AN INVESTIGATION INTO BIG 4 AUDITING COMPANIES IN MALAYSIA: FACTORS THAT AFFECT AUDITOR INDEPENDENCE

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DECLARATION

We hereby declare that:

(1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

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

(3) Equal contribution has been made by each group member in completing the research project.

(4) The word count of this research project is 10277.

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ANOVA	Analysis of Variance
GAO	General Accounting Office
GDP	Gross Domestic Product
KPMG	Klynveld Peat Marwick Goerdeler
MASB	Malaysian Accounting Standards Board
MIA	Malaysian Institute in Accountants
NAS	Non-audit Services
PwC	PricewaterhouseCoopers
SPSS	Statistical Package for Social Sciences
VIF	Variance-inflation Factor
WP	Wilayah Persekutuan

PREFACE

This paper is submitted in partial fulfillment of the requirements as an undergraduate project for a UTAR Bachelor's Degree (Honors) in Commerce Accounting for the authors. It contains of the work done from June 2011 to May 2012. Our research is based on a cross-sectional study due to academic purposes; therefore we have done our best to provide references to these sources as most of the text is based on the research of others.

We often study the importance of auditor independence during the Auditing classes in second year of an undergraduate degree, thus the issue of auditor independence has increasingly attracted our attention. Auditors act on behalf of funders, taxpayers or shareholders, to provide assurance on the reliability of financial statements. Therefore, investors view audited reports as reliable information that contributes in their investment decisions in companies incorporated by registration. Furthermore, independence of mind and independence in appearance should be maintained by auditor as the two forms of independence will affect the degree of credibility of financial statements. The issue of auditors' independence has been constantly concerned by public in order to avoid the significant corporate collapse as another Enron and WorldCom scandals from western countries. Besides, Big Four auditors who audit most of the companies' financial statements also involved in major corporate scandals which in turn raised the question of independence of auditors. Therefore, we decide to investigate the factors that affect auditor independence in the view of auditors working in Big 4 audit firms in Malaysia. We came out with a research title for our final year project of "An Investigation into Big 4 Auditing Companies in Malaysia: Factors that affect Auditor Independence."

In Malaysia, limited researches regarding on auditor independence have been carried out thus we believe this study can aid the public to have further understanding on the factors that affecting the auditor independence in Malaysia.

ABSTRACT

Auditor independence had become a major issue after the collapsed of Enron scandal. This paper reports the findings of an empirical evidence of four selected independent variables that might impair auditor independence by examining the Big 4 auditors' perceptions in Malaysia. Corporate scandals such as Enron had raised the public concerns regarding on professional ethics in auditing field thus mandatory rules and regulations need to be implemented to avoid repetitive scandals. 320 sets of web-based questionnaires were distributed to Selangor and Wilayah Persekutuan Kuala Lumpur, Pulau Pinang, Johor, and Wilayah Persekutuan Labuan and only 196 sets questionnaires are used for data analysis due to outliers and incompletes of survey. The data collected were subsequently analysed by employing correlation and multiple regression analysis. The findings revealed that there is no significant relationship between audit partner rotation and auditor independence whereas others factors have significant relationship with auditor independent. Hence, we conclude that empirical evidence is this research is sufficient to support our dependent variable. However, it is strongly recommend the future researcher to further investigate in factors that might impair auditor independence other than the partner rotation, audit committee of the client, audit fee and audit market competition factors.

Keywords: Audit partner rotation, audit committee of the client, audit fees, audit market competition and auditor independence

Data availability: Data collected from Big 4's audit firms in Malaysia and it is available under our SPSS data.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

This chapter which presents an overview of the research comprises of seven sections. It begins with the background of study which addressed problem statement and followed by research objectives. Research objectives raised lead to the establishment of research questions in this study. Lastly, significance of the study, chapter layout and conclusion for the chapter are briefly highlighted.

1.1 Research Background

According to Elliott and Jacobson (1998), auditor independence is defined as in respect to the reliability of financial statements, the unacceptable risk of material bias which result from an absence of interests. When the particular interest presents a risk that would impair auditor's objectivity to an extent that it is going to affect the outcome of the audit, the auditor independence is said to be materially impaired (Elliott & Jacobson, 1998). Whereas, the Big 4 firms as defined in Business Week (Gerdes, 2009) are Deloitte & Touche, Ernst & Young, PricewaterhouseCoopers (PwC), and KPMG which are ranked top among 50 public and governmental organizations.

Generally, credible and unbiased appraisal of information about the public listed companies' financial position provided by auditor is important for investors to make investment decision and enhances the efficiency of financial markets. Therefore, independence is central to the function served by auditors (Moore, Loewenstein, Tanlu, & Bazerman, 2002). Besides, audit opinion of the Big 4 serves as an effective quality label which is unavailable from most of the second-tier firms due to their lack of industry knowledge, reputation and geographic pressure (Frieswick, 2003). However, the Big 4 firms that provide financial audit

services to most of the public listed companies such as large private, non-profit and government organizations also involved in major corporate scandals which in turn raised the question of independence of auditors (Gray & Ratzinger, 2010).

1.2 Problem Statement

Auditor independence is questionable upon the failure of audit role in various corporate scandals such as Enron, WorldCom, and Tyco International which gained the attention of the statutory body to enforce the law for improved governance of auditors (Shafie, Hussin, Yusof, & Hussain, 2009). In the past decades, there are various studies being carried out by the researchers to examine the impact and significance of the issues. Abu Bakar, Abdul Rahman, and Abdul Rashid (2005) investigated the factors that influence auditor independence in Malaysian-owned commercial banks loan officer's perceptions based on the result from 86 officers' responded. According to Moorthy, Seetharaman, and Saravanan (2010), auditor independence is required to improve the ability to build independent audit decision. Besides, there is a study in Barbados which investigates the perceived auditor independence between auditors and users as auditor independence is a major concern after the collapse of Enron (Alleyne, Devonish, & Alleyne, 2006). On the other hand, Abu Bakar and Ahmad (2009) also investigated Malaysian accountant perceived determinants of auditor independence by identified the size of audit fees as the most important influencing factor, followed by competition, size of audit firm, tenure, provision of management advisory service and lastly audit committee.

However, there are still some deficiencies in the past empirical researches. The study in Abu Bakar et al. (2005) only focus on the loan officer's perceptions in Malaysia with a small sample size of less than 100 respondents. Besides, Moorthy et al. (2010) pointed out that the degree of auditor independence is subjected to how the people view it and thus, it varies from one person to another person. In addition, Alleyne et al. (2006) studied is very limited due to small sample size and

small emerging market and thus it required caution in interpreting the findings. Moreover, the study of Abu Bakar and Ahmad (2009) also ignored the interaction between factors that contribute to auditor independence by merely focus on each factor. Until today, there is no research done on the auditor independence of Big 4 audit firm in Malaysia. Therefore, this research is carried out to fill the gap by investigating the factors that affect auditor independence in the perception of Big 4 audit firms' auditor in Malaysia.

1.3 Research Objectives

1.3.1 General Objective

The main objective of this research is to determine the factors that would affect auditor independence in Big 4 audit firms in Malaysia.

1.3.2 Specific Objectives

The purpose of this study is to investigate the relationship between each of the following factors:

1. To investigate the relationship between audit partner rotation and auditor independence in Big 4 audit firms in Malaysia.
2. To investigate the relationship between audit committee of the client and auditor independence in Big 4 audit firms in Malaysia.
3. To investigate the relationship between audit fees and auditor independence in Big 4 audit firms in Malaysia.
4. To investigate the relationship between audit market competition and auditor independence in Big 4 audit firms in Malaysia.

1.4 Research Questions

1.4.1 General Question

What are the factors that would affect auditor independence in Big 4 audit firms in Malaysia?

1.4.2 Specific Questions

Specifically, the four research questions being identified are:

1. Does audit partner rotation affect auditor independence in Big 4 audit firms in Malaysia?
2. Does audit committee of the client affect auditor independence in Big 4 audit firms in Malaysia?
3. Do audit fees affect auditor independence in Big 4 audit firms in Malaysia?
4. Does audit market competition affect auditor independence in Big 4 audit firms in Malaysia?

1.5 Significance of the Study

Many studies on auditor independence were carried out in developed countries such as United Kingdom and United States. However, there is limited empirical evidence regarding the influence of important factors on auditor independence in Malaysia. This paper aims to further investigate the effect of important factors on auditor independence as ongoing significant issue for the profession nowadays by examining Malaysian Big 4 auditors' perception. This result can contribute to a better understanding and supply recent evidences for Malaysia's auditors in order

to improve their profession practices. In addition, regulators and policy makers of Malaysia generally review the audit legislation of developed countries during standard setting process. However, the regulatory audit environment in Malaysia has been different from the developed countries. Therefore, the result of this paper may also assist the relevant policy makers in their effort towards the international auditing standard.

1.6 Chapter Layout

This research paper is segmented into five chapters. In the next chapter, review of literature, theoretical foundation and hypotheses development will be presented. Chapter three detailed the methodology being applied in the research, which includes research design, data collection methods, sampling design, research instrument, constructs instrument, data processing, and data analysis. Next, descriptive analysis, scale measurement and inferential analysis of the results will be discussed in chapter four. The final chapter demonstrates the discussion of findings, implications, and conclusions.

1.7 Conclusion

Generally, chapter one presents a brief introduction on the structure of the research. It serves as a guideline and provides a better understanding for readers before proceeding to the next chapter which will further discuss on the literature review of the core of study.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

After the introduction of research overview, literature review of the research topic are gathered and discussed in this chapter. The review of relevant theoretical model explained the foundation of research constructs. Conceptual framework is proposed to indicate a clearer picture on the relationship among the important variables. At the end of the chapter, four hypotheses are developed for statistical analyses.

2.1 Review of the Literature

2.1.1 Auditor Independence

Auditor independence is defined as the heart of the integrity of the audit process where maintaining the independent audit function is obligatory for auditors and required by the standard of profession (Chen, Elder, & Liu, 2005). Auditor independence can be split into two, which is fact and appearance. Independence in fact refers to actual objectives state of the relationship between firms and their client; while independence in appearance is defined as the subjective state of the relationship as perceived by client and third party (Alleyne et al., 2006). Today, people are agreed that the decline on the audit independence is a crucial ethical value in the accounting profession (Gendron, Suddaby, & Lam, 2006). According to Chen et al. (2005), when auditors and clients are negotiating issue about the financial statement, the most important part of an auditor's role is to maintain the integrity of the independent audit function. This is because the auditors are required to follow the standards of the accounting profession. If the users of the audit report do not believe that the auditor is

independent, less confidence and assurance will be put on the auditor's opinion in the audit report (Quick & Warming-Rasmussen, 2005). In the study of Abu Bakar et al. (2005), they only focused on independence in appearance such as the factors which have significant influence on auditor independence since independence in fact is unobservable. Restrictions have been provided in the Sarbanes-Oxley Act 2002 to enhance auditor independence and to prevent corporate scandals such as Enron and WorldCom (Chen et al., 2005).

2.1.2 Audit Partner Rotation

Audit partner rotation is referred to engagement of partner as key audit personnel that periodically rotated off the audit (Hamilton, Ruddock, Stokes, & Taylor, 2005). The study of Zulkarnain and Yusuf (2005) found that extended auditor tenure would impair auditor independence for not performing with full objectivity. The result is supported with a majority of loan officers, senior managers of public listed companies, and auditors agreed that rotation of audit partner would safeguard auditor independence. Furthermore, a study in Japan reported that audit partner rotation over seven years and audit partner over five years could enhance auditor independence as it leads to a conservative accounting policy (Yazawa, 2001). Carey and Simnett (2006) concluded that longer partner tenure leads to closer partner-client relationships, which reduced auditor independence. However, Chi, Huang, and Liao (2004) concluded that there is no negative effect of audit tenure on auditor independence at the audit partner level which audit-partner rotation requirement might not be an effective and efficient rule for promoting auditor independence.

2.1.3 Audit Committee of the Client

Arens, Loebbecke, Iskandar, Susela, Isa, and Boh (1999) defined an audit committee as a team of members which selected from a company's board of directors whereby part of their responsibilities is to assist the auditors in maintaining the management independent. As such, it is strongly believed that there is a significant relationship between audit committees with the level of auditor independence (Abu Bakar & Ahmad, 2009). Prior studies have found greater audit committee independence to be associated with improved monitoring of the financial reporting process as audit committees plays an important role towards regulators, accounting profession, and the business community (Abbott & Parker, 2000; Carcello & Neal, 2000). In addition, audit committee could enhance the communication network between auditor and management (Goodwin-Stewart & Kent, 2006; Stewart & Munro, 2007). Due to the lack of independence in audit committee members, it would cause companies in committing financial statement fraud (Beasley, Carcello, Hermanson, & Lapides, 2000). According to Abbott, Parker, Peters, and Raghunandan (2003), companies that did not commit fraud tend to have more independent audit committees than companies committing fraud. Furthermore, Beasley et al. (2000) found that the firms involved in the frauds generally had audit committees that were typically inactive and were less independent of management. The existence of audit committee has a strong and significant impact towards a company's auditor independence (Teoh & Lim, 1996; Abu Bakar & Ahmad, 2009).

2.1.4 Audit Fees

Audit fees are defined as the amount paid by firms to their auditors to certify the firm's consolidated accounts (Andre, Broye, Pong, & Schatt, 2011). Therefore, clients can exercise pressure on auditors' judgments and

thus affect the auditor independence. Besides, the study of Bailey (1992) analyzed the pressure to collect audit fees, clients owing audit fees and independence of auditors. Large audit fees are normally associated with a higher risk of losing the auditor independence (Abu Bakar et al., 2005). Ashbaugh, LaFond, and Mayhew (2003) found a significant effect of audit fees on abnormal accruals in both United States and United Kingdom. The result supported by the study of Moore et al. (2002) which speculated that high audit fees between auditors and clients can generate bias in auditors. Hay, Knechel, and Wong (2006) mentioned that auditors were to reduce audit fees in order to obtain consulting work that would turn into a threat of independence which implied a negative relationship between audit and non-audit services. Besides, Chung and Kallapur (2003) inquired whether high non-audit fee ratios gave auditors incentives to compromise their independence. On the other hand, Chen et al. (2005) used non-audit services (NAS) measured as a percentage of non-audit fees over total fees that received from the client due to the non-audit fees have become the major source of revenue for most of the audit firms.

2.1.5 Audit Market Competition

Audit market competition is defined as the level of competition within the external audit market (Baotham & Ussahawanitchakit, 2009). According to MacLullich and Sucher (2005), auditor independence can be endangered through the factor of constant competition in audit services market. In addition, the study conducted by Windmoller (2000) found that the relationship between audit market competition and auditor independence is significantly related. The result stated that auditors need to improve in providing more global exposure services to their international clients. On the other hand, Tahinakis and Nicolaou (2004) reported that the audit market competition have a greater impact on partners in small audit firms than in big firms. Based on the prior studies of Beattie, Brandt, and Fearnley (1999) in United Kingdom, competition in the audit services

market is a major threat to auditor independence although it was seem to be a small factor. However, according to the research of Alleyne et al. (2006), high competition was found to negatively affect perceptions of auditor independence in Barbados. The result showed that audit market with high competition environment was ranked relatively low to moderate by both auditors and users as potential threat factors.

2.2 Review of Relevant Theoretical Model

2.2.1 Role Conflict Theory

Role conflict theory is developed by Rizzo, House, and Lirtzman (1970) in their study of "Role Conflict and Ambiguity in Complex Organizations" which is defined as the dimensions of compatibility-incompatibility or congruency-incongruency in satisfying the role, where compatibility or congruency is relatively judged to a set of standards or conditions which impinge upon role performance. Individual may experience stress, dissatisfied, and lead to poor performance when the behaviours expected is inconsistent, thus decreased individual satisfaction and organizational effectiveness as a whole (Rizzo et al., 1970).

There are four types of conflicts in role may arises (Rizzo et al., 1970). The first type is person-role conflict where conflicts occurred between a person's single position and the defined role behaviour. The second type of conflict occurs when a person is lack of capabilities, time or resources in handle the role given to him, known as intrasender role conflict. The third type is interrole conflict where a person involves in more than one position in a situation which requires incompatible behaviours, which is role overload. The fourth type is intersender role conflict which describes the conflicting expectations and organizational demand in the form of

conflicting requests from others, incompatible policies, and incompatible standards of evaluation.

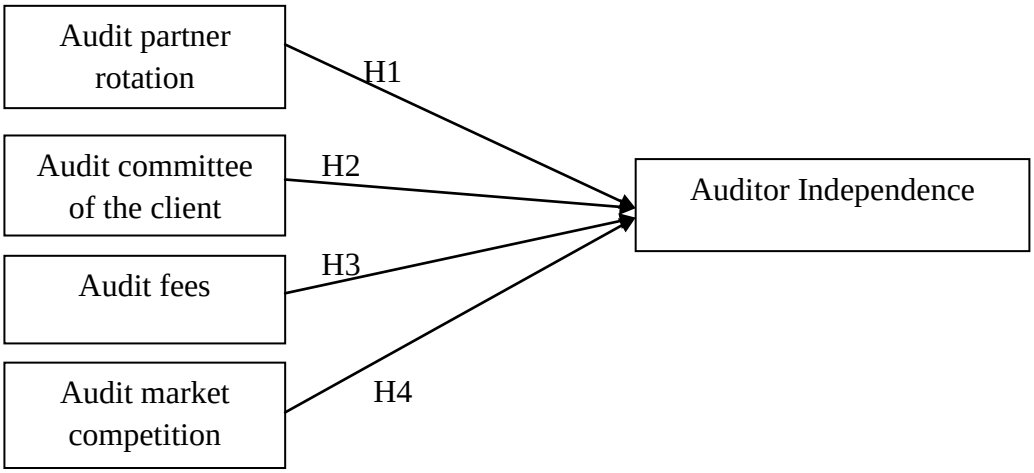
There are various studies conducted in different areas based on the role conflict theory developed by Rizzo et al. (1970). Onyemah (2008) conducted a survey of 1,290 salespeople to investigate the relationship between role ambiguity, role conflict and performance which might affect inverted-U relationship in United States. Alleyne et al. (2006) studied the perceptions of auditor independence between auditors and users in Barbados by applying the role conflict theory. Koo and Sim (1999) examined the role conflict of auditors in Korea by stressing the need for a separation of the auditor's role into a service function and a monitoring function. The prior studies of Bamber, Snowball, and Tubbs (1989) investigated the audit structure and its relation to role conflict and role ambiguity based on a sample of 67 seniors from structured and 54 seniors from unstructured firms in United States.

Intersender role conflict is adopted in this study which contributes to the four factors that affect the auditor independence in Big 4 audit firms in Malaysia, namely audit partner rotation, audit committee of the client, audit fees, and audit market competition. The theory is chosen because it is most appropriate to apply in the research. Auditors have to satisfy the needs of the client and third parties where one needs must be satisfied at the expense of the other need. Management will require the auditors to ignore the manipulation in financial statement (Koo & Sim, 1999), but the third parties such as publics and investors would require the auditor to perform their professional ethic by detecting fraud in the financial statement which in turn to monitor manager's performance (Mills & Bettner, 1992). Therefore, this study seeks to understand and examine the relationships between the independent variables and auditor independence in Malaysia's Big 4 audit firms.

2.3 Proposed Conceptual Framework

The relationship between the four factors and auditor independence is illustrated in Figure 2.1.

Figure 2.1: The Four Factors affecting Auditor Independence



Adapted from: Chia-Ah, E., & Karlsson, J. (2010). *The impact of extended audit tenure on auditor independence: Auditors perspective*. Unpublished master's thesis, Umeå University, Umeå, Sweden.

2.4 Hypotheses Development

Based on the prior empirical studies on the factors that affecting auditor independence, the following hypotheses were proposed:

Hypothesis 1

H_0: There is no significant relationship between audit partner rotation and auditor independence in Big 4 audit firms in Malaysia.

H_1: There is a significant relationship between audit partner rotation and auditor independence in Big 4 audit firms in Malaysia.

Hypothesis 2

H_0: There is no significant relationship between audit committee of the client and auditor independence in Big 4 audit firms in Malaysia.

H_1: There is a significant relationship between audit committee of the client and auditor independence in Big 4 audit firms in Malaysia.

Hypothesis 3

H_0: There is no significant relationship between audit fees and auditor independence in Big 4 audit firms in Malaysia.

H_1: There is a significant relationship between audit fees and auditor independence in Big 4 audit firms in Malaysia.

Hypothesis 4

H_0: There is no significant relationship between audit market competition and auditor independence in Big 4 audit firms in Malaysia.

H_1: There is a significant relationship between audit market competition and auditor independence in Big 4 audit firms in Malaysia.

2.5 Conclusion

This chapter provides a thorough assessment on the factors that brings impact to the auditor independence by comprehensive literature review with relevant theoretical model. The proposed conceptual framework demonstrates the relationships among the variables which lead to the establishment of hypotheses development. The next chapter will be presenting the research methodology.

CHAPTER 3: METHODOLOGY

3.0 Introduction

The chapter gives an overview of research methodology by introduces the research design in the first stage. Subsequently, the data collection methods and sampling design would explain in details of the way of conducting the survey. Measurement and techniques of questionnaire being applied is discussed under research instrument and constructs instrument. Lastly, data processing and analysis is presented to summarize the findings.

3.1 Research Design

The purpose of this research survey is to investigate the perceptions of auditors in Big 4 audit firms of Malaysia towards auditor independence. An exploratory research is conducted based on deductive approach with quantitative research. This is because all the variables can be measured, categorized, and quantified into a numerical form. Therefore, the relationship between the factors and auditor independence can be examined and analyzed in a statistical way from the data collected. The research is based on a cross-sectional study due to the time constraint by academic purposes. As a result, a limited investigation was carried out to a subset of population only.

3.2 Data Collection Method

3.2.1 Primary Data

Self-administered questionnaires will be adopted in this research as a method of primary data collection. Web-based questionnaire was used in

collecting data to increase the response rate from selected states in Malaysia. A survey method is preferable not only due to inexpensive, quick, efficient and accurate means of assessing information about the population (Zikmund, 2000), but most importantly it serves as the best vehicle to measure perceptions (Beattie et al., 1999).

3.3 Sampling Design

3.3.1 Target Population

According to Cooper and Schindler (2008), target population is explained as those people, events, or records that contain the desired information which can answer the measurement questions. The target population of the survey is the auditors employed in Big 4 audit firms in Malaysia. In order to make an inference on the population, the sample statistic is chosen to apply in the research. Sampling method is needed when requires the result quickly due to the budget and time constraints that prevent from surveying the entire population.

3.3.2 Sampling Frame and Sampling Location

The survey is randomly drawn out from Big 4 audit firms in Malaysia with a total number of 6900 individuals as the complete list of sampling frame for all Big 4 auditors has not been developed in this research (Kumar, Gani, & Sagayaraj, 2009). The total number of individual is based on the latest data from each of the Big 4's company website. The study is focused on the selected states in Malaysia, which are Selangor and Wilayah Persekutuan Kuala Lumpur, Pulau Pinang, Johor, and Wilayah Persekutuan Labuan. This is because those states are contributing in economic growth with a higher GDP percentage in different business

sectors as compared to other states. Moreover, Wilayah Persekutuan Kuala Lumpur and Selangor are the main contributors in the services sector, with a total share of 47.9 per cent to the national level (Department of Statistics Malaysia, 2011). Therefore, it could bring significance impact to the result of survey.

3.3.3 Sampling Elements

Jenkins and Krawczyk (2001) stated that Big 4 auditors' perceptions are important because they are the only audit practitioners who audit most of the companies' financial statements. Therefore, the target respondent or the unit of analysis for the study is the individual auditors comprises of the junior entry, middle and senior level auditors of the Big 4 audit firms located in selected states of Malaysia. The junior entry to senior level auditors were selected as the target respondents as they are knowledgeable in auditing areas and personally involved in the audit procedures.

3.3.4 Sampling Technique

The sampling technique applied in this paper is convenience sampling technique, which is one of the non-probability sampling methods. Hence, the target respondents are chosen randomly from the selected geographical areas to form a sample. Convenience sampling is cost-efficiency and time-saving because this technique has lesser procedures in data collection as compared to the other sampling techniques.

3.3.5 Sampling Size

Hair, Black, Babin, Anderson, and Tatham (2005) suggested that a sample size between 100 and 200 are adequate and sufficient. As the research is a

cross-sectional study, 320 sets of web-based questionnaires were distributed via electronic mail to the target respondent in each of the selected states. However, only 222 questionnaires were successfully responded. Among the feedback, there are 22 sets contained missing or incomplete data while 4 sets are outliers. Eventually, only 196 questionnaires are qualified for data analysis purposes.

3.4 Research Instrument

Questionnaire is an effective tool to seek opinions and attitudes about auditor independence issues as well as assessing cause-and-effect relationships (Ghauri & Gronhaug, 2002). The survey questionnaires is chosen due to the use of rating scales in numerical form which can help simplify respondent's behaviors and attitudes within the large sample size. This is also to protect the privacy of the respondents by filing in anonymously and thus increase the accuracy of data collected. A series of pilot test were undertaken and it is useful when incorporated into the draft questionnaire (Sori, Mohammad, & Karbhari, 2006). 30 sets of pilot test questionnaires are conducted among lecturers with accounting and auditing background in UTAR Kampar to ensure the reliability and simplicity of the questions. The purpose of the pre-test is to verify the logical consistencies, detect weaknesses of the questions, and identify the relevancy of the context. The questionnaires are reliable and could be used because the Cronbach's Alpha reliable coefficient for the overall assessment was 0.72 in the pilot test. After going through the pilot test, some modification had been made to adjust the instrument clarity. Web-based questionnaire were sent to the Big 4 audit firms in selected states to get the permission of filling questionnaires. The given duration of survey completion is 1 month, which is considered sufficient and appropriate.

Table 3.1: Result of Reliability Analysis for Pilot Test

Cronbach's Alpha	Strength of association	Number of items
0.72	Good	28

Source: Developed for the research

3.5 Constructs Measurement

Structured questions are designed for the survey questionnaires in order to collect data. The primary scale of measurement used in this research was nominal, ordinal and interval scale.

3.5.1 Scaling Techniques

3.5.1.1 Nominal Scale

Nominal scale is used to measure the category of variables which unable to arrange orderly or ranking in different level. Therefore, it is applied on the respondent's gender, marital status, Big 4 auditing companies being employed, and the location of branch for the demographic profile in Section A. This is to identify the total frequency of number in the specific category of variables.

3.5.1.2 Ordinal Scale

Ordinal scale has the order scaling properties where the raw responses can be ranked orderly into the hierarchical pattern. In this research, ordinal

scale is used to measure the category of age, education level, monthly income, length of services, and job position.

3.5.1.3 Interval Scale

Scale of measurement being applied in Section B is interval scale, which is also known as the Likert scale (Zikmund, 2003). It is used to measure the level of agreement or disagreement towards an investigated subject with five different scale rates ranging from (1) = Strongly Disagree to (5) = Strong Agree. In this study, 5-point Likert scale is used to measure the dependent variable (auditor independence) and independent variables (audit partner rotation, audit committee of the client, audit fees and audit market competition).

3.5.2 Operational Definitions of Constructs

3.5.2.1 Audit Partner Rotation

Audit partner rotation refers to an engagement partner as key audit personnel is periodically rotated off the audit (Hamilton et al., 2005). This independent variable is derived from Daugherty, Dickins, and Higgs (2009). Some modification had made based on the origins and ultimately, there are five sample items being adapted from the source.

Table 3.2: The Five Measures for Audit Partner Rotation

No.	Audit Partner Rotation's Sample Items
1.	Auditor independence in fact could be improved through accelerated audit engagement partner rotation requirement.
2.	Auditor independence in appearance could be improved through accelerated audit engagement partner rotation requirement.
3.	Investor confidence could be improved through accelerated audit engagement partner rotation requirement, for example less than 5 years.
4.	Independence in fact could be improved by increasing the cooling off period from 2 years to 5 years before an audit engagement partner can rotate back to a client.
5.	Independence in appearance could be improved by increasing the cooling off period from 2 years to 5 years before an audit engagement partner can rotate back to a client.

Source: Daugherty, B., Dickins, D., & Higgs, J. (2009). *Audit partner rotation: An analysis of benefits and costs*. Unpublished master's thesis, University of Wisconsin, Milwaukee, USA.

3.5.2.2 Audit Committee of the Client

An audit committee is a team of members being selected from company's board of directors to assist the external auditors in reporting financial issues. There are six sample items being adapted from Tengamnuay and Stapleton (2009) after appropriate considerations.

Table 3.3: The Six Measures for Audit Committee of The Client

No.	Audit Committee of the Client's Sample Items
1.	My client's audit committee discuss the conduct of audit and any problems arising from the audit with us.
2.	My client's audit committee discuss the meaning and significance of the audited financial statements with us.
3.	My client's audit committee discuss the scope and timing of audit work with us.
4.	My client's audit committee review auditor's internal control evaluation and recommendations.
5.	My client's audit committee review management's response to auditors' internal control recommendations.
6.	My client's audit committee arbitrate in disputes between management and auditors.

Source: Tengamnuay, K. & Stapleton, P. (2009). The role of the audit committee in Thailand: A mature monitoring mechanism or an evolving process? *Journal of Management & Governance, 13*, 131-161.

3.5.2.3 Audit Fees

Audit fees refer to the amount of payment for the assistance rendered from providing auditing and compliance services. There are five sample items adapted from Bailey (1992) for measurement purposes.

Table 3.4: The Five Measures for Audit Fees

No.	Audit Fees' Sample Items
1.	There is a pressure for your associates to collect the audit fees.
2.	When the audit fees charged is initially lower, you tend to charge more in other engagement services.
3.	In order to collect audit fees, you will consider yielding to client disclosure requests.
4.	When the clients pay the higher audit fees, you will feel obligated to those clients.
5.	In order to retain clients who have paid their fees, you will consider yielding to client disclosure requests.

Source: Bailey, J. A. (1992). Audit fee effect on auditor independence. *Research paper*, 1-106.

3.5.2.4 Audit Market Competition

Audit market competition refers as the level of competition within the external audit market (Baotham & Ussahawanitchakit, 2009). The six sample items are derived from General Accounting Office (2008).

Table 3.5: The Six Measures for Audit Market Competition

No.	Audit Market Competition's Sample Items
1.	In the audit market, a firm becomes more competitive with larger firms.
2.	In the audit market, a firm becomes more competitive when increases international reach.
3.	Specialized technique and/or industrial expertise will increase the audit market competition.
4.	Taking advantage of referral and marketing tools provided by affiliation will increase the audit market competition.
5.	Joint training and/or compliance programs form employees will increase the audit market competition.
6.	An affiliation audit firm has the advantages of cost sharing will increase the audit market competition.

Source: General Accounting Office (GAO) (2008). *Report to congressional addressees: Audits of public companies continued concentration in audit market for large public companies does not call for immediate*. Retrieved August 1, 2011, from http://www.gao.gov/special.pubs/gao-08-164sp/firm/08-164spb6.html

3.5.2.5 Auditor Independence

Auditor independence is defined as maintaining the independent audit function when carried out an audit process, whereby it is mandatory by the standard of profession (Chen at el., 2005). The dependent variable is computed using the following six measures which origins from Solomon, Reckers, and Lowe (2005).

Table 3.6: The Six Measures for Auditor Independence

No.	Auditor Independence's Sample Items
1.	The role of external auditor is to be a public watchdog.
2.	The present audit standards are very high.
3.	As external auditors cannot look at every client transaction, therefore they must rely on the samples and tests of relationship when conduct an audit.
4.	Another main role of auditor is to be an insurer against majority shareholders losses.
5.	Another role of the auditor is to actively search for fraud, no matter how small the fraud is.
6.	The big audit firms and big auditors work closely with others related parties and only tell the clients what they want.

Source: Solomon, S., Reckers, P. M. J., & Lowe D. J. (2005). The impact of management image and non-audit service fees on investors' perceptions of earnings quality. *Advance in Accounting, 21*, 199-216.

3.6 Data Processing

The very first step before analyses the data is to filter and verify the accessibility of the raw data. This included a series of data preparation processes such as checking, editing, coding, entering, and transcribing.

3.6.1 Data Checking

Data checking serves as an important step in future data analysis because it is the earliest stage to detect and find out the completeness and usability of the questionnaire being returned. It is also to ensure the reliability of the result being processed. Therefore, any questionnaire which is incomplete, missing data, unqualified respondents with insufficient information attached is being eliminated from further processing.

3.6.2 Data Editing

After checking the data in the first round, the raw data was then reviewed and edited to remove the unqualified data. Corrections are made to the errors areas where it is necessary. The purpose of data editing is to enhance the accuracy of data and increase the data quality standards.

3.6.3 Data Coding

Data coding is a process of assigning specific numbers or symbols to the answers of questionnaire so that the various responses can be differentiated easily and grouped into a limited number of categories. This can reduce the chances of making typing errors in the future data entering processes and it is more time saving. The raw data from the survey were then coded into a numerical form. For example, in the Section A of the

questionnaire, which is demographic profile, male is coded as '1' whereas female is coded as '2'. Similarly, Section B which is measured by Likert scale also applying the coding function, where strongly disagree is coded with '1', disagree is coded with '2', and so on and so forth.

3.6.4 Data Entering

After coding the data into specific categories, it then transferred into data analysis software for the purpose of future result interpretation. The data entered was then double checked to ensure there is no any discrepancy with the actual data in the questionnaire. Any invalid data was then identified by the software and reviewed again as a whole.

3.6.5 Data Transcribing

In this stage, the coded data was transcribed by the data analysis software by an optical scanning which is able to read the code and produce the transcription simultaneously. Ultimately, the average sum of scores was then used for further analysis.

3.7 Data Analysis

The data collected and entered into the program was analyzed using Statistical Package for the Social Sciences (SPSS) version 16.0. SPSS software is used to perform descriptive statistics, reliability test, normality test, Pearson Correlation Coefficient, and Multiple Regression Analysis in this research.

3.7.1 Descriptive Analysis

Descriptive statistic is used to describe the sample characteristics by using measurements such as mean, median, mode and standard deviation together with the form of pie charts, graphs or histograms. In other words, it transformed the raw data into numerical or graphical form for a better interpretation of result. Descriptive analysis is used to present the demographic profile of the survey questionnaire and central tendencies measurement of construct.

3.7.2 Scale Measurement

The primary scale of measurement used in tested the validity of data is reliability test and normality test.

3.7.2.1 Reliability Test

Cronbach's alpha is one of the most common measurements of internal consistency for reliability test. According to Cronbach (1951), it is used as a measurement of reliability for two or more construct indicators. In order to access the correlation between the variable items in survey questionnaire, a reliability test of 30 samples is conducted in the pre-test to ensure the validity of the sample items. The amount of sample size is sufficient for the test according to Fleiss (1986), who suggested 15 to 20 samples is an adequate amount for reliability test. The rule of thumb for evaluating alpha coefficients proposed by Hair, Money, Samouel and Page (2007) are illustrated in Table 3.7. Under the rule, Cronbach's alpha below 0.6 is considered have a poor association whilst Cronbach's alpha higher than 0.7 indicates a good reliability.

Table 3.7: Rule of Thumb for Evaluating Alpha Coefficients

Alpha Coefficient Range	Strength of Association
<0.6	Poor
0.6 to <0.7	Moderate
0.7 to <0.8	Good
0.8 to <0.9	Very Good
≥0.9	Excellent

Source: Hair, J. F. Jr., Money, A. H., Samouel, P., & Page, M. (2007). *Research Methods for Business.* England: John Wiley & Sons, Ltd.

3.7.2.2 Normality Test

According to Hair et al. (2005), normality test is used to examine the degree of distribution data corresponds to the normal distribution. In order to prove the normality of data distribution, a normality test is conducted to ensure the p-value is more than 0.05. The data is considered normally distributed when the significance level is above 0.05 (Cohen, 1988).

3.7.3 Inferential Analysis

Inferential analysis is a statistical technique used to make inferences in a more general conditions based on the sample data. In other words, it comes out with a conclusion towards the population being studied by analyzed the data collected from sample. As the variable is measured in interval scale, parametric statistics being used in this research included Pearson Correlation Coefficient and Multiple Regression Analysis.

3.7.3.1 Pearson Correlation Coefficient

Pearson Correlation Coefficient is used to test the relationship and direction between two variables. Ratner (2009) stated that coefficient of correlation, *r* is a measure of the strength of the straight line or linear relationships between a single dependent variable and multiple independent variables. According to Saunders, Lewis, and Thornhill (2009), the coefficient result has a range of possible value from -1 (perfect negative correlation) to +1 (perfect significant correlation). When a value is nearest to +1, it indicates there is a strong and significant relationship between both of the variables, whereas 0 value shows that both of the variables are perfectly independent, that is no relationship exists. The rule of thumb for Pearson Correlation Coefficient is demonstrated in Table 3.8 as shown below.

Table 3.8: Rule of Thumb for Pearson Correlation Coefficient

Coefficient Range	Strength of Association
±0.91 to ±1.00	Very Strong
±0.71 to ±0.90	High
±0.41 to ±0.70	Moderate
±0.20 to ±0.40	Small but definite relationship
±0.00 to ±0.20	Slight, almost neligible

Source: Hair, J., Money, A., Samouel, P., & Page, M. (2007). *Research methods for business*. New York: John Wiley & Sons, Inc.

3.7.3.2 Multiple Regression Analysis

Multiple Regression Analysis is a statistical technique that used to determine whether the multiple independent variables are correlated with a single dependent variable by forming a mathematical regression, which are denoted by r square. The equation was used to predicts and explain the

causal relationship between the four factors and auditor independence. Also, this analysis can determine which of the factors are significantly influences the dependent variable, which is auditor independence. According to Brace, Kemp, and Snelgar (2006), r is the measurement of correlation between the observed value and predicted value of the dependent variable whereas r square measures the proportion of the variance in dependent variable that is accounted by independent variables.

3.8 Conclusion

This chapter presents the flow of methodology from the beginning in terms of research design, data collection methods, sampling design, operational definitions of constructs, measurement scales, to the methods of data analysis at the end. The application of SPSS software is briefed in the data processing. The next chapter will demonstrate the result from the descriptive and inferential analysis.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

This chapter begins with descriptive analysis which comprises of demographic profile of the respondent and central tendencies measurement of constructs, followed by scale measurement and inferential analysis, and lastly will be the conclusion for this chapter. SPSS version 16.0 software is used to test the hypotheses which determines the significance of dependent or independent variables being applied in this research.

4.1 Descriptive Analysis

4.1.1 Demographic Profile of the Respondents

The survey conducted had an overall response rate of approximately 69.38%. 222 out of 320 copies of questionnaires were used for analyzing and 26 data had been deleted due to outliners and incomplete data. There are 9 questions under this section in term of gender, marital status, age, education level, monthly income, length of service, job position, Big 4 audit firms, and location.

4.1.1.1 Gender

Table 4.1: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	82	41.8	41.8	41.8
	Female	114	58.2	58.2	100.0
	Total	196	100.0	100.0	

Source: Developed for the research

Table 4.1 shows that male respondents consist of 41.8 % whereas female respondents consist of 58.2% from the total of 196 respondents. It appeared that responses from female are greater than male.

4.1.1.2 Marital Status

Table 4.2: Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	100	51.0	51.0	51.0
	Married	81	41.3	41.3	92.3
	Divorced	15	7.7	7.7	100.0
	Total	196	100.0	100.0	

Source: Developed for the research

From the survey, respondents in single have the highest percentages with 51%, followed by married and divorced that are consisting of 41.3% and 7.7% respectively.

4.1.1.3 Age

Table 4.3: Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 25 years old	101	51.5	51.5	51.5
	26-30 years old	62	31.6	31.6	83.2
	31-35 years old	27	13.8	13.8	96.9
	36-40 years old	3	1.5	1.5	98.5
	Above 40 years old	3	1.5	1.5	100.0
	Total	196	100.0	100.0	

Source: Developed for the research

Based on the survey, majority of respondents are below 25 years old, which are 101 out of 196 respondents or 51.5%. The least respondents are between 36 to 40 years old and above 40 years old with 1%.

4.1.1.4 Highest Education Level

Table 4.4: Highest Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	20	10.2	10.2	10.2
	Bachelor Degree	111	56.6	56.6	66.8
	Masters	35	17.9	17.9	84.7
	Professional Qualification	30	15.3	15.3	100.0
	Total	196	100.0	100.0	

Source: Developed for the research

Table 4.4 illustrate the highest education level of the respondents. About 56.6% of respondents had earned a bachelor's degree and 17.9% of respondents had a master degree in the field of accounting. 30 out of 196 or 15.3% respondents had earned a professional qualification. The minority of respondents had earned a diploma which consists of 10% out of 100%.

4.1.1.5 Monthly Income

Table 4.5: Monthly Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below RM2000	71	36.2	36.2	36.2
	RM2001-RM3000	44	22.4	22.4	58.7
	RM3001-RM4000	56	28.6	28.6	87.2
	RM4001-RM5000	25	12.8	12.8	100.0
	Total	196	100.0	100.0	

Source: Developed for the research

The majority of respondents' monthly income level is below RM2000, which are 36.2% or 71 out of 196 respondents. The least respondents' monthly income level fell into categories of RM 4001 to RM 5000, which consists only 12.8%.

4.1.1.6 Length of Services

Table 4.6: Length of Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 3 years	115	58.7	58.7	58.7
	3-6 years	64	32.7	32.7	91.3
	7-10years	10	5.1	5.1	96.4
	Above 10 years	7	3.6	3.6	100.0
	Total	196	100.0	100.0	

Source: Developed for the research

The survey has a majority of respondents with 58.7 % or 115 out of 196 respondents have worked in audit firms for less than 3 years. Approximately 32.7% of the respondents have 3 to 6 years audit experience, 5.1% have 7 to 10 years audit experience and 3.6% have more than 10 years audit experiences.

4.1.1.7 Job Position

Table 4.7: Job Position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Entry level	114	58.2	58.2	58.2
	Middle level	59	30.1	30.1	88.3
	Senior level	23	11.7	11.7	100.0
	Total	196	100.0	100.0	

Source: Developed for the research

Table 4.7 describe the job position of the respondents in the current institution. Most of the respondents fell into categories of entry level and follow by middle level, which consists of 58.2% and 30.1% correspondingly. The least respondents were from senior level which consists of 11.7% of the total.

4.1.1.8 Big 4 Audit Branch

Table 4.8: Big 4 Audit Branch

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Deloitte & Touche	47	24.0	24.0	24.0
	Ernst & Young	84	42.9	42.9	66.8
	PricewaterhouseCoopers (PWC)	33	16.8	16.8	83.7
	Klynveld Peat Marwick Goerdeler (KPMG)	32	16.3	16.3	100.0
	Total	196	100.0	100.0	

Source: Developed for the research

The survey has a high number of respondents from Ernst & Young, which is 42.9% or 84 out of 196 respondents. About 24% of respondents work in Deloitte & Touche, 16.8% in PricewaterhouseCoopers (PWC) and the remaining of 16.3% in Klynveld Peat Marwick Goerdeler (KPMG).

4.1.1.9 Location

Table 4.9: Location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Selangor & KL	43	21.9	21.9	21.9
	Pulau Pinang	51	26.0	26.0	48.0
	Johor	55	28.1	28.1	76.0
	WP Labuan	47	24.0	24.0	100.0
	Total	196	100.0	100.0	

Source: Developed for the research

The result represents the location of Big 4 branch. 28.1% of the respondents are from the Johor's branch. About 26% of respondents from Pulau Pinang's branch, 24% of respondents from WP Labuan's branch and the remaining 21.9% of respondents are from Selangor & Kuala Lumpur's branch. Thus, the respondents are spread quite evenly to represent the Big 4 auditor in Malaysia.

4.1.2 Central Tendencies Measurement of Constructs

Table 4.10: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Audit Partner Rotation	196	2.20	5.00	3.6633	.67942
Audit Committee of the Client	196	2.33	4.83	3.6990	.58649
Audit Fees	196	1.00	5.00	3.2214	.78795
Audit Market Competition	196	3.00	5.00	4.1352	.39296
Auditor Independence	196	2.33	5.00	4.0553	.55719
Valid N (listwise)	196				

Source: Developed for the research

In Table 4.10, mean value for every variables are more than 3.00. Therefore, the 4 variables used to test the relationship with Big 4's auditor independence are accepted. Centre of the scale is considered acceptable if the value is more than 3.00 as a minimum value for cut point (Aksu, 2003). Besides, the statistics indicated that respondents are choosing above neutral in the data measurement (1= strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree).

4.2 Scale Measurement

4.2.1 Reliability Test

Cronbach's alpha is used to determine the reliability for all the variables in the questionnaire. Reliability analyses among those items are showed in below:

Table 4.11: Reliability Test

Variables	Crobanch's Alpha	No. of Items
Audit Partner Rotation	0.775	5
Audit Committees of the client	0.736	6
Audit Fees	0.817	5
Audit Market Competition	0.625	6
Auditor Independence	0.683	6

Source: Developed for the research

Table 4.11 shows that all the variables are consistent and reliable to be analyzed due to the majority of variables tested have alpha value more than 0.7 (Cronbach's alpha 0.70 - 0.82). However, audit market competition and auditor independence have lower alpha score (less than 0.7) with Cronbach's alpha 0.625 and 0.683 respectively, but it was accepted. According to Triemstra, Winters, Kool, and Wiegers (2010), an alpha score between 0.6 and 0.7 are provisionally accepted but need to be evaluated in future study whereas no reliable scale (Cronbach's alpha < 0.6) should be presented separately.

4.2.2 Normality Test

The dependent variable, auditor independent is examined by Shapiro-Wilks test and Kolmogorov-Smirnov test as common statistical tests for normality in order to determine whether the data is normally distributed.

Table 4.12: Normality Test

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Normal Score of ZRE_5 using Rankit's Formula	.010	196	.200*	1.000	196	1.000

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Source: Developed for the research

Shapiro-Wilks is recommended for small data test (less than 50) whereas Kolmogorov-Smirnov test is recommended for larger data samples. The result of Kolmogorov-Smirnov test is considered due to the 196 surveys were obtained for this research. The result shows it is significant because the p-value is 0.2 ($p > 0.05$). The data distribution from score does not deviate from the normal distribution.

4.3 Inferential Analysis

4.3.1 Pearson Correlation Coefficient

Based on the result, the highest and the lowest correlation between independent variables and dependent variable are 0.514 and 0.360 respectively. Besides, the relationships between all independent variables, which are audit partner rotation, audit committee of the client, audit fees, and audit market competition are less than 0.75. This indicates that there is no multicollinearity problem in our research (Wu, 2007).

4.3.1.1 Audit Partner Rotation

Table 4.13: Pearson Correlation between Audit Partner Rotation and Auditor Independence

Descriptive Statistics

	Mean	Std. Deviation	N
Audit Partner Rotation	3.6633	.67942	196
Auditor Independence	4.0553	.55719	196

Correlations

		Audit Partner Rotation	Auditor Independence
Audit Partner Rotation	Pearson Correlation	1	.360**
	Sig. (2-tailed)		.000
	N	196	196
Auditor Independence	Pearson Correlation	.360**	1
	Sig. (2-tailed)	.000	
	N	196	196

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

Source: Developed for the research

According to Table 4.13, there is a small but definite relationship between audit partner rotation and auditor independence as the strength of association between these two variables is 0.36 which is within the range of ±0.21 to ±0.40 at significant value (2-tailed) of 0.000 which is lesser than 0.01. The result indicates that there is a significant relationship between audit partner rotation and auditor independence.

4.3.1.2 Audit Committee of the Client

Table 4.14: Pearson Correlation between Audit Committee of the Client and Auditor Independence

Descriptive Statistics

	Mean	Std. Deviation	N
Audit Committee of the Client	3.6990	.58649	196
Auditor Independence	4.0553	.55719	196

Correlations

		Audit Committee of the Client	Auditor Independence
Audit Committee of the Client	Pearson Correlation	1	.468**
	Sig. (2-tailed)		.000
	N	196	196
Auditor Independence	Pearson Correlation	.468**	1
	Sig. (2-tailed)	.000	
	N	196	196

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

Source: Developed for the research

According to Table 4.14, there is a moderate relationship between audit committee of the client and auditor independence as the strength of association between these two variables is 0.468 which is within the range of ±0.41 to ±0.70 at significant value (2-tailed) of 0.000 which is lesser than 0.01. The result indicates that there is a significant relationship between audit committee of the client and auditor independence.

4.3.1.3 Audit Fees

Table 4.15: Pearson Correlation between Audit Fees and Auditor Independence

Descriptive Statistics

	Mean	Std. Deviation	N
Audit Fees	3.2214	.78795	196
Auditor Independence	4.0553	.55719	196

Correlations

		Audit Fees	Auditor Independence
Audit Fees	Pearson Correlation	1	.489**
	Sig. (2-tailed)		.000
	N	196	196
Auditor Independence	Pearson Correlation	.489**	1
	Sig. (2-tailed)	.000	
	N	196	196

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

Source: Developed for the research

According to Table 4.15, there is a moderate relationship between audit fees and auditor independence as the strength of association between these two variables is 0.489 which is within the range of ±0.41 to ±0.70 at significant value (2-tailed) of 0.000 which is lesser than 0.01. The result indicates that there is a significant relationship between audit fees and auditor independence.

4.3.1.4 Audit Market Competition

Table 4.16: Pearson Correlation between Audit Market Competition and Auditor Independence

Descriptive Statistics

	Mean	Std. Deviation	N
Audit Market Competition	4.1352	.39296	196
Auditor Independence	4.0553	.55719	196

Correlations

		Audit Market Competition	Auditor Independence
Audit Market Competition	Pearson Correlation	1	.514**
	Sig. (2-tailed)		.000
	N	196	196
Auditor Independence	Pearson Correlation	.514**	1
	Sig. (2-tailed)	.000	
	N	196	196

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

Source: Developed for the research

According to Table 4.16, there is a moderate relationship between audit market competition and auditor independence as the strength of association between these two variables is 0.514 which is within the range of ±0.41 to ±0.70 at significant value (2-tailed) of 0.000 which is lesser than 0.01. The result indicates that there is a significant relationship between audit market competition and auditor independence.

4.3.2 Multiple Regression Analysis

Table 4.17: Model Summary

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.674[a]	.455	.443	.41569	1.743

a. Predictors: (Constant), Audit Market Competition, Audit Partner Rotation, Audit Fees, Audit Committee of the Client

b. Dependent Variable: Auditor Independence

Source: Developed for the research

Table 4.17 shows that the correlation coefficient (R) is 0.674 which indicates that all the independent variables are influencing each other by 67.4%. Besides, the coefficient of determination (R square) of 0.455 indicates that 45.5% of variance in auditor independence is being explained by audit partner rotation, audit committee of the client, audit fees and audit market competition whereas 54.5% of variance in auditor independence is being explained by other factors that are not being selected by researchers.

Table 4.18: Stepwise Regression

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.514[a]	.264	.261	.47914
2	.631[b]	.398	.392	.43443
3	.674[c]	.454	.446	.41479

a. Predictors: (Constant), Audit Market Competition

b. Predictors: (Constant), Audit Market Competition, Audit Fees

c. Predictors: (Constant), Audit Market Competition, Audit Fees, Audit Committee of the Client

d. Dependent Variable: Auditor Independence

Source: Developed for the research

Stepwise regression is the most sophisticated statistical method which will produce the result with the smallest possible set of independent variables which contribute to the success of the research model (Brace et al., 2006). According to Table 4.18, R square of 0.454 indicates that 45.4% of the variation in dependent variable, which is auditor independence, could be explained by the three independent variables, that is audit committee of the client, audit fees and audit market competition.

Table 4.19: ANOVA

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.536	4	6.884	39.839	.000[a]
	Residual	33.004	191	.173		
	Total	60.540	195			

a. Predictors: (Constant), Audit Market Competition, Audit Partner Rotation, Audit Fees, Audit Committee of the Client

b. Dependent Variable: Auditor Independence

Source: Developed for the research

Based on Table 4.19, the p-value of 0.000 which is less than 0.05 indicates that the model is statically significant (Motulsky, 1999). In addition, there is a regression relationship between auditor independence and the independent variables which are audit partner rotation, audit committee of the client, audit fees and audit market competition based on the F-value of 39.839.

Table 4.20: Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.454	.327		1.389	.167		
	Audit Partner Rotation	-.027	.065	-.033	-.419	.676	.455	2.196
	Audit Committee of the Client	.268	.077	.282	3.485	.001	.435	2.298
	Audit Fees	.237	.040	.335	5.862	.000	.874	1.144
	Audit Market Competition	.471	.083	.332	5.686	.000	.838	1.193

a. Dependent Variable: Auditor Independence

Source: Developed for the research

4.3.2.1 Unstandardized Coefficients

Unstandardized regression coefficients (B) were used to develop an equation which predicted the dependent variable based on the independent variables. In Table 4.20, the regression equation developed for the research based on the correlation between independent and dependent variables is:

Y = 0.454 – 0.027 X1 + 0.268 X2 + 0.237 X3 + 0.471 X4

Y = Auditor Independence

X1 =Audit Partner Rotation

X2 =Audit Committee of the Client

X3 = Audit Fees

X4 = Audit Market Competition

The equation above indicates there is a significant relationship between auditor independence with audit committee of the client, audit fees and audit market competition. However, there is no significant relationship between auditor independence and audit partner rotation based on the equation. The equation predicted that auditor independence is expected to be 0.454 when there is no any factor affecting it. Nevertheless, auditor independence is expected to decrease by 0.027 when audit partner rotation increase by 1; auditor independence will increase by 0.268 when audit committee of the client increase by 1; auditor independence will increase by 0.237 when audit fees increase by 1; and auditor independence will increase by 0.471 when audit market competition increase by 1. Based on the regression equation, audit market competition has the greatest influence on auditor independence, followed by audit committee of the client, audit fees and lastly audit partner rotation.

4.3.2.2 Standardized Coefficients

The Standardized Beta Coefficients measured the contribution of each variable to the model. Higher beta value would indicate a variation in independent variables resulted in significant changes in dependent variable. According to the Table 4.20, the standardized beta coefficients of all data are lower than 1. The independent variable has the highest beta value of 0.335 is audit fees at significant level of 0.000 which is less than 0.05. This is followed by audit market competition with a beta value of 0.332 at significant level of 0.000 which is less than 0.05, and audit committee of the client with beta value of 0.282 at significant level of 0.001 which is also less than 0.05. However, audit partner rotation with significant level of 0.676 which is more than 0.05 carried a beta value of -0.033.

4.3.2.3 Multicollinearity

According to Garson (2008), the rule of thumb for multicollinearity problems happened when tolerance was less than 0.2 and variance-inflation factor (VIF) was higher than 4.0. Based on the multicollinearity statistic in Table 4.20, there was no indication of multicollinearity problem as the tolerance and VIF for audit partner rotation, audit committee of the client, audit fees and audit market competition were greater than 0.2 and lesser than 4.0 respectively.

4.3.2.4 Test of Significance

H_o: There is no significant relationship between audit partner rotation and auditor independence in Big 4 audit firms in Malaysia.
$H_1$1: There is a significant relationship between audit partner rotation and auditor independence in Big 4 audit firms in Malaysia.

Based on the analysis above, the p-value for audit partner rotation is 0.676 which is greater than 0.05. Therefore, null hypothesis (H_o) is not rejected. There is no indication that there is a significant relationship between audit partner rotation and auditor independence.

H_o: There is no significant relationship between audit committee of the client and auditor independence in Big 4 audit firms in Malaysia.
$H_1$2: There is a significant relationship between audit committee of the client and auditor independence in Big 4 audit firms in Malaysia.

According to the analysis above, the p-value for audit committee of the client is 0.001 which is less than 0.05, therefore the null hypotheses (H_o) is rejected. The p-value of 0.001 indicates the correlation between audit committee of the client and auditor independence is statically significant. There is a significant relationship between these two variables based on the beta value of significant 0.282.

H_o: There is no significant relationship between audit fees and auditor independence in Big 4 audit firms in Malaysia.

$H_1$3: There is a significant relationship between audit fees and auditor independence in Big 4 audit firms in Malaysia.

Based on the analysis above, the p-value for audit committee of the client is 0.000 which is less than 0.05, therefore the null hypotheses (H_o) is rejected means there is a significant relationship between these two variables. P-value of 0.000 indicates the correlation between audit fees and auditor independence is statically significant. Beta value of significant 0.335 indicates there is a significant relationship between these two.

H_o: There is no significant relationship between audit market competition and auditor independence in Big 4 audit firms in Malaysia.

$H_1$4: There is a significant relationship between audit market competition and auditor independence in Big 4 audit firms in Malaysia.

Based on the analysis above, the p-value for audit market competition is 0.000 which is less than 0.05, therefore the null hypotheses(H_o) is rejected means there is a significant relationship between these two variables. P-value of 0.000 indicates the correlation between audit fees and auditor independence is statically significant. Beta value of significant 0.332 indicates there is a significant relationship between these two variables

The result indicated the most important factor that affects the auditor independence is audit fees as the correlation between these two factors is the highest as compared to other factors. This proves that audit fees are perceived as a dominant factor that contributes to auditor independence.

4.5 Conclusion

The result of reliability and normality test indicated the data are normal and the sample items of the questionnaire are reliable. Pearson Correlation Analysis and Multiple Regression Analysis are used to examine the relationship between independent variables and dependent variable. In the last chapter, discussion, conclusion, and implications of the study will be presented accordingly.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

In the previous chapter, patterns of the data and analyses of the results are discussed comprehensively. Subsequently, summary of statistical analysis, discussions of major findings, implications and limitations of the study, and recommendations for future research will be demonstrated in this chapter. A simple conclusion will briefly highlight the overall major themes of the research at the end.

5.1 Summary of Statistical Analysis

5.1.1 Descriptive Analysis

From the data, majority of respondents are female which contributes to approximately 58% of the total respondents. The common trend of respondents is below 25 years old (51.5%) and majority of them are single (51%). The respondents are still in young age so most of their job position is entry level (58%) with salary below RM 2000 (36%) and less than 3 years audit experiences (59%). Furthermore, 57% of respondents hold a degree in accounting. The data exhibits that majority of respondents worked in Ernst & Young (42.9%) and most of them came from Johor Branch (28%).

5.1.2 Inferential Analysis

5.1.2.1 Pearson Correlation Coefficient

As a summary, the factors that contribute the most and the least to auditor independence are the audit market competition and audit partner rotation with correlation of 0.516 and 0.360 respectively. Besides, a moderate relationship exists between audit committee of the client and auditor independence with correlation of 0.468, as well as between auditor independence and audit fees with correlation of 0.489. In short, there is a significant association between all independent variables and auditor independence at significant level of 0.000.

5.1.2.2 Multiple Regression Analysis

Based on the analysis, the R square developed using enter method indicated there is 45.5 % of variation in auditor independence could be explained by all independent variables, whereas the R square developed using stepwise method showed a 45.4 % of variation in auditor independence could be explained significantly by audit committee of the client, audit fees and audit market competition. According to the ANOVA test, the model is significant at level of 0.000 with F-value of 39.839. The regression equation developed from the study is $Y = 0.454 – 0.027\ X1 + 0.268\ X2 + 0.237\ X3 + 0.471\ X4$. Thus, there is a significant relationship between audit committee of the client, audit fees and audit market competition with auditor independence.

5.2 Discussions of Major Findings

Table 5.1: Summary Result of Hypotheses Testing

Alternative Hypotheses	Hypotheses	Significant Level	Statistics Result
$H_1$1	There is a significant relationship between audit partner rotation and auditor independence in Big 4 audit firms in Malaysia.	0.676	Rejected
$H_1$2	There is a significant relationship between audit committee of the client and auditor independence in Big 4 audit firms in Malaysia.	0.001	Do not reject
$H_1$3	There is a significant relationship between audit fees and auditor independence in Big 4 audit firms in Malaysia.	0.000	Do not reject
$H_1$4	There is a significant relationship between audit market competition and auditor independence in Big 4 audit firms in Malaysia.	0.000	Do not reject

Source: Developed for the research

There is no significant relationship between audit partner rotation and auditor independence in Big 4 audit firms in Malaysia.

The first dependent variable address to the (H_o) hypothesis of audit partner rotation has no significant relationship with the auditor independence. Therefore, null hypothesis (H_o) is not rejected. This indicates that audit partner rotation has the least impact or weakest relationship with auditor independence. This was in line with the study of Chi et al. (2004), where they mentioned auditor independence might not be promoted effectively and efficiently by the audit-partner rotation requirements in the Sarbanes-Oxley Act of 2002. However, Zulkarnain and Yusuf (2005) reported that rotation of audit partner would safeguard auditor independence based on the opinion from loan officers, senior managers of public listed companies, and auditors with a majority of agreement. The result from this study is contradicted with the empirical research due to the possibility of different perceptions from target population.

There is a significant relationship between audit committee of the client and auditor independence in Big 4 audit firms in Malaysia.

The result from the data analysis proves that audit committee has a significant association with the auditor independence. Therefore, null hypothesis (H_o) of the variable is rejected. The past studies of Sori, Ramadili, and Karbhari (2009) concluded that audit committee could significantly safeguard auditor independence if the members are truly independent, knowledgeable, and are committed to improve good governance without fear and favour. Consistently, the findings in Alleyne et al. (2006) also supported that audit committee perceived as a major enhancement factor in affecting auditor independence. In addition, Krishnamoorthy, Wright, and Cohen (2002) found that audit committee that more effective and powerful able to help auditors confront management and thus potentially enhance the perceived independence of auditors as well. The evidence from these previous researchers is consistent with the result and thus provides a better assurance on the reliability of data.

There is a significant relationship between audit fees and auditor independence in Big 4 audit firms in Malaysia.

The result from the data analysis proves that null hypothesis (H_o) is rejected. This is because audit fees have a significant relationship with the auditor independence. This result is consistent with the empirical studies of Abu Bakar et al. (2005), Ashbaugh et al. (2003), and Moore et al. (2002) which demonstrated the audit fees have a significant relationship with the auditor independence. Furthermore, in the research conducted by Abu Bakar and Ahmad (2009), it is evidenced from the study that size of audit fees is the most important factor in affecting auditor independence perceived by Malaysian accountants.

There is a significant relationship between audit market competition and auditor independence in Big 4 audit firms in Malaysia.

The result from the data analysis proves that audit market competition has a significant relationship with the auditor independence. Therefore, null hypothesis (H_o) of the variable is rejected. Based on MacLullich and Sucher (2005), audit market competition has significant impact over the impairment of auditor independence. People tend to being attracted by lower fees and yet still provide better services. In addition, the result carried out could be explained in the research conducted by Windmoller (2000) which indicated there is a significant relationship between the two variables.

5.3 Implications of the Study

5.3.1 Managerial Implications

The main contribution of this paper is that the auditors in Malaysia's Big 4 firms have contributed their viewpoint and supplies the recent evidence on factors that influencing auditor independence. In this research, the results indicated that audit committee of the client, audit fees and audit market competition were the significant precursors that affecting auditor independence in Malaysia. This paper may provide significant input for the profession to regulate or establish policies relating to auditor independence in Malaysia. Policy makers and other relevant international accounting agencies may attempt to form an international harmonization of auditing standards by having the empirical evidence from local context. On the other hand, Malaysian Institute in Accountants (MIA) can use this research to help to regulate the practice of the profession of accountancy in Malaysia. Besides that, audit fee is one of the variables that had not been given importance in Malaysian context. However, this study indicated significant relationship for audit fees in affecting the auditor independence. Hence, the audit firms should avoid being penalized by the MIA By-Law (Section B-1.98 on Professional Independence) as it has been emphasized that if a firm receives an amount of total fees from a client which exceed 15% of the firm's total fees in each year over two continuous financial periods, then there will be existence of financial dependency. Ultimately, all the Malaysia's audit firms need to actively send their auditors to attend the seminars and training programs organized by the Malaysian Accounting Standards Board (MASB) to ensure the latest accounting standards are apply in forming audit decision and the importance to maintain auditor independence.

5.4 Limitations of the Study

Firstly, data collection via web-based questionnaires has loopholes such as the questionnaires might be filled in by unqualified respondent without the researcher's acknowledged. In addition, web-based questionnaire always viewed as a spam. Thus, many respondents tend to ignore the survey as they think it is not an obligation for them to response. Ultimately, survey resulted in unfavourable conditions and so reduced the target respondents as well. Besides, the result in this study is based on two inferential analyses only which are Pearson Correlation Analysis and Multiple Regression Analysis. The issues of contradict result may arises and there is lack of reliable judgement to conclude the final outcome of the research. Lastly, as compared to the empirical studies which investigated to a maximum of six variables, this research only studied on four variables which are audit partner rotation, audit committee of the client, audit fees, and audit market competition. Therefore, this also became one of the deficiencies of study.

5.5 Recommendations for Future Research

Future researchers are strongly recommended to use the delivery and collection mode of self-administered questionnaire in order to raise the response rate. The rationale is to assure the questionnaires being answer by the qualified respondent meanwhile able to shorten the period of survey completion as web-based form normally takes longer time for the response. Besides, future researchers should use more than two inferential analyses model in analyzing the data collected from target respondent to arrive at a comprehensive result. This is for a better comparison of result and able to reduce the possibility of bias conclusion. Last but not least, future researchers should also expand the study into a wider scope by focusing on more than four variables. This can contributes to a broader view of research and also able to scrutinize the relationship between each of the variables. Future researchers are also encouraged to examine thoroughly the

absent of any mediating factor which possible in affecting the overall result. This may increase the standard quality of research as a whole.

5.6 Conclusion

The research has achieved its objectives in studying the determinants that affecting auditor independence of Big 4 audit firms in Malaysia by analyzing the relationship between four independent variables and a dependent variable. The results revealed that all the proposed hypotheses are being accepted except for the variable named audit partner rotation. In Pearson Correlation Analysis and Multiple Regression Analysis, audit market competition and audit fees are proved to be the most significant factor respectively in affecting auditor independence of Big 4 audit firms in Malaysia.

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APPENDIX A: SUMMARY OF PAST EMPIRICAL STUDIES

Study	*Country*	*Data*	*Major Findings*
Abbott & Parker, 2000	USA	500 sample firms selected randomly from a list of firms with financial and auditor data available on Compustant for 1994-1995.	Audit committees that are both independent and active are positively related to the selection of an industry specialist.
Abbott, Parker, Peters, & Raghunandan, 2003	USA	Sample of 538 firms from proxies filed with the SEC.	Audit committee members perceiving a high level of NAS fees in a negative light and taking actions to decrease the NAS fee ratio.
Abu Bakar, Abdul Rahman & Abdul Rashid, 2005	Malaysia	Self-administered questionnaire to 86 Malaysian owned commercial banks officers.	Smaller audit firms which operating in a higher level of competitive environments, serving a client for longer duration, provide MAS, non existence of audit committee, are perceived as having a higher risk of losing independence.

Abu Bakar & Ahmad, 2009	Malaysia	Mail survey of 500 questionnaires accountant random select by MIA which exclude public accountant	The size of audit fees is considered the most important factor in influencing auditor's independence.
Alleyne, Devonish, & Alleyne, 2006	Barbados	A self-administered questionnaire for sample of 66 auditors and 148 users.	Auditor independence was perceived to be enhanced by the existence of audit committees, rotation of audit partners, risks to auditor arising from poor quality, regulatory rights and requirements surrounding auditor change.
Andre, Broye, Pong, & Schatt, 2011	UK & France	Secondary data obtained from the annual reports includes 364 UK companies and 273 French companies in two years.	Higher expected audit fees in France compared to UK. The result of the higher legal protection costs in the UK is matched by higher coordination costs in France.
Ashbaugh, Lafond, & Mayhew, 2003	USA	Secondary data of 3170 firms' fee data was collected from US registrant's 2000 proxy statement.	No systematic evidence supporting that auditor violates their independence as a result of clients purchasing relatively more non-audit services.
Bailey, 1992	USA	143 individual who attending classes for Certified Public Accountant.	The study support observation form other studies that suggest that escalating commitment is sensitive to risk and consequence perceptions.

Baotham & Ussahawanitchakit, 2009	Thailand	Mail survey of 1870 of auditors	Audit independence has a positive relationship with audit quality and credibility, and audit quality has a positive association with audit credibility.
Beasley, Carcello, Hermanson, & Lapides, 2000	USA	Randomly selected 66 sample companies examined their proxy statement	The fraud companies in the technology and health-care industries have fewer audit committee meetings, and fraud companies in all three industries including financial services have less internal audit support.
Beattie, Brandt, & Fearnley, 1999	U.K.	Standard mail questionnaires of two samples which are 153 of U.K. listed company finance directors and 244 audit partners of U.K. listed company.	A wide range of factors have a significant impact upon PAI on all groups. Those factors include ECDEP, COMP, NAS, FLEX, AUDSIZE, AC, FININT, DIRCON, CLIENT, AUDCH, AUDCHREG, AUDRISK, AUDREG and AGM.
Carcello & Neal, 2000	USA	223 sample of public companies experiencing financial distress during 1994	The greater percentage of affiliated directors on the audit committee, the lower the probability the auditor will issue a going-concern report.
Carey & Simnett, 2006	Australia	1021 annual reports of Australian-domicile companies	The study provides evidence about the long audit partner tenure is associated with decreases in audit quality.

Chen, Elder, & Liu, 2005	Taiwan	Sample of 960 mail survey comprised of 622 public listed on the TSEC, and 338 public companies listed on GSTM at 2001.	The non-audit fees are significantly positively associated with auditor-client negotiation outcome when the auditor tenure is long, whereas the relation between non-audit fees and auditor-client negotiation outcome is significantly negative when the auditor tenure is short; suggesting the implication of non-audit fees on auditor independence depends on auditor tenure.
Chi, Huang, & Liao, 2004	Taiwan	2643 samples from semi-annual TEJ database for companies listed on TSEC or GTSM	The study provides no evidence that there is a negative effect of audit tenure on audit quality at the audit-partner or audit firm levels.
Chung & Kallapur, 2003	USA	1871 observations were used to tests the client importance at the audit firm level.	There is no statistically significant association between abnormal accruals and any of the client importance measures.
Gendron, Suddaby, & Lam, 2006	UK	Online survey sample consists of more than 7000 from 4 provincial institutes, i.e. Alberta, British Columbia, Nova Scotia and Quebec.	The findings regarding the positive, statistically significant relationship between client and independence commitment are particularly intriguing because auditing literature generally assumes that the relationship between the two is negative.

Goodwin-Stewart & Kent, 2006	Australia	Survey questionnaires to 401 companies listed on the Australian Stock Exchange	The existence of an audit committee, more frequent committee meetings and increased use of internal audit are related to higher audit fees.
Hamilton, Ruddock, Stokes, & Taylor, 2005	Australia	3621 annual report of Australia stock exchange (ASX) listed firm-years from 1998-2003.	The ability of client firms to resist partner rotation is reduced by mandatory partner rotation requirements; the audit partner rotation is associated with incrementally greater conservatism in financial reporting
Hay, Knechel, & Wong, 2006	New Zealand	Secondary data from the past prior study.	The amount of variation explained by size is generally in excess of 70 percent. However, this percentage may be significantly lower in smaller firms. The results for size measures are overwhelmingly positive and significant.
MacLullich & Sucher, 2005	Poland	Secondary data from past studies	Auditor independence is being implemented in different context and necessity for an exchange of ideas dialectically and not through a cause-effect relationship from power at the centre (EU) to the periphery (CEE).

Moore, Leowenstein, Tanlu, & Bazerman, 2002	USA	139 professional auditors employed full time by one of the big 4 and 102 individuals	The age and years of auditing experience did not affect the conflict of interest.
Quick & Warming-Rasmussen, 2005	Denmark	Questionnaires survey to 200 sample of state authorized auditors, managing directors, bank loan officers, private shareholders and business journalists.	Shareholders, bank loan officers and journalists perceive a negative effect on auditor independence if MAS are provided; perceived auditor independence does not increase if MAS are provided by a separate department of audit firm.
Stewart & Munro, 2007	Australia	Survey to 75 audit partners, directors, senior managers and managers from the Big Four and four middle-tier auditing firms	The audit committee, the frequency of committee meetings and the auditor's attendance at meetings are significantly associated with a reduction in perceived audit risk.
Tahinakis & Nicolaou, 2004	Greece	Mail survey of 315 certified auditors	Small audit firms operate in highly competitive environment having a higher risk of losing independence, high competition and the provision of management advisory services have an effect on the independence of a certified auditor.

Teoh & Lim, 1996	Malaysia	Sample comprises of 100 accountants from public accounting firms (PAS) and 100 accountants from industry (nonPAs), randomly selected from MIA.	Management consultancy services, audit committees, rotation of audit firms, size of audit fees, and disclosures of non audit fees in published account significantly affect perceptions of independence.
Windmoller, 2000	Germany	Secondary data from past studies	Greater use of industry knowledge and specialists and the continuing use of knowledge gained in the performance of non-audit services can increase the understanding of a particular client's business.
Yazawa, 2001	Japan	Auditor name from annual report of 4232 Japanese listed companies from 2003 to 2006	The audit partner rotation over seven years and lead audit partner over five years enhances auditor independence as it leads to a conservative accounting policy.
Zulkarnain & Yusuf, 2005	Malaysia	800 questionnaire and interview survey towards Malaysian auditors, loan officers and senior managers of public listed companies	Allocation of audit clients by a regulatory authority would threaten auditor independence; rotation of audit partner would safeguard auditor independence

APPENDIX B: PERMISSION LETTER TO CONDUCT SURVEY

UNIVERSITI TUNKU ABDUL RAHMAN

23rd August 2011

To Whom It May Concern

Dear Sir/Madam

Permission to Conduct Survey

This is to confirm that the following students are currently pursuing their *Bachelor of Commerce (HONS) Accounting* program at the Faculty of Business and Finance, Universiti Tunku Abdul Rahman (UTAR) Perak Campus.

I would be most grateful if you could assist them by allowing them to conduct their research at your institution. All information collected will be kept confidential and used only for academic purposes.

The students are as follows:

Name of Student	**Student ID**
Ko Sie Jian	10ABB00156
Koh Hui Shi	09ABB07371
Lee Rui Ying	09ABB05893
Lim Kai Li	10ABB00185
Quek Ven Chiang	09ABB07685

If you need further verification, please do not hesitate to contact me.

Thank you.

Yours sincerely

.....
Leong Lai Ying
Head of Department,
Faculty of Business and Finance
Email: leongly@utar.edu.my

.....
Chong Zhemin
Supervisor,
Faculty of Business and Finance
Email: chongz@utar.edu.my

Address: 13, Jalan 13/6, 46200 Petaling Jaya, Selangor Darul Ehsan, Malaysia **Postal Address:** P O Box 11384, 50744 Kuala Lumpur, Malaysia.
Tel: (603) 7958 2628 **Fax:** (603) 7956 1923 **Homepage:** http://www.utar.edu.my

APPENDIX C: SURVEY QUESTIONNAIRE

UNIVERSITI TUNKU ABDUL RAHMAN

Faculty of Business and Finance

BACHELOR OF COMMERCE (HONS) ACCOUNTING

FINAL YEAR PROJECT

TITLE OF TOPIC: An Investigation into Big 4 Auditing Companies in Malaysia: Factors that affect Auditor's Independence

Survey Questionnaire

Dear respondent,

We are Final Year Students of Bachelor of Commerce (Hons) Accounting from Universiti Tunku Abdul Rahman (UTAR). We are required to prepare and submit a research project on the topic of "An Investigation into Big 4 Auditing Companies in Malaysia: Factors that affect Auditor's Independence". As part of our research project, we are undertaking a survey to seek professional opinion and views on the factors that affect Auditor's Independence of Big 4 Auditing Companies in Malaysia. We would be grateful if you could kindly spare a few minutes to answer the following questions. All the information gathered will be kept strictly confidential and used solely for academic purpose only. Your contribution is much appreciated. Thank you for your participation.

Instructions:

1) There are **TWO** (2) sections in this questionnaire. Please answer ALL questions in BOTH sections.

2) Completion of this form will take you approximately 10 to 15 minutes.

Section A: Demographic Profile

Please select for each of the following:

A1. Gender:

- □ Male
- □ Female

A2. Marital status:

- □ Single
- □ Married
- □ Divorced

A3. Age:

- □ Below 25 years old
- □ 26-30 years old
- □ 31-35 years old
- □ 36-40 years old
- □ Above 40 years old

A4. Highest education completed:

- □ Diploma
- □ Bachelor Degree
- □ Masters
- □ Professional Qualification (please state: _____)

A5. Monthly income:

- □ Below RM 2000
- □ RM 2001 – RM 3000
- □ RM 3001 – RM 4000
- □ RM 4001 – RM 5000
- □ Above RM 5000

A6. Length of services:

- □ Less than 3 years
- □ 3-6 years
- □ 7-10 years
- □ Above 10 years

A7. Job position:

- □ Entry level
- □ Middle level
- □ Senior level

A8. Big 4 Auditing Companies:

- □ Deloitte & Touche
- □ Ernst & Young
- □ PricewaterhouseCoopers (PwC)
- □ Klynveld Peat Marwick Goerdeler (KPMG)

A9. Location of branch:

- □ Selangor & KL
- □ Pulau Pinang
- □ Johor
- □ WP Labuan

Section B:

Please circle your answer to each statement using 5 Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree]

1) Audit partner rotation

No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
APR1	Auditor independence in fact could be improved through accelerated audit engagement partner rotation requirement.	1	2	3	4	5
APR2	Auditor independence in appearance could be improved through accelerated audit engagement partner rotation requirement.	1	2	3	4	5
APR3	Investor confidence could be improved through accelerated audit engagement partner rotation requirement, for example less than 5 years.	1	2	3	4	5

APR4	Independence in fact could be improved by increasing the cooling off period from 2 years to 5 years before an audit engagement partner can rotate back to a client.	1	2	3	4	5
APR5	Independence in appearance could be improved by increasing the cooling off period from 2 years to 5 years before an audit engagement partner can rotate back to a client.	1	2	3	4	5

2) Audit committee of the client

No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
ACOTC1	My client's audit committee discuss the conduct of audit and any problems arising from the audit with us.	1	2	3	4	5
ACOTC2	My client's audit committee discuss the meaning and significance of the audited financial statements with us.	1	2	3	4	5
ACOTC3	My client's audit committee discuss the scope and timing of audit work with us.	1	2	3	4	5
ACOTC4	My client's audit committee review auditor's internal control evaluation and recommendations.	1	2	3	4	5
ACOTC5	My client's audit committee review management's response to auditors' internal control recommendations.	1	2	3	4	5
ACOTC6	My client's audit committee arbitrate in disputes between management and auditors.	1	2	3	4	5

3) Audit fees

No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
AF1	There is a pressure for your associates to collect the audit fees.	1	2	3	4	5
AF2	When the audit fees charged is initially lower, you tend to charge more in other engagement services.	1	2	3	4	5
AF3	In order to collect audit fees, you will consider yielding to client disclosure requests.	1	2	3	4	5
AF4	When the clients pay the higher audit fees, you will feel obligated to those clients.	1	2	3	4	5
AF5	In order to retain clients who have paid their fees, you will consider yielding to client disclosure requests.	1	2	3	4	5

4) Audit market competition

No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
AMC1	In the audit market, a firm becomes more competitive with larger firms.	1	2	3	4	5
AMC2	In the audit market, a firm becomes more competitive when increases international reach.	1	2	3	4	5
AMC3	Specialized technique and/or industrial expertise will increase the audit market competition.	1	2	3	4	5
AMC4	Taking advantage of referral and marketing tools provided by affiliation will increase the audit market competition.	1	2	3	4	5

AMC5	Joint training and/or compliance programs for employees will increase the audit market competition.	1	2	3	4	5
AMC6	An affiliation audit firm has the advantages of cost sharing will increase the audit market competition.	1	2	3	4	5

5) Auditor independence

No.	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
AI1	The role of external auditor is to be a public watchdog.	1	2	3	4	5
AI2	The present audit standards are very high.	1	2	3	4	5
AI3	As external auditors cannot look at every client transaction, therefore they must rely on the samples and tests of relationship when conduct an audit.	1	2	3	4	5
AI4	Another main role of auditor is to be an insurer against majority shareholders losses.	1	2	3	4	5
AI5	Another role of the auditor is to actively search for fraud, no matter how small the fraud is.	1	2	3	4	5
AI6	The big audit firms and big auditors work closely with others related parties and only tell the clients what they want.	1	2	3	4	5

Thank you for your time, opinion and comments.

~ The End ~

APPENDIX D: VARIABLES AND MEASUREMENT TABLE

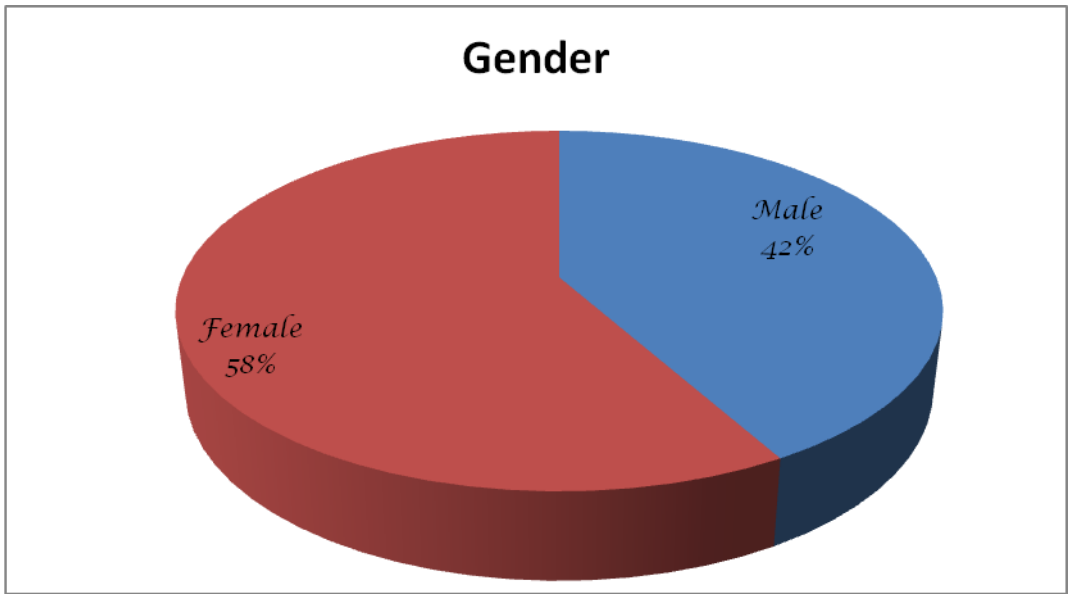
Variables	Item	Description	References	Measurement
Audit partner rotation	APR1	Auditor independence in fact could be improved through accelerated audit engagement partner rotation requirement.	Daugherty, Dickins, & Higgs (2009)	Interval
	APR2	Auditor independence in appearance could be improved through accelerated audit engagement partner rotation requirement.		
	APR3	Investor confidence could be improved through accelerated audit engagement partner rotation requirement, for example less than 5 years.		
	APR4	Independence in fact could be improved by increasing the cooling off period from 2 years to 5 years before an audit engagement partner can rotate back to a client.		
	APR5	Independence in appearance could be improved by increasing the cooling off period from 2 years to 5 years before an audit engagement partner can rotate back to a client.		

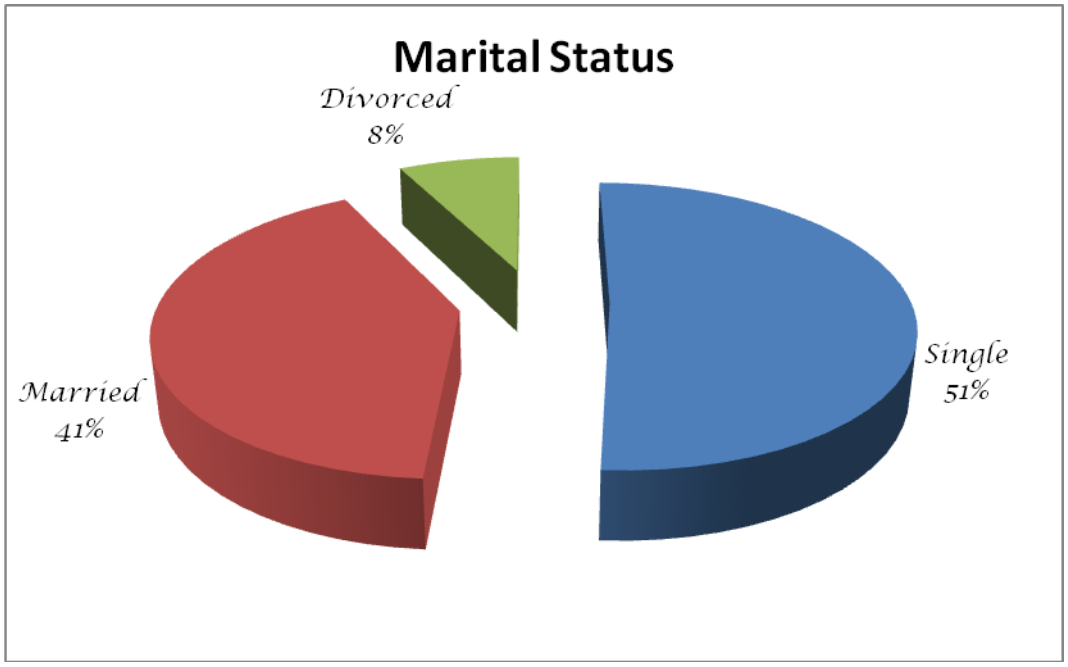
Audit committee of the client	ACOTC1	My client's audit committee discuss the conduct of audit and any problems arising from the audit with us.	Tengamnuay & Stapleton (2009)	Interval
	ACOTC2	My client's audit committee discuss the meaning and significance of the audited financial statements with us.		
	ACOTC3	My client's audit committee discuss the scope and timing of audit work with us.		
	ACOTC4	My client's audit committee review auditor's internal control evaluation and recommendations.		
	ACOTC5	My client's audit committee review management's response to auditors' internal control recommendations.		
	ACOTC6	My client's audit committee arbitrate in disputes between management and auditors.		
Audit fees	AF1	There is a pressure for your associates to collect the audit fees.	Bailey (1992)	Interval
	AF2	When the audit fees charged is initially lower, you tend to charge more in other engagement services.		
	AF3	In order to collect audit fees, you will consider yielding to client disclosure requests.		

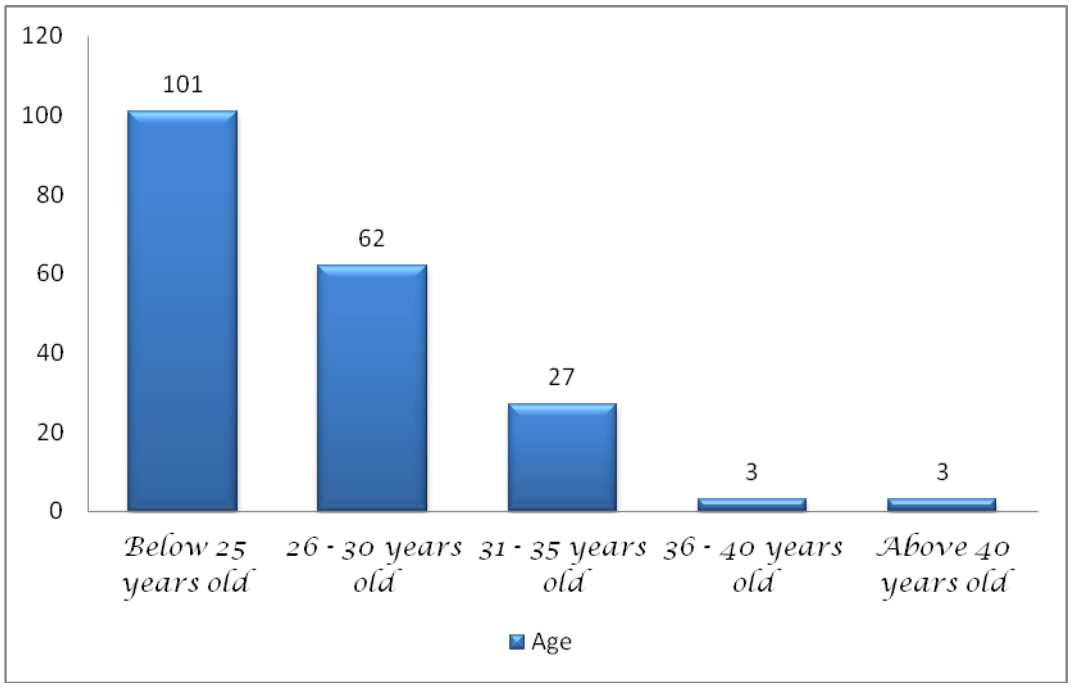
	AF4	When the clients pay the higher audit fees, you will feel obligated to those clients.		
	AF5	In order to retain clients who have paid their fees, you will consider yielding to client disclosure requests.		
Audit market competition	AMC1	In the audit market, a firm becomes more competitive with larger firms.	GAO (2008)	Interval
	AMC2	In the audit market, a firm becomes more competitive when increases international reach.		
	AMC3	Specialized technique and/or industrial expertise will increase the audit market competition.		
	AMC4	Taking advantage of referral and marketing tools provided by affiliation will increase the audit market competition.		
	AMC5	Joint training and/or compliance programs form employees will increase the audit market competition.		
	AMC6	An affiliation audit firm has the advantages of cost sharing will increase the audit market competition.		
Auditor independence	AI1	The role of external auditor is to be a public watchdog.	Solomon, Reckers, & Lowe (2005)	Interval
	AI2	The present audit standards are very high.		

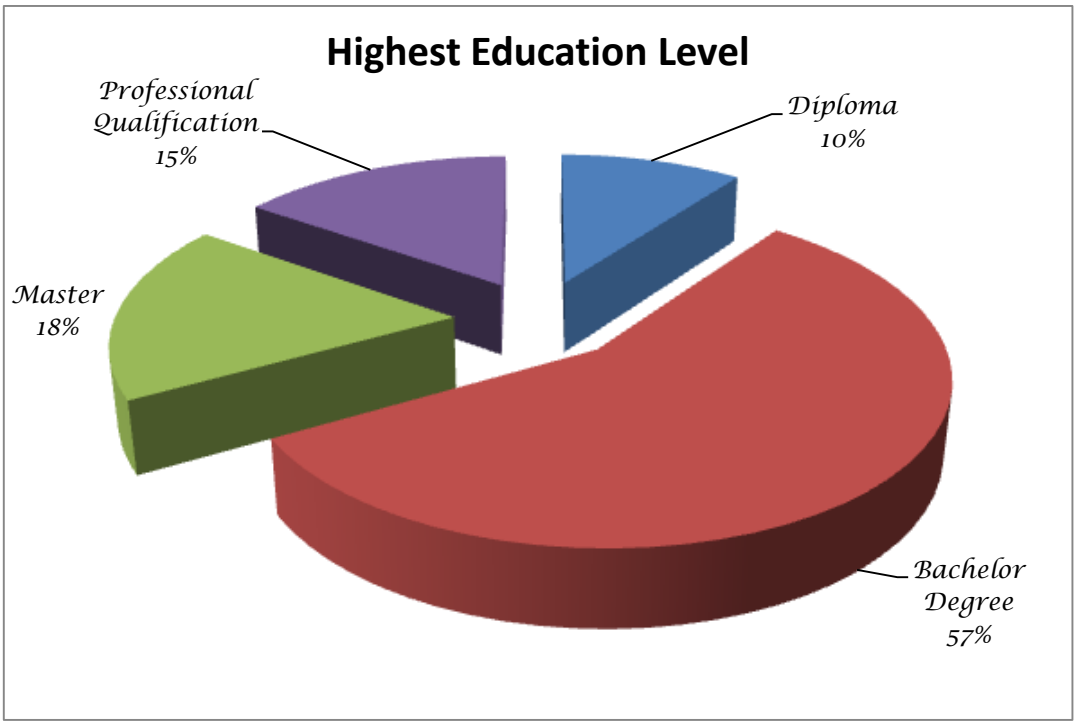
	AI3	As external auditors cannot look at every client transaction, therefore they must rely on the samples and tests of relationship when conduct an audit.		
	AI4	Another main role of auditor is to be an insurer against majority shareholders losses.		
	AI5	Another role of the auditor is to actively search for fraud, no matter how small the fraud is.		
	AI6	The big audit firms and big auditors work closely with others related parties and only tell the clients what they want.		

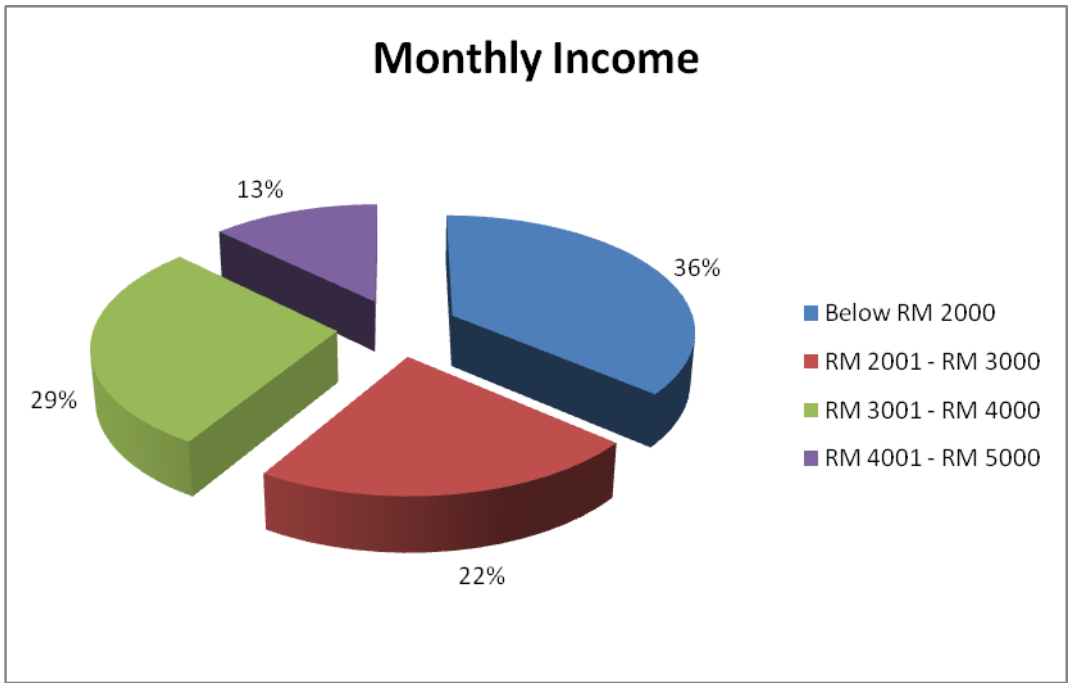
APPENDIX E: DEMOGRAPHIC PROFILE OF RESPONDENTS

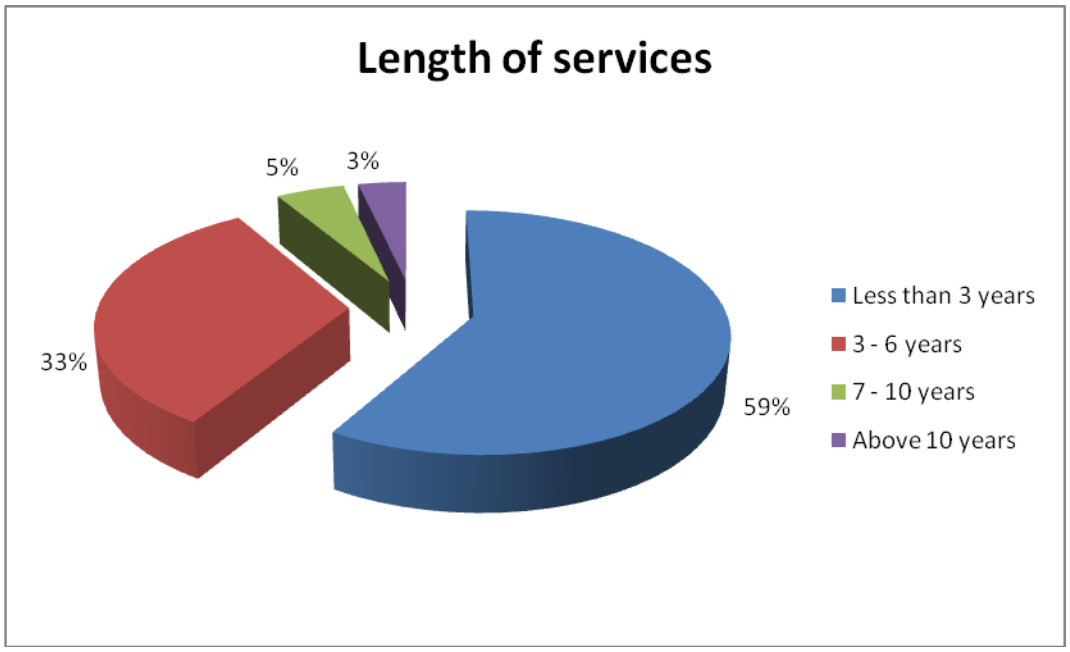


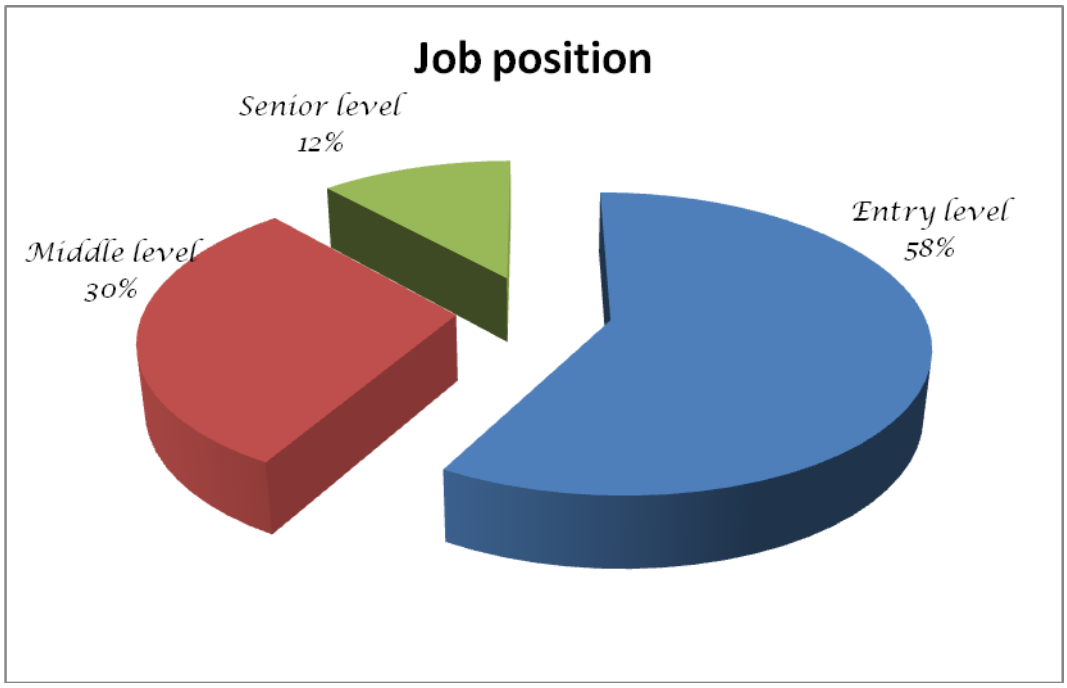


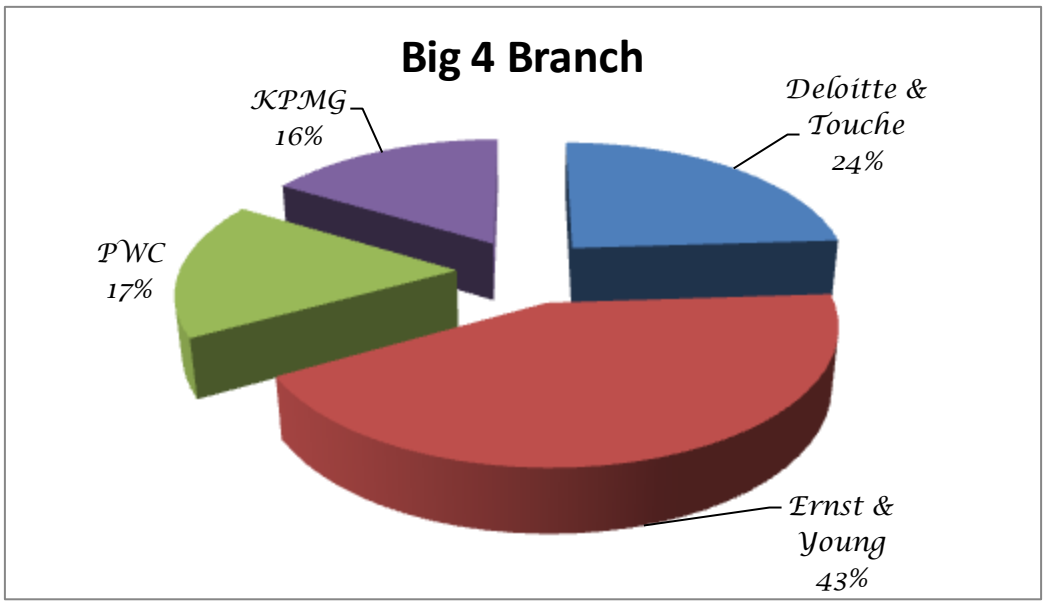

120
100
80
60
40
20
0
101
62
27
3
3
Below 25 years old
26 - 30 years old
31 - 35 years old
36 - 40 years old
Above 40 years old
Age

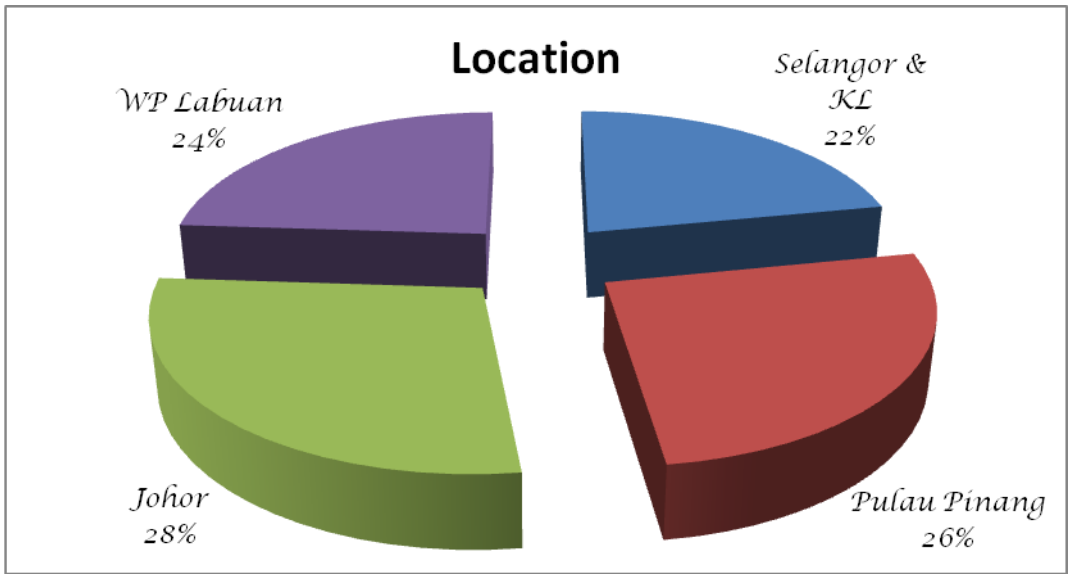

Highest Education Level
Professional Qualification 15%
Diploma 10%
Master 18%
Bachelor Degree 57%


Monthly Income
13%
36%
29%
22%
Below RM 2000
RM 2001 - RM 3000
RM 3001 - RM 4000
RM 4001 - RM 5000


Length of services
5%
3%
33%
59%
Less than 3 years
3 - 6 years
7 - 10 years
Above 10 years


Job position
Senior level
12%
Middle level
30%
Entry level
58%


Big 4 Branch
KPMG
16%
Deloitte &
Touche
24%
PWC
17%
Ernst &
Young
43%


Location
WP Labuan
24%
Selangor &
KL
22%
Johor
28%
Pulau Pinang
26%

APPENDIX F: DESCRIPTIVE ANALYSIS

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Gender	196	1.00	2.00	1.5816	.49455
Marital status	196	1.00	3.00	1.5663	.63301
Age	196	1.00	5.00	1.6990	.87483
Education Level	196	1.00	4.00	2.3827	.86618
Monthly Income	196	1.00	4.00	2.1786	1.06398
Length of Services	196	1.00	4.00	1.5357	.75362
Job Position	196	1.00	3.00	1.5357	.69706
Big 4 Branch	196	1.00	4.00	2.2551	1.00063
Location	196	1.00	4.00	2.5408	1.08291
Valid N (listwise)	196				

APPENDIX G: FREQUENCY DISTRIBUTION

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	82	41.8	41.8	41.8
	Female	114	58.2	58.2	100.0
	Total	196	100.0	100.0	

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	100	51.0	51.0	51.0
	Married	81	41.3	41.3	92.3
	Divorced	15	7.7	7.7	100.0
	Total	196	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below 25 years old	101	51.5	51.5	51.5
	26-30 years old	62	31.6	31.6	83.2
	31-35 years old	27	13.8	13.8	96.9
	36-40 years old	3	1.5	1.5	98.5
	Above 40 years old	3	1.5	1.5	100.0
	Total	196	100.0	100.0	

Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Diploma	20	10.2	10.2	10.2
	Bachelor degree	111	56.6	56.6	66.8
	Masters	35	17.9	17.9	84.7
	Professional qualification	30	15.3	15.3	100.0
	Total	196	100.0	100.0	

Monthly Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below RM2000	71	36.2	36.2	36.2
	RM2001-RM3000	44	22.4	22.4	58.7
	RM3001-RM4000	56	28.6	28.6	87.2
	RM4001-RM5000	25	12.8	12.8	100.0
	Total	196	100.0	100.0	

Length of Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 3 years	115	58.7	58.7	58.7
	3-6 years	64	32.7	32.7	91.3
	7-10years	10	5.1	5.1	96.4
	Above 10 years	7	3.6	3.6	100.0
	Total	196	100.0	100.0	

Job Position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Entry level	114	58.2	58.2	58.2
	Middle level	59	30.1	30.1	88.3
	Senior level	23	11.7	11.7	100.0
	Total	196	100.0	100.0	

Big 4 Branch

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Deloitte & Touche	47	24.0	24.0	24.0
	Ernst & Young	84	42.9	42.9	66.8
	PricewaterhouseCoopers (PWC)	33	16.8	16.8	83.7
	Klynveld Peat Marwick Goerdeler (KPMG)	32	16.3	16.3	100.0
	Total	196	100.0	100.0	

Location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Selangor & KL	43	21.9	21.9	21.9
	Pulau Pinang	51	26.0	26.0	48.0
	Johor	55	28.1	28.1	76.0
	WP Labuan	47	24.0	24.0	100.0
	Total	196	100.0	100.0	

APPENDIX H: RELIABILITY TEST

Pilot Test

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.720	28

Audit Partner Rotation

Case Processing Summary

		N	%
Cases	Valid	196	100.0
	Excluded[a]	0	.0
	Total	196	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.775	5

Audit Committee of the Client

Case Processing Summary

		N	%
Cases	Valid	196	100.0
	Excluded[a]	0	.0
	Total	196	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.736	6

Audit Fees

Case Processing Summary

		N	%
Cases	Valid	196	100.0
	Excluded[a]	0	.0
	Total	196	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.817	5

Audit Market Competition

Case Processing Summary

		N	%
Cases	Valid	196	100.0
	Excluded[a]	0	.0
	Total	196	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.625	6

Auditor Independence

Case Processing Summary

		N	%
Cases	Valid	196	100.0
	Excluded[a]	0	.0
	Total	196	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.683	6

APPENDIX I: PEARSON CORRELATION COEFFICIENT

Correlations

		Audit Partner Rotation	Audit Committee of the Client	Audit Fees	Audit Market Competition	Auditor Independence
Audit Partner Rotation	Pearson Correlation	1	.731**	.296**	.264**	.360**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	196	196	196	196	196
Audit Committee of the Client	Pearson Correlation	.731**	1	.270**	.362**	.468**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	196	196	196	196	196
Audit Fees	Pearson Correlation	.296**	.270**	1	.266**	.489**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	196	196	196	196	196
Audit Market Competition	Pearson Correlation	.264**	.362**	.266**	1	.514**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	196	196	196	196	196
Auditor Independence	Pearson Correlation	.360**	.468**	.489**	.514**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	196	196	196	196	196

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

APPENDIX J: MULTIPLE LINEAR REGRESSION

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.674[a]	.455	.443	.41569	1.743

a. Predictors: (Constant), Audit Market Competition, Audit Partner Rotation, Audit Fees, Audit Committee of the Client

b. Dependent Variable: Auditor Independence

Model Summary[d]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.514[a]	.264	.261	.47914
2	.631[b]	.398	.392	.43443
3	.674[c]	.454	.446	.41479

a. Predictors: (Constant), Audit Market Competition

b. Predictors: (Constant), Audit Market Competition, Audit Fees

c. Predictors: (Constant), Audit Market Competition, Audit Fees, Audit Committee of the Client

d. Dependent Variable: Auditor Independence

ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.536	4	6.884	39.839	.000[a]
	Residual	33.004	191	.173		
	Total	60.540	195			

a. Predictors: (Constant), Audit Market Competition, Audit Partner Rotation, Audit Fees, Audit Committee of the Client

b. Dependent Variable: Auditor Independence

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.454	.327		1.389	.167		
	Audit Partner Rotation	-.027	.065	-.033	-.419	.676	.455	2.196
	Audit Committee of the Client	.268	.077	.282	3.485	.001	.435	2.298
	Audit Fees	.237	.040	.335	5.862	.000	.874	1.144
	Audit Market Competition	.471	.083	.332	5.686	.000	.838	1.193

a. Dependent Variable: Auditor Independence