –that due to the phase convergence practice MASB might decide to adopt the easier standards first and the complicated standards later. For instance, the most complex and controversial standard, namely, FRS 139 had been deferred so that MASB could resolve some complex issues and make sure that all parties have sufficient knowledge and skills to apply such a standard.

5.10 Sensitivity Analysis

5.10.1 Audit Fee Model

5.10.1.1 Scale Down Audit Fees with Square Root Total Assets

The main analysis of this study converts the amount of audit fees into the natural log of audit fees due to the non-normality distribution of the fees and to reduce the effect of outliers (Anderson and Zeghal, 1994; Chan et al., 1993; Francis and Simon, 1987; Turpen, 1990). Even though the natural log is the most popular transformation technique, the scale down of fees with the square root of total assets could also be utilized. This approach has also been used by Simunic (1980), Francis (1984) and Firth (1985). Thus, the sensitivity test by using this scale down transformation was conducted to determine the presence of any differences in the results of the hypotheses.

The findings reveal that the results of the hypotheses remained unchanged for all models, except for Model 7. The significant negative relationship of FRS139*Big4 is unexpected and contradicts the prediction. Pong and Whittington (1994) stressed that in some cases the interaction effect results do not have clear explanations for the relationship with audit fees. In this study, the reason might be due to the small number of FRS 139 observations (n=22) and the nature of the interaction effect variable itself, which sometimes astonish the results (Tarling, 2009).

5.10.1.2 Number of IFRS Adopted

The NUMFRS measurements utilized in the hypothesis model are stated in the numerical value from one (1) to 19 at the end of 2006 and one (1) to 28 IFRS at the end of 2007 and 2008. For the sensitivity test, a dichotomous variable is introduced indicating '1' for adoption of 19 IFRS or more and '0' for less than 19. The value of 19 is chosen as a cut off point based on the mean value of NUMFRS. The fixed effect regression was re-estimated in hypothesis Model 2 and the results do not differ significantly from the results reported in this thesis. The audit fee shows a highly significant p-value (p= 0.000). This robustness test implies that the result of hypothesis 2a is unlikely to be driven by the different measurement.

5.10.1.3 Size

In several past studies on audit pricing (see for example: Myrteza and Zhang, 1996; Ezzamel et al., 1996) the researchers claim that the total revenue is an important indicator to measure the size of the companies. The higher the total revenue the higher the extent of transactions' verification works. For that reason, the natural log of total revenues (InREV) is used to replace the total assets as a client's size measurement and the analysis as per Table 5.10 was re-estimated. The total revenues are deflated with the CPI to account for changes in price level overtime. Moreover, the conversion into the natural logarithm is made to lessen the proportioned increase in audit fees over the company's size (Firth, 1985).

The result reveals that the natural log of total revenues has a significant positive relationship with audit pricing at the 1% level of significance (p= 0.000) for all models. The results indicate that the use of total revenue has the same explanatory power as the total assets in measuring the size of the clients. This is consistent with the earlier studies that discovered the significance of the total revenue variable in determining audit fees such as Maher et al. (1992), Myrteza and Zhang (1996), Ezzamel et al. (1996) and Peel and Roberts (2003).

The best part is that there is no change in the hypotheses results using this alternative measurement for all hypotheses models. Thus, the results are robust and would not be affected by the alternative indicators.

5.10.1.4 Complexity

There are several measurements of complexity, which include the ratio of inventory to the total assets (Feldmann et al., 2009), the ratio of accounts receivable to total assets (Myrteza and Zhang, 1996), industry diversification (Chan et al., 1993), issue separate audit report (O'Keefe et al., 1994), current cost reporting (Firth, 1985), number of subsidiaries and locations (Khalil et al., 2008), and foreign assets to total assets (O'Keeffe et al., 1994). In this study, the complexity is measured by using the number of subsidiaries (SQSUBS), the ratio of accounts receivables to total assets (REC) and the ratio of inventories to the total assets (INV). For the sensitivity analysis, the inventories and accounts receivables are combined together and divided by the total assets to measure the difficulty in verifying the accuracy of balance sheet items. The regression was re-estimated using the regression analysis in Table 5.10, replacing ratio of accounts receivable to total assets and ratio of accounts receivable to total assets. Similarly, a combination variable results in an insignificant relationship with audit fees for all models. More importantly, all the hypotheses results remain unchanged as reported in this thesis.

5.10.2 Audit Delay Model

5.10.2.1 Size

The natural log of total assets is a common indicator to represent the size of a company and some studies discover a negative relationship between the company's size and audit delay (see for example: Dyer and McHugh, 1975; Ashton et al., 1989; Owusu-Ansah, 2000; Leventis et al., 2005; Al-Ajmi, 2008). Nevertheless, this study found that the size control variable does not significantly increase audit delay. As an alternative, the natural log of total revenues is used to measure size (Knechel and Payne, 2001; Behn et al., 2006; Ashton et al., 1987). The regression analysis in Table 5.13 is re-estimated and the results show that the total revenues variable is also an insignificant determinant of audit delay in all models. Similarly, the hypotheses results remain unchanged (as reported in this thesis).

5.10.2.2 Number of IFRS Adopted

Similar to the alternative measurement for the audit fee model, as discussed above, the numerical value measurement is changed to a dichotomous measurement. The dummy variable is coded '1' if IFRS adoption is 19 or more and '0' for less than 19. The fixed effects regression was re-estimated in Model 2 and the result did not differ significantly from the main result reported in Table 5.13. The coefficient of NUMFRS variable is highly significant with a positive direction (p= 0.002). Thus, it is suggested that the panel regression results of this study are not sensitive to the different measurement.

5.11 Summary

Chapter Five presents the results of descriptive statistics, diagnostic analysis and the panel data regressions analysis. First, this chapter presents the descriptive statistics and also the univariate analysis. Then, the correlation matrix is presented for the audit fee model and audit delay model. Second, the diagnostic tests and the remedies applicable in using the panel data analysis are presented. Third, is the section focusing on the panel data regression analysis, which involves the decision to use: (i) constant variance model or random effects model and (ii) random effects model or fixed effects model. The Breusch Pagan Lagrangian Multiplier tests for both models show the significance of the chi-square for random effects. The results indicate that the audit fees and audit delay contain unobserved effects, thus, the random effects model should prevail instead of the constant variance model. Nevertheless, the random effects model is subjected to strict regression assumptions of no correlation between idiosyncratic error and explanatory variables. Thus, the Hausman specification test is conducted and the results reveal a significant chi-square for both the audit fee model and audit delay model. Hence, the results for the fixed effects (within) regression are chosen for the audit fee model as well as the audit delay model.

For the audit fee model, the fixed effects regression analysis indicates that hypotheses 1a, 2a, 3a, 5 and $6a_i$ and $6a_{ii}$ are supported with the predicted direction. Contrary to the expectation, the other hypotheses (4a and $6a_{iii}$) do not support the propositions. For the audit delay model, the fixed effects regression supports hypotheses 1b, 2b and 3b while the other hypotheses are not supported. Most of the results for the control variables are consistent with previous studies for both the audit fee model and audit delay model.

The next chapter will provide the overview of this study and most importantly the discussions based on hypotheses results will assist in developing the understanding on the possible factors that contribute to or against the significant results of this study.

CHAPTER SIX

DISCUSSION OF RESULTS AND CONCLUSION

6.1 Introduction

The objectives of this chapter are to recapitulate Chapter One to Chapter Five and to provide a thorough overview of the research objectives, the hypotheses development, the method used in meeting the objectives and the results of the study. Then, the detailed discussions of the results and the contributions of the study are presented. Moreover, this chapter outlines the limitations of the study and also provides suggestions for future research in extending knowledge in the audit pricing and timeliness literature. To conclude this thesis, the conclusions of the study are presented.

6.2 Overview of the Study

This study is motivated from the issue of IFRS complexity, which has been extensively debated by many parties –accountants, auditors and management. Several researchers have claimed that the new IFRS standards are too detailed in terms of the disclosure requirements and some recognition is uncertain. The complexity issue has driven the objectives of this study, in which the main objective is to examine the impact of the new or amended standards, namely, the IFRS on the Malaysian audit pricing and audit timeliness. For that reason, the main objective is divided into six (6) specific objectives: (i) to determine the effect of IFRS adoption on audit pricing and audit timeliness, (ii) to determine the influence of the number of IFRS adopted on audit pricing and timeliness, (iii) to ascertain the influence of FRS 138 adoption on audit pricing and audit timeliness, (iv) to determine the influence of FRS 139 voluntary adoption on audit pricing and audit timeliness, (v) to ascertain the influence of audit delay on audit pricing and (vi) to determine the interaction effect of the brand name auditors with the number of IFRS adopted, FRS 138 adoption and FRS 139 voluntary adoption on audit pricing and audit timeliness.

Past studies have documented that audit pricing and audit timeliness are affected after the adoption of the new regulations. For instance, many studies have demonstrated that the SOX enforcement significantly increases the US audit pricing (Consgrove and Niederjohn, 2008; Hoitash et al., 2008; Bhamornsirin and Guinn, 2008; Ghosh and Pawlewicz, 2009; Asthana et al., 2009). Likewise, the transition to the high quality international accounting standards, the IFRS, is predicted to increase the audit pricing and timeliness. For that reason, hypothesis 1 tests the proposition that audit fees and audit delay increase after IFRS adoption. Due to the fact that the extent of IFRS adoption differs from one (1) company to another, hypothesis 2 tests whether the number of IFRS adopted is positively related to the audit fees and audit delay. Furthermore, the complexity problem is associated with some standards that are widely discussed, particularly concerning the difficulty of measurement and recognition of the assets value, namely, IFRS 138 and IFRS 139 (Egginton, 1990; Narayanan, 2008; Ball, 2006; Tollington, 2008). Hence, hypothesis 3 and hypothesis 4 examine the impact of FRS 138 adoption and FRS 139 voluntary adoption on audit fees and audit report lag.

According to the MIA By-Laws, Section 240.2A of the guideline delineates the aspects to be considered when charging audit fees, which includes the extent of time allocated on the audit engagement (MIA By-Laws, 2011). In order to ascertain whether the audit hours are the major contributory factor to determine audit pricing within the complex environment, hypothesis 5 tests the proposition that audit delay has a positive association with audit fees. The last hypothesis tests the existence of the brand name theory by Klein and Laffter (1981) and the auditor quality differentiation theory of DeAngelo (1981) to strengthen or mitigate the relationship between the number of IFRS (NUMFRS), FRS 138 adoption (FRS138) and FRS 139 voluntary adoption (FRS139) on audit pricing and audit timeliness.

Based on the literature concerning the determinants of the audit fee model and audit delay model, the explanatory variables are identified. Two (2) models are chosen and modified, namely, the audit fee model by Simunic (1980) and an audit delay model by Ashton et al. (1989). The control variables are 16 and 13 for the audit fee model and audit delay model, respectively. Financial and non-financial data were hand collected primarily from the annual reports of the companies listed on the main board and second board of Bursa Malaysia. The annual reports were obtained from the Bursa Malaysia Company Announcement Webpage, which provided the final sample of 3,050 observations over the five (5) years (2004 to 2008). The sample was then analysed using the advanced method of data analysis, namely, the panel data analysis (Henderson and Kaplan, 2000) utilizing Stata-10.1 statistical analysis software. The analysis involves three (3) types of panel models, which are the constant variance model, the random effects model and the fixed effects model. The validity tests to ascertain the best panel model are the Breusch Pagan Lagrangian Multiplier test

(Breusch and Pagan, 1980) and the Hausman specification test (Hausman, 1978). The tests reveal that the fixed effects model is appropriate for the audit fee model as well as the delay model.

6.3 Discussion of Results

6.3.1 Overview of the Results

Table 6.1 below presents the summary of results of 15 hypotheses of which nine (9) are supported. First, hypothesis 1 (H1a and H1b) is supported, which indicates a significant increase in audit fees and audit delay in the post-IFRS adoption period. Second, hypothesis 2 (H2a and H2b) is also supported indicating that the number of IFRS adopted is positively associated with audit fees and audit delay. Third, hypothesis H3a (H3b) shows a positive association between FRS 138 adoption and audit fees (audit timeliness), thus, supporting hypothesis 3. Fourth, hypothesis 4 is not supported, which indicates that there is no association between FRS 139 voluntary adoption and audit pricing (H4a) and audit timeliness (H4b). Fifth, hypothesis 5 discovers a positive association between audit delay and audit fees, thus, hypothesis 5 is supported. Sixth, for hypothesis 6a, two (2) of the three (3) hypotheses are supported. Hypothesis $H6a_i$ indicates that a higher number of IFRS adopters paid extra audit fees when they engaged the Big 4 auditors and $H6a_{ii}$ signifies that FRS 138 adopters were charged higher audit fees when they hired Big 4 auditors. The relationship between FRS 139 voluntary adopters is not found to be significantly related to audit fees in the presence of Big 4 auditors, thus, hypothesis $6a_{iii}$ is not supported. Finally, all 6b ($6b_i$, $6b_{ii}$ and $6b_{iii}$) hypotheses are not supported, which signifies that the Big 4 auditors do not reduce the audit report lag for the higher number of IFRS adopters, FRS 138 adopters and FRS 139 voluntary adopters companies.

TABLE 6.1
Summary of Panel Regressions Results

Objectives	Hypothesis	p-value	Sign	Results
1a	H1a	$p < 0.01$	+	Supported
1b	H1b	$p < 0.01$	+	Supported
2a	H2a	$p < 0.01$	+	Supported
2b	H2b	$p < 0.01$	+	Supported
3a	H3a	$p < 0.01$	+	Supported
3b	H3b	$p < 0.01$	+	Supported
4a	H4a	$p > 0.10$	+	Not supported
4b	H4b	$p > 0.10$	+	Not supported
5	H5	$p < 0.01$	+	Supported
6a	$H6a_i$	$p < 0.01$	+	Supported
	$H6a_{ii}$	$p < 0.01$	+	Supported
	$H6a_{iii}$	$p > 0.10$	-	Not supported
6b	$H6b_i$	$p > 0.10$	-	Not supported
	$H6b_{ii}$	$p > 0.10$	-	Not supported
	$H6b_{iii}$	$p > 0.10$	-	Not supported

6.3.2 The Effect of IFRS Adoption and the Number of IFRS Adopted on Audit Fees (Hypothesis 1a and 2a)

Hypothesis 1a predicts a significant increase in the audit fees after the IFRS adoption and hypothesis 2a predicts a significant positive relationship between the number of

IFRS adoption and audit fees. The regression result supports hypothesis 1a, that the post-IFRS adoption period has a significant effect on audit fees. The result suggests that the adoption of IFRS significantly increases the amount of audit fees after the adoption years. Likewise, hypothesis 2a is supported and the result indicates that the extent of IFRS adoption has a significant positive impact on the audit fees.

The results for hypothesis 1a and 2a are consistent with a number of previous studies that investigated the impact of regulatory changes on audit fees such as Consgrove and Niederjohn (2008), Jeong et al. (2005), Hoitash et al. (2008), Ghosh and Pawlewicz (2009), Asthana et al. (2009), Hay and Knechel (2010) and Ebrahim (2010). For instance, a study by Jeong et al. (2005) investigated the impact of the revised act in Korea. The pooled regression for four (4) years found that the more stringent the regulation, the higher the audit fees. Similarly, Hay and Knechel (2010) discovered that the deregulation of audit has a positive significant relationship with the audit fees. In the US, many studies tried to examine the impact of the passage of SOX 2002. In line with the results of this study, Consgrove and Niederjohn (2008) discovered that audit fees increased by 51% during the first year SOX compliance (2003). In a similar vein, Asthana et al. (2009) found that audit fees promptly increased in the year of SOX enforcement. Furthermore, based on the longer post compliance period (2003 to 2005), Ghosh and Pawlewicz (2009) revealed that the audit fees increased 74% during the post-SOX compliance period, while Ebrahim (2010) revealed that the premium price only began to weaken in 2006, which is in the 4^{th} year of SOX compliance.

In the context of IFRS adoption, the results of this study are consistent with previous literature (as discussed in Chapter Three) concerning the positive effect of IFRS adoption: (i) improve accounting quality (Daske and Gebhart, 2006), (ii) positive market reaction (Armstrong et al., 2010), (iii) enhance forecast accuracy (Hodgdon et al., 2008; Cheong et al., 2010) and reduce costs of capital (Daske et al. 2008). The findings of this study are consistent with Griffin et al. (2009) who discovered that a significant increase in audit fees over 2004 to 2006 was associated with IFRS adoption in New Zealand, but not related to the other changes in regulations. While Griffin et al. (2009) utilized a sample from New Zealand public listed companies, Botica-Redmayne and Laswad (2010) examined the impact on the New Zealand public sector. Similarly, Botica-Redmayne and Laswad's (2010) study revealed a substantial increase in audit fees, averaging 19% in the first year of adoption. However, it is important to note that both studies merely incorporated first year adoption data and Botica-Redmayne and Laswad's (2010) study only used descriptive analysis. The result of hypothesis 2a is aligned with the findings by Schadewitz and Vieru (2010), which confirm that the amount of total fees depends on the extent of adjustments to reconcile the local standards and international accounting standards.

The results of this study together with the evidence from previous research confirm that, in general, IFRS are complicated standards (Hoogendoorn, 2006), which is in line with the claim made by Carlin et al. (2009) – that the complexity of IFRS appears not only on the part accounting treatments but also the difficulty to adhere to the detailed reporting and disclosure requirements (Griffin et al., 2009). Bernhut (2008) also believes that the content of IFRS is too comprehensive, which contributes to its complexity, while Mir and Rahaman (2005) also contend that the contents and the adoption process are both contributory factors for the complexity of universal standards. The findings from this study also grant further support to the ICAEW report that the most trivial costs of the IFRS is incremental in auditing costs (ICAEW, 2007).

The reason behind the increment in audit pricing is due to the extra burdens put on the auditors. The additional costs include overtime costs to perform additional audit works or the costs of hiring new auditors. Moreover, in order to ensure that the auditors are equipped with sufficient knowledge on the IFRS, they are sent to undergo training programmes, which would boost the training costs (Tyrrall et al., 2007; Josshi et al., 2008). Stovall (2010) believes that the increment in audit costs together with other costs such as training costs, internal control assessment costs and the capability of accounting information system costs would have some impact on the economic position of the IFRS adoption country. The result for hypothesis 2a implies that for each additional work that the auditors are required to commit to on audit engagement, the audit fees would be raised by an additional amount.

Overall, the results of hypotheses 1a and 2a reveal that the adoption of IFRS would boost the audit fees in the post-IFRS period and when more IFRS is required to be verified, the higher the audit fees.

6.3.3 The Effect of IFRS Adoption and the Number of IFRS Adopted on Audit Timeliness (Hypothesis 1b and 2b)

Hypothesis 1b predicts a significant increase in the audit delay after the IFRS adoption. Furthermore, hypothesis 2b predicts a positive association between the number of IFRS adopted and audit timeliness. The fixed effects regression results support hypothesis 1b, which indicates that the adoption of IFRS has significantly delayed the length of time to issue the audit report by the auditors. Likewise, hypothesis 2b is supported indicating that the higher the number of IFRS adoption, the longer time taken to issue audit report.

Thus, the results of this study support the findings of earlier studies concerning the impact of the new regulations on audit timeliness, as discussed in Chapters Two and Three, which included studies by Kinney and McDaniel (1993), Ettredge et al. (2006), Karim et al. (2006), and Krishnan and Yang (2009). For instance, the finding is consistent with a study by Davis (2007), which revealed a longer audit delay after the adoption of the new SOX in the US. Likewise, Krishnan and Yang (2009) also discovered that the worsening in audit timeliness and earning announcement lags are due to the enforcement of 10-K and 10-Q filings. However, this study contradicts the study by Almosa and Alabbas (2007), which revealed a negative relationship between the enforcement of the new regulation and audit timeliness[43].

---

[43] The difference in the impact on audit timeliness in Almosa and Alabbas's study might be due to the nature of the regulation itself, as Almosa and Alabbas (2007) addressed the impact of the commencement of a new regulatory body to govern the capital market, which enhanced the reporting procedure. Nevertheless, Davis (2007), and Krishnan and Yang (2009) examined the impact of more stringent regulations that require more time to complete audit works.

To the best of the researcher's knowledge, to date, no published studies have statistically investigated the impact of the IFRS convergence on audit timeliness. A study by Botica-Redmayne and Laswad (2010) found an increase in audit hours in the government sector, however, the researcher only compared the mean audit hours for one (1) year before and the first year of IFRS adoption. Since there is no hypothesis testing involved in Botica-Redmayne's study and the fact that they utilized univariate analysis, the results could not be generalized.

The reason for the lengthening in audit timeliness might be due to the additional workloads required to audit more complicated financial statements, which demands additional audit hours and audit effort. A similar deliberation was also raised by Stovall (2010) in that the new comprehensive standards require extra time and effort by the auditors to adhere to such standards. More interestingly, this study confirms the statement from one (1) respondent of a study conducted by Ballas et al. (2010) who noted that IFRS caused him to take more time to prepare financial statements when he had to disclose more information.

6.3.4 The Influence of FRS 138 on Audit Pricing and Timeliness (Hypothesis 3a and 3b)

Hypothesis 3 predicts a significant positive relationship between FRS 138 adoption and the audit pricing (H3a) and audit timeliness (H3b). The results support both hypotheses and suggest that the adoption of FRS 138 significantly increases the audit pricing and worsens the audit timeliness.

The results of this study grant support to numerous allegations that the accounting treatments for intangible assets are troublesome in the area of financial reporting and also in accordance with the complexity theory. The difficulty of the standard lies in the process to identify whether the intangibles meet the criteria of identifiable non-monetary assets. Moreover, the verdict of whether a company has control over the assets and whether it brings future economic benefits is also a complex procedure. The result of this study is in line with a statement by Bohusova and Svoboda (2010) who asserted that recognition and measurement criteria for IFRS 138 are quite detailed and strict. The researchers further argued that the intangible assets have a very broad concept since some of the ordinary activities are also considered as intangible assets such as movies, franchises, customer lists, marketing rights and software. On the part of recognition, it is difficult to ascertain whether the intangible assets meet the criteria of recognition even though it already fulfils the definition of intangible assets and has clear future economic benefits.

Moreover, the increase in audit pricing is an indicator for the existence of collateral against litigation costs that would be incurred by the audit firms in case of litigation claims. The findings from this study are consistent with the insurance theory of audit pricing, in which the auditors incorporate an increase in insurance demand in their audit price (Schwartz and Menon, 1985). The higher insurance is warranted due to so many uncertainties relating to IFRS 138 (Kaufmann and Schneider, 2004; Grasenik and Low, 2004), which involves subjectivity to determine the value of intangible assets owing to an imperfect capital market (Garcia-Ayuso, 2003), and later affects the capability of auditors to accurately verify such values. As a result, the auditors might need sufficient audit fee premium to offset the additional guarantees to the investors in the case of inaccurate judgment over the client's financial statements.

From the above arguments, the results offer an indication that the auditors truly regard FRS 138 as a complex and troublesome standard. The significant increase in the audit fees and audit delay are the reflection of the additional efforts on the part of auditors to understand, validate and come up with an audit opinion that the financial statements are free from material errors.

6.3.5 The Influence of FRS 139 Voluntary Adoption on Audit Pricing and Audit Timeliness (Hypothesis 4a and 4b)

Hypothesis 4 predicts a positive association between FRS 139 voluntary adoption and audit fees and audit timeliness. The fixed effects regression results show an insignificant association between FRS 139 voluntary adoption and audit fees. Similarly, the results reveal an insignificant relationship between FRS 139 voluntary adoption and audit timeliness. Thus, the results indicate that FRS 139 voluntary adoption does not significantly increase audit pricing and audit timeliness. The insignificant result of the hypothesis might be due to several reasons as delineated below.

First, the insignificant result could also be due to the small number of observations of the FRS 139 adopters. As the adoption of this standard is still voluntary, there were only 27 firm-year observations for FRS 139 adopters compared to 3,023 FRS 139 non-adopters. The larger number of FRS 139 adopters could produce more desirable results (Fernando, Abdel-Meguid and Elder, 2010) to represent and generalize the population since large observations heighten the precision and confidence of the results (Sekaran, 1992). For instance, Kasai (2009) also believes that the insignificant results of the hypotheses variables in his study are due to the small observations (UP=17, DOWN=31 from the total of 3,917 observations). Kasai (2009, p.24) states that "these variables do not affect the audit fees because their sample size is extremely small". Inevitably, past studies that utilized a sample from voluntarily compliance or adoption companies also faced the same issue, for instance, studies by Hope, Jin, and Kang (2006), Carlin et al. (2009) and Wan-Hussin et al. (2003) with n=38, n=36 and n= 32, respectively. Thus, it is important to note that small sample of FRS 139 voluntary adopters would limit generalisation of results across all companies.

Second, the lack of a significant relationship might be attributable to the voluntary adoption as opposed to the mandatory adoption. This argument is aligned with the findings of a study by Stent et al. (2010), which discovered the dissimilarity on the impact of NZ IFRS between early and late IFRS adopters. Likewise, Paananen and Lin (2009) also found that the impact of accounting quality is different between the IFRS voluntary phase and the IFRS mandatory phase in Greece. Moreover, Al-Razeen and Karbhari (2004) revealed no significant association between the mandatory disclosures and the voluntary disclosures in the annual reports, in which the voluntary disclosure items are not consistent with the items under mandatory disclosure. Hence, the results of this study align with the earlier studies that discovered different voluntary vs. mandatory adoption effects.

Third, when Asthana and Krishnan (2006) investigated the factors that motivate voluntary adoption of the new regulations, the researchers found that the main reason for the voluntary adoption of a new rule is to liberate the negative perceptions among investors and to improve corporate image from the regulators. Hence, Asthana and Krishnan's (2006) study implies that even though some companies have voluntarily adopted the IFRS before the effective date, it does not guarantee that they adhere to all the requirements of the standards. From the above discussions, the voluntary adoption or compliance is seen to foster a positive image. In reality, the voluntary adopter companies in Malaysia are most probably not ready to conform to the FRS 139, but the adoption is merely a means to enhance their reputation in the eyes of the investors.

Finally, since the fair value measurements are mostly applied in the transactions of the banking and financial sectors, the impact of IFRS 139 voluntary adoption to non-financial sectors is minimal. This assumption is supported by the study of Anagnostopoulos and Buckland (2005) who revealed that the full fair value measurement would provide greater advantages to the financial institutions. Further, Stovall (2010) added that the fair value recognition on all financial assets and financial liabilities has an enormous impact on the US banking industry. In this current study, since the sample companies consist of sectors other than banking and financial services industries, the results indicate that the adoption of FRS 139 is less complex in the non-financial companies.

6.3.6 The Influence of Audit Timeliness on Audit Pricing (Hypothesis 5)

Hypothesis 5 predicts a positive relationship between audit delay and audit fees. The fixed effects regression results show a significant coefficient of audit delay. The result of this hypothesis indicates that the length of time to issue audit report significantly increases audit pricing. The significant result of this study is consistent with a study by Ezzamel et al. (1996), Ettredge et al. (2007) and Canegham (2010) who found a significant positive relationship between audit delay and audit fees using single stage OLS. In the case of panel data analysis, the pooled OLS regression result from Griffin et al. (2009) also revealed a significant positive association between audit delay and fees. For the 2SLS regression, Johnson (1998) discovered a positive effect of audit delay on the audit fee model using data from the public sector. However, the 2SLS approach conducted by Johnson et al. (2002) found no significant effects of audit delay on audit fees charged in 302 US cities. Furthermore, the results of this study contradicted the studies done by Chan et al. (1993), and Naser and Nuseibah (2007) based on OLS regression.

This study seems to suggest that auditors do consider the time taken to complete the audit works as a factor to determine audit pricing. The highly significant results for all models imply that an increase in audit workloads due to additional IFRS requirements causes audit fees to increase significantly. An increase in auditors' engagement period is followed by an increase in operating costs, increase in overtime costs and loss of opportunity of accepting other engagements. Since such factors are the attributes to be considered in determining audit fees, any increase in the auditors' effort would definitely boost the pricing of audit services. Moreover, a longer audit delay is also an indication of the difficulties on the part of auditors to settle some troublesome audit matters (Knechel and Payne, 2001) and complexities to meet the requirements of the accounting standards (Yaacob and Che-Ahmad, 2011).

6.3.7 The Interaction Effect of Brand Name Auditors with the Number of IFRS Adopted, FRS 138 Adoption and FRS 139 Voluntary Adoption on Audit Pricing (Hypothesis 6a)

The result of the BIG4 control variable proves that the Big 4 auditors significantly affect the audit fees. With the significant positive coefficient of the variable in six (6) hypotheses models, the results indicate that the Big 4 firms do charge more as opposed to the non-Big 4 firms. Furthermore, the interaction effects are explored to determine any discrepancies concerning the relationship between IFRS variables[44] and audit fees when the Big 4 auditors are engaged.

The two-way interaction of NOFRS*BIG4 and FRS138*BIG4 variables shows a significant positive relationship with audit fees. The results suggest that the Big 4 auditors charge higher audit fees to companies that adopted more IFRS. Likewise, the interaction effect of FRS138*BIG4 implies that companies that adopted FRS 138 paid higher audit fees when they engaged Big 4 auditors. However, the $6a_{iii}$ hypothesis result shows an insignificant impact for the Big 4 auditors' interaction with FRS 139 voluntary adopters on audit fees. The significant results of most of the interaction effect variables suggest that Big 4 auditors have a different audit pricing structure compared to non-Big 4 auditors. To sum up, the Big 4 auditors have, to some extent,

[44]NUMFRS, FRS 138 and FRS 139.

power to charge higher audit fees (premium) when auditing a higher number of IFRS adopters and FRS 138 adopters.

The results of this study are consistent with a study by Ghosh and Pawlewicz (2009), who revealed a significant positive relationship between the interaction effect of post-SOX with Big 4 auditors (SOX*Auditor) and audit fees. The researchers concluded that the Big 4 auditors charged more fees during the SOX period. Likewise, Griffin et al. (2009) also found evidence that the Big 4 firms reported higher audit fees after IFRS adoption compared to the non-Big 4 firms.

The finding of this study provides support to the brand name theory by Klein and Laffler (1981). The Big 4 firms do play an important role in strengthening the effect of hypotheses variables influencing the audit fees charged to the clients. The possible explanation for this result could also be linked to the auditor quality differentiation theory (DeAngelo, 1981) in which the premium prices are an indicator of the differences in the quality of services and differences in the quality of audit firms (Geiger and Rama, 2006). Superior quality is derived from the superior audit staff of the Big 4 auditors (Chan et al., 1993). At the same time, Big 4 firms normally face higher litigations costs (Gonthier-Basacier and Schatt, 2007) and incur higher operating costs (Naser and Nuseibeh, 2007), which are later incorporated into the price of audit services. Other studies that revealed a significant fee difference between Big Firms and non-Big Firms are Francis (1984) using Australian data, Francis and Simon (1987) utilizing US data, Chan et al. (1993), and Peel and Roberts (2003) based on UK data.

Tarling (2009) also believes that the interpretation of interaction effect is not easy and some results are unexpected. The same situation might prevail for the interaction between FRS 139 and Big 4 auditors. The possible reason for the insignificant results could be due to the extreme lack of FRS 139 voluntarily adopters. For FRS139*BIG variable, only 22 observations were available, thus, they might not be sensitive enough to capture the variance of audit fee changes. As Carslaw and Kaplan (1991) explained in their study, the small number of observations reduces the chances to discover the differences between the dummy variables. Thus, the generalisation of results might be limited to this particular sample of companies.

A further plausible reason for this insignificant relationship might be due to the high correlation between the FRS139 and FRS139*BIG4 variable. When checking the correlation value, the value of r=0.9019 is almost perfectly correlated.[45] This extremely high correlation might cause the insignificant result (Gurajati and Porter, 2009). Nonetheless, dropping the main effect would distort the coefficient of interaction effect variable. Tarling (2009, p.53) suggested that in order to regress the interaction effect variable, "the main effects (in this case *unskill*) should be retained in the model as all the variables are required for explanatory purposes and in order to make accurate predictions". Previous studies that tested the interaction effect hypothesis have also included the main effect variable together (Abdul Wahab et al., 2009; Pong and Whittington, 1994; Peel and Roberts, 2003).

[45] NUMFRS and NUMFRS*BIG4 with r= 0.710; FRS 138 and FRS138*BIG4 with r= 0.7184. Gujarati and Porter's (2009) rule of thumb for serious multicollinearity is 0.80.

6.3.8 The Interaction Effect of Brand Name Auditors with the Number of IFRS Adopted, FRS 138 Adoption and FRS 139 Voluntary Adoption on Audit Timeliness (Hypothesis 6b)

Hypotheses $6b_i$, $6b_{ii}$ and $6b_{iii}$ predict that the interaction of the number of IFRS, FRS 138 adopters and FRS 139 voluntary adopters with Big 4 auditors would reduce the time taken to issue the audit reports. Nevertheless, none of the hypotheses results support the propositions. The results suggest that the Big 4 auditors do not significantly reduce the length of time to issue the audit report for the companies with a higher number of IFRS adopted, FRS 138 adoption and FRS 139 voluntary adoption than the non-Big 4 auditors.

The results are aligned with the study of Almosa and Alabbas (2007) who discovered no significant difference between audit timeliness of auditees engaging Big 4 audit firms or non-Big 4 auditors in Saudi Arabia. Other studies that resulted in an insignificant impact of Big Firms auditors include Whittred (1980) in the US, Carslaw and Kaplan in New Zealand. However, the findings of this study do not support the previous studies conducted by Leventis and Caramanis (2005), and Che-Ahmad and Abidin (2008) who revealed a significant negative association between Big Firms auditors and audit delay.

One (1) of the possible reasons for the insignificant results of Big 4 auditors' interaction on audit delay could be attributable to the insignificant results for the BIG4 control variable itself. Tarling (2009) claimed that when the main effects variables are not significant, adding the interaction effect variable to the model means that there is a greater chance of the variable having an insignificant coefficient.

Moreover, Lawrence, Minutti-Meza and Zhang (2011) hypothesized that the balance in the quality of audit for the Big 4 firms and non-Big 4 firms is because both types of audit firm are governed by the same regulatory bodies and professional accounting bodies, thus, they have to adhere to the same or a reasonable level of audit quality. Similar to the Malaysian context, the requirement of the Bursa Malaysia Listing Requirements to issue the audit report within four (4) months is applicable to both Big 4 firms and non-Big 4 firms. Moreover, they are also subjected to the requirements of the Ninth Schedule of the Company Act 1965, Securities Commission Act 1993, with equal penalties in case of failure to comply with the regulatory requirements.

The insignificant result of this hypothesis permits the auxiliary understanding concerning the nature of audit efficacy during the period of transition to the new standards or regulations. The results imply that during the early years of IFRS transition, the audit firms are equally affected, in the sense that both types of auditor need additional time to plan the audit, understand the internal control, design substantive procedures and audit the transactions and balances of the new IFRS. Hence, the proposition that the brand name auditor possesses all the skills and expertise to conduct an audit in a shorter time than the non-Big Firms is weakly supported during the high complexity environment (in this context, transition to the new standards). However, as the transition to IFRS heightens the litigation risks of the auditors (Love and Eickemeyer, 2009) and many of the past studies have proven that Big Firms are exposed to higher litigation costs, which make them more careful in making decisions (Hallison and Pacini, 2004), the results suggest that there is a trade-off between higher skills and more vigilant decisions taken by Big 4 auditors. Consequently, it leads to no difference of the audit efficacy structure between Big Firms and non-Big Firms, at least during the period of IFRS transition.

6.3.9 Control Variables for Audit Fee Model

The results of the fixed effects regression analysis indicate a significant relationship between audit fees and eight (8) out of 14 control variables (excluding two (2) time invariant variables[46]). First, a measurement of size, namely, the total assets (InSIZE), is highly significant for all the models. The results suggest that the bigger the clients' companies, the more audit fees charged by the auditors. The results demonstrate that large companies consist of bulky of transactions, thus, requiring more compliance and substantive test samples (Che-Ahmad and Houghton, 1996). Moreover, larger companies ought to provide higher quality financial statements to attract more capital from the investors, which, in turn, require extensive audit effort from the auditors (Naser and Nuseibeh, 2007). The results of this study are consistent with numerous previous studies including Gul and Tsui (2001), Gonthier-Besacier and Schatt (2007), Al-Harshani (2008), Khalil et al. (2008), Feldmann, et al. (2009) and Tanyi et al. (2010) that also utilized natural log of total assets.

Second, similar to the measurement of size component, all the risk measurements are significant in explaining audit fees. This includes the current ratio (CR), debt ratio (DR) and the loss in the current year (LOSS). The results of these control variables

[46] Time constant variables in audit fee model are the accounting year end (YEND) and industry effect (INDUST).

signify that auditors are concerned about the clients' risk assessment when charging audit fees. This is consistent with the suggestion by Mellett et al. (2007) who suggested that the auditors need to be fully aware of the existence of litigation risks in the case of an incorrect audit report. The extent of auditees' risks would reflect the amount of audit effort to alleviate such risks. Moreover, the premium price acts as a compensation to accept high risk audit engagements (Al-Harshani, 2008). The results provide further support for the studies conducted by Simunic (1980), Francis (1984), Low et al. (1990), Gist (1992) and Al-Harshani (2008).

Third, for the component of complexity, two (2) out of three (3) measurements have a significant impact on audit fees, namely, the ratio of inventories to total assets (INV) and the number of subsidiaries (SQSUBS), while the ratio of account receivables to total assets (REC) has no significant association with audit fees. The results suggest that the higher degree of difficulty in audit engagement, the higher the audit fees. In this study, the significant coefficient of INV proves that inventories are the most complicated items of current assets. Inventories might consist of the completed goods, the work in progress and loose tools, thus, the audit process of verifying such costs, ownership and net realizable value is taxing, which, in turn, requires more audit effort. The findings add to the existing literature on the significant impact of the ratio of inventories to total assets, which include Simunic (1980), Low et al. (1990) and Feldmann et al. (2009). Likewise, the higher the number of subsidiaries (SQSUBS), the more audit fees charged by the auditors. As subsidiaries are normally located in different geographical areas and have a different nature of operation, auditors have to exert a lot of effort in testing the sample and design substantive procedures. Moreover, a large number of subsidiaries would increase the verification work on the number of intra-group transactions (Joshi and Al-Bastaki, 2000). The results are aligned with many other researchers including Menon and Williams (2001), Gul and Tsui (2001), Kealey et al. (2007), Al-Harshani (2008) and Khalil et al. (2008).

Fourth, as expected the Big 4 auditors are positively associated with audit pricing. The significant result implies that Big 4 auditors charge a higher price than non-Big 4 auditors. The premium is charged to the clients as a reflection for brand name reputation (Moizer et al., 2004), difference in quality of services (DeAngelo, 1981), having skilful audit staff (Chan et al., 1993), higher overhead costs (Gonthier-Besacier and Schatt, 2007) and higher quality of financial statements (Naser and Nuseibeh, 2007) provided by Big Firms as opposed to non-Big Firms. Moreover, as discussed in Section 5.8.1.4, the results for interaction effects variables for the number of FRS and FRS 138 (NUM*BIG4 and FRS138*BIG4) reveal a larger increase in the audit fee parameters. The results indicate that a significant Big 4 control variable further contributes to a significant coefficient value for the interaction effect variables.

Fifth, on the corporate governance attributes, only independent directors on the board (INDBD) variable is significant in determining audit fees for all seven (7) models while the inside directors (SH-INS) variable demonstrates a significant relationship with audit fees in four (4) out of seven (7) models. Concerning the board characteristics, the number of independent directors (INDBD) variable has a positive significant impact on audit fees, while the number of board meetings (BDMTG) and duality function of the CEO and board chairman (DUAL) is insignificant. The findings of this study suggest that the independent directors on the board succeed in their roles as a monitoring mechanism to produce higher quality financial statements, which increases the audit costs. Carcello et al. (2002) believe that the presence of independent auditors alleviate the chances of deceptive financial statements. The result of this control variable is consistent with Carcello et al. (2002), Goodwin-Stewart and Kent (2006), and Zulkarnain and Shamsher (2008). Nevertheless, the percentage of shares held by management ownership (SH-INS) is significant in four (4) out of seven (7) models with a negative relationship with audit fees. The result confirms the importance of having insider directors to reduce the gap between the interest of the agent and the principal, which, in turn, reduces the agency costs. The findings of the SH-INS variable are consistent with a study by Gul and Tsui (2001) and O'Sullivan (2000) and counteract the failure of past studies (see for example: Boo and Sharma, 2008) to prove the importance of non-independent directors' roles. However, there is no strong evidence to support the importance of blockholder ownership (SH-BLOCK) to mitigate the agency costs of the companies.

6.3.10 Control Variables for Audit Delay Model

For the audit delay model, only three (3) of the total of 11 control variables are significant in determining audit delay. The fixed effects regression results dropped two (2) time-invariant variables, namely, the accounting year end (YEND) and industry effect (INDUST). The loss in the current year (LOSS) has a significant impact on audit delay, which signifies that a company that experiences a loss in the current year requires a longer time to complete the audit engagement. As discussed in Chapter Four, several suggestions have been made for the delay in audit report due to the losses. This might include the management's inclination to be well prepared to face the investors. The occurrence of loss also represents the high possibility of bankruptcy, which exposes the auditors to a high risk of being sued. The result of this study is consistent with the studies by Ashton et al. (1989), Bamber et al. (1993), Jaggi and Tsui (1999) and Afify (2009).

The regression result reveals that the company with qualified audit opinion has a significant positive relationship with audit delay. Wang et al. (2008) stated that management who receive a qualified opinion might persuade auditors to lengthen the issuance of the audit report to retard any negative reaction of the investors. Moreover, a longer audit report lag might be due to a disagreement with management (Carslaw and Kaplan, 1991), bargaining process to avoid being given a qualified opinion (Whittred, 1980) and higher litigation risks (Leventis et al., 2005). Earlier studies that reported a positive relationship between qualified opinion and audit delay include Bamber et al. (1993) and Carslaw et al. (2007).

The number of subsidiaries (SQSUBS) is also significant in determining audit delay. The negative coefficient implies that a longer time is required to issue the audit report when the number of subsidiaries increases. As the location of subsidiaries are scattered, more time is needed to ensure adequate sampling risks and substantive procedures. The result of this control variable is consistent with earlier literature, such as Jaggi and Tsui (1999) and Che-Ahmad and Abidin (2008).

The other eight (8) control variables are not significant, which includes the size of auditees (SIZE), the leverage ratio (LEVERAGE), change in auditor in the current (AUDCHG), Big 4 auditors (BIG4) and all corporate governance variables, namely, proportion of independent non-executive directors on the board (INDBD), CEO duality (DUAL), directors' shareholdings (SH-INS) and blockholders' shareholdings (SH-BLOCK).

6.4 Contributions of the Current Study

6.4.1 Contributions to the Existing Literature

As predicted in Chapter One, the findings of this study make several contributions to the theoretical development in audit fees and audit delay literature. First, since most of the earlier studies addressed the impact of IFRS adoption on accounting quality, forecast accuracy, market reaction and value relevant of accounting numbers; this study seeks to fill the gap in the literature on the impact of IFRS adoption and also specific IFRS variables (number of IFRS, FRS 138 and FRS 139) on the audit pricing and audit timeliness. The results of objectives 1a and 1b prove that the adoption on new standards significantly increase the audit fees, which penetrates to the quality of financial statements, however, it is a trade-off with the reduction in audit efficiency due to the high complexity of the new standards.

Second, this study extends contributory factors in the audit fee determinants literature and the audit delay determinants literature. The findings for objectives 2, 3, 5 and 6 provide the following extension to the determinants of the audit fee model:

i. The higher the number of IFRS adopted, the higher the audit fees charged by the auditors.
ii. The higher the number of IFRS adopted, the longer the time taken to complete the audit report by the auditors.

iii. The more complex the particular standards,[47] the higher the audit fees charged by the auditors.

iv. The more complex the particular standards, the longer the time taken to complete the audit report by the auditors.

v. The longer the time required on the audit engagement, the higher the audit fees.

vi. The Big 4 auditors strengthen the relationship between the number of IFRS adoption and audit fees.

vii. The Big 4 auditors strengthen the relationship between the complexity of FRS 138 and audit fees.

Third, this study contributes to the audit market literature using archival data from Malaysia. The results of this study are comparable to many previous studies on the positive impact of new regulations on audit quality utilizing data from developed countries. Despite the assertions that Malaysia is a less researched area and has poor corporate governance (Johl et al., 2007), poor public inquiry on the public listed companies (Shailer et al., 2001), weak standards' enforcement from accounting bodies and less demand for high quality audit (Simon et al., 1992), Malaysia is a unique developing country with a mixture of races, languages, ethnic groups and religions (Abdul Rahman and Mohd Ali, 2006; Che-Ahmad et al., 2006). Thus, the findings from a study conducted using the Malaysian audit market is deemed as unique empirical evidence, especially in the auditing field.

[47] In this study, FRS 138 is proven as a complex standard.

6.4.2 Practical Contributions

In practice, the results this study provides recommendations, especially to the MIA and also practical inputs to the policymakers and regulatory bodies such as Bursa Malaysia and the Securities Commission. The following suggestions will most probably be pertinent to them:

i. The MIA could provide a detailed RPG 7, in the sense that the Institute can elaborate the meaning of complexity under the Recommended Basis for Determining Audit Fees section. The MIA might explain what constitutes complexity, in which the adoption of new standards or regulations (as proven in this study) could be delineated as one (1) of the complexity attributes. As a result, the audit pricing negotiation time between the auditor and client could be reduced and the fee disputes with the clients minimized.

ii. The FSRC is expected to increase its sample of financial statements to be reviewed. This is important to ensure that the public listed companies adhere to the disclosure requirements, particularly during the earlier years of IFRS convergence. The FSRC should report any serious case of non-disclosure to Bursa Malaysia and the Securities Commission so that the action can be taken against the non-compliance companies.

iii. As the complexity of IFRS is proven from the results of this study, the auditors are expected to be more aware of the increase in litigation costs tied to them. This study can be used as preliminary evidence of the higher litigation environment prior to the full convergence phase in 2012.

iv. The findings from this study also encourage the public listed companies to hire highly qualified accountants to ensure the quality of financial statements in accordance with the new standards. In addition, the companies should be willing to increase their investment costs such as the cost of upgrading accounting software (information systems), training costs of accountants and strengthening their internal control systems.

6.4.3 Methodological Contributions

i. All financial and non-financial data used in this study are hand collected from the annual reports of Bursa Malaysia. Simon et al. (1992) believes that hand collection data from the annual reports would guarantee more accurate data and eliminate non-response bias that normally occurs in questionnaire surveys.

ii. With a large sample of data (n=3,050), the researcher believes that this study addresses the limitations encountered in the previous studies, which compensates for the higher cost of hand collected data for a smaller sample size. For instance, Stent et al. (2010, p.97) state that, "our sample size is a trade-off between the cost of collecting information and the benefits of a larger sample". Moreover, for a large sample of study, the deviation from normality and the presence of outliers (not the assumptions in panel data analysis), would not affect the results.

iii. The presence of an endogenous relationship between audit fees and audit delay model has been tested using a very reliable approach (Baum and Stillman, 2001) explicitly for panel data analysis, namely, the Davidson-MacKinnon test of exogeneity. Most of the past studies on OLS approach, such as Johnson (1998), utilized the Wu-Hausman test to examine the parameters bias in the regression model. Since there is very little exposure on the validity tests for panel data analysis in the previous accounting studies, this study can be considered as moving one (1) step ahead in methodological contribution, particularly in auditing research. In contrast to the past studies in other audit markets that have proven the existence of the endogeneity problem between the endogenous audit delay variable and stochastic error terms of audit fee model, this study reveals that such an issue does not prevail; at least it is true for this particular sample and the period of study. Hence, the argument of endogeneity in audit delay is subject to further research.

6.5 Limitations of the Study

While this research contributes in several ways to the body of knowledge, the practical side and the methodology aspect, there are a number of limitations that need to be highlighted. The limitations of this research are discussed below:

i. The small number of observations for FRS 139 voluntary adopters might impair the accuracy of results since the degree of precision and confidence in the results depends on the larger sample size (Sekaran, 1992). While FRS 139 is still at the voluntary adoption phase, the small observations cannot be avoided. Past studies that focused solely on voluntary adoption also encountered the problem of small sample size. Consequently, the results of hypothesis 4a, 4b, $6a_{iii}$ and $6b_{iii}$ should be generalized with much caution. Moreover, the results should be interpreted with much more caution if it were to be generalised to a larger population.

ii. In this study, the researcher is not able to employ a control group for non-adopters to match between the IFRS adopters and the non-IFRS adopters. This is due to the reason that during the mandatory period of IFRS adoption, all public listed companies in Malaysia have already adhered to the mandatory transition.

iii. The measurement for the extent of IFRS adoption is based on the number of IFRS adopted, but not the degree of disclosure for the specific IFRS. It is beyond the scope of this thesis to measure the compliance level for each IFRS disclosure requirements since the sample size is too large. Past studies that have investigated the extent of compliance normally focus on one (1) standard with a limited sample size. For instance, studies by Carlin et al. (2009) on FRS 136 disclosure requirements with 36 sample companies and Wan-Hussin et al. (2003) on MASB 22 disclosure requirements with 32 companies.

iv. In this study, the researcher is merely interested in determining whether the adoption of a certain new standard in Malaysia, such as the adoption of FRS 138, might boost the audit costs and lengthen the audit report of the clients' companies. Thus, the measurement for the FRS138 variable is based on a dichotomous variable (coding '1' when FRS 138 is adopted, '0' if it is not adopted), but not on the absolute amount of intangible assets disclosed in the balance sheet.

v. As discussed in Chapter One, the Malaysian environment provides unique empirical research evidence due to the various ethnic groups (Che-Ahmad et al., 2006) and diverse races, religions, beliefs and languages (Abdul Rahman and Ali, 2006). However, this study did not control for the unique Malaysian attributes, such as ethnically or politically connected companies (Abdul Wahab et al., 2009). The inclusion of these control variables would result to a very time consuming data collection process to determine ethnicity of all directors and shareholders due to the large number of sample used in this study (n=3,050).

vi. This study does not take into account the monetary value for both intangible assets (FRS 138) and financial instruments (FRS 139) since the focus of this study is to differentiate between the adopters and non-adopters but not the magnitude of intangible assets (FRS 138) and financial instruments (FRS 139) recognised in the Balance Sheet.

6.6 Future Research

The limitations discussed in the last section could be dealt with in future research. Some of the avenues for future studies are as follows:

i. In this study, the testing for the quality of auditor uses the auditor size[48], that is, the Big 4 auditors versus non-Big 4 auditors. Future research could measure the auditor attributes using industry specialization. Casterella, Francis, Lewis and Walker (2004, p.123) define industry specialization as "a differentiation strategy whose purpose is to provide auditors with a sustainable competitive advantage over nonspecialist auditors". Thus, the industry specialisation is an alternative measure to judge the quality of the auditor.

ii. With the effective date for mandatory adoption of FRS 139 on 1 January 2010, it is suggested that the limitation of small observations of FRS 139 voluntary adopters in this study might be encountered during the period of mandatory

[48] In this study, auditor size is used instead of industry specialization in that the 21 IFRS adopted by MASB are not the industry specific standards. Thus, the use of brand name auditors as a well-known surrogate for auditor quality differentiation seems to be appropriate for this study.

adoption. Thus, future research might investigate the impact of mandatory FRS 139 adoption.

iii. This study was conducted in the period where not all IFRS has been adopted by the MASB due to the decision to opt for ‘a stage-by-stage’ convergence in Malaysia. As the target of MASB is to achieve full convergence by 2012, future research could investigate whether the impact of a phased IFRS convergence holds in the IFRS full convergence phase.

iv. As discussed in the limitations section, this study ignores the monetary value for the intangible assets (FRS 138) as well as the financial instruments (FRS 139). Future studies could use monetary value to measure the extent of FRS 138 and FRS 139 adoption. This alternative measure might perhaps provide more meaningful interpretation of the results.

6.7 Conclusions

This chapter provides a detailed summary from Chapter One concerning the introduction of the thesis to Chapter Four on the research methodology as well as recapping on the results of the hypotheses in Chapter Five. Most importantly, this chapter discusses the findings from the panel regression analysis, the contributions, limitations and several avenues for future research. In line with many of the previous studies, this research reveals that the complexity issue of IFRS transition has a significant impact on audit pricing and audit timeliness. On the IFRS attributes, the number of IFRS and FRS 138 are positively associated with audit pricing and audit timeliness. Audit delay has been proven to have a significant influence on audit fees. The brand name auditors measured by the size of audit firms (Big 4 firms) has strengthened the relationship between NUMFRS and FRS138 attributes and audit fees. Nevertheless, there is no evidence of Big 4 influence to mitigate the relationship between IFRS attributes and audit delay.

The results of this study add to the growing body of audit market literature, particularly concerning audit pricing and audit timeliness. Since these two (2) audit elements are important indicators of audit quality and audit efficacy, any significant impact on audit fees and audit delay would affect the quality of audited financial statements. From the theoretical perspective, this study extends the determinants of the audit fee and audit delay model. Moreover, this study expands the scope of insurance theory and brand name theory. In the practical aspects, this study offers suggestions to many parties, in particular to the MIA to upgrade the quality of the MIA By-Laws.

In conclusion, nine (9) from 15 hypotheses are supported. The results confirm that IFRS is a complicated standard, which grants further support to the ICAEW report that the most significant cost of IFRS is an increase in auditing costs. Moreover, the results also confirm a consideration raised by Stovall (2010) in that the new IFRS standards demand for more effort and time to comply.

REFERENCES

Abbott, L. J., Parker, S., Peters, G. F., & Raghunandan, K. (2003). An empirical investigation of audit fees,non-audit fees and audit committees. *Contemporary Accounting Research, 20*(2), 215-234.

Abdelsalam, O. H., & El-Masry, A. (2008). The impact of board independence and ownership structure on the timeliness of corporate internet reporting of Irish-listed companies. *Managerial Finance, 34*(12), 907-918.

Abdelsalam, O. H., & Street, D. L. (2007). Corporate governance and the timeliness of corporate internet reporting by U.K. listed companies. *Journal of International Accounting, Auditing and Taxation, 16*, 111–130.

Abdelsalam, O. H., & Weetman, P. (2003). Introducing international accounting standards to an emerging capital market: Relative familiarity and language effect in Egypt. *Journal of International Accounting, Auditing and Taxation, 12*, 63-84.

Abdul Rahman, R., & Mohd Ali, F. H. (2006). Board, audit committee, culture and earnings management:Malaysian evidence. *Managerial Auditing Journal, 21*(7), 783-804.

Abdul Wahab, E. A., Mat Zain, M., James, K., & Haron, H. (2009). Institutional investors, political connection and audit quality in Malaysia. *Accounting Research Journal, 22*(2), 167-195.

Abdullah, S. N. (2007). Board composition, audit committee and timeliness of corporate financial reports in Malaysia. *Corporate Ownership and Control, 4*(2), 33-45.

Accountants Today. (2009). Enhancing audit quality. *22*(6), 49.

Adelopo, I. (2009). Modelling issues in the relationship between audit and non-audit fees. *Journal of Applied Accounting Research, 10*(2), 96-108.

Afify, H. A. E. (2009). Determinants of audit report lag: Does implementing corporate governance have any impact? Empirical evidence of Egypt. *Journal of Applied Accounting Research, 10*(1), 56-86.

Aguilar, M. K. (2011). Still a ways to go on IFRS adoption, says SEC staff. *Compliance Week, 8*(84), 21-22.

Ahmed, K. (2003). The timeliness of corporate reporting: A comparative study of South Asia. *Advances in International Accounting, 16*, 17-43.

Ahmed, K., & Goyal, M. K. (2005). A comparative study of pricing of audit services in emerging economies. *International Journal of Auditing, 9*, 103-116.

Al-Ajmi, J. (2008). Audit and reporting delays: Evidence from an emerging market. *Advances in Accounting, incorporating Advances in International Accounting, 24*, 217–226.

Al-Harshani, M. O. (2008). The pricing of audit services: Evidence from Kuwait. *Managerial Auditing Journal, 23*(7), 685-696.

Aljifri, K., & Khasharmeh, H. (2006). An investigation into the suitability of the international accounting standards to the United Arab Emirates environment. *International Business Review, 12*, 202-526.

Almosa, S. A., & Alabbas, M. (2007). *Audit delay: Evidence from listed joint companies in Saudi Arabia*. Paper presented at the Seminar Saudi Stock Exchange: “Future Prospective", King Khalid University.

Al-Razeen, A., & Karbhari, Y. (2004). Interaction between compulsary and voluntary disclosure in Saudi Arabian corporate annual reports. *Managerial Auditing Journal, 19*(3), 351-360.

Anagnostopoulos, Y., & Buckland, R. (2005). Historical cost versus fair value accounting in banking: Implications for supervision, provisioning, financial reporting and market discipline. *Journal of Banking Regulation, 6*(2), 109-127.

Anderson, P. (1999). Complexity theory and organization science. *Organization Science, 10*(3), 216-232.

Anderson, T., & Zeghal, D. (1994). The pricing of audit services: Further evidence from the Canadian market. *Accounting and Business Research, 24*(95), 195-207.

Armstrong, C. S., Barth, M. E., Jagolinzer, A. D., & Riedl, E. J. (2010). Market reaction to the adoption of IFRS in Europe. *The Accounting Review, 85*(1), 31-61.

Ashton, R. H., Graul, P. R., & Newton, J. D. (1989). Audit delay and timeliness of corporate reporting. *Contemporary Accounting Research, 5*(2), 657-673.

Ashton, R. H., Willingham, J. J., & Elliot, R. K. (1987). An empirical analysis of audit delay. *Journal of Accounting Research, 25*(2), 275-292.

Asthana, S., Balsam, S., & Kim, S. (2009). The effect of Enron, Andersen, and Sarbanes-Oxley on the US market for audit services. *Accounting Research Journal, 22*(1), 4-26.

Asthana, S., & Krishnan, J. (2006). Factors associated with the early adoption of SEC's revised auditor fee disclosure rules. *Auditing: A Journal of Practice & Theory, 25*(2), 41-51.

Azmi, A. (2008). The relation between taxation and financial reporting: The case of Malaysia. *The Business Review, Cambridge, 10*(1), 96-103.

Baharom, A. H., & Habibullah, M. S. (2008). Is crime cointegrated with income and unemployment?: A panel data analysis on selected European countries. *Working Paper, University Library of Munich, Germany.*

Balestra, P., & Nerlove, M. (1966). Pooling cross section and time series data in the estimation of dynamic model. *The Demand for Natural Gas, 34*(3), 585-612.

Ball, R. (2006). International Financial Reporting Standards (IFRS): Pros and cons for investors. *Accounting and Business Research, 36*, 5-27.

Ballas, A. A., Skoutela, D., & Tzovas, C. A. (2010). The relevance of IFRS to an emerging market: Evidence from Greece. *Managerial Finance, 36*(11), 931-948.

Balsam, S., Krishnan, J., & Yang, J. S. (2003). Auditor industry specialization and earnings quality. *Auditing: A Journal of Practice & Theory, 22*(2), 71-97.

Baltagi, B. (2005). *Econometric analysis of panel data* (Third ed.). England: John Wiley and Sons.

Bamber, E., Bamber, L., & Schoderbek, M. (1993). Audit structure and other determinants of audit report lag: An empirical analysis. *Auditing: A Journal of Practice & Theory, 21*(1), 1-23.

Bandyopadhyay, S. P., & Kao, J. L. (2001). Getting the price right. *CA Magazine*, 47-50.

Barlev, B., & Haddad, J. R. (2003). Fair value accounting and management of the firm. *Critical Perspective on Accounting, 14*(4), 383-415.

Barth, M. E., Landsman, W. R., & Lang, M. H. (2008). International accounting standards and accounting quality. *Journal of Accounting Research, 46*, 467-498.

Basioudis, I. G., & Francis, J. R. (2007). Big 4 audit fee premiums for national and office-level industry leadership in the United Kingdom. *Auditing: A Journal of Practice & Theory, 26*(2), 143-166.

Basmann, R. L. (1957). A generalized classical method of linear estimation of coefficients in a structure equation. *The Econometric Society, 25*(1), 77-83.

Baum, C. F., & Stillman, S. (2001). Diagnostic test for instrumental variables estimation. *The Stata Journal, 1*(1), 1-9.

Beatty, R. (1989). Auditor reputation and the pricing of initial public offering. *The Accounting Review, LXIV*, 693-709.

Beauliue, P. R. (2001). The effect of judgments of new clients integrity upon risk judgements, audit evidence and fees. *Auditing: A Journal of Practice & Theory, 20*(2), 85-99.

Bebbington, J., & Song, E. (2007). The adoption of IFRS in the EU and New Zealand: A preliminary report. *National Center for Research on Europe.*

Behn, B. K., Lee, J. W., & Jin, L. H. (2009). An empirical analysis of audit fee price competition after the Korean 1999 Omnibus Cartel Repeal Act. *Journal of International Accounting, Auditing and Taxation, 18*, 132-140.

Behn, B. K., Searcy, D. L., & Woodroof, J. B. (2006). A within firm analysis of current and expected future audit lag determinants. *Journal of Information System, 20* (1), 65-86.

Bernhut, S. (2008). Global Standards. *CA Magazine, 141*(3), 24-28.

Bhamornsiri, S., & Guinn, R. (2008). International implications of the costs of compliance with external audit requirements of section 404 of SOX. *International Atlantic Economic Society, 15*, 17-29.

Bliss, M. A., Muniandy, B., & Majid, A. (2007). Ceo duality, audit committee effectiveness and audit risks. *Managerial Auditing Journal, 22*(7), 716-728.

Bohusova, H., and Svoboda, P. (2010). Comparability of financial statements prepared according to IFRS and IFRS for SMEs in field of intangible assets. *The Business Review, Cambridge, 16*(1), 239-244.

Bonaci, C. G., & Matis, D. (2008). Financial reporting paradigms for financial instruments – Empirical study on the Czech and Romanian regulations. *Journal of International Trade Law, 7*(2), 101-122.

Bonsón-Ponte, E., Escobar-Rodríguez, T., & Borrero-Domínguez, C. (2008). Empirical analysis of delays in the signing of audit reports in Spain. *International Journal of Auditing, 12*, 129–140.

Boo, E., & Sharma, D. (2008). The association between corporate governance and audit fees of bank holding companies. *Corporate Governance, 8*(1), 28-45.

Botica-Redmayne, N., & Laswad, F. (2010). *The impact of IFRS on public sector audit fees and audit effort: Some evidence from New Zealand.* Paper presented at the 11th Annual Conference of the Asian Academic Accounting Association (FourA) Bangkok, Thailand.

Breusch, T. S., & Pagan, A. R. (1980). The LM test and its applications to the model specification in econometrics. *Review of Economics Studies, 47*, 239-254.

Brown, D., Shu, S., & Trompeter, G. (2008). The insurance hypothesis: The case of KPMG audit clients. *Working Paper, Illinois State University, Boston College and University of Central Florida.* .

Brozovsky, J. A., & Richardson, F. M. (1998). The effects of information availability of the benefits accrued from enhancing audit-firm reputation. *Accounting, Organizations and Society, 23*(8), 767-779.

Callao, S., Jarne, J. I., & Lainez, J. A. (2007). Adoption of IFRS in Spain: Effect on the comparability and relevance of financial reporting. *Journal of International Accounting, Auditing and Taxation, 16*, 148-178.

Caneghem, T. V. (2010). Audit pricing and the Big 4 fee premium: Evidence from Belgium. *Managerial Auditing Journal, 25*(2), 122-139.

Canibano, L., Garcia-Ayuso, M., & Sanchez, P. (2000). Accounting for intangibles: A literature review. *Journal of Accounting Literature, 19*, 102-130.

Carcello, J. V., Hermanson, D. R., Neal, T. L., & Riley, R. A. (2002). Board characteristics and audit fees. *Contemporary Accounting Research, 19*(3), 365-384.

Carlin, T. M., Finch, C., & Laili, N. H. (2009). Investigating audit quality among Big 4 Malaysian firms. *Asian Review of Accounting, 17*(2), 96-114.

Carmona, S., & Trombetta, M. (2008). On the global acceptance of IAS/IFRS accounting standards: The logic and implications of the principles-based system. *Journal of Accounting Public Policy*, *27*, 455-461.

Carneiro, L. A. F. (2006). *Corporate risk management with reinsurance and derivatives: Panel data methodology and new results from empirical studies using Australian data.* Unpublished doctoral thesis, The University of New South Wales, Australia.

Carslaw, C., Mason, R., & Mill, J. R. (2007). Audit timeliness of school district audits. *Journal of Public Budgeting, Accounting and Financial Management, 19*(3), 290-316.

Carslaw, C. A. P. N., & Kaplan, S. E. (1991). An examination of audit delay: Further evidence from New Zealand. *Accounting and Business Research, 22*(85), 21-32.

Casterella, J. R., Francis, J. R., Lewis, B. L., & Walker, P. L. (2004). Auditor industry specialization, client bargaining power, and audit pricing. *Auditing: A Journal of Practice & Theory, 23*(1), 123-140.

Chamisa, E. E. (2000). The relevance and observance of the IASC standards in developing countries and the particular case of Zimbabwe. *The International Journal of Accounting, 35*(2), 267-286.

Chan, P., Ezzamel, M., & Gwilliam, D. (1993). Determinants of audit fees for quoted UK companies. *Journal of Business Finance & Accounting, 20*(6), 765-786.

Chand, P., & White, M. (2007). A critique of the influence of globalization and convergence of accounting standards in Fiji. *Critical Perspective on Accounting, 18*, 605-622.

Chaney, P. K., Jeter, D. C., & Shivakumar, L. (2004). Self-selection auditors and audit pricing in private firms. *The Accounting Review, 79*(1), 51-72.

Chaney, P. K., & Philipich, K. L. (2002). Shredded reputation: A cost of audit failure. *Journal of Accounting Research, 40*(4), 1221-1245.

Che-Ahmad, A., & Abidin, S. (2008). Audit delay of listed companies: A case of Malaysia. *International Business Research, 1*(4), 32-39.

Che-Ahmad, A., & Derashid, D. (1996). The pricing of audit services: Evidence from Kuala Lumpur Stock Exchange listed companies. *Jurnal Analisis, 4*(1), 33-45.

Che-Ahmad, A., Houghton, K., & Yusof, N. Z. M. (2006). The Malaysian market for audit services: Ethnicity, multinational companies and auditor choice. *Managerial Auditing Journal, 21*(7), 702-723.

Che-Ahmad, A., & Houghton, K. A. (1996). Audit fee premiums of big eight firms: Evidence from the market for medium-size U.K. Auditees. *Journal of International Accounting, Auditing and Taxation, 5*(1), 53 -72.

Chen, C. J. P., Su, X., & Wu, X. (2007). Market competitiveness and big 5 pricing: Evidence from China's binary market. *The International Journal of Accounting, 42*, 1-24.

Cheong, C. S., Kim, S., & Zurbruegg, R. (2010). The impact of IFRS on financial analysts' forecast accuracy in the Asia-Pacific region: The case of Australia, Hong Kong and New Zealand. *Pacific Accounting Review, 22*(2), 124-146.

Chisnall, P. (2001). Fair value accounting: An industry view. *Balance Sheet, 9,* 27-33.

Choi, J., Kim, C., Kim, J., & Zang, Y. (2010). Audit office size, audit quality, and audit pricing. *Auditing: A Journal of Practice &Theory, 29*(1), 73–97.

Chou, W. L., & Lee, D. S. (2003). Cointegration analysis of audit pricing model: A panel unit root test approach. *Journal of Business Finance & Accounting, 30*(7&8), 1141-1164.

Chou, W. L., & Lee, D. S. (2005). Panel cointegration analysis of audit pricing model. *Review of Qualitative Finance and Accounting, 24*, 423-439.

Chow, C. W. (1982). The demand for external auditing: Size, debt and ownership influence. *The Accounting Review, LVII*(2), 272-291.

Christensen, H. B., Lee, E., & Walker, M. (2008). Incentives or standards: What determines accounting quality changes around IFRS adoption?. *Working Paper, Manchester Business School.*

Chua, W. F., & Taylor, S. L. (2008). The rise and rise of IFRS: An examination of IFRS diffusion. *Journal of Accounting and Public Policy, 27*, 462-473.

Clatworthy, M. A., & Peel, M. J. (2007). The effect of corporate status on external audit fees: Evidence from UK. *Journal of Business Finance & Accounting, 34*(1&2), 169- 201.

Conover, C. M., Miller, R. E., & Szakmary, A. (2008). The timeliness of accounting disclosures in international security markets. *International Review of Financial Analysis, 17*, 849–869.

Cooper, D. R., & Schindler, P. S. (2001). *Business research method* (7th ed.): Singapore:McGraw-Hill.

Cosgrove, S. B., & Niederjohn, M. C. (2008). The effect of the SOX of 2002 on audit fees. *Journal of Business Strategies, 25*(1), 31-52.

Craswell, A. T., Francis, J. R., & Taylor, S. L. (1996). The effect of audit market deregulation on the pricing of brand name reputation. *Working Paper: University of Sydney, Department of Accounting*.

Cullinan, C. P., College, B., & Smithfield, R. (2003). Competing size theories and audit lag: Evidence from mutual funds audit. *Journal of American Academy of Business, Cambridge, 3*(1/2), 183-189.

Daske, H., & Gebhardt, G. (2006). International financial reporting standards and experts' perceptions of disclosure quality. *Abacus, 42*(3/4), 461-495.

Daske, H., Hail, L., Leuz, C., & Verdi, R. (2008). Mandatory IFRS reporting around the world: Early evidence on the economic consequences. *Journal of Accounting Research, 46*(5), 1085-1142.

Davies, B., & Whitted, G. P. (1980). The association between selected corporate attributes and timelines in corporate reporting: Further analysis. *Abacus, 16*, 48-60.

Davis, L. R., Ricchiute, D. N., & Trompeter, G. (1993). Audit effort, audit fees and the provision of non-audit services to audit clients. *The Accounting Review, 68*(1), 135-150.

Davis, R. R. (2007). *The Impact of SOX on audit delay*. Paper presented at the Northeast Business & Economics Association 34th Annual Conference.

DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics, 3*(3), 183-199.

Ding, Y., Jeanjean, T., & Stolowy, H. (2005). Why do national GAAP differ from IAS? The role of culture. *The International Journal of Accounting, 40*, 323-350.

Ding, Y., Jeanjean, T., & Stolowy, H. (2008). The impact of firm's internalization on financial statement presentation: Some French evidence. *Advances in Accounting, incorporating Advances in International Accounting, 24*, 145-156.

Dopuch, N., & King, R. R. (1992). Negligence versus strict liability regimes in auditing: An experimental investigation. *The Accounting Review, 67*(1), 97-120.

Dunk, A. S., & Kilgore, A. (2000). The reintroduction of the true and fair override and harmonization with IASC standards in Australia: Lessens from the EU and implications for the financial reporting and international trade. *The International Journal of Accounting, 35*(2), 213-226.

Dye, R. A. (1993). Auditing standards, legal liability and auditor wealth. *Journal of Political Economy, 101*(5), 887-914.

Dyer, J. C., & McHugh, A. J. (1975). The timeliness of the Australian annual report. *Journal of Accounting Research, 13*(2), 204-219.

Ebling, P. (2001). Fair value accounting: Breaking a butterfly upon a wheel. *Balance Sheet, 9,* 22-26.

Ebrahim, A. (2010). Audit fee premium and auditor change: The effect of Sarbanes-Oxley Act. *Managerial Auditing Journal, 25*(2), 102-121.

Egginton, D. A. (1990). Towards some principles for intangible asset accounting. *Accounting and Business Research, 20*(79), 193-205.

Ettredge, M., Simon, D., Smitch, D. B., & Stone, M. (2000). Would switching to timely reviews delay quarterly and annual earnings releases? *Review of Quantitative Finance and Accounting, 14*(2), 111-130.

Ettredge, M. L., Li, C., & Scholz, S. (2007). Audit fees and auditor dismissals in the Sarbanes-Oxley Act. *Accounting Horizons, 21*(4), 371-386.

Ettredge, M. L., Li, C., & Sun, L. (2006). The impact of SOX Section 404 internal control quality assessment on audit delay in the SOX era. *Auditing: A Journal of Practice & Theory, 25*(2), 1-23.

Ezat, A., & El-Masry, A. (2008). The impact of corporate governance on the timeliness of corporate internet reporting by Egyption listed companies. *Managerial Finance, 34*(12), 848-867.

Ezzamel, M., Gwilliam, D. R., & Holland, K. M. (1996). Some empirical evidence from the publicly quoted UK companies on the relationship between the pricing of audit and non-audit services. *Accounting and Business Research, 27*(3), 3-16.

Fama, E., & Jensen, M. (1983). Separation of ownership and control. *Journal of Law and Economics, 26*(2), 301-326.

FASB. (2007). FASB issues preliminary views on financial instruments with characteristics of equity [Electronic Version]. *Business Wire*, from www.fasb.org/jsp/FASB/Page/nr113007.shtml

Feldmann, D. A., Read, W. J., & Abdolmohammadi, M. J. (2009). Financial restatements, audit fees and the moderating effect of CFO turnover. *Auditing: A Journal of Practice & Theory, 28*(1), 205-223.

Ferguson, A., & Strokes, D. (2002). Brand name audit pricing, industry specialization, and leadership premiums post-Big 8 and Big 6 mergers. *Contemporary Accounting Research, 19*(1), 77-110.

Fernando, G. D., Abdel-Meguid, A. M., & Elder, R. J. (2010). Audit quality attributes, client size and cost of equity capital. *Review of Accounting and Finance, 9*(4), 363-381.

Firth, M. (1985). An analysis of audit fees and their determinants in New Zealand. *Auditing: A Journal of Practice & Theory, 4*(2), 23-38.

Firth, M. (1990). Auditor reputation: The impacts of critical report issued by government inspectors. *The RAND Journal of Economics, 21*(3), 374-387.

Firth, M. (1997). The provision of non-audit services and the pricing of audit fees. *Journal of Business Finance & Accounting, 24*(3&4), 511-525.

Francis, J. R. (1984). The effect of audit firm size on audit prices. *Journal of Accounting and Economics*, *6*(2), 133-151.

Francis, J. R., & Simon, D. T. (1987). A test of audit pricing in the small-client segment of the US market. *The Accounting Review, 62*(1), 145-157.

Francis, J. R., & Stokes, D. J. (1986). Audit prices, product differentiation and scale economies: Further evidence from the Australian audit market. *Journal of Accounting Research, 24*(2), 383-393.

Francis, J. R., & Wilson, E. R. (1988). Auditor changes: A joint test of theories relating to agency costs and auditor differentiation. *The Accounting Review, LXIII*(4), 79-84.

Gallego, I., & Rodriguez, L. (2005). Situation of intangible assets in Spanish firms: An empirical analysis. *Journal of Intellectual Capital, 6*(1), 105-126.

Garcia-Ayuso, M. (2003). Factors explaining inefficient valuation of intangibles. *Accounting, Auditing & Accountability Journal, 16*(1), 57-69.

Garrido, P., Leon, A., & Zorio, A. (2002). Measurement of formal harmonization progress: The IASC experience. *The International Journal of Accounting, 37*, 1-26.

Geiger, M. A., & Rama, D. V. (2006). Audit firm size and going-concern reporting accuracy. *Accounting Horizons, 20*(1), 1-17.

Getzen, T. E. (1984). A "brand name firm" theory of medical group practice. *The Journal of Industrial Economics, XXXIII*(2), 199-215.

Ghosh, A., & Pawlewicz, R. (2009). The impact of regulation on auditor fees: Evidence from the Sarbanes-Oxley Act. *Auditing: A Journal of Practice & Theory, 28*(2), 171–197.

Gist, W. E. (1992). Explaining variability in external audit fees. *Accounting and Business Research, 23*, 79-84.

Gist, W. E. (1994). Empirical evidence on the effect of audit structure on audit pricing. *Auditing: A Journal of Practice & Theory, 13*(2), 25- 40.

Givoly, D., & Palmon, D. (1982). Timeliness of annual earnings announcement: Some empirical evidence. *The Accounting Review, 3*, 486 - 508.

Gonthier-Besacier, N., & Schatt, A. (2007). Determinants of audit fees for French quoted firms. *Managerial Auditing Journal, 22*(2), 139-160.

Goodwin-Stewart, J., & Kent, P. (2006). Relation between external audit fees, audit committee characteristics and internal audit. *Accounting & Finance, 46*, 387-404.

Grasenik, K., & Low, J. (2004). Shaken, not stirred: Defining and connecting indicators for the measurement and valuation of intangibles. *Journal of Intellectual Capital, 5*(3), 268-281.

Greene, W. H. (2003). *Econometric analysis* (Fifth ed.): Upper Saddle River: Prentice Hall.

Griffin, P. A., Lont, D. H., & Sun, Y. (2009). Governance regulatory changes, IFRS adoption, and New Zealand audit and non-audit fees: Empirical evidence. *Accounting & Finance, 49*(4), 697-724.

Gujarati, D. N. (1999). *Essential of econometrics* (Second ed.): Boston: Irwin McGraw-Hill.

Gujarati, D. N., & Porter, D. P. (2009). *Basic econometrics* (Fifth ed.): Boston: Irwin McGraw-Hill.

Gul, F. A., & Tsui, J. L. S. (2001). Free cash flow, debt monitoring and audit pricing: Further evidence on the role of director equity ownership. *Auditing: A Journal of Practice & Theory, 20*(2), 71-84.

Hamilton, J., Li, Y., & Stokes, D. (2008). Is audit market remaining competitive following Arthur Andersen collapse. *Accounting & Finance, 48*(2), 233-258.

Hariri, H., Abdul Rahman, R., & Che-Ahmad, A. (2007). An empirical evidence of audit firm merger and audit pricing in Malaysia. *Journal of Financial Reporting & Accounting Research, 5*(1), 1 – 19.

Hariri, H., Abdul Rahman, R., Fauzee, F., & Che-Ahmad, A. (2006). Merger and Timeliness of Audit Report. *Jurnal Intelek, 4*(1), 31-42.

Harvey, M., & Keer, F. (1983). *Financial accounting theory* (Second ed.): Prentice Hall International (UK) limited.

Haskins, M. E., & Williams, D. D. (1988). The association between client factors and audit fees: A comparison by country and by firm. *Accounting and Business Research, 18*(70), 183-190.

Hausman, J. A. (1978). Specification test in econometrics. *Econometrica, 46*(6), 1251-1271.

Hay, D., & Knechel, W. R. (2010). The effects of advertising and solicitation on audit fees. *Journal of Accounting and Public Policy, 29*, 60-81.

Healy, P. M., Myers, S. C., & Howe, C. D. (2002). R&D accounting and the tradeoff between relevance and objectivity. *Journal of Accounting Research, 40*(3), 677-710.

Hendersen, B. C., & Kaplan, S. E. (2000). An examination of audit report lag for banks: A panel data approach. *Auditing: A Journal of Practice & Theory, 19*(2), 159-174.

Hendriksen, E. S., & Van Breda, M. F. (1992). *Accounting theory* (Fifth ed.): Burr Ridge: Irwin.

Hillison, W., & Pacini, C. (2004). Auditor reputation and insurance hypothesis: The information content of disclosure of financial distress of a major accounting firm. *Journal of Managerial Issues, XVI*(1), 65-86.

Hodgdon, C., Tondkar, R. H., Harless, D. W., & Adhikari, A. (2008). Compliance with IFRS disclosure requirements and individual analyst forecast errors. *Journal of International Accounting, Auditing and Taxation, 17*, 1-13.

Hoitash, R., Hoitash, U., & Bedard, J. C. (2008). Internal control policy and audit pricing under the Sarbanes-Oxley Act. *Auditing: A Journal of Practice & Theory, 27*(1), 105-126.

Hoogendoorn, M. (2006). International accounting regulation and IFRS implementation in Europe and beyond-experiences with first-time adoption in Europe. *Accounting in Europe, 3*, 23-26.

Hope, O., Jin, J., & Kang, T. (2006). Empirical evidence on jurisdictions that Adopt IFRS. *Journal of International Accounting Research, 5*(2), 1-20.

Houston, R. W., Peters, M. F., & Pratt, J. H. (2005). Nonlitigation risk and pricing audit services. *Auditing: A Journal of Practice &Theory, 24*(1), 37-53.

Iman, S., Ahmed, Z. U., & Khan, S. H. (2001). Association of audit delay and audit firms' international links: Evidence from Bangladesh. *Managerial Auditing Journal, 16*(3), 129-133.

Institute of Chartered Accountants in England and Wales. (2007). EU implementations of IFRS and fair value directive: A report for European Commission. (978-1-84152-520-4).

Iyer, V. M., & Iyer, G. (1996). Effect of Big 8 mergers on audit fees: Evidence from the United Kingdom. *Auditing: A Journal of Practice & Theory, 15*(2), 123-137.

Izma, N. (2009). Raising the bar on audit quality and professional behaviour. *Accountants Today, 22*(6), 8-12.

Jackson, A. B., Moldrich, M., & Roebuck, P. (2008). Mandatory audit firm rotation and audit quality. *Managerial Auditing Journal, 23*(5), 420-437.

Jacob, R. A., & Madu, C. N. (2009). International financial reporting standards: An indicator of high quality? *International Journal of Quality & Reliability Management, 26*(7), 712-722.

Jaggi, B., & Tsui, J. (1999). Determinants of audit report lag: Further evidence from Hong Kong. *Accounting and Business Research, 30*(1), 17-28.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics, 3*, 305-360.

Jeong, S. W., Jung, K., & Lee , S. (2005). The effect of mandatory auditor assignment and non-audit service on audit fees: Evidence from Korea. *The International Journal of Accounting, 40*, 233-248.

Ji-hong, L. (2007). On determinants of audit fee: New evidence from China. *Journal of Modern Accounting and Auditing, 3*(4), 60-64.

Johl, S., Jubb, C. A., & Hougton, K. A. (2007). Earnings management and the audit opinion-evidence from Malaysia. *Managerial Auditing Journal, 22*(7), 688-715.

Johnson, E. N., Walker, K. B., & Westergaard, E. (1995). Supplier concentration and pricing of audit services in New Zealand. *Auditing: A Journal of Practice & Theory, 14*(2), 74-89.

Johnson, L. E. (1998). Further evidence on the determinants of local government audit delay. *Journal of Public Budgeting, Accounting and Financial Management, 10*(3), 375-397.

Johnson, L. E., Davies, S. P., & Freeman, R. J. (2002). The effect of seasonal variations in auditor workload on local government audit fees and delay. *Journal of Accounting and Public Policy, 21*, 395-422.

Jones, S., & Higgis, A. D. (2006). Australia's switch to international financial reporting standards: A perspective from account preparers. *Accounting & Finance, 46*, 629-652.

Jones, S., Rahman, S. F., & Wolnizer, P. W. (2004). Accounting reform in Australia: Contrasting cases of building. *Abacus, 40*(3), 379-403.

Joshi, P. L., & AL-Bastaki, H. (2000). Determinants of audit fees: Evidence from the companies listed in Bahrain. *International Journal of Auditing, 4*, 129-138.

Joshi, P. L., Bremser, W. G., & Al-Ajmi, J. (2008). Perception of accounting professionals in the adoption and implementation of a single set of global accounting standards: Evidence from Bahrain. *Advances in Accounting, incorporating Advances in International Accounting, 24*, 41-48.

Jubb, C. A., Houghton, K. A., & Butterworth, S. (1996). Audit fee determinants: The plural nature of risk. *Managerial Auditing Journal, 11*(3), 25-40.

Karim, W., Ahmed, K., & Islam, A. (2006). The effect of regulation on timeliness of corporate financial reporting: Evidence from Bangladesh. *JOAAG, 1*(1), 15-35.

Kasai, N. (2009). The effects of auditor change on audit fees: Empirical evidence from Japan. *Journal of International Business Research, 8*(2), 17-28.

Kaufmann, L., & Schneider, Y. (2004). Intangibles: A synthesis of current research. *Journal of Intellectual Capital, 5*(5), 366-388.

Kealey, B. T., Lee, H. Y., & Stein, M. T. (2007). The association between audit firm tenure and audit fees paid to successor auditors: Evidence from Arthur Andersen. *Auditing: A Journal of Practice & Theory, 26*(2), 95-116.

Keller, S. B. (1986). Reporting timeliness in the presence of subject to qualifications. *Journal of Business Finance & Accounting, 13*(1), 117-124.

Khalil, S., Magnan, M. L., & Cohen, J. R. (2008). Dual-class shares and audit pricing: Evidence from Canadian markets. *Auditing: A Journal of Practice & Theory, 27*(2), 199-216.

Khasharmeh, H. A., & Aljifri, K. (2010). The timeliness of annual reports in Bahrain and the United Arab Emirates: An empirical comparative study. *The International Journal of Business and Finance Research, 4*(1), 51-71.

Killough, L. N., & Koh, H. C. (1991). Projecting the audit fees of government audits contracted to public accounting firms. *The Government Accountant Journal, 40*(2), 65- 73.

King, R. R., & Schwartz, R. (1998). Planning assurance services. *Auditing: A Journal of Practice & Theory, 17*, 9-36.

Kinney, W. R., & McDaniel, L. S. (1993). Audit delay for firms correcting quarterly earnings. *Auditing: A Journal of Practice & Theory, 12*(2), 135-142.

Klein, B., & Laffler, K. B. (1981). The role of market forces in assuring contractual performance. *Journal of Political Economy, 89*(4), 615- 641.

Knechel, W. R., Naiker, V., & Pacheno, G. (2007). Does industry specialization matter? Evidence from market reaction to auditors switches. *Auditing: A Journal of Practice & Theory, 26*(1), 19-45.

Knechel, W. R., & Payne, J. L. (2001). Additional evidence on audit report lag. *Auditing: A Journal of Practice & Theory, 20*(1), 137-146.

Knechel, W. R., & Willekens, M. (2006). The role of risk management and governance in determining audit demand. *Journal of Business Finance & Accounting, 33*(9&10), 1344- 1367.

Krishnan, G., & Schauer, P. (2001). Differences in quality among audit firms. *Journal of Accountancy, 192*(1), 85.

Krishnan, G. V. (2003). Audit quality & pricing discretionary accruals. *Auditing: A Journal of Practice & Theory, 22*(1), 109-126.

Krishnan, J., & Yang, J. S. (2009). Recent trends in audit report and earnings announcement lag. *Accounting Horizons, 23*(3), 265-288.

Kumarasiri, J., & Fisher, R. (2011). Auditors' perceptions of fair-value accounting: Developing country evidence. *International Journal of Auditing, 15*(1), 66-87.

Lawrence, A., Minutti-Meza, M., & Zhang, P. (2011). Can Big 4 versus non-Big 4 differences in audit-quality proxies be attributed to client characteristics? *The Accounting Review, 86*(1), 259-286.

Lawrence, J. E., & Glover, H. D. (1998). The effect of audit firm mergers on audit delay. *Journal of Management Issues, 10*(2), 151-164.

Lazar, J., Choo, H. C., & Arshad, R. (2006). *Financial reporting standards for Malaysia* (First ed.): Mc GrawHill.

Lennox, C. (2005). Management ownership and audit firm size. *Contemporary Accounting Research, 22*(1), 205-227.

Lev, B., & Zarowin, P. (1999). The boundaries of financial reporting and how to extend them. *Journal of Accounting Research, 37*(2), 353-385.

Leventis, S., & Caramanis, C. (2005). Determinants of audit time as a proxy for audit quality. *Managerial Auditing Journal, 20*(5), 460-478.

Leventis, S., Weetman, P., & Caramanis, C. (2005). Determinants of audit report lag: Some evidence from the Athens Stock Exchange. *International Journal of Auditing, 9*, 45-58.

Lhaopadchan, S. (2010). Fair value accounting and intangible assets. *Journal of Financial Regulation and Compliance, 18*(2), 120-130.

Love, V. J., & Eickemeyer, J. H. (2009). FRS and auditor liability. *The CPA Journal, 79,* 54-59.

Low, L. C., Tan, P., & Koh, H. C. (1990). The determination of audit fees: An analysis in the Singapore context. *Journal of Business Finance & Accounting, 17*(2), 285-295.

Maher, M. W., Tiessen, P., Colson, R., & Broman, A. J. (1992). Competition and audit fees. *The Accounting Review, 67*(1), 199-211.

Malaysia Institute of Accountants. (2011). In *By-Laws (On Professional Ethics, Conduct and Practice)* MIA, Kuala Lumpur, Malaysia.

Malaysia Institute of Certified Public Accountants. (2011). Version]. Retrieved 2 April 2011, from http://www.micpa.com.my/micpamember/public/aboutus.asp.

McMeeking, K. P., Peasnell, K. V., & Pope, P. F. (2007). The effect of large audit firm mergers on the audit pricing in the UK. *Accounting and Business Research, 37*(4), 301-319.

Mellett, H., Peel, M. J., & Karbhari, Y. (2007). Audit fees determinants in the UK University sector. *Financial Accountability and Management, 23*(2), 155-188.

Menon, K., & Williams, D. D. (1994). The insurance hypothesis and market prices. *The Accounting Review, 69*(2), 327-342.

Menon, K., & Williams, D. D. (2001). Long term trends in audit fees. *Auditing: A Journal of Practice & Theory, 20*(1), 115-136.

Michalisin, M. D., Kline, M. D., & Smith, R. D. (2000). Intangible strategic assets and firm performance: A multi industry study of the resource-based view. *Journal of Business Strategies, 17*(2), 91-117.

Mintz, S. M. (2011). Ethics, professional judgment, and principles-based decision making under IFRS. *The CPA Journal, 81*(1), 68-72.

Mir, M. Z., & Rahaman, A. S. (2005). The adoption of international accounting standards in Bangladesh: An exploration of rationale and process. *Accounting, Auditing & Accountability Journal, 18*(6), 816-841.

Mitra, S., Deis, D. R., & Hossain, M. (2009). The association between audit fees and reported earnings quality in pre- and post-Sarbanes-Oxley regimes. *Review of Accounting and Finance, 8*(3), 232-252.

Moizer, P., Garcia Benau, M. A., Humphrey, C., & Martinez, A. V. (2004). Corporate image of auditor in developing audit market within the EU: The case of Spain. *European Accounting Review, 13*(3), 561-582.

Murray, P. J. (1998). Complexity theory and the fifth discipline. *Systemic Practice and Action Research, 11*(3), 275-293.

Myrteza, S., & Zhang, M. W. (1996). The determinants of audit fees: Australian perspective. *Asian Review of Accounting, 4*(1), 81-97.

Narayanan, K. S. B. (2008, Aug 28). Awareness about IFRS needs to increase more rapidly. *Businessline*.

Naser, K., & Nuseibeh, R. (2007). Determinants of audit fees: Empirical evidence from emerging economy. *International Journal of Commerce and Management, 17*(3), 239-254.

Nelson, K. K., Price, R. A., & Rountree, B. R. (2008). The market reaction to Arthur Andersen's role in the Enron scandal: Loss of reputation or confounding effects?. *Journal of Accounting and Economics, 46*, 278-293.

Newton, J. D., & Aston, R. H. (1989). The association between audit technology and audit delay. *The association between audit technology and audit delay, 8*, 22-37.

Nikkinen, J., & Sahlstrom, P. (2004). Does agency theory a provide general framework for audit pricing? *International Journal of Auditing, 8*, 253-262.

Nunn, R. J. (2007). Complexity theory applied to itself. *Emergence: Complexity and Organization, 9*(1/2), 93-106.

O’Keefe, T. B., Simunic, D. A., & Stein, M. T. (1994). The production of audit services: Evidence from a major public accounting firms. *Journal of Accounting Research, 32*(2), 241-261.

O'Sullivan, N. (2000). The impact of board composition and ownership on audit quality: Evidence from large UK companies. *British Accounting Review, 32*, 397-414.

Owusu-Ansah, S. (2000). Timeliness of corporate financial reporting in emerging capital markets: Empirical evidence from the Zimbabwe stock exchange. *Accounting and Business Research, 30*(3), 241-254.

Owusu-Ansah, S., & Leventis, S. (2006). Timeliness of corporate annual financial reporting in Greece. *European Accounting Review, 15*(2), 273-287.

Oxera. (2006). *Competition and choice in the UK audit market*. London: Oxera, Consulting.

Paananen, M., & Lin, H. (2009). The development of accounting quality of IAS and IFRS over time: The case of Germany. *Journal of International Accounting Research, 8*(1), 31-55.

Pallant, J. (2001). *SPSS survival manual - A step by step guide to data analysis using SPSS* (First ed.): Open University Press, Buckingham, Philadelphia.

Palmrose, Z. (1986). The effect of non-audit services on the pricing of audit services: Further evidence. *Journal of Accounting Research, 24*(2), 406-411.

Palmrose, Z. (1988). An analysis of auditor litigation and audit service quality. *The Accounting Review, 63*(1), 55-73.

Palmrose, Z. (1989). The relation of audit contract type to audit fees and hours. *The Accounting Review, 64*(3), 488-499.

Payne, J. L., & Jensen, K. L. (2002). An examination of municipal audit delay. *Journal of Accounting and Public Policy, 21*, 1-29.

Pearson, T., & Trompeter, G. (1994). Competition in the market for audit services: The effect of supplier concentration on audit fees. *Contemporary Accounting Research, 11*(1), 115-135.

Peel, M. J., & Roberts, R. (2003). Audit fees determinants and auditor premium: Evidence from micro-firm sub-market. *Accounting and Business Research, 33*(3), 207-233.

Peng, S., Tondkar, R. H., Lan Smith, J., & Harless, D. V. (2008). Does convergence of accounting standards leads to the convergence of accounting practices? A study from China. *The International Journal of Accounting, 43*, 448-468.

Peursem, K. V., & Hauriasi, A. (1999). Auditors' reputation: An analysis of press coverage in New Zealand. *Accounting Forum, 23*(1), 93-108.

Piot, C. (2005). Auditor reputation and model of governance: A comparison of France, Germany and Canada. *International Journal of Auditing, 9*(1), 21-44.

Pong, C. M., & Whittington, G. (1994). The determinants of audit fees: Some empirical models. *Journal of Business Finance & Accounting, 21*(8), 1071-1095.

Pop, A., & Raluca- Iosivan, O. (2008). The pricing of audit services: Evidence from Romania. *Amales Universitatis Apalensis Series Oeconomica, 1*(10), 21-32.

Pratt, J., & Stice, J. D. (1994). The effects of the client characteristics on auditor litigation risk judgments, required audit evidence and recommended audit fees. *The Accounting Review, 69*(4), 639-656.

Sanders, G., Allen, A., & Korte, K. (1995). Municipal audit fees: Has increased competition made a difference? *Auditing: A Journal of Practice & Theory, 14*(1), 105-114.

Saudagaran, S. M., & Diga, J. G. (2000). The institutional environment of financial reporting regulation in ASEAN. *The International Journal of Accounting, 35*(1), 1-26.

Schadewitz, H., & Vieru, M. (2010). Impact of IFRS transition complexity on audit and non-audit fees: Evidence from small and medium-sized listed companies in Finland. *Liiketaloudellinen Aikakauskirja, 1*, 11-41.

Schwartz, K. B., & Menon, K. (1985). Auditor switches and failing firms. *The Accounting Review, 60*(2), 248-261.

Seetharaman, A., Gul, F. A., & Lynn, S. G. (2002). Litigation risk and audit fees: Evidence from UK firms listed on US exchanges. *Journal of Accounting and Economics, 22*(1), 91-115.

Sekaran, U. (1992). *Research method for business* (Second ed.): John Wiley & Sons, Inc.

Shailer, G., Willet, R., Yap, K. L., & Wade, M. (2001). Internalization of perceptions of litigation risk. *Managerial Auditing Journal, 16*(2), 87-102.

Sharma, V. D. (2005). *The effects of independent audit committee member characteristics and independence on financial restatements.* Unpublished doctoral thesis, Griffith University, Australia.

Simon, D. T., & Francis, J. R. (1988). The effects of auditor change on audit fees: Tests of price cutting and price recovery. *The Accounting Review, LXIII*(2), 255-269.

Simon, D. T., Teo, S., & Trompeter, G. (1992). A comparative study of the market for audit services in Hong Kong, Malaysia and Singapore. *The International Journal of Accounting, 27*, 234-240.

Simunic, D. A. (1980). The pricing of audit services: Theory and evidence. *Journal of Accounting Research, 18*(1), 161-190.

Simunic, D. A., & Stein, M. T. (1996). The impact of litigation risk on audit pricing: A review of the economics and the evidence. *Auditing: A Journal of Practice & Theory, 15*, 119-134.

Smith, M. (2008). Are International Financial Reporting Standards (IFRS) an unstoppable juggernaut for US and global financial reporting?. *The Business Review, Cambridge, 10*(1), 25-31.

Soderstrom, N. S., & Sun, K. J. (2007). IFRS adoption and accounting quality: A review. *European Accounting Review, 16*(4), 675-702.

Soltani, B. (2002). Timelines of corporate and audit reports: Some empirical evidence in the French context. *The International Journal of Accounting, 37*, 215-246.

Soule, A. (2008). Big Four dominates big leader. *Fairfield Country Business Journal,* 15.

STATA, C. (2003). *Cross-section-time-series* (Eight ed.). Texas: A Stata Press Publication.

Stent, W., Bradbury, M., & Hooks, J. (2010). IFRS in New Zealand: Effects on financial statements and ratios. *Pacific Accounting Review, 22*(2), 92-107.

Stice, J. D. (1993). Using financial and market information to identify pre-engagement factors associated with the lawsuits against auditors. *The Accounting Review, 66*(3), 516-533.

Stovall, D. C. (2010). Transition to IFRS: What can we learn? *The Business Review, Cambridge, 16*(1), 120-126.

Street, D. L., Gray, S. J., & Bryant, S. M. (1999). Acceptance and observance of international accounting standards: An empirical study of companies claiming to comply with IASs. *The International Journal of Accounting, 34*(1), 11-48.

Susela, S. D. (1999). "Interests" and accounting standard setting in Malaysia. *Accounting, Auditing & Accountability Journal, 12*(3), 358-387.

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics* (Fourth ed.): Pearson Education Company: Allyn and Bacon.

Tanyi, P., Raghunandan, K., & Barua, A. (2010). Audit report lags after voluntary and involuntary auditor changes. *Accounting Horizons, 24*(4), 671–688.

Tarling, R. (2009). *Statistical modelling for social researchers: Principles and practice* (First ed.): Routledge, Taylor and Francis Group.

Taylor, D. W. (2009). Costs-benefits of adoption of IFRSs in countries with different harmonization histories. *Asian Review of Accounting, 17*(1), 40-58.

Taylor, M. H., & Simon, D. T. (1999). Determinants of audit fees: The importance of litigation, disclosure and regulatory burdens in audit engagement in 20 countries. *The International Journal of Accounting, 34*(3), 375-338.

Thomas, J. (2009). Convergence: Businesses and business schools prepare for IFRS. *Issues In Accounting Education, 24*(3), 369–376.

Thornton, D. B., & Moore, G. (1993). Auditor choice and audit fee determinants. *Journal of Business Finance & Accounting, 20*(3), 333-347.

Tollington, T. (2008). The cognitive assumptions underpinning the accounting recognition of assets. *Management Decision, 38*(1/2), 89-98.

Turpen, R. A. (1990). Differential pricing on auditors' initial engagements: Further evidence. *Auditing: A Journal of Practice & Theory, 9*(2), 60-76.

Tyrrall, D., Woodward, D., & Rakhimbekova, A. (2007). The relevance of international financial reporting standards to a developing country: Evidence from Kazakhstan. *The International Journal of Accounting, 42*, 82-110.

Venkataraman, R., Weber, J., & Willenborg, M. (2008). Litigation risk, audit quality and audit fees: Evidence from IPO. *The Accounting Review, 83*(5), 1351-1345.

Wallace, T. D., & Hussain, A. (1969). The use of error components models in combining cross section with time series data. *Econometrica, 37*(1), 55-72.

Wallis, S. E. (2009). The complexity of complexity theory: An innovative analysis. *E:CO, 11*(4), 26-38.

Wang, X., Gu, J., & Chen, W. (2008). Timeliness of annual reports, management disclosure and information transparency: Evidence from China [Electronic Version], from ssrn.com/abstract=1143213.

Wan-Hussin, W. N., Che-Adam, N., Lode, N. A., & Kamardin , H. (2003). Early adoption of MASB 22 (segment reporting) by Malaysian listed companies. *Malaysian Accounting Review, 2*(1), 139-152.

Watkins, A. L., Hillison, W., & Morecroft, S. E. (2004). Audit quality: A synthesis of theory and empirical evidence. *Journal of Accounting Literature, 23*, 153 - 191.

Watts, R. L., & Zimmerman, J. L. (1983). Agency problems, auditing and theory of the firm: Some evidence. *Journal of Law and Economics, 26*(3), 613-633.

Weigelt, K., & Camerer, C. (1988). Reputation and corporate strategy: A review of recent theory and applications. *Strategic Management Journal, 9*(5), 443-454.

Whittred, G. P. (1980). Audit qualification and the timeliness of corporate annual reports. *The Accounting Review, 55*(4), 563-577.

Whittred, G. P., & Zimmer, I. (1984). Timeliness of financial reporting and financial distress timeliness of financial reporting and financial distress. *The Accounting Review, 59*(2), 287-295.

Willenborg, M. (1999). Empirical analysis of the economic demand for auditing in the Initial Public Offerings Market. *Journal of Accounting Research, 37*(1), 225-238.

Wooldridge, J. M. (2002). *Econometric analysis of cross section and panel data* (Second ed.): MIT Press, Cambridge, Massachusetts London England.

Yaacob, N. M. (2002). *The effect of Big 6 merger on audit fees: Evidence from Malaysia*. Unpublished master thesis, Universiti Teknologi MARA, Malaysia.

Yaacob, N. M., & Che-Ahmad, A. (2011). IFRS adoption and audit timeliness: Evidence from Malaysia. *Journal of American Academy of Business, Cambridge, 17*(1), 112-118.

You, H., & Zhang, X. (2011). Limited attention and stock price drift following earnings announcements and 10-K filings. *China Finance Review International, 1*(4), 358-387.

Zeff, S. A. (2007). Some obstacles to the financial reporting comparability and convergence at a high level of quality. *The British Accounting Review, 39*, 290-302.

Zeghal, D., & Mhedhbi, K. (2006). An analysis of the factors affecting the adoption of international accounting standards by developing countries. *The International Journal of Accounting, 41*, 373- 386.

Zeidan, R. M., & Richardson, K. (2010). Complexity theory and the financial crisis: A critical review. *Corporate Finance Review, 14*(6), 10-16.

Zulkarnain, M. S. (2009). Audit market competition: Causes and consequences. *The ICFAI University Journal of Audit Practice, VI*(1), 36-61.

Zulkarnain, M. S., & Shamsher, M. (2008). Governance structure and external audit price: evidence from an emerging economy. *International Journal of Economics and Management, 2*(2), 259-279.

APPENDIX 1A

Constant Variance Regression Results for Audit Fees (n=3,050)

$lnFEE_{it}= \alpha + \beta_1 \mathbf{HVIFRS_{it}} + \beta_2 lnDELAY_{it} + \beta_3 lnSIZE_{it} + \beta_4 CR_{it} + \beta_5 DR_{it} + \beta_6 LOSS_{it} + \beta_7 REC_{it} + \beta_8 INV_{it} + \beta_9 SQSUBS_{it} + \beta_{10} YEND_{it} + \beta_{11} AUDCHG_{it} + \beta_{12} BIG4_{it} + \beta_{13} INDBD_{it} + \beta_{14} BDMTG_{it} + \beta_{15} DUAL_{it} + \beta_{16} SH\text{-}INS_{it} + \beta_{17} SH\text{-}BLOCK_{it} + \beta_{18} INDUST_{it} + a_i + u_{it}$

β_1 **HVIFRS** $_{it}$ = IFRSYR, NUMFRS, FRS138, FRS139, NUMFRS* BIG4, FRS138* BIG4 and FRS139* BIG4; which are tested independently.

Variables	H	Exp Sign	M1 β (t)	M2 β (t)	M3 β (t)	M4 β (t)	M5 β (t)	M6 β (t)	M7 β (t)
Constant			3.507	3.538	3.542	3.458	3.583	3.587	3.457
			(12.13[a])	(12.20[a])	(12.26[a])	(11.94[a])	(12.36[a])	(12.45[a])	(11.94[a])
IFRSYR	H1a	+	0.074						
			(4.65[a])						
NUMFRS	H2a	+		0.005		0.001	0.001		
				(5.73[a])		(0.99)	(0.99)		
FRS138	H3a	+			0.090			0.015	
					(5.64[a])			(0.60)	
FRS139	H4a	+				0.214			0.344
						(2.63[a])			(1.48)
NUMFRS* BIG4	$H6a_i$	+					0.005		
							(3.08[a])		
FRS138* BIG4	$H6a_{ii}$	+						0.114	
								(3.59[a])	
FRS139* BIG4	$H6a_{iii}$	+							-0.160
									(-0.65)
lnDELAY	H5	+	0.035	0.032	0.033	0.033	0.033	0.033	0.041
			(1.00)	(0.93)	(0.95)	(0.95)	(0.95)	(0.96)	(1.19)
lnSIZE		+	0.338	0.337	0.337	0.337	0.337	0.337	0.340
			(32.11[a])	(32.01[a])	(32.02[a])	(31.97[a])	(31.97[a])	(32.02[a])	(32.26[a])
CR		-	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009
			(-5.24[a])	(-5.18[a])	(-5. 05[a])	(-5.33[a])	(-5.33[a])	(-5.21[a])	(-5.35[a])
DR		+	0.148	0.148	0.147	0.146	0.146	0.144	0.146
			(5.54[a])	(5.57[a])	(5.52[a])	(5.46[a])	(5.46[a])	(5.40[a])	(5.51[a])
LOSS		+	-0.022	-0.022	-0.021	-0.021	-0.021	-0.020	-0.024
			(-1.09)	(-1.11)	(-1.04)	(-1.05)	(-1.05)	(-0.98)	(-1.19)
REC		+	0.725	0.727	0.727	0.723	0.723	0.723	0.718
			(10.57[a])	(10.63[a])	(10.58[a])	(10.59[a])	(10.59[a])	(10.55[a])	(10.47[a])
INV		+	0.713	0.707	0.705	0.706	0.706	0.704	0.731
			(9.62[a])	(9.54[a])	(9.51[a])	(9.51[a])	(9.51[a])	(9.50[a])	(9.81[a])
SQSUBS		+	0.212	0. 212	0. 212	0. 212	0. 212	0. 212	0. 212
			(34.04[a])	(34.06[a])	(34.04[a])	(34.20[a])	(34.20[a])	(34.19[a])	(33.85[a])
YEND		+	-0.018	-0.018	-0.017	-0.018	-0.018	-0.018	-0.006
			(-1.01)	(-1.03)	(-0.99)	(-1.04)	(-1.04)	(-1.06)	(-0.36)
AUDCHG		-	0.030	0.027	0.028	0.038	0.038	0.039	0.047
			(0.73)	(0.65)	(0.68)	(0.91)	(0.91)	(0.93)	(1.10)
BIG4		+	0.185	0.184	0.182	0.184	0.136	0.131	0.185
			(11.39[a])	(11.31[a])	(11.19[a])	(11.31[a])	(6.10[a])	(6.06[a])	(11.33[a])

Constant Variance Regression Results for Audit Fees (n=3,050) (continued)

Variables	H	Exp Sign	M1 β (t)	M2 β (t)	M3 β (t)	M4 β (t)	M5 β (t)	M6 β (t)	M7 β (t)
INDBD		+	0.204	0.193	0.194	0.231	0.193	0.196	0.233
			(1.86[c])	(1.73 [c])	(1.77 [c])	(2.13[b])	(1.74 [c])	(1.80 [c])	(2.14 [b])
BDMTG		+	0.017	0.017	0.018	0.018	0.017	0.017	0.018
			(3.97[a])	(3.94[a])	(3.97[a])	(4.12[a])	(3.87[a])	(3.94[a])	(4.11[a])
DUAL		+	-0.034	-0.035	-0.035	-0.034	-0.035	-0.035	-0.034
			(-1.98[b])	(-2.02[b])	(-2.02[b])	(-1.93[c])	(-2.01[b])	(-2.00[b])	(-1.93[c])
SH-INS		-	-0.001	-0.001	-0.001	-0.002	-0.001	-0.001	-0.001
			(-1.13)	(-1.61)	(-1.23)	(-1.26)	(-1.21)	(-1.22)	(-1.28)
SH-BLOCK		-	0.0001	0.0001	0.0001	0.00005	0.0001	0.0001	0.0001
			(0.35)	(0.36)	(0.38)	(0.10)	(0.27)	(0.26)	(0.12)
INDUST		+	0.035	0.035	0.033	0.035	0.034	0.034	0.034
			(2.03[b])	(2.01[b])	(1.89[c])	(2.01[b])	(2.00[b])	(1.96[b])	(2.00[b])
R Square			0.7755	0.7764	0.7763	0.7744	0.7770	0.7771	0.7745
F-Ratio			408.03	409.37	409.28	412.15	390.47	390.80	389.77
Significant F			0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: The coefficient values are presented with the t-statistics in the parenthesis; significant at [a]1%, [b]5% and [c]10%; the significance of the p-value is arrived at based on robust standard errors; probabilities represent one-tailed when the direction of the coefficient is consistent with expectations; IFRSYR (M1), NUMFRS(M2), FRS138(M3), FRS139(M4), NUMFRS* BIG4(M5), FRS138* BIG4(M6) and FRS139* BIG4(M7).

Variable definitions:

InFEE	=	natural log of external audit fees
α	=	an intercept term, a constant
β	=	a regression slope coefficient
HVIFRS	=	hypotheses variables (tested independently)
IFRSYR	=	post-IFRS adoption period (code 1 for data after IFRS adoption, 0 before IFRS adoption)
NUMFRS	=	number of IFRS adopted
FRS138	=	FRS 138 adoption (code 1 if FRS 138 was adopted, 0 otherwise)
FRS139	=	FRS 139 voluntary adoption (code 1 if FRS 139 has been adopted, 0 otherwise)
NUMFRS*BIG4	=	interaction between number of IFRS adopted and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
FRS138*BIG4	=	interaction between FRS 138 adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
FRS139*BIG4	=	interaction between FRS 139 voluntary adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
InDELAY	=	natural log of the length of time between the company's financial year-end and the date of auditor's report
InSIZE	=	natural log of total assets
CR	=	ratio of current assets to current liabilities
DR	=	ratio of total debts to total assets
LOSS	=	current year income (code 1 if company suffering losses, 0 otherwise)
REC	=	ratio of accounts receivable to total assets
INV	=	ratio of inventories to total assets
SQSUBS	=	square root of the number of subsidiaries operated by clients
YEND	=	month fiscal year end (code 1 if the company fiscal year end in between 31 December until 31 March, 0 otherwise)
AUDCHG	=	change of auditor variable (code 1 for new auditor, 0 otherwise)
BIG4	=	firm's auditor (code 1 if client audited by Big 4, 0 otherwise)
INDBD	=	proportion of independent directors on the board
BDMTG	=	number of board meetings in a year
DUAL	=	CEO duality (code 1 if CEO is also chairman of the board, 0 otherwise)

SH-INS	=	percentage of shares owned by non-independent directors
SH-BLOCK	=	percentage of shares owned by independent blockholders (> 5% shares)
INDUST	=	industry effect (code 1 if the company is under technology, consumer and construction industry, 0 otherwise)
a_i	=	unobserved company level effect
u_{it}	=	disturbance term

APPENDIX 1B

Random Effects Regression Results for Audit Fees (n=3,050)

$$\ln FEE_{it} = \alpha + \beta_1 \mathbf{HVIFRS_{it}} + \beta_2 \ln DELAY_{it} + \beta_3 \ln SIZE_{it} + \beta_4 CR_{it} + \beta_5 DR_{it} + \beta_6 LOSS_{it} + \beta_7 REC_{it} + \beta_8 INV_{it} + \beta_9 SQSUBS_{it} + \beta_{10} YEND_{it} + \beta_{11} AUDCHG_{it} + \beta_{12} BIG4_{it} + \beta_{13} INDBD_{it} + \beta_{14} BDMTG_{it} + \beta_{15} DUAL_{it} + \beta_{16} SH\text{-}INS_{it} + \beta_{17} SH\text{-}BLOCK_{it} + \beta_{18} INDUST_{it} + a_i + u_{it}$$

β_1 **HVIFRS** $_{it}$ = IFRSYR, NUMFRS, FRS138, FRS139, NUMFRS* BIG4, FRS138* BIG4 and FRS139* BIG4; which are tested independently.

Variables	H	Exp Sign	M1 β (t)	M2 β (t)	M3 β (t)	M4 β (t)	M5 β (t)	M6 β (t)	M7 β (t)
Constant			2.579	2.631	2.556	2.286	2.680	2.614	2.261
			(6.16[a])	(6.30 [a])	(6.14[a])	(5.40[a])	(6.42[a])	(6.28[a])	(5.33[a])
IFRSYR	H1a	+	0.061						
			(6.93[a])						
NUMFRS	H2a	+		0.003			0.001		
				(7.30 [a])			(0.73)		
FRS138	H3a	+			0.061			-0.004	
					(6.71[a])			(-0.26)	
FRS139	H4a	+				0.058			0.267
						(0.77)			(1.33)
NUMFRS* BIG4	H6a$_i$	+					0.004		
							(5.06[a])		
FRS138* BIG4	H6a$_{ii}$	+						0.099	
								(5.84[a])	
FRS139 * BIG4	H6a$_{iii}$	+							-0.293
									(-1.41)
lnDELAY	H5	+	0.143	0.140	0.145	0.162	0.142	0.147	0.162
			(4.17[a])	(4.09[a])	(4.22[a])	(4.67[a])	(4.13[a])	(4.26[a])	(4.67[a])
lnSIZE		+	0.376	0.375	0.337	0.387	0.374	0.376	0.388
			(17.89[a])	(17.93[a])	(18.05[a])	(18.02[a])	(17.91[a])	(18.04[a])	(18.03[a])
CR		-	-0.007	-0.007	-0.007	-0.007	-0.007	-0.007	-0.007
			(-3.36[a])	(-3.37[a])	(-3.38[a])	(-3.31[a])	(-3.57[a])	(-3.56[a])	(-3.22[a])
DR		+	0.082	0.081	0.082	0.085	0.079	0.078	0.085
			(3.67[a])	(3.65[a])	(3.70[a])	(3.78[a])	(3.55[a])	(3.56[a])	(3.79[a])
LOSS		+	0.037	0.036	0.036	0.351	0.038	0.038	0.035
			(2.64[a])	(2.58 [a])	(2.59[a])	(2.49[b])	(2.70[a])	(2.73[a])	(2.51[b])
REC		+	0.304	0.315	0.312	0.287	0.307	0.296	0.288
			(3.84[a])	(3.98[a])	(3.94[a])	(3.63[a])	(3.89[a])	(3.79[a])	(3.64[a])
INV		+	0.626	0.619	0.626	0.654	0.622	0.629	0.655
			(4.47[a])	(4.41 [a])	(4.49[a])	(4.59[a])	(4.47 [a])	(4.56 [a])	(4.60[a])
SQSUBS		+	0.175	0. 174	0.174	0.177	0.174	0.174	0.177
			(11.64[a])	(11.65[a])	(11.67[a])	(11.60[a])	(11.73[a])	(11.76[a])	(11.59[a])
YEND		+	-0.015	-0.014	-0.013	-0.006	-0.015	-0.014	-0.005
			(-0.43)	(-0.42)	(-0.39)	(-0.18)	(-0.42)	(-0.41)	(-0.16)
AUDCHG		-	-0.020	-0.021	-0.019	-0.004	-0.012	-0.011	-0.006
			(-0.66)	(-0.69)	(-0.61)	(-0.14)	(-0.40)	(-0.36)	(-0.20)
BIG4		+	0.146	0.147	0.143	0.139	0.100	0.093	0.139
			(6.12[a])	(6.19[a])	(5.95[a])	(5.79[a])	(3.90[a])	(3.92[a])	(5.78[a])

Random Effects Regression Results for Audit Fees (n=3,050) (continued)

Variables	H	Exp Sign	M1 β (t)	M2 β (t)	M3 β (t)	M4 β (t)	M5 β (t)	M6 β (t)	M7 β (t)
INDBD		+	0.357	0.343	0.360	0.419	0.340	0.354	0.425
			(3.31[a])	(3.08[a])	(3.37[a])	(4.15[a])	(3.08[a])	(3.34[a])	(4.26[a])
BDMTG		+	0.0003	0.0003	0.0003	0.001	0.0002	0.0005	0.0005
			(0.08)	(0.07)	(0.07)	(0.16)	(0.06)	(0.11)	(0.12)
DUAL		+	-0.033	-0.034	-0.034	-0.035	-0.033	-0.033	-0.035
			(-1.67)	(-1.70[c])	(-1.72[c])	(-1.78[c])	(-1.70[c])	(-1.70[c])	(-1.77[c])
SH-INS		-	-0.001	-0.001	-0.001	-0.002	-0.002	-0.002	-0.002
			(-1.88[c])	(-1.97[b])	(-1.92[c])	(-2.10[c])	(-2.10[b])	(-2.05[b])	(-2.04[b])
SH-BLOCK		-	-0.001	0.001	0.001	-0.001	-0.001	-0.001	0.001
			(-1.20)	(-1.26)	(-1.22)	(-1.61)	(-1.25)	(-1.24)	(-1.54)
INDUST		+	0.059	0.058	0.057	0.063	0.057	0.057	0.063
			(1.81[c])	(1.79[c])	(1.76[c])	(1.93[b])	(1.76[c])	(1.77[c])	(1.92[c])
R Square			0.7647	0.7658	0.7654	0.7626	0.7662	0.7660	0.7623
Wald-Ratio			2183.71	2192.94	2199.94	2055.48	2189.36	2199.21	2050.35
Significant Wald			0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: The coefficient values are presented with the t-statistics in the parenthesis; significant at [a]1%, [b]5% and [c]10%; the significance of the p-value is arrived at based on robust standard errors; probabilities represent one-tailed when the direction of the coefficient is consistent with expectations; IFRSYR(M1),NUMFRS(M2), FRS138(M3), FRS139(M4), NUMFRS* BIG4(M5), FRS138* BIG4(M6) and FRS139* BIG4(M7).

Variable definitions:

InFEE	=	natural log of external audit fees
α	=	an intercept term, a constant
β	=	a regression slope coefficient
HVIFRS	=	hypotheses variables (tested independently)
IFRSYR	=	post-IFRS adoption period (code 1 for data after IFRS adoption, 0 before IFRS adoption)
NUMFRS	=	number of IFRS adopted
FRS138	=	FRS 138 adoption (code 1 if FRS 138 was adopted, 0 otherwise)
FRS139	=	FRS 139 voluntary adoption (code 1 if FRS 139 has been adopted, 0 otherwise)
NUMFRS*BIG4	=	interaction between number of IFRS adopted and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
FRS138*BIG4	=	interaction between FRS 138 adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
FRS139*BIG4	=	interaction between FRS 139 voluntary adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
InDELAY	=	natural log of the length of time between the company's financial year-end and the date of auditor's report
InSIZE	=	natural log of total assets
CR	=	ratio of current assets to current liabilities
DR	=	ratio of total debts to total assets
LOSS	=	current year income (code 1 if company suffering losses, 0 otherwise)
REC	=	ratio of accounts receivable to total assets
INV	=	ratio of inventories to total assets
SQSUBS	=	square root of the number of subsidiaries operated by clients
YEND	=	month fiscal year end (code 1 if the company fiscal year end in between 31 December until 31 March, 0 otherwise)
AUDCHG	=	change of auditor variable (code 1 for new auditor, 0 otherwise)
BIG4	=	firm's auditor (code 1 if client audited by Big 4, 0 otherwise)
INDBD	=	proportion of independent directors on the board

BDMTG	=	number of board meetings in a year
DUAL	=	CEO duality (code 1 if CEO is also chairman of the board, 0 otherwise)
SH-INS	=	percentage of shares owned by non-independent directors
SH-BLOCK	=	percentage of shares owned by independent blockholders (> 5% shares)
INDUST	=	industry effect (code 1 if the company is under technology, consumer and construction industry, 0 otherwise)
a_i	=	unobserved company level effect
u_{it}	=	disturbance term

APPENDIX 2A

Constant Variance Regression Results for Audit Delay (n=3,050)

$$\ln DELAY_{it} = \alpha + \beta_1 \mathbf{HVIFRS_{it}} + \beta_2 \ln SIZE_{it} + \beta_3 LEVERAGE_{it} + \beta_4 LOSS_{it} + \beta_5 QUALIFIED_{it} + \beta_6 SQSUBS_{it} + \beta_7 YEND_{it} + \beta_8 AUDCHG_{it} + \beta_9 BIG4_{it} + \beta_{10} INDBD_{it} + \beta_{11} DUAL_{it} + \beta_{12} SH\text{-}INS_{it} + \beta_{13} SH\text{-}BLOCK_{it} + \beta_{14} INDUST_{it} + a_i + u_{it}$$

β_1 **HVIFRS** $_{it}$ = IFRSYR, NUMFRS, FRS138, FRS139, NUMFRS* BIG4, FRS138* BIG4 and FRS139* BIG4; which are tested independently.

Variables	H	Exp Sign	M1 β (t)	M 2 β (t)	M 3 β (t)	M 4 β (t)	M 5 β (t)	M6 β (t)	M7 β (t)
Constant			5.599 (58.19[a])	5.602 (58.18[a])	5.606 (58.18[a])	5.592 (58.03[a])	5.600 (57.88[a])	5.604 (57.96[a])	5.592 (58.03[a])
IFRSYR	H1b	+	0.030 (3.15[a])						
NUMFRS	H2b	+		0.002 (3.31[a])			0.002 (2.66[a])		
FRS138	H3b	+			0.030 (3.14[a])			0.0322 (2.26[b])	
FRS139	H4b	+				0.013 (0.36)			0.076 (1.21)
NUMFRS* BIG4	$H6b_i$	-					-0.001 (-0.59)		
FRS138* BIG4	$H6b_{ii}$	-						-0.004 (-0.21)	
FRS139 * BIG4	$H6b_{iii}$	-							-0.077 (-1.03)
SIZE		-	-0.059 (-11.17[a])	-0.059 (-11.19[a])	-0.059 (-11.18[a])	-0.058 (-10.99[a])	-0.059 (-11.17[a])	-0.059 (-11.18[a])	-0.058 (-11.00[a])
LEVERAGE		+	0.064 (2.35[b])	0.064 (2.36[b])	0.064 (2.34[b])	0.064 (2.32[b])	0.064 (2.37[b])	0.064 (2.34[b])	0.064 (2.32[b])
LOSS		+	0.081 (7.32[a])	0.081 (7.31[a])	0.081 (7.33[a])	0.080 (7.27[a])	0.080 (7.30[a])	0.081 (7.33[a])	0.080 (7.25[a])
QUALIFIED		+	0.136 (2.67[a])	0.134 (2.63[a])	0.134 (2.63[a])	0.142 (2.77[a])	0.135 (2.64[a])	0.135 (2.63[a])	0.142 (2.78[a])
SQSUBS		+	0.030 (8.91[a])	0.030 (8.86[a])	0.030 (8.82[a])	0.030 (8.86[a])	0.030 (8.85[a])	0.030 (8.82[a])	0.030 (8.86[a])
YEND		+	0.049 (4.38[a])	0.049 (4.44[a])	0.050 (4.49[a])	0.053 (4.83[a])	0.050 (4.44[a])	0.050 (4.49[a])	0.053 (4.84[a])
AUDCHG		+	0.031 (1.19)	0.031 (1.19)	0.032 (1.21)	0.038 (1.46)	0.030 (1.14)	0.031 (1.20)	0.038 (1.44)
BIG4		-	-0.050 (-5.14[a])	-0.050 (-5.21[a])	-0.051 (-5.27[a])	-0.050 (-5.19[a])	-0.045 (-3.26[a])	-0.049 (-3.67[a])	-0.050 (-5.14[a])
INDBD		-	-0.016 (-0.35)	-0.018 (-0.38)	-0.017 (-0.36)	-0.004 (-0.08)	-0.018 (-0.38)	-0.017 (-0.36)	-0.003 (-0.07)
DUAL		?	0.024 (2.27[b])	0.024 (2.25[b])	0.024 (2.26[b])	0.024 (2.26[b])	0.024 (2.25[b])	0.024 (2.26[b])	0.024 (2.26[b])
SH-INS		?	0.001 (2.55[b])	0.001 (2.51[b])	0.001 (2.47[b])	0.001 (2.50[b])	0.001 (2.52[b])	0.001 (2.47[b])	0.001 (2.49[b])
SH-BLOCK		-	-0.001 (-4.44[a])	-0.001 (-4.45[a])	-0.001 (-4.45[a])	-0.001 (-4.52[a])	-0.001 (-4.43[a])	-0.001 (-4.44[a])	-0.001 (-4.50[a])
INDUST		+	-0.028 (-2.55[b])	-0.028 (-2.56[b])	-0.029 (-2.62[b])	-0.028 (-2.53[b])	-0.028 (-2.55[b])	-0.029 (-2.62[a])	-0.028 (-2.54[b])

Constant Variance Regression Results for Audit Delay (n=3,050) (continued)

Variables	H	Exp Sign	M1 β (t)	M 2 β (t)	M 3 β (t)	M 4 β (t)	M 5 β (t)	M6 β (t)	M7 β (t)
R Square			0.1782	0.1784	0.1782	0.1756	0.1785	0.1782	0.1757
F-Ratio			41.18	41.28	40.79	40.32	38.70	38.09	37.89
Significant F			0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: The coefficient values are presented with the t-statistics in the parenthesis; significant at [a]1%, [b]5% and [c]10%; the significance of the p-value is arrived at based on robust standard errors; probabilities represent one-tailed when the direction of the coefficient is consistent with expectations; IFRSYR(M1), NUMFRS(M2), FRS138(M3), FRS139(M4), NUMFRS* BIG4(M5), FRS138* BIG4(M6) and FRS139* BIG4(M7).

Variable definitions:

InDELAY	=	natural log of the length of time between the company's financial year-end and the date of auditor's report
α	=	an intercept term, a constant
β	=	a regression slope coefficient
HVIFRS	=	hypotheses variables (tested independently)
IFRSYR	=	post-IFRS adoption period (code 1 for data after IFRS adoption, 0 before IFRS adoption)
NUMFRS	=	number of IFRS adopted
FRS138	=	FRS 138 adoption (code 1 if FRS 138 was adopted, 0 otherwise)
FRS139	=	FRS 139 voluntary adoption (code 1 if FRS 139 has been adopted, 0 otherwise)
NUMFRS*BIG4	=	interaction between number of IFRS adopted and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
FRS138*BIG4	=	interaction between FRS 138 adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
FRS139*BIG4	=	interaction between FRS 139 voluntary adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
InSIZE	=	natural log of total assets
LEVERAGE	=	ratio of total debts to total assets
LOSS	=	current year income (code 1 if company suffering losses, 0 otherwise)
QUALIFIED	=	audit opinion (code 1 if the company received going concern opinion, 0 otherwise)
SQSUBS	=	square root of the number of subsidiaries operated by clients
YEND	=	month fiscal year end (code 1 if the company fiscal year end in between 31 December until 31 March, 0 otherwise)
AUDCHG	=	change of auditor variable (code 1 for new auditor, 0 otherwise)
BIG4	=	firm's auditor (code 1 if client audited by Big 4, 0 otherwise)
INDBD	=	proportion of independent directors on the board
DUAL	=	CEO duality (code 1 if CEO is also chairman of the board, 0 otherwise)
SH-INS	=	percentage of shares owned by non-independent directors
SH-BLOCK	=	percentage of shares owned by independent blockholders (> 5% shares)
INDUST	=	industry effect (code 1 if the company is under technology, consumer and construction industry, 0 otherwise)
a_i	=	unobserved company level effect
u_{it}	=	disturbance term

APPENDIX 2B

Random Effects Regression Results for Audit Delay (n=3,050)

$\text{InDELAY}_{it} = \alpha + \beta_1\mathbf{HVIFRS_{it}} + \beta_2\text{InSIZE}_{it} + \beta_3\text{LEVERAGE}_{it} + \beta_4\text{LOSS}_{it} + \beta_5\text{QUALIFIED}_{it} + \beta_6\text{SQSUBS}_{it} + \beta_7\text{YEND}_{it} + \beta_8\text{AUDCHG}_{it} + \beta_9\text{BIG4}_{it} + \beta_{10}\text{INDBD}_{it} + \beta_{11}\text{DUAL}_{it} + \beta_{12}\text{SH-INS}_{it} + \beta_{13}\text{SH-BLOCK}_{it} + \beta_{14}\text{INDUST}_{it} + a_i + u_{it}$

β_1 **HVIFRS $_{it}$** = IFRSYR, NUMFRS, FRS138, FRS139, NUMFRS* BIG4, FRS138* BIG4 and FRS139* BIG4; which are tested independently.

Variables	H	Exp Sign	M1 β (t)	M 2 β (t)	M 3 β (t)	M 4 β (t)	M 5 β (t)	M6 β (t)	M7 β (t)
Constant			5.302 (36.56[a])	5.312 (36.47[a])	5.293 (36.6[a])	5.220 (36.1[a])	5.305 (36.41[a])	5.288 (36.52[a])	5.217 (36.01[a])
IFRSYR	H1b	+	0.029 (5.22[a])						
NUMFRS	H2b	+		0.001 (5.39[a])			0.002 (3.99[a])		
FRS138	H3b	+			0.027 (4.84[a])			0.033 (3.55[a])	
FRS139	H4b	+				0.002 (0.09)			0.031 (1.22)
NUMFRS* BIG4	$H6b_i$	-					-0.001 (-0.89)		
FRS138* BIG4	$H6b_{ii}$	-						-0.001 (-0.76)	
FRS139* BIG4	$H6b_{iii}$	-							-0.039 (-0.83)
SIZE		-	-0.043 (-5.60[a])	-0.044 (-5.63[a])	-0.043 (-5.54[a])	-0.039 (-5.05[a])	-0.043 (-5.61[a])	-0.043 (-5.52[a])	-0.039 (-5.03[a])
LEVERAGE		+	0.001 (0.07)	0.001 (0.08)	0.002 (0.09[c])	0.001 (0.08)	0.002 (0.09)	0.002 (0.10)	0.001 (0.08)
LOSS		+	0.052 (5.93[a])	0.052 (5.86[a])	0.052 (5.90[a])	0.052 (5.90[a])	0.052 (5.84[a])	0.052 (5.88[a])	0.052 (5.90[a])
QUALIFIED		+	0.136 (2.90[a])	0.133 (2.84[a])	0.136 (2.89[a])	0.145 (3.08[a])	0.134 (2.87[a])	0.136 (2.90[a])	0.145 (3.08[a])
SQSUBS		+	0.024 (5.41[a])	0.024 (5.36[a])	0.024 (5.37[a])	0.025 (5.54[a])	0.024 (5.36[a])	0.024 (5.37[a])	0.025 (5.53[a])
YEND		+	0.046 (2.22[b])	0.047 (2.24[b])	0.047 (2.28[b])	0.051 (2.44[b])	0.047 (2.24[b])	0.047 (2.28[b])	0.051 (2.44[b])
AUDCHG		+	0.009 (0.42)	0.009 (0.43)	0.010 (0.49)	0.016 (0.79)	0.008 (0.38)	0.009 (0.45)	0.016 (0.78)
BIG4		-	-0.043 (-3.32[a])	-0.043 (-3.31[a])	-0.045 (-3.47[a])	-0.047 (-3.60[a])	-0.037 (-2.51[b])	-0.040 (-2.78[a])	-0.046 (-3.59[a])
INDBD		-	0.045 (1.21)	0.041 (1.09)	0.048 (1.33)	0.075 (2.13[b])	0.041 (1.10)	0.049 (1.34)	0.076 (2.15[b])
DUAL		?	0.011 (0.80)	0.010 (0.78)	0.010 (0.77)	0.010 (0.74)	0.010 (0.77)	0.010 (0.76)	0.010 (0.73)
SH-INS		?	0.001 (1.45)	0.001 (1.38)	0.001 (1.42)	0.001 (1.32)	0.001 (1.39)	0.001 (1.43)	0.001 (1.33)
SH-BLOCK		-	-0.001 (-2.19[b])	-0.001 (-2.25[b])	-0.001 (-2.23[b])	-0.001 (-2.50[b])	-0.001 (-2.25[b])	-0.001 (-2.23[b])	-0.001 (-2.48[b])
INDUST		+	-0.025 (-1.21)	-0.025 (-1.22)	-0.026 (-1.24)	-0.023 (-1.14)	-0.025 (-1.21)	-0.026 (-1.24)	-0.023 (-1.14)

Random Effects Regression Results for Audit Delay (n=3,050) (continued)

Variables	H	Exp Sign	M1 β (t)	M 2 β (t)	M 3 β (t)	M 4 β (t)	M 5 β (t)	M6 β (t)	M7 β (t)
R Square			0.1708	0.1711	0.1706	0.1659	0.1712	0.1706	0.1660
Wald-Ratio			209.54	209.36	203.66	171.95	209.58	203.44	177.47
Significant Wald			0.000	0.000	0.000	0.000	0.000	0.000	0.000

Notes: The coefficient values are presented with the t-statistics in the parenthesis; significant at [a]1%, [b]5% and [c]10%; the significance of the p-value is arrived at based on robust standard errors; probabilities represent one-tailed when the direction of the coefficient is consistent with expectations; IFRSYR(M1),NUMFRS(M2), FRS138(M3), FRS139(M4), NUMFRS* BIG4(M5), FRS138* BIG4(M6) and FRS139* BIG4(M7).

Variable definitions:

lnDELAY	=	natural log of the length of time between the company's financial year-end and the date of auditor's report
α	=	an intercept term, a constant
β	=	a regression slope coefficient
HVIFRS	=	hypotheses variables (tested independently)
IFRSYR	=	post-IFRS adoption period (code 1 for data after IFRS adoption, 0 before IFRS adoption)
NUMFRS	=	number of IFRS adopted
FRS138	=	FRS 138 adoption (code 1 if FRS 138 was adopted, 0 otherwise)
FRS139	=	FRS 139 voluntary adoption (code 1 if FRS 139 has been adopted, 0 otherwise)
NUMFRS*BIG4	=	interaction between number of IFRS adopted and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
FRS138*BIG4	=	interaction between FRS 138 adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
FRS139*BIG4	=	interaction between FRS 139 voluntary adoption and Big 4 auditor (code 1 when interaction exists, 0 otherwise)
lnSIZE	=	natural log of total assets
LEVERAGE	=	ratio of total debts to total assets
LOSS	=	current year income (code 1 if company suffering losses, 0 otherwise)
QUALIFIED	=	audit opinion (code 1 if the company received going concern opinion, 0 otherwise)
SQSUBS	=	square root of the number of subsidiaries operated by clients
YEND	=	month fiscal year end (code 1 if the company fiscal year end in between 31 December until 31 March, 0 otherwise)
AUDCHG	=	change of auditor variable (code 1 for new auditor, 0 otherwise)
BIG4	=	firm's auditor (code 1 if client audited by Big 4, 0 otherwise)
INDBD	=	proportion of independent directors on the board
DUAL	=	CEO duality (code 1 if CEO is also chairman of the board, 0 otherwise)
SH-INS	=	percentage of shares owned by non-independent directors
SH-BLOCK	=	percentage of shares owned by independent blockholders (> 5% shares)
INDUST	=	industry effect (code 1 if the company is under technology, consumer and construction industry, 0 otherwise)
a_i	=	unobserved company level effect
u_{it}	=	disturbance term

APPENDIX 3
LIST OF COMPANIES ACCORDING TO SECTORS

CONSTRUCTION

1	ACP INDUSTRIES BERHAD		21	LOH & LOH CORPORATION BERHAD
2	AHMAD ZAKI RESOURCES BERHAD		22	MALAYSIAN RESOURCES CORPORATION BERHAD
3	BINA GOODYEAR BERHAD		23	MERGE ENERGY BHD
4	BINA PURI HOLDINGS BHD		24	MUDAJAYA GROUP BERHAD
5	BREM HOLDING BERHAD		25	MUHIBBAH ENGINEERING (M) BHD
6	CREST BUILDER HOLDINGS BERHAD		26	NAM FATT CORPORATION BERHAD
7	DKLS INDUSTRIES BHD		27	PECD BERHAD
8	FAJAR BARU CAPITAL BHD/FAJARBARU BUILDER GRP BHD		28	PILECON ENGINEERING BERHAD
9	GADANG HOLDINGS BHD		29	PINTARAS JAYA BHD
10	GAMUDA BERHAD		30	PLB ENGINEERING BERHAD
11	GENERAL CORPORATION BERHAD		31	PRINSIPTEK CORPORATION BERHAD
12	HO HUP CONSTRUCTION COMPANY BHD		32	PROTASCO BERHAD
13	HOCK SENG LEE BERHAD		33	RANHILL BERHAD
14	IREKA CORPORATION BERHAD		34	SELOGA HOLDINGS BERHAD
15	ISYODA CORPORATION BERHAD		35	SPK-SENTOSA CORPORATION BERHAD
16	JAKS RESOURCES BERHAD		36	TRC SYNERGY BERHAD
17	KEN HOLDINGS BERHAD		37	TSR CAPITAL BERHAD
18	KUMPULAN EUROPLUS BERHAD		38	WCT ENGINEERING BERHAD
19	KUMPULAN JETSON BERHAD		39	YTL CORPORATION BERHAD
20	LEBAR DAUN BERHAD		40	ZECON ENGINEERING BERHAD

PLANTATION

1	ASIATIC DEVELOPMENT BERHAD		17	KWANTAS CORPORATION BERHAD
2	ASTRAL ASIA BERHAD		18	MALPAC HOLDINGS BERHAD
3	BATU KAWAN BERHAD		19	MHC PLANTATIONS BHD
4	BLD PLANTATION BHD		20	MULTI VEST RESOURCES BERHAD
5	BOUSTEAD HOLDINGS BERHAD		21	MYCOM BERHAD/DUTALAND BHD
6	CHIN TECK PLANTATIONS BERHAD		22	NEGRI SEMBILAN OIL PALMS BERHAD
7	FAR EAST HOLDINGS BERHAD		23	NPC RESOURCES BERHAD
8	GLENEALY PLANTATIONS (MALAYA) BERHAD		24	PEMBINAAN LIMBONGAN SETIA BERHAD
9	HARN LEN CORPORATION BHD		25	RIVERVIEW RUBBER ESTATES BERHAD
10	IOI CORPORATION BERHAD		26	SARAWAK OIL PALMS BERHAD
11	KIM LOONG RESOURCES BERHAD		27	TDM BERHAD
12	KLUANG RUBBER COMPANY (MALAYA) BERHAD		28	SUNGEI BAGAN RUBBER COMPANY (MALAYA) BERHAD
13	KRETAM HOLDINGS BERHAD		29	TSH RESOURCES BERHAD
14	KUALA LUMPUR KEPONG BERHAD		30	UNICO-DESA PLANTATIONS BERHAD
15	KULIM (MALAYSIA) BERHAD		31	UNITED MALACCA BERHAD
16	KURNIA SETIA BERHAD		32	UNITED PLANTATIONS BERHAD

CONSUMER PRODUCTS

1	ACOUSTECH BHD	36	G. A. BLUE INTERNATIONAL BHD/SEQUOIA HOLDINGS BHD
2	AJINOMOTO (MALAYSIA) BERHAD	37	GOLDEN PHAROS BERHAD
3	AMTEK HOLDINGS BERHAD	38	GOLDIS BERHAD
4	APEX HEALTHCARE BERHAD	39	GUINNESS ANCHOR BHD
5	APOLLO FOOD HOLDINGS BERHAD	40	HI-CITY BIOSCIENCE GROUP BERHAD (BIOSIS GROUP BHD)
6	APP INDUSTRIES BERHAD	41	HING YIAP KNITTING INDUSTRIES BHD
7	ASIA FILE CORPORATION BHD	42	HONG LEONG INDUSTRIES BERHAD
8	BANENG HOLDINGS BHD	43	HUAT LAI RESOURCES BERHAD
9	BASWELL RESOURCES BERHAD	44	HUNZA CONSOLIDATION BERHAD
10	BONIA CORPORATION BERHAD	45	HUP SENG INDUSTRIES BERHAD
11	BRITISH AMERICAN TOBACCO (MALAYSIA) BERHAD	46	HWA TAI INDUSTRIES BERHAD
12	C.I. HOLDINGS BERHAD	47	HYTEX INTEGRATED BERHAD
13	CAB CAKARAN CORPORATION BERHAD	48	I-BERHAD
14	CAM RESOURCES BERHAD	49	JAYCORP BERHAD
15	CARLSBERG BREWERY (M) BERHAD	50	JOHN MASTER INDUSTRIES BERHAD
16	CCK CONSOLIDATED HOLDINGS BERHAD	51	JT INTERNATIONAL BERHAD
17	CCM DUOPHARMA BIOTECH BERHAD	52	KBB RESOURCES BERHAD
18	CHEE WAH CORPORATION BERHAD	53	KHEE SAN BERHAD
19	CLASSIC SCENIC BERHAD	54	KHIND HOLDINGS BERHAD
20	COCOALAND HOLDINGS BERHAD	55	KUANTAN FLOUR MILLS BHD
21	CYCLE & CARRIAGE BINTANG BERHAD	56	LATITUDE TREE HOLDINGS BERHAD
22	D.B.E. GURNEY RESOURCES BERHAD	57	LAY HONG BERHAD
23	DEGEM BERHAD	58	LEN CHEONG HOLDING BERHAD
24	DPS RESOURCES BERHAD	59	LII HEN INDUSTRIES BHD
25	DUTCH LADY MILK INDUSTRIES BERHAD	60	LION DIVERSIFIED HOLDINGS BERHAD
26	DXN HOLDINGS BHD	61	LONDON BISCUITS BERHAD
27	EKOWOOD INTERNATIONAL BERHAD	62	LTKM BERHAD
28	EMICO HOLDINGS BERHAD	63	MALAYAN FLOUR MILLS BERHAD
29	EMIVEST BERHAD	64	MAMEE-DOUBLE DECKER (M) BERHAD
30	ENG KAH CORPORATION BERHAD	65	MAXBIZ CORPORATION BERHAD
31	EUROSPAN HOLDINGS BERHAD	66	MILUX CORPORATION BERHAD
32	FEDERAL FURNITURE HOLDINGS (M) BHD	67	MINTYE INDUSTRIES BHD
33	FOREMOST HOLDINGS BERHAD	68	MWE HOLDINGS BERHAD
34	FORMOSA PROSONIC INDUSTRIES BERHAD	69	NAKAMICHI CORPORATION BERHAD
35	FRASER & NEAVE HOLDINGS BHD	70	NESTLE (MALAYSIA) BERHAD

CONSUMER PRODUCTS (continued)

71	NEW HOONG FATT HOLDINGS BERHAD	90	SIN HENG CHAN (MALAYA) BERHAD
72	NTPM HOLDINGS BERHAD	91	SPRITZER BHD
73	ORIENTAL FOOD INDUSTRIES HOLDINGS BERHAD	92	SYF RESOURCES BERHAD
74	ORIENTAL HOLDINGS BERHAD	93	TAFI INDUSTRIES BERHAD
75	PANASONIC MANUFACTURING (M) BERHAD	94	TAKASO RESOURCES BERHAD
76	PADINI HOLDINGS BERHAD	95	TAN CHONG MOTOR HOLDINGS BHD
77	PARAGON UNION BERHAD	96	TECK GUAN PERDANA BERHAD
78	PCCS GROUP BERHAD	97	TEO GUAN LEE CORPORATION BHD
79	POH HUAT RESOURCES HOLDINGS BERHAD	98	TPC PLUS BERHAD
80	POH KONG HOLDINGS BERHAD	99	TRADEWINDS (MALAYSIA) BERHAD
81	PPB GROUP BERHAD	100	UMW HOLDINGS BERHAD
82	PROLEXUS BERHAD	101	UPA CORPORATION BHD
83	PROTON HOLDINGS BERHAD	102	WANG-ZHENG BERHAD
84	PUTERA CAPITAL BERHAD	103	WIDETECH (MALAYSIA) BERHAD
85	QL RESOURCES BERHAD	104	XIAN LENG HOLDINGS BERHAD
86	REX INDUSTRY BERHAD	105	Y.S.P.SOUTHEAST ASIA HOLDING BHD
87	SERN KOU RESOURCES BERHAD	106	YEE LEE CORPORATION BHD
88	SHH RESOURCES HOLDINGS BERHAD	107	YEO HIAP SENG (MALAYSIA) BERHAD
89	SILVER BIRD GROUP BERHAD	108	YONG TAI BERHAD

INFRASTRUCTURE PROJECT COS.

1	AIC CORPORATION BERHAD	9	KESM INDUSTRIES BERHAD
2	D&O VENTURES BERHAD	10	KOBAY TECHNOLOGY BERHAD
3	DATAPREP HOLDINGS BHD	11	MALAYSIAN PACIFIC INDUSTRIES BERHAD
4	ENG TEKNOLOGI HOLDINGS BHD	12	MESINIAGA BERHAD
5	FORMIS RESOURCES BERHAD	13	PATIMAS COMPUTERS BERHAD
6	GLOBETRONICS TECHNOLOGY BERHAD	14	PENTAMASTER CORPORATION BERHAD
7	HEITECH PADU BERHAD	15	UNISEM (M) BERHAD
8	INDUSTRONICS BERHAD		

INDUSTRIAL PRODUCTS

1	ABRIC
2	ADVANCE SYNERGY BERHAD
3	ADVANCED PACKAGING TECHNOLOGY (M) BHD
4	AE MULTI HOLDINGS BERHAD
5	AIKBEE RESOURCES BERHAD
6	AJIYA BERHAD
7	ANCOM BERHAD
8	ANN JOO RESOURCES BERHAD
9	APB RESOURCES BERHAD
10	APL INDUSTRIES BERHAD
11	APM AUTOMOTIVE HOLDINGS BERHAD
12	ASTINO BERHAD
13	ATLAN HOLDINGS BERHAD
14	ATURMAJU RESOURCES BERHAD
15	AUTOAIR HOLDINGS BERHAD
16	AV VENTURES CORPORATION BERHAD
17	B.I.G. INDUSTRIES BERHAD
18	BOX-PAK (MALAYSIA) BERHAD
19	BRIGHT PACKAGING INDUSTRY BERHAD
20	BSA INTERNATIONAL BERHAD
21	BTM RESOURCES BERHAD
22	CB INDUSTRIAL PRODUCT HOLDING BERHAD
23	CENTRAL INDUSTRIAL CORPORATION BERHAD
24	CENTURY BOND BHD
25	CHANGHUAT CORPORATION BERHAD
26	CHEMICAL COMPANY OF MALAYSIA BERHAD
27	CHOO BEE METAL INDUSTRIES BHD
28	CHUAN HUAT RESOURCES BHD
29	CN ASIA CORPORATION BHD
30	COMPUTER FORMS (MALAYSIA) BERHAD
31	CONCRETE ENGINEERING PRODUCTS BHD
32	CYL CORPORATION BERHAD
33	CYMAO HOLDINGS BERHAD
34	DAIBOCHI PLASTIC AND PACKAGING INDUSTRY BHD
35	DELLOYD VENTURES BERHAD
36	DENKO INDUSTRIAL CORPORATION BERHAD
37	DK LEATHER CORPORATION BERHAD
38	D'NONCE TECHNOLOGY BHD
39	DOLOMITE CORPORATION BERHAD
40	DOMINANT ENTERPRISE BERHAD
41	DRB-HICOM BERHAD
42	EG INDUSTRIES BERHAD
43	EKSONS CORPORATION BERHAD
44	EMAS KIARA INDUSTRIES BERHAD
45	ENGLOTECHS HOLDING BHD
46	EP MANUFACTURING BHD
47	ESSO MALAYSIA BERHAD
48	EVERMASTER GROUP BERHAD
49	FACB INDUSTRIES INCORPORATED BERHAD
50	FCW HOLDINGS BERHAD
51	FURNIWEB INDUSTRIAL PRODUCTS BERHAD
52	FUTUTECH BERHAD
53	GE-SHEN CORPORATION BERHAD
54	GOH BAN HUAT BERHAD
55	GOLDEN FRONTIER BERHAD
56	GOODWAY INTEGRATED INDUSTRIES BERHAD
57	GOPENG BERHAD
58	GPA HOLDINGS BERHAD
59	GUH HOLDINGS BERHAD
60	GUNUNG CAPITAL BERHAD
61	HARVEST COURT INDUSTRIES BHD
62	HEVEABOARD BERHAD
63	HIAP TECK VENTURE BERHAD
64	HIL INDUSTRIES BERHAD
65	HIROTAKO HOLDINGS BHD
66	HO WAH GENTING BERHAD
67	HPI RESOURCES BERHAD
68	HUME INDUSTRIES (MALAYSIA) BERHAD
69	INGRESS CORPORATION BERHAD
70	IRE-TEX CORPORATION BERHAD
71	JASA KITA BERHAD
72	JAVA INCORPORATED BHD

INDUSTRIAL PRODUCTS (continued)

73	JOHORE TIN BERHAD	109	MALAYSIA STEEL WORKS (KL) BHD
74	JOTECH HOLDINGS BERHAD	110	MALAYSIAN AE MODELS HOLDINGS BERHAD
75	JPK HOLDINGS BERHAD	111	MAXTRAL INDUSTRY BERHAD
76	KECK SENG (MALAYSIA) BERHAD	112	MENTIGA CORPORATION BERHAD
77	KIA LIM BERHAD	113	MERCURY INDUSTRIES BERHAD
78	KIAN JOO CAN FACTORY BERHAD	114	METAL RECLAMATION BHD
79	KIM HIN INDUSTRY BERHAD	115	METECH GROUP BERHAD- S i n K e a n B o o n G r o u p B e r h a d
80	KINSTEEL BERHAD (KINSTEEL BHD - 2007)	116	METROD (MALAYSIA) BERHAD
81	KKB ENGINEERING BERHAD	117	MIECO CHIPBOARD BERHAD
82	KNM GROUP BERHAD	118	MINPLY HOLDINGS (M) BERHAD
83	KOMARKCORP BERHAD	119	MUDA HOLDINGS BERHAD
84	KOSSAN RUBBER INDUSTRIES BERHAD	120	MULTI-CODE ELECTRONICS INDUSTRIES (M) BHD
85	KUMPULAN H & L HIGH-TECH BERHAD	121	MULTI-USAGE HOLDINGS BERHAD
86	KUMPULAN POWERNET BERHAD	122	NARRA INDUSTRIES BERHAD
87	KYM HOLDINGS BERHAD	123	NWP HOLDINGS BERHAD
88	LAFARGE MALAYAN CEMENT BHD	124	NYLEX (MALAYSIA) BERHAD
89	LATEXX PARTNERS BERHAD	125	OCI BERHAD
90	LB ALUMINIUM BERHAD	126	OCTAGON CONSOLIDATED BERHAD
91	LBI CAPITAL BERHAD	127	OKA CORPORATION BHD
92	LCTH CORPORATION BERHAD	128	ORNAPAPER BERHAD
93	LEADER STEEL HOLDINGS BERHAD	129	P.I.E. INDUSTRIAL BERHAD
94	LEADER UNIVERSAL HOLDINGS BERHAD	130	PAHANCO CORPORATION BERHAD
95	LEE SWEE KIAT GROUP BERHAD	109	MALAYSIA STEEL WORKS (KL) BHD
96	LEWEKO RESOURCES BERHAD	110	MALAYSIAN AE MODELS HOLDINGS BERHAD
97	LIMAHSOON BERHAD	111	MAXTRAL INDUSTRY BERHAD
98	LINEAR CORPORATION BERHAD	112	MENTIGA CORPORATION BERHAD
99	LINGUI DEVELOPMENTS BERHAD	113	MERCURY INDUSTRIES BERHAD
100	LION CORPORATION BERHAD	114	METAL RECLAMATION BHD
101	LION INDUSTRIES CORPORATION BERHAD	115	METECH GROUP BERHAD- S i n K e a n B o o n G r o u p B e r h a d
102	LIPO CORPORATION BERHAD	116	METROD (MALAYSIA) BERHAD
103	LUSTER INDUSTRIES BHD	117	MIECO CHIPBOARD BERHAD
104	LYSAGHT GALVANIZED STEEL BERHAD	118	MINPLY HOLDINGS (M) BERHAD
105	MAGNI-TECH INDUSTRIES BERHAD	119	MUDA HOLDINGS BERHAD
106	MALAYSIA AICA BERHAD	120	MULTI-CODE ELECTRONICS INDUSTRIES (M) BHD
107	MALAYSIA PACKAGING INDUSTRY BERHAD	121	MULTI-USAGE HOLDINGS BERHAD
108	MALAYSIA SMELTING CORPORATION BERHAD	122	NARRA INDUSTRIES BERHAD

INDUSTRIAL PRODUCTS (continued)

123	NWP HOLDINGS BERHAD
124	NYLEX (MALAYSIA) BERHAD
125	OCI BERHAD
126	OCTAGON CONSOLIDATED BERHAD
127	OKA CORPORATION BHD
128	ORNAPAPER BERHAD
129	P.I.E. INDUSTRIAL BERHAD
130	PAHANCO CORPORATION BERHAD
131	PAN MALAYSIA CORPORATION BERHAD
132	PAOS HOLDINGS BERHAD
133	PELANGI PUBLISHING GROUP BHD
134	PENSONIC HOLDINGS BERHAD
135	PERMAJU INDUSTRIES BERHAD
136	PERUSAHAAN SADUR TIMAH MALAYSIA (PERSTIMA) BHD- ceased end 2008
137	PETRONAS GAS BERHAD
138	PJBUMI BERHAD
139	PMB TECHNOLOGY BERHAD
140	PNE PCB BERHAD
141	POLY GLASS FIBRE (M) BERHAD
142	POLY TOWER VENTURES BERHAD
143	PREMIUM NUTRIENTS BERHAD
144	PRESS METAL BERHAD
145	PRESTAR RESOURCES BERHAD
146	PSC INDUSTRIES BERHAD (BOUSTEAD HEAVY IND BHD)
147	PUBLIC PACKAGES HOLDINGS BHD
148	RALCO CORPORATION BERHAD
149	RAPID SYNERGY BERHAD
123	NWP HOLDINGS BERHAD
124	NYLEX (MALAYSIA) BERHAD
125	OCI BERHAD
126	OCTAGON CONSOLIDATED BERHAD
127	OKA CORPORATION BHD
128	ORNAPAPER BERHAD
129	P.I.E. INDUSTRIAL BERHAD
130	PAHANCO CORPORATION BERHAD
131	PAN MALAYSIA CORPORATION BERHAD

132	PAOS HOLDINGS BERHAD
133	PELANGI PUBLISHING GROUP BHD
134	PENSONIC HOLDINGS BERHAD
135	PERMAJU INDUSTRIES BERHAD
136	PERUSAHAAN SADUR TIMAH MALAYSIA (PERSTIMA) BHD- ceased end 2008
137	PETRONAS GAS BERHAD
138	PJBUMI BERHAD
139	PMB TECHNOLOGY BERHAD
140	PNE PCB BERHAD
141	POLY GLASS FIBRE (M) BERHAD
142	POLY TOWER VENTURES BERHAD
143	PREMIUM NUTRIENTS BERHAD
144	PRESS METAL BERHAD
145	PRESTAR RESOURCES BERHAD
146	PSC INDUSTRIES BERHAD (BOUSTEAD HEAVY IND BHD)
147	PUBLIC PACKAGES HOLDINGS BHD
148	RALCO CORPORATION BERHAD
149	RAPID SYNERGY BERHAD
150	ROCK CHEMICAL INDUSTRIES (MALAYSIA) BHD
132	PAOS HOLDINGS BERHAD
133	PELANGI PUBLISHING GROUP BHD
134	PENSONIC HOLDINGS BERHAD
135	PERMAJU INDUSTRIES BERHAD
136	PERUSAHAAN SADUR TIMAH MALAYSIA (PERSTIMA) BHD- ceased end 2008
137	PETRONAS GAS BERHAD
138	PJBUMI BERHAD
139	PMB TECHNOLOGY BERHAD
140	PNE PCB BERHAD
141	POLY GLASS FIBRE (M) BERHAD
142	POLY TOWER VENTURES BERHAD
143	PREMIUM NUTRIENTS BERHAD
144	PRESS METAL BERHAD
145	PRESTAR RESOURCES BERHAD
146	PSC INDUSTRIES BERHAD (BOUSTEAD HEAVY IND BHD)
147	PUBLIC PACKAGES HOLDINGS BHD
148	RALCO CORPORATION BERHAD

INDUSTRIAL PRODUCTS (continued)

149	RAPID SYNERGY BERHAD
150	ROCK CHEMICAL INDUSTRIES (MALAYSIA) BHD
151	RUBBEREX CORPORATION (M) BERHAD
152	SANBUMI HOLDINGS BERHAD
153	SAPURA INDUSTRIAL BERHAD
154	SARAWAK CONCRETE INDUSTRIES BERHAD
155	SCIENTEX INCORPORATED BERHAD
156	SCOMI ENGINEERING BHD
157	SCOMI GROUP BERHAD
158	SEACERA TILES BERHAD
159	SEAL INCORPORATED BERHAD
160	SHELL REFINING COMPANY (FEDERATION OF MALAYA) BERHAD
161	SINDORA BERHAD
162	SINORA INDUSTRIES BERHAD
163	SITT TATT BERHAD
164	SKB SHUTTERS CORPORATION BERHAD
165	SKP RESOURCES BHD
166	SMIS CORPORATION BERHAD
167	SOUTHERN ACIDS (M) BERHAD
168	SOUTHERN STEEL BERHAD
169	STONE MASTER CORPORATION BERHAD
170	STS TECNIC BERHAD
149	RAPID SYNERGY BERHAD
150	ROCK CHEMICAL INDUSTRIES (MALAYSIA) BHD
151	RUBBEREX CORPORATION (M) BERHAD
152	SANBUMI HOLDINGS BERHAD
153	SAPURA INDUSTRIAL BERHAD
154	SARAWAK CONCRETE INDUSTRIES BERHAD
155	SCIENTEX INCORPORATED BERHAD
156	SCOMI ENGINEERING BHD
157	SCOMI GROUP BERHAD
158	SEACERA TILES BERHAD
159	SEAL INCORPORATED BERHAD
160	SHELL REFINING COMPANY (FEDERATION OF MALAYA) BERHAD
161	SINDORA BERHAD
162	SINORA INDUSTRIES BERHAD

170	STS TECNIC BERHAD
171	SUCCESS TRANSFORMER CORPORATION BERHAD
172	SUNCHIRIN INDUSTRIES (MALAYSIA) BERHAD
173	SUPER ENTERPRISE HOLDINGS BERHAD
174	SUPERMAX CORPORATION BERHAD
175	TA ANN HOLDINGS BERHAD
176	TA WIN HOLDINGS BERHAD
177	TAI KWONG YOKOHAMA BERHAD
178	TEKALA CORPORATION BERHAD
179	TENGGARA OIL BERHAD
180	THONG GUAN INDUSTRIES BERHAD
181	TIEN WAH PRESS HOLDINGS BERHAD
182	TIMBERWELL BERHAD
183	TOMYPAK HOLDINGS BERHAD
184	TONG HERR RESOURCES BERHAD
185	TOP GLOVE CORPORATION BHD
186	TOYO INK GROUP BERHAD
187	UAC BERHAD
188	UCHI TECHNOLOGIES BERHAD
189	UNITED BINTANG BERHAD
170	STS TECNIC BERHAD
171	SUCCESS TRANSFORMER CORPORATION BERHAD
172	SUNCHIRIN INDUSTRIES (MALAYSIA) BERHAD
173	SUPER ENTERPRISE HOLDINGS BERHAD
174	SUPERMAX CORPORATION BERHAD
175	TA ANN HOLDINGS BERHAD
176	TA WIN HOLDINGS BERHAD
177	TAI KWONG YOKOHAMA BERHAD
178	TEKALA CORPORATION BERHAD
179	TENGGARA OIL BERHAD
180	THONG GUAN INDUSTRIES BERHAD
181	TIEN WAH PRESS HOLDINGS BERHAD
182	TIMBERWELL BERHAD
183	TOMYPAK HOLDINGS BERHAD
184	TONG HERR RESOURCES BERHAD
185	TOP GLOVE CORPORATION BHD

INDUSTRIAL PRODUCTS (continued)

186	TOYO INK GROUP BERHAD
187	UAC BERHAD
188	UCHI TECHNOLOGIES BERHAD
189	UNITED BINTANG BERHAD
190	UNITED KOTAK BERHAD
191	UNITED U-LI CORPORATION BERHAD
192	V.S. INDUSTRY BERHAD
193	VERSATILE CREATIVE BERHAD
194	VTI VINTAGE BERHAD
195	WAH SEONG CORPORATION BERHAD
196	WATTA HOLDING BERHAD
197	WAWASAN TKH HOLDINGS BERHAD

198	WEIDA (M) BHD
199	WHITE HORSE BERHAD
200	WIJAYA BARU GLOBAL BERHAD
201	WONDERFUL WIRE & CABLE BERHAD
202	WONG ENGINEERING CORPORATION BERHAD
203	WOODLANDOR HOLDINGS BHD
204	WTK HOLDINGS BERHAD
205	YA HORNG ELECTRONIC (M) BHD
206	YI-LAI BERHAD
207	YLI HOLDINGS BERHAD
208	YTL CEMENT BERHAD
209	YUNG KONG GALVANISING INDUSTRIES BHD

HOTEL

1	GRAND CENTRAL ENTERPRISES BHD
2	GULA PERAK BHD
3	LANDMARKS BERHAD
4	SHANGRI-LA HOTELS (M) BERHAD

INFRASTRUCTURE PROJECT COS.

1	DIGI.COM BERHAD
2	LINGKARAN TRANS KOTA HOLDINGS BERHAD
3	PUNCAK NIAGA HOLDINGS BERHAD
4	TIME DOTCOM BERHAD
5	YTL POWER INTERNATIONAL BHD

PROPERTY

1	A & M REALTY BERHAD	40	KUMP. HARTANAH SELANGOR BHD
2	AMDB BERHAD	41	LIEN HOE CORPORATION BERHAD
3	ASAS DUNIA BERHAD	42	MAH SING GROUP BERHAD
4	ASIA PACIFIC LAND BERHAD	43	MAHAJAYA BERHAD
5	ASIAN PAC HOLDINGS BERHAD	44	MALAYSIA PACIFIC CORP. BHD
6	BANDAR RAYA DEVELOPMENTS BHD	45	MALTON BERHAD
7	BCB BERHAD	46	MATRIX INTERNATIONAL BERHAD
8	BERTAM ALLIANCE BERHAD	47	MEDA INC. BERHAD
9	BINA DARULAMAN BERHAD	48	MENANG CORPORATION (M) BERHAD
10	BINAIK EQUITY BERHAD	49	MERGE HOUSING BHD
11	COUNTRY HEIGHTS HOLDINGS BHD	50	METRO KAJANG HOLDINGS BERHAD
12	COUNTRY VIEW BERHAD	51	MK LAND HOLDINGS BERHAD
13	CRESCENDO CORPORATION BERHAD	52	MUI PROPERTIES BERHAD
14	DAIMAN DEVELOPMENT BHD	53	MULPHA LAND BERHAD
15	DAMANSARA REALTY BHD	54	MUTIARA GOODYEAR DEVELOPMENT BERHAD
16	DIJAYA CORPORATION BERHAD	55	NAIM CENDERA HOLDINGS BERHAD
17	EASTERN & ORIENTAL BERHAD	56	ORIENTAL INTEREST BERHAD
18	EKRAN BERHAD	57	OSK PROPERTY HOLDINGS BERHAD
19	ENCORP BERHAD	58	PARAMOUNT CORPORATION BERHAD
20	EQUINE CAPITAL BERHAD	59	PETALING TIN BERHAD
21	EUPE CORPORATION BERHAD	60	PJ DEVELOPMENT HOLDINGS BERHAD
22	FARLIM GROUP (MALAYSIA) BHD	61	PK RESOURCES BERHAD
23	FIMA CORPORATION BERHAD	62	PLENITUDE BERHAD
24	FOCAL AIMS HOLDINGS BERHAD	63	PRIME UTILITIES BERHAD
25	FOUNTAIN VIEW DEVELOP. BERHAD	64	S P SETIA BERHAD
26	FURQAN BUSINESS ORGANISATION BERHAD	65	SAPURA RESOURCES BERHAD
27	GLOMAC BERHAD	66	SELANGOR DREDGING BERHAD
28	GROMUTUAL BERHAD3	67	SELANGOR PROPERTIES BERHAD
29	GUOCOLAND (MALAYSIA) BERHAD	68	SHL CONSOLIDATED BHD
30	HUA YANG BERHAD	69	SOUTH MALAYSIA INDUST BHD
31	HUNZA PROPERTIES BERHAD	70	SUNRISE BERHAD
32	IBRACO BERHAD	71	TALAM CORPORATION BERHAD
33	IGB CORPORATION BERHAD	72	TANCO HOLDINGS BERHAD
34	IOI PROPERTIES BERHAD	73	TEBRAU TEGUH BERHAD
35	JOHOR LAND BERHAD	74	THE AYER HITAM PLANTING SYNDICATE BERHAD
36	KARAMBUNAI CORP BHD	75	TRIPLC BERHAD
37	KELADI MAJU BHD	76	UNITED MALAYAN LAND BERHAD
38	KRISASSETS HOLDINGS BERHAD	77	YNH PROPERTY BERHAD
39	KSL HOLDINGS BERHAD	78	YTL LAND & DEVELOPMENT BERHAD

TRADING/SERVICES

1	AHB HOLDINGS BERHAD	37	KAMDAR GROUP (M) BERHAD
2	AMALGAMATED CONTAINERS BERHAD = PARKSON	38	KBES BERHAD
3	AMTEL HOLDINGS BERHAD	39	KFC HOLDINGS (MALAYSIA) BERHAD
4	ANALABS RESOURCES BERHAD	40	KNUSFORD BERHAD
5	AWC FACILITY SOLUTIONS BERHAD	41	KONSORTIUM LOGISTIK BERHAD
6	BERJAYA LAND BERHAD	42	KPJ HEALTHCARE BERHAD
7	BERJAYA SPORTS TOTO BERHAD	43	KPS CONSORTIUM BERHAD
8	BINTAI KINDEN CORPORATION BERHAD	44	KUALA LUMPUR CITY CORPORATION BERHAD/THE NOMAD GROUP BHD
9	CENTURY LOGISTICS HOLDINGS BERHAD	45	KUB MALAYSIA BERHAD
10	CME GROUP BERHAD	46	KUMPULAN FIMA BERHAD
11	DIALOG GROUP BERHAD	47	KUMPULAN PERANGSANG SELANGOR BERHAD
12	DKSH HOLDINGS (MALAYSIA) BERHAD	48	LCL CORPORATION BERHAD
13	EASTERN PACIFIC INDUSTRIAL CORPORATION BERHAD	49	LION FOREST INDUSTRIES BERHAD
14	EDARAN DIGITAL SYSTEMS BERHAD= EDARAN BHD	50	MALAYAN UNITED INDUSTRIES BERHAD
15	EDEN ENTERPRISES (M) BERHAD	51	MALAYSIA AIRPORTS HOLDINGS BERHAD
16	ENGTEX GROUP BERHAD	52	MALAYSIAN BULK CARRIERS BERHAD
17	FABER GROUP BERHAD	53	MARCO HOLDINGS BERHAD
18	FIAMMA HOLDINGS BERHAD	54	MBM RESOURCES BHD
19	FITTERS HOLDINGS BERHAD/FITTERS DIVERSIFIED BHD	55	MEASAT GLOBAL BERHAD
20	FSBM HOLDINGS BERHAD	56	MECHMAR CORPORATION (MALAYSIA) BERHAD
21	GENTING BERHAD	57	MEDIA PRIMA BERHAD
22	GEORGE KENT (MALAYSIA) BERHAD	58	MISC BERHAD
23	GLOBAL CARRIERS BERHAD	59	MMC CORPORATION BERHAD
24	GOLSTA SYNERGY BERHAD	60	MTD CAPITAL BHD
25	HAI-O ENTERPRISE BERHAD	61	MULPHA INTERNATIONAL BERHAD
26	HAISAN RESOURCES BERHAD	62	MULTI-PURPOSE HOLDINGS BERHAD
27	HAP SENG CONSOLIDATED BERHAD	63	NAIM INDAH CORPORATION BERHAD
28	HARRISONS HOLDINGS (MALAYSIA) BERHAD	64	NATIONWIDE EXPRESS COURIER SERVICES BERHAD
29	HEXAGON HOLDINGS BHD- early adoption	65	NCB HOLDINGS BERHAD
30	HOCK SIN LEONG GROUP BERHAD	66	NEPLINE BERHAD
31	HUBLINE BERHAD	67	NV MULTI CORPORATION BERHAD
32	INTEGRATED LOGISTICS BHD	68	OCB BERHAD
33	INTEGRAX BERHAD	69	OILCORP BERHAD
34	IPMUDA BERHAD	70	OLYMPIA INDUSTRIES BERHAD
35	JOHAN HOLDINGS BERHAD	71	PADIBERAS NASIONAL BERHAD
36	JUAN KUANG (M) INDUSTRIAL BERHAD/TSM GLOBAL BHD	72	PAN MALAYSIAN INDUSTRIES BERHAD

TRADING/SERVICES (continued)

73	PBA HOLDINGS BHD
74	PDZ HOLDINGS BHD
75	PERAK CORPORATION BERHAD
76	PETRA PERDANA BERHAD
77	PETRONAS DAGANGAN BHD
78	PHARMANIAGA BERHAD
79	PJI HOLDINGS BERHAD
80	PLUS EXPRESSWAYS BERHAD
81	POS MALAYSIA & SERVICES HOLDINGS BERHAD (POS MALAYSIA BHD)
82	PROGRESSIVE IMPACT CORPORATION BERHAD
83	PULAI SPRINGS BERHAD
84	RCE CAPITAL BERHAD
85	RELIANCE PACIFIC BERHAD
86	RESORTS WORLD BHD (GENTING MALAYSIA BERHAD)
87	RHYTHM CONSOLIDATED BERHAD
88	SAAG CONSOLIDATED (M) BHD
89	SARAWAK ENERGY BERHAD
90	SCOMI MARINE BHD
91	SEE HUP CONSOLIDATED BERHAD
92	SEG INTERNATIONAL BHD
93	SENI JAYA CORPORATION BERHAD
94	SRII BERHAD
95	STAMFORD COLLEGE BERHAD
96	STAR PUBLICATIONS (MALAYSIA) BERHAD
97	SUGAR BUN CORPORATION BERHAD/BORNEO OIL BHD
98	SUIWAH CORPORATION BERHAD
99	SUMATEC RESOURCES BERHAD
100	SURIA CAPITAL HOLDINGS BERHAD
101	TALIWORKS CORPORATION BERHAD
102	TAMADAM BONDED WAREHOUSE BERHAD
103	TELEKOM MALAYSIA BERHAD
104	TENAGA NASIONAL BHD
105	TENCO BERHAD/ NAGAMAS INTERNATIONAL BHD
106	TEXCHEM RESOURCES BERHAD
107	THE NEW STRAITS TIMES PRESS (MALAYSIA) BERHAD

109	MALAYSIA STEEL WORKS (KL) BHD
110	MALAYSIAN AE MODELS HOLDINGS BERHAD
111	MAXTRAL INDUSTRY BERHAD
108	TIME ENGINEERING BERHAD
109	TIONG NAM LOGISTICS HOLDINGS BERHAD
110	TRADEWINDS CORPORATION BERHAD
111	TRANSMILE GROUP BERHAD
112	TRANSOCEAN HOLDINGS BHD
113	TRIUMPHAL ASSOCIATES BHD
114	UMS Holdings
115	UNIMECH GROUP BERHAD
116	UTUSAN MELAYU (MALAYSIA) BERHAD
117	WARISAN TC HOLDINGS BERHAD
118	WWE HOLDINGS BHD
119	YINSON HOLDINGS BERHAD