## DETERMINANTS AFFECTING THE AUDITOR SWITCHING: A MALAYSIAN STUDY

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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.
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#### LIST OF ABBREVIATIONS

ANOVA Analysis of Variance

AVE\_AF Average of Changes in Audit Fee
AVE\_GC Average of Going Concern Issue
AVE\_LOC Average of Level of Complexity

AVE\_LOR Average of Level of Risk

AVE\_OC Average of Ownership Concentration
CART Classification And Regression Trees
CCM Companies Commission of Malaysia
CDROM Compact Disc Read Only Memory

CSMAR China Stock Market and Accounting Research

DV Dependent Variable

DV\_FOAS Average of Frequency of Auditor Switching

EUC End-User Computing

EY Ernst & Young

GDP Gross Domestics Product

IPO Initial Public Offering

ISE Indonesian Stock Exchange

IV Independent Variable

KPMG Klynveld Peat Marwick Goerdeler

NSW New South Wales

PwC PricewaterhouseCoopers

R2 Coefficient of Determination
SAS Statistical Analysis System
TEJ Taiwan Economic Journal
TSE Tehran Stock Exchange

US United States

T&S

VIF Variance-Inflation Factor

**Trading and Services** 

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#### **PREFACE**

Companies need huge financial capital to support their activities. In order to get easy access to the capital sources, companies should report their company performance and financial position. This condition encourages the need of independent audit service to enhance credibility to the external financial statements being prepared, as the auditors' opinions add justification and reliability to the financial statements. Independence of the profession is important, as the audit service would add value to the user's perception. Auditor and audit environmental characteristics may affect the auditor appointment in two ways, either to retain the incumbent auditor or to appoint a new auditor. In fact, investors may perceive negative connotations from the switch of auditors and this would impair auditor independence and reduce credibility of financial statements.

In Malaysia, it is almost impossible to make inferences about the reasons for an auditor's switch from published information, because there is no legal requirement for companies to disclose the information. In view of this, an understanding of the factors causing companies to change auditors can provide valuable information on the possible reasons for such switching. Only few studies were conducted in Malaysia and the studies were not conducted in details. Hence, this study proposes to specifically examine on the factors that contribute to auditor switching among Malaysia public listed T&S companies

Practitioners and users of financial statement would be enlightened on the factors contributing to auditor switching. This research could enlightened managers at an early stage on the possibility of auditor switching and maximizes the confidence level of financial statement users. This research may serve as a comprehensive reference for Malaysia T&S companies in creating awareness on the significant determinants of auditor switching and useful insight to students.

#### **ABSTRACT**

The impact on auditor's independence arises from auditor switching has become a crucial issue and is studied widely in different countries especially developed countries (Chadegani, Mohamed, & Jari, 2011). This paper aims to empirically examine the factors that could explain auditor switching among companies under the Malaysia's Trading and Services (T&S) industry. The theory employed in this research is the agency theory which was first proposed by the scholars Stephen Ross and Barry Mitnick. In this study, level of complexity, level of risk, ownership concentration, changes in audit fee, and going concern issue are believed to be associated with auditor switching among Malaysia's T&S companies. Research methodology of this study is that this research is designed as a cross-sectional study. Secondary data collection method approach is used in this study with sources obtained from Bursa Malaysia. The targeted populations are firms under the Malaysia's T&S industry, where sample will be collected through simple random sampling technique. Descriptive and inferential analysis will be performed to analyse the results generated. The paper has important implications where this research offers better insights into association between audit and client firm characteristics towards auditor change and brings benefits to the management and investors with an early signal of potential problem which may occur in the future and eventually help to eliminate the chances of auditor changes in Malaysia. Theoretically, this study contributes an improved model on factors affecting auditor switching in Malaysia, by focusing on two new factors that yet to be studied in Malaysian context.

#### **CHAPTER 1: INTRODUCTION**

#### 1.0 Introduction

This chapter exhibits an overview of the study which is divided into eight sections. The chapter outlines the research background by addressing the problem statements and research objectives. Then, research questions are raised to guide research's argument. Hypotheses, significance of study and chapter outline are being discussed before conclude the first chapter.

#### 1.1 Research Background

The demand for auditing and assurance services has increased tremendously over the last 200 years with the rapid development and expanding world economy, existed long before corporate laws required them (Messier, Glover, Prawitt, & Boh, 2007). Auditing and assurance services help to ensure the financial statement information is reliable and credible for decision making purposes.

As defined by Okolie (2007), audit independence is a term referring to the approach and manner of objectivity and truthfulness. External financial statements' credibility lies greatly on the independence of auditors, as the auditors' opinion add justification and reliability to the financial statements. Hence, in modern accounting practice, independence of auditor is viewed as an essential auditing standard as it enhances the effectiveness of the audit by ensuring the objectivity of the audit process (Oladele, 2007).

Auditor and audit environmental characteristics may affect the auditor appointment in two ways, either to retain the incumbent auditor or to appoint a new auditor. Auditors' retention may benefits in terms of protecting the significant accounting judgement, highlighting the weaknesses in the audit process as well as gaining trust from investors in the reliability of the auditors' opinions. However, the auditor switching phenomenon has been escalated and thus, aggravated the need to explore the reasons behind the auditors change incidents (Branson & Breesch, 2004).

#### 1.2 Problem Statement

Concerns on the issue of auditor switching have been raised since the early 1970s (Nazri, Smith, & Ismail, 2012). Auditor change may have impact on auditor independence and may diminish the credibility of audited financial statements (Woo & Koh, 2001). Switching away from the existing auditor is also costly in terms of incremental financial and managerial time required to select and familiarize a new auditor. This also means forgoing any firm-specific knowledge and expertise developed by the existing auditor throughout the past few years of audit (Hennes, Leone, & Miller, 2010). Some of the most recent analysis of auditor switching were conducted by Chadegani et al. (2011) on Tehran Stock Exchange (TSE), Nazri et al. (2012) in Malaysia and Suyono, Yi, and Riswan (2013) in Indonesia. In this respect, this has proven that auditor switching is still an issue of concern. As argued by Calderon and Ofobike (2008), auditor switches will usually not happen without a cause, but occur when auditor-client relationship are not satisfied.

Only few studies were conducted in Malaysia and the studies were not conducted in details. Previous Malaysian studies did not cover certain factors such as ownership concentration (corporate governance) and going concern issues. A research finding in China (Lin & Liu, 2009) and United State (US) had shown ownership concentration and going concern issue are associated with auditor switching (Chen, Gupta & Senteney, 2004; Sangkaraguruswawy & Whisenant,

2004). Moreover, the data used in past Malaysian studies were relatively outdated and unable to convey reliable information, as obsolete data were used between the periods 1986 to 2008.

Furthermore, as previous studies have not specifically focus such study in the Malaysia's T&S industry, there is lack of the information on what causes auditor switches as there is no proper documentation required by legislation such as the Companies Act 1965 or the Security Commissions Act 1985 to reveal reasons behind such switching (Nazri et al., 2012; Ismail, Huson, Nassir, & Abdul Hamid, 2008).

#### 1.3 Research Objectives

#### 1.3.1 General Research Objective

The main research intention is to explore the determinants of auditor switching.

#### 1.3.2 Specific Research Objectives

The research purpose is to determine the relationship of the following determinants:

- To examine the relationship between the level of complexity and frequency of auditor switching
- To examine the relationship between the level of risk and frequency of auditor switching
- To examine the relationship between the ownership concentration and frequency of auditor switching
- To examine the relationship between changes in audit fee and frequency of auditor switching

• To examine the relationship between the going concern issue and frequency of auditor switching

#### 1.4 Research Questions

#### 1.4.1 General Research Question

What are the determinants affecting auditor switching?

#### 1.4.2 Specific Research Questions

The five specific research questions are identified as the following:

- Is there relationship between the level of complexity and frequency of auditor switching?
- Is there relationship between the level of risk and frequency of auditor switching?
- Is there relationship between the ownership concentration and frequency of auditor switching?
- Is there relationship between the changes in audit fee and frequency of auditor switching?
- Is there relationship between the going concern issue and frequency of auditor switching?

#### 1.5 Hypotheses of the Study

The five hypotheses of this study are developed as follow:

H1: There is a significant relationship between the level of complexity and frequency of auditor switching.

H2: There is a significant relationship between the level of risk and frequency of auditor switching.

H3: There is a significant relationship between the ownership concentration and frequency of auditor switching.

H4: There is a significant relationship between the changes in audit fee and frequency of auditor switching.

H5: There is a significant relationship between the going concern issues and frequency of auditor switching.

#### 1.6 Significance of Study

#### 1.6.1 Practical Contribution

This research provides useful insight for management, investors and auditors of companies especially those operate in Malaysia's T&S sector, on factors leading to auditor switching. This research is able to contribute better understandings on the association between audit and client firm characteristics towards auditor change and to provide management and investors with an early signal of potential problem which may occur in the future and eventually help to eliminate the chances of auditor changes in Malaysia. Finally, the findings able to further enhance the regulation of

auditors' responsibilities in audit and assist effective regulation in auditing profession in Malaysia (Ismail et al., 2008).

#### 1.6.2 Theoretical Contribution

This research model is an improved model for examining factors affecting auditor switching in Malaysia. This research extends the available Malaysian evidence in three perspectives; first, by expanding the dataset from the period of 2008 up to 2012; second, by including new variable such as ownership concentration and going concern issue which have yet to be studied in Malaysian context; and third, by specifically examining auditor switching factors among companies in the Malaysia public listed T&S industry. This model is a combination of few factors such as level of complexity and risk (Boon, McKinnon, & Ross, 2007; Calderon & Ofobike, 2008), ownership concentration (Lin & Liu, 2009; Yanan, Wen & Jinzheng, 2013), changes in audit fee (Woo & Koh, 2001; Wan Mohamed, Hussain, & Mohd Rodzi, 2007) and going concern issue (Wan Mohamed et al., 2007; Calderon, & Ofobike, 2008).

### 1.7 Chapter Layout

This paper aims to examine factors leading to the auditor switching in T&S industry in Malaysia. Chapter 1 begins with the introduction on the background of auditor switching phenomenon in Malaysia, followed by the identification of problems statements, research objectives, research questions, significance of research study and finally brief outline of research. Meanwhile in Chapter 2, the theoretical framework, critical review on past empirical studies, conceptual model and hypotheses development are drawn and further explained in detail. Chapter 3 is where the data and methodology will be analyzed. This consists of the research design, method of data collection, sampling method, research instrument involved, construction of measurement and data processing along with analysis. Chapter 4

will present the statistical results and analysis for the relationship between level of complexity, level of risk, ownership concentration, changes in audit fee and going concern issue on frequency of auditor switching. In Chapter 5, further discussions will be made on the major findings, implications, limitations and recommendations for future study.

.

#### 1.8 Conclusion

Generally, this chapter provides a concise overview on the research structure, serving as a guideline in understanding the purpose of this research and emphasis the great significance of this study in the audit environment. Hence, this chapter presents readers with a better comprehension before exploring the following chapter, whereby the literature review of the core of study will be demonstrated.

#### **CHAPTER 2: LITERATURE REVIEW**

#### 2.0 Introduction

Following the overview of research study, this chapter discusses the relevant literature reviews and the past studies of determinants of auditor switching. The assessment on the specific theoretical model describes the core of research construction. Conceptual framework offers reader a comprehensible picture explaining the relationship among the independent and dependent variables. Before the chapter end, five hypotheses are developed to investigate the influence of the factors identified towards frequency of auditor switching.

#### 2.1 Review of the Literature

#### 2.1.1 Level of Complexity

Boon et al. (2007) defined complexity as a measurement tool for the difficulties in auditing account balances or classes of transactions which require additional audit period and effort. In order to measure the company's size, the square root of aggregate assets after adjusting inflation is used (Woo & Koh, 2001).

A recent study was conducted by Chadegani et al. (2011), to investigate the major determinants of auditor switch in Iran. Audit size is closely related to the level of complexity whereby, large firms usually have more complex operational structure and therefore require expertise from large auditing firms to reduce agency cost. Samples of 182 companies listed in TSE were being examined from 2003 to 2007 with data being collected from minutes of meeting as well as financial statements. Audit size (complexity) was found to be significantly related to auditor switching. Boon et al. (2007) examined the factors associated with auditor switching in Australia by using data from the Australian local government, annual reports and other opened data relevant to the 125 Australian local councils in state of New South Wales (NSW) between year 1993 and 2002. Councils with lower complexity levels have higher probability of nominating a specialist auditor.

Furthermore, another Malaysian study had also examined the effect of complexity towards the auditor switching. This research examined 400 listed companies listed in Bursa Malaysia over the period from 1990 to 2008. Data were collected from Bursa Malaysia website and Companies Commission of Malaysia (CCM). This study concluded that complex client firms are more likely to change auditor (Nazri et al., 2012).

#### 2.1.2 Level of Risk

Risk is defined as the probability that a randomly selected firm at a given point of time will have a level of economic performance that may bring about a situation of financial distress or even bankruptcy (Ruano & Salas, 2004). Risk is measured by ratio scale based on the ratio of current asset to current liabilities (Boon et al., 2007).

A recent study was carried out by Chadegani et al. (2011), to investigate the major determinants of auditor switch in Iran. This study had examined the financial distress factor and result indicated that financial distress has positive relationship with auditor switch.

Another study was also conducted by Boon et al. (2007) in Australia to investigate the auditor switching. The study found that risk and profitability are linked to the appointment of a quality audit firm. Councils experiencing higher risk levels are relatively more plausible to engage Big N audit firm and to nominate a expert audit firm.

Furthermore, Suyono et al. (2013) examined the financial condition of the client as determinant factor affecting audit switching in Indonesia. The study used survey method in which data was collected through questionnaire distribution to chairmen of manufacturing companies listed in Indonesian Stock Exchange (ISE). 136 questionnaires were sent to the respondents between February to July 2012 and 45 questionnaires were returned. The findings showed that financial condition of client significantly and positively affected auditor switching.

#### 2.1.3 Ownership Concentration

Ownership concentration is defined as the level of common stock held by the majority shareholder (Woo & Koh, 2001) or authority to exercise the stewardship of the company total portfolio of assets and objective (Abu Bakar, 2010).

Lin and Liu (2009) explored the inducements of audit switching through the internal corporate governance channel. Data were extracted from Taiwan Economic Journal (TEJ) database, China Stock Market and Accounting Research (CSMAR) Database. The samples comprised of 182 companies from different industries, 91 firms experienced while 91 firms did not experienced auditor switch from 2001 to 2004. The probability of a firm experiencing auditor switching increases as a firm's controlling shareholders hold a greater percentage of total shares.

Furthermore, research by Ming (2007) has identified the relationship of firm internal corporate governance mechanism with its choice of auditor. The sample comprised 1,387 firms listed in Shanghai and Shenzhen Stock Exchanges from 2001 to 2004. Data were collected from CSMAR Financial Database and CSMAR Initial Public Offering (IPO)s Research Database. The results showed significant relationship between internal corporate governance mechanism of firm and its decision to switch auditor.

However, Bagherpour (2007) in Iran showed a contradicting opinion where concentrated ownership is negatively associated with auditor switching. Data were collected for the period 1999 to 2003 by accessing the firm's financial statements in the TSE library with 748 firms as sample. The result reported that the concentration variable is negatively and is inconsistent with prior studies that confirmed on presence of positive association between ownership concentration and switching auditors (Woo & Koh, 2001).

#### 2.1.4 Changes in Audit Fee

Audit fee is measured by the ratio of the preceding years to the auditorchange year's audit fee (Woo & Koh, 2001). As defined by Calderon and Ofobike (2008), change in audit fee is identified as the desire to reduce audit fees when there was a fee dispute between the refistrant and the departing auditor.

Suyono et al. (2013) have examined the audit fee as a factor for audit switching in Indonesia. The result concluded that the audit fee does not have any effect on the auditor switching.

Moreover, Wan Mohamed et al. (2007) have studied on the characteristics of companies that change and do not change auditor in Malaysia. This

study focused on Malaysian public listed companies with auditor switched between the period 1996 to 2004. Data was collected from company's annual reports available in the Bursa Malaysia and company's websites. Findings showed that the audit fee is associated with auditor switching. Furthermore, a Canadian study conducted by Fontaine and Letaifa (2012) has determined the reasons clients change auditor and client's perceived value of the audit service. Audit fee has been identified as one of the reasons. The study adopted purposive sampling technique by collecting data through interviewing 20 participants in a financial position. The findings then revealed that economic theme such as audit fees are the most cited reason for auditor switching.

#### 2.1.5 Going Concern Issue

Wan Mohamed et al. (2007) defined going concern status as client company's ability to endure in its chosen industry. Meanwhile, Calderon and Ofobike (2008) explained that going concern is an indication on whether registrant incharged of auditor filling, has disclosed any previous qualified audit opinion with emphasis on going concern issue.

Past study by Calderon and Ofobike (2008) have examined the factors that best predict client-initiated and auditor-initiated changed in US, where going concern issue is one of the factors involved. This study collected the data from Audit Analytical auditor change database and a samples of 6,510 auditor changes has been identified. Data were analyzed using the classification and regression trees (CART) and revealed that going concern was clearly associated with the auditor change decision.

Another study in Belgium had examined the impact of a going concern opinions both on auditor switching and client bankruptcy. By evaluating the samples which contain 784 observations through the data taken from Compact Disc Read Only Memory (CDROM)s of the Belgian National

Bank, the data shown had indicated that auditor switching is related to the year of mandatory term in which a going concern opinion is given (Vanstraelen, 2000).

Furthermore, another past study conducted to determine whether incumbent voluntary switching patterns would form a forced rotation system. This study examined auditor switches between 1995 and 2003 that involved the Australian listed entities and an initial sample of 772 auditor switches was identified. Data was extracted from Crawsell's Who Audit Australia database and the findings has shown that the length of audit tenure increases audit quality with the higher tendency to issue a going-concern opinion, and thus lead to reduction in auditor switches (Jackson, Moldrich, & Roebuck, 2008).

#### 2.1.6 Frequency of Auditor Switching

Removal or resignation of auditors away from client firm is part of auditor change (Turner, Williams & Weirich, 2005). Auditor change is defined as the corporate management decisions to change or retain the auditor when there are changes in firm characteristics align with passage of time (Huson, Ali, Annuar, Ariff & Shamsheer, 2000).

Recent study of auditor switching in Iran by Chadegani et al. (2011) examined the determinants of auditor switching among listed companies in TSE. Change in managements, financial distress, issuance of qualified audit opinion, audit fees, auditor size and client size were studied. Results stipulated that audit quality factors and size of client show negative relationship while management change and financial distress show positively relationship. However, audit fees and qualified audit opinion that were forecasted to be negatively associated with auditor switch, show positive associations.

Study by Nazri et al. (2012) evaluated the impacts of different IVs on auditor change behaviour. The IVs were change in management, qualified audit opinion, client size, quality audit, financial distress and audit fees. Generally, this study yield the same findings as those of prior studies, where except for the issuance of a qualified audit opinion, factors such as changes in management, complexity, client size and firm growth are proven to have influence on auditor change.

Suyono et al. (2013) conducted a study to analyze the determinants of auditor switching, involving factors such as financial condition of the client, audit fee, competition intensity among audit firms, audit tenure and size of audit firm. Findings showed that financial condition of the client, competition intensity among audit firms, and audit tenure are significant to auditor switching. However, the audit fee and the size of audit firm did not affect the auditor switching.

#### 2.2 Review of Relevant Theoretical Models

#### 2.2.1 Agency Theory

Agency theory is described as the most prominent and widely used audit theory (Ittonen, 2010). This theory has emerged to be valuable economic theory of accountability in describing auditor change (Nazri et al., 2012). This theory is originated in the early 1970s and the first scholars to propose this theory were Stephen Ross and Barry Mitnick. Among other noteworthy scholars involved were Armen Alchian, Harold Demsetz, Michael Jensen and Wiliam Meckling (Mitnick, 2006). The theory is defined as the attempt to explain the relationship between both parties in delegating the tasks; the principal and the agent. The main concern in this theory is to resolve the conflict of interest and risk sharing issue when attitudes towards risk diverge (Eisenhardt, 1989).

According to Jensen (1983), the expansion of agency theory has lead to two strands of literature which highlighted on the same problem; positive agency theory and principal-agent theory. The positivist research has emphasized on the relationship between the owner and the manager in public companies by identifying interest divergence situations (Eisenhardt, 1989). Meanwhile, the principal-agent literature has described the general relationships between the principal and agent, which is more appropriate in modelling the employer-employee, buyer-supplier and other agency relationships (Jensen, 1983).

Agency theory has been employed widely in various areas of research, such as in the advertising field in investigating the switching behaviour in business-to-business context (Aish, Kortam & Hassan, 2008), computing field in describing the development of end-user computing (EUC) in organizations (Gurbaxani & Kemerer, 1989), supply management and marketing research in examining on monitoring suppliers' behavior in reducing the risk of their opportunism (Tate, Ellram, Bals, Hartmann, & Valk 2009), and finally in the international retail franchising in explaining the international retail process and operationalisation retail franchise system (Doherty & Quinn, 1999).

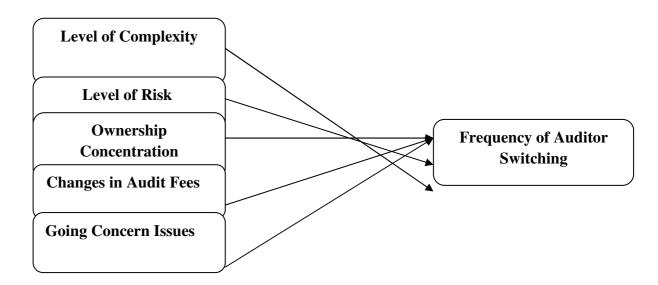
The principal-agent relationship between owners and management is essential in understanding the development in audit. Auditors as the agent are therefore required to reduce the information risk, provide a check on the managers' performance, and mitigate the agency problems behind the demand for audit and assurance services (Imhoff, 2003; Fan & Wong, 2005). As auditors will have conflict of interest, between retaining the professional norms and fulfilling the managers' wishes, this eventually leads to auditor switching decision in replacing the incumbent auditors.

Applying the principal-agent relationship agency theory, as firm size increases, the increased number of agency relationships will make it more tedious for the principals to supervise the etiquette of agents, and thus

increases the need for independent audit (Boon et al., 2007; Calderon & Ofobike, 2008; Nazri et al., 2012). Majority shareholders may take advantage on the control of the company for own opportunistic behaviour and ignore the contracting interest of the minority shareholders (Zhang, Cheng, & Ren, 2013). In Chen's (2007) findings, the largest shareholders are more likely to develop audit collusion phenomena with previous auditors. Sikka (2009) has also raised question on the auditor independence, when large amount of audit and non-audit fees were collected by the auditors within a short period.

#### 2.3 Proposed Research Model

Figure 2.1: Five factors affecting the frequency of auditor switching



Adopted from: Vanstraelen (2000), Woo and Koh, (2001), and Chadegani et al. (2011).

#### 2.4 Hypotheses Development

With the prior empirical evidences as bases, five hypotheses of the study are developed as follow:

H1: There is a significant relationship between the level of complexity and frequency of auditor switching.

H2: There is a significant relationship between the level of risk and frequency of auditor switching.

H3: There is a significant relationship between the ownership concentration and frequency of auditor switching.

H4: There is a significant relationship between the changes in audit fees and frequency of auditor switching.

H5: There is a significant relationship between the going concern issues and frequency of auditor switching.

#### 2.5 Conclusion

In summary, the current chapter offers in depth evaluation on the circumstances resulting to auditor switching based on the theoretical model and comprehensive literature reviews. The conceptual framework proposed exhibits the relationships among the five variables and leads the construction of hypotheses development. Research methodology is being discussed in the next chapter.

#### **CHAPTER 3: RESEARCH METHODOLOGY**

#### 3.0 Introduction

The current chapter illustrates how this research is being carried out to examine the relationship of the five independent variables towards frequency of auditor switching. Basically, this chapter consists of six parts which comprises of the research design, data collection method, sampling method, instruments involved, measurement of variables and data processing. Towards the end of chapter, data analysis techniques of this study will also be described.

#### 3.1 Research Design

The motive of the current study is to study the determinants that affect auditor switching among the T&S companies in Malaysia. An explanatory research will be conducted based on deductive approach to explain the causal relationships between the variables. Quantitative methodology will be adopted as the result generated is more objective, specific and has higher reliability.

#### 3.2 Data Collection Methods

#### 3.2.1 Secondary Data

This study is bases on secondary data as the method of data collection. Data is obtained from annual report which listed in Bursa Malaysia from the year 2008 to year 2012. The usage of secondary data benefits in terms of savings in time for data collection (Curtis, 2008), wide breath of data availability and reliable data source collected by expertise (Ghauri & Gronhaug, 2005). According to Densombe (2007), secondary data able to offer obtainable and comparable data compared to primary data.

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#### 3.3 Sampling Design

#### 3.3.1 Target Population

Target population represents subjects with information to answer measureable questions (Cooper & Schindler, 2008). The population being targeted to conduct the current research are Malaysia's public listed T&S companies, as it is the strongest engine of Malaysian economy and has been expanding the Malaysian economy greatly. In year 2012, the services sector has contributed 54.6 per cent to the country's Gross Domestics Product (GDP) compares to 54.2 per cent in previous year (Ministry of International Trade and Industry, 2012). Based on the statistics extracted from Bursa Malaysia, there are 294 T&S companies listed under Main Market within year 1999 to 2012.

#### **3.3.2** Sampling Frame and Sampling Location

Sample statistics is adopted to make an inference on the population due to time constraints. The sampling frame is set as the Main Market of Bursa Malaysia, as there are more T&S companies traded in the Main Market compared to ACE Market which will enhance on the reliability and accuracy of the results.

#### 3.3.3 Sampling Elements

The T&S companies listed in Main Market are employed as the sampling elements in this study. Only annual reports within 2008 to2012 will be adopted for this study as this will provide the most recent and relevant information to the users. Companies that unable to provide sufficient and details information within that 5 years are eliminated from this research.

#### 3.3.4 Sampling Technique

As there is a sampling frame identified, simple random sampling is thus applied in this research as results generated from this technique are free from classification error and highly representative when all the subjects participate.

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#### 3.3.5 Sampling Size

As advocated by Hair, Black, Babin, Tatham, and Anderson (2005), a sample size of 100 to 200 is appropriate and adequate. Allowance for missing or incomplete data will be taken into consideration for data analysis purposes.

<u>Table 3.1: Computation of Sampling Size</u>

| SAMPLING SIZE   |      |
|---|------|
| Total of companies exist between 2008-2012                  | 220  |
| - Companies with incomplete set of annual reports 2008-2012 | (62) |
| - Companies that changes the company's name during 2008-    | (10) |
| 2012  |      |
| - Company which reported in USD                             | (1)  |
| - Company with error in downloading annual report           |      |

| Final sample size | 146 |
|-------------------|-----|
|                   |     |

Source: Developed for the research

#### 3.4 Research Instrument

Annual reports are used in this study as the research instrument. Annual reports are downloaded from Bursa Malaysia website in accordance to the list of companies in Main Market selected as the sampling size. The Microsoft Excel is also used to record and enter data such as the company names, audit firms employed for the year and respective independent variable data in order to make the data organized. This data will then be imported in to Statistical Analysis System (SAS) business analytic software to conduct different analysis test.

## 3.5 Constructs Measurement

### 3.5.1 Independent Variables and Dependent Variable

Dependent variable of auditor switching is measured using ratio scale by calculation on the frequency of auditor switching. The five independent variables are measured as follow:

- Level of Complexity is measured by ratio scale based on ratio of Total Receivables to Total Revenue. (Boon, McKinnon, & Ross, 2007)
- Level of Risk is measured by ratio scale based on ratio of Current Asset to Current Liabilities. (Boon, McKinnon, & Ross, 2007)
- Ownership Concentration is measured by ratio scale based on the percentage of shares held by largest shareholder. (Alexandrina, 2012)
- 4. Change in Audit Fee is measured by nominal scale using dummy variables.

  1 = there is changes in auditor fee in the following year of tender compared

to the immediate year preceding the tender. 0 = otherwise. (Chadegani, Mohamed, & Jari, 2011)

Going Concern Issue is measured by nominal scale using dummy variables.
 1 = if there is going concern condition existed at time of separation, 0 = otherwise. (Calderon & Ofobike, 2008)

## 3.6 Data Processing

Firstly, the secondary data are extracted from annual reports of the selected public listed T&S companies obtained from the Bursa Malaysia website. Secondly, Microsoft Excel is utilized to record the raw data. Then, the raw data are transmitted into SAS Enterprise Guide Version 5.1 software to generate the descriptive analysis and inferential analysis tests. Finally, the results generated from the tests will be exported out from SAS business analytic software.

## 3.7 Data Analysis

In this research, the SAS Enterprise Guide Version 5.1 software will be employed to analyze the collected data. Then, descriptive analysis and inferential analysis will be used to explain on the findings.

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## 3.7.1. Descriptive Analysis

The function of descriptive analysis is to portray the attributes of the respondents, by transforming raw data into better understandable form through rearranging (Zikmund, 2003). This analysis will use to summarize and describe the characteristics of both variables through mean, range and standard deviation.

### 3.7.2 Scale Measurement

#### 3.7.2.1 Reliability Test

The objective of reliability test is to examine the uniformity and reliability level of the data study using the Cronbach's alpha measurement (Sekaran, 2003). The rule of thumb as proposed by Hair, Money, Samouel and Page (2007) in interpreting the alpha coefficients is illustrated in Table 3.2.

Table 3.2: Alpha Coefficient Range Strength of Association

| 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.

#### 3.7.2.2 Normality Test

The function of normality test is to test normal distribution of independent and dependent variables (Hair, Babin, Money, & Samuel 2003). Normality test is carried out to ensure the assumptions of normal distributed data are fulfilled before conducting the multiple linear regressions.

## 3.7.3 Inferential Analysis

#### 3.7.3.1 Pearson Correlation Coefficient

Pearson's correlation analysis is conducted to determine the strength of the relationship and direction between independent and dependent variables. The Pearson Correlation Coefficient's rule of thumb is presented in Table 3.3.

Table 3.3: Rule of Thumb for Pearson Correlation Coefficient

| Coefficient range | Strength of Association        |
|-------------------|--------------------------------|
| +0.91 to +1.0     | Very Strong                    |
| +0.71 to +0.90    | High                           |
| +0.41 to +0.70    | Moderate                       |
| +0.21 to +0.40    | Weak but definite relationship |
| 0 to +0.20        | Very weak, almost negligible   |

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

The multicollinearity problem is identified to circumvent highly correlated variables which impact the final outcome (Garson, 2006) and would exist when correlation coefficients among the independent variables are more than 0.95 (Gujarati, 2003).

#### 3.7.3.2 Multiple Regression Analysis

Multiple regression analysis is conducted to measure the association between a single dependent variable and multiple independent variables. This analysis is capable in identify the most

significant independent variable towards the dependent variable. Apart from this, relationship of the independent variables as a whole with dependent variable could be explained. Based on the general equation, the multiple regression equation of this research is stated as following:

$$Y (DV\_FOAS) = \beta_0 + \beta_1(AVE\_LOC) + \beta_2(AVE\_LOR) + \beta_3(AVE\_OC) + \beta_4(AVE\_AF) + \beta_5(AVE\_GC)$$

## 3.8 Conclusion

The current chapter describes the methodology flow that is being practised in this research. Data processing section briefly discussed the application of SAS Enterprise Guide Version 5.1 software. The following chapter will present the analysis outcome generated based on the descriptive analysis and inferential analysis.

## **CHAPTER 4: DATA ANALYSIS**

## 4.0 Introduction

In this chapter, the descriptive analysis constitutes of characteristics of both the independent and dependent variables and the constructs' measurement of central tendencies, followed by scale measurement, inferential analysis and conclusion will be presented. SAS Enterprise Guide Version 5.1 software is employed to examine the hypotheses in determining the implications of the five factors towards the frequency of auditor switching.

## 4.1 Descriptive Analysis

## **4.1.1** Characteristicsof Independent Variable

#### **4.1.1.1Changes in Audit Fee (AVE\_AF)**

Table 4.1: Changes in Audit Fee

| AVE_AF | Frequency | Percentage (%) |
|--------|-----------|----------------|
| 0      | 80        | 54.79          |
| 1      | 66        | 45.21          |

Source: Developed for the research

Table 4.1 shows the result of the AVE\_AF in the public listed T&S companies in Bursa Malaysia. There are 80 companies which consist of 54.79% from the total of 146 companies do not have changes in the audit fee whereas there is 45.21% which is 66 out of 146 companies has changes in audit fee.

#### **4.1.1.2** Going ConcernIssue (AVE\_GC)

Table 4.2: Going Concern Issue

| AVE_GC | Frequency | Percentage (%) |
|--------|-----------|----------------|
| 0      | 105       | 71.92          |
| 1      | 41        | 28.08          |

Source: Developed for the research

Table 4.2 describes the variable of AVE\_GC used in this study. It demonstrates that there are 105 out of 146 companies which consist of 71.92% are not facing any going concern issue. On the other hand, there are 41 out of 146 companies which made up of 28.08% facing going concern issue.

## **4.1.2** Characteristicsof Dependent Variable

#### **4.1.2.1** Frequency of Auditor Switching (DV\_FOAS)

Table 4.3: Frequency of Auditor Switching

| DV_FOAS | Frequency | Percentage |
|---------|-----------|------------|
|         |           | (%)        |
| 0       | 91        | 62.33      |
| 1       | 51        | 34.93      |
| 2       | 4         | 2.74       |

Source: Developed for the research

Table 4.3 describes the DV\_FOAS as the dependent variable (DV) used in this study. It shows that there are 91 out of 146 companies which consist of 62.33% do not switch auditors during year 2008 to 2012. However, there are 51 out of 146 companies that consist of 34.93% have switch auditors once within these 5 years. Lastly, the remaining 4 companies which consist of 2.74% have switch auditors twice within the 5 years period.

Table 4.4: Breakdowns of Auditor Firms

|                     | Registration |      |      |      |      |      |       |
|---------------------|--------------|------|------|------|------|------|-------|
| Audit Firms         | Number       | 2008 | 2009 | 2010 | 2011 | 2012 | Total |
| PwC                 | AF1146       | 16   | 16   | 16   | 14   | 13   | 75    |
| EY                  | AF0039       | 46   | 44   | 44   | 42   | 36   | 212   |
| KPMG                | AF0758       | 13   | 14   | 13   | 14   | 15   | 69    |
| Deloitte Kassimchan | AF0080       | 6    | 4    | 4    | 4    | 5    | 23    |
| Others              |              | 65   | 68   | 69   | 72   | 77   | 351   |
| Total               |              | 146  | 146  | 146  | 146  | 146  | 730   |

Source: Developed for the research

Table 4.4 shows the breakdowns of auditor firms that the public listed T&S companies switch during year 2008 to year 2012. There are in total of 146 public listed T&S companies as the research sample size. The auditor firms comprise of PricewaterhouseCoopers (PwC), Ernst & Young (EY), Klynveld Peat Marwick Goerdeler (KPMG), Deloitte Kassimchan and the remaining audit firms is grouped under others. Based on the data collected, there are 75 times PwC was appointed as external auditors throughout the 5 years period. Majority of the companies chose EY as their external auditors with a total of 212 times during the same duration. Besides that, KPMG and Deloitte Kassimchan

have been appointed for 69 and 23 times respectively. The remaining companies employed other non-Big 4 audit firms to audit their companies and this sum up to 351 times within the same period. Among the Big 4 accounting firms, EY appeared as the most commonly chosen audit firm to perform audit for the public listed T&S companies.

#### 4.1.3 Central Tendencies Measurement of Conducts

<u>Table 4.5: Descriptive Statistics</u>

| Variable | Mean   | Std. Dev. | Minimum | Maximum | N   |
|----------|--------|-----------|---------|---------|-----|
| AVE_LOC  | 2.4614 | 1.2981    | 0.1458  | 4.9309  | 146 |
| AVE_LOR  | 2.0519 | 1.4654    | 0.1296  | 7.9201  | 146 |
| AVE_OC   | 0.4670 | 0.4840    | 0.0232  | 5.2927  | 146 |
| AVE_AF   | 0.4521 | 0.4994    | 0.0000  | 1.0000  | 146 |
| AVE_GC   | 0.2808 | 0.4509    | 0.0000  | 1.0000  | 146 |
| DV_FOAS  | 0.4041 | 0.5456    | 0.0000  | 2.0000  | 146 |

Source: Developed for the research

Table 4.5 describes the descriptive statistics of variables used in this study. Based on the table 4.5, the average of level of complexity (AVE\_LOC) is 2.4614 with a standard deviation of 1.2981. The minimum and maximum for AVE\_LOC is 0.1458 and 4.9309 respectively. In term of average of level of risk (AVE\_LOR), table 4.5 indicates that the mean value for all companies is 2.0519 with the standard deviation of 1.4654. Meanwhile, the lowest and the highest ratio for AVE\_LOR are 0.1296 and 7.9201 respectively.

With regards to the average of ownership concentration (AVE\_OC), the mean is 0.4670 and the standard deviation is 0.4840 whereas the minimum and maximum is 0.0232 and 5.2927 respectively. For AVE\_AF, there is a mean value of 0.4521 and a standard deviation of 0.4994. As a dummy

variable, if there is change of audit fee between 2008 and 2012, then such situation will be considered as 1, if there is no change of audit fee will classified as 0.

If going concern issue exist in one of the year between 2008 and 2012, hence this will be labeled as 1, 0 if otherwise. The minimum and maximum value is 0 and 1. Hence, the minimum and maximum value is 0 and 1. Value of 0.2802 and 0.4509 will be the mean and standard deviation for AVE\_GC respectively.

Lastly, DV\_FOAS is 0.4041 whereas the standard deviation is 0.5456. If there is no switch of audit firms in during the 5 years period, hence this will classify as 0, change once will classified 1, change twice then classified as 2. So, the minimum and maximum values are 0 and 2.

## 4.2 Scale Measurement

### 4.2.1 Reliability Test

This research is based on secondary data collected from published annual reports extracted from Bursa Malaysia. The data collected are based on annual reports within year 2008 to year 2012 as the researched period in this study Therefore, the data collected is assumed to be reliable. Hence, reliability test does not apply in this research.

## **4.2.2 Normality Test**

The function of normality test is to ensure the normal distribution of the data collection. As the data collected for this research is obtained from the

companies' published annual reports at Bursa Malaysia, therefore the normality test does not apply in this research as well.

## 4.3 Inferential Analysis

## 4.3.1 Pearson Correlation Analysis

<u>Table 4.6: Correlations between Variables</u>

|         | AVE_LOC | AVE_LOR | AVE_OC | AVE_AF | AVE_GC | DV_FOAS |
|---------|---------|---------|--------|--------|--------|---------|
| AVE_LOC | 1       | 0.384*  | 0.322* | 0.465* | 0.494* | 0.485*  |
| AVE_LOR | 0.384*  | 1       | 0.140* | 0.273* | 0.269* | 0.466*  |
| AVE_OC  | 0.322*  | 0.140*  | 1      | 0.308* | 0.428* | 0.449*  |
| AVE_AF  | 0.270*  | 0.0986* | 0.346* | 1      | 0.380* | 0.601*  |
| AVE_GC  | 0.494*  | 0.269*  | 0.428* | 0.596* | 1      | 0.601*  |
| DV_FOAS | 0.485*  | 0.466*  | 0.449* | 0.540* | 0.601* | 1       |

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

Source: Developed for the research

The figures presented in Table 4.6 are the correlation among the independent and dependent variables; level of complexity, level of risk, ownership concentration, changes in audit fee, going concern issue and frequency of auditor switching. As indicated in the table, five proposed presumptions are analytically reported to be significant at level p < 0.05. The statistics indicates that AVE\_LOC (r = 0.485, p < 0.05), AVE\_LOR (r = 0.466, p < 0.05), AVE\_OC (r = 0.449, p < 0.05), AVE\_AF (r = 0.540, p < 0.05), AVE\_GC (r = 0.601, p < 0.05) are all significantly and positively associated with FOAS.

In connection between all the IVs and DV in this research, the correlation between AVE\_GC and DV\_FOAS is the strongest (r = 0.601, p < 0.05). Followed up is the association involves the AVE\_AF and DV\_FOAS (r = 0.540, p < 0.05) and AVE\_LOC and DV\_FOAS (r = 0.485, p < 0.05). Generally, correlation within +0.41 to +0.70 is considered as moderate correlation as cited by Hair et al., (2007).

However, correlation figures of more than 0.95 among the IVs could result in multicollinearity problem, whereby the variables have exceeded a great correlation level (Saunders, Lewis and Thornhill, 2009; Gujarati, 2003).

As shown in the Table 4.6, the correlation between AVE\_LOC and all other respective IVs are ranging from 0.322 to 0.494. The correlation between AVE\_LOR and all other respective IVs are ranging from 0.140 to 0.384. The correlation between AVE\_OC and all other respective IVs are ranging from 0.140 to 0.428. On the other hand, the correlation between AVE\_AF and all other respective IVs are ranging from 0.273 to 0.596. Apart from that, the correlation between AVE\_GC and all other respective IVs are ranging from 0.269 to 0.596. Hence, multicollinearity problem does not exist in this research and no effect on the overall outcome.

## **4.3.2** Multiple Regression Analysis

Table 4.7: Model Summary

Model Summary<sup>b</sup>

| Root MSE | Dependent<br>Variable | Coefficient<br>Variation | R Square | Adjusted<br>R Square |
|----------|-----------------------|--------------------------|----------|----------------------|
| 0.37847  | 0.40411               | 93.65524                 | 0.5353   | 0.5187               |

- a. Predictors: (Constant), Level of Complexity, Level of Risk, Ownership
   Concentration, Audit Fees, Going Concern Issue.
- b. Dependent Variable: Frequency of Auditor SwitchingSource: Developed for the research

Table 4.7 illustrates that the coefficient of determination (R²) of 0.5353 implies that 53.53% of variance in frequency of auditor switching can be justified by level of complexity, level of risk, ownership concentration, changes in audit fee and going concern issue whereas 46.47% of variance in frequency of auditor switching is being explained by other variables that are not being employed in this research. The adjusted R² indicates that 51.87% of the variability of frequency of auditor switching is accounted for by the model, after taking into account the quantity of predictors variables in the model. In short, the model is averagely suitable to be used to predict variation.

Table 4.8: Analysis of Variance (ANOVA)

ANOVA<sup>b</sup>

| Model |            | Sum of Square | df  | Mean Square | F     | Sig.   |
|-------|------------|---------------|-----|-------------|-------|--------|
| 1     | Regression | 23.10402      | 5   | 4.62080     | 32.26 | <.0001 |
| ]     | Residual   | 20.05352      | 140 | 0.14324     |       |        |
| ,     | Total      | 43.15753      | 145 |             |       |        |

a. Predictors: (Constant), Level of Complexity, Level of Risk, Ownership Concentration, Audit Fees, Going Concern Issue.

b. Dependent Variable: Frequency of Auditor Switching

Source: Developed for the research

As the p-value (< 0.0001) shown in Table 4.8 is less than 0.05, thus the model is proven to be statically significant (Hair, Black, Babin, Anderson & Tatham., 2006). From the reading obtained from F Distributions and Significance Tables, when  $v^1$  (degree of freedom in the numerator) is 5 and  $v^2$  (degree of freedom in the denominator) is 140 at percent level (Sig of F < 0.05), the F value is 2.21. The F test statistics produced (F=32.26) was more than F value (F<sub>0.05</sub>=2.21) indirectly ascertained and proved the fitness of the model. Hence, statistically significant relationship between all the variables is therefore established in this research.

Table 4.9: Parameter Estimates

#### Parameter Estimates<sup>a</sup>

| Model      | Unstanda   | rdized  | Standardized | t     | Sig.      | Collineari | ty      |
|------------|------------|---------|--------------|-------|-----------|------------|---------|
|            | Coefficien | ts B    | Coefficients |       |           | Statistics |         |
| Std. Error |            | В       |              |       | Tolerance | VIF        |         |
| 1 Constant | -0.19238   | 0.07444 | 0            | -2.58 | 0.0108    |            |         |
| AVE_LOC    | 0.03502    | 0.03011 | 0.08333      | 1.16  | 0.2468    | 0.64654    | 1.54670 |
| AVE_LOR    | 0.10310    | 0.02341 | 0.27694      | 4.40  | <.0001    | 0.83912    | 1.19172 |
| AVE_OC     | 0.22813    | 0.07264 | 0.20241      | 3.14  | 0.0021    | 0.79902    | 1.25153 |
| AVE_AF     | 0.21279    | 0.08115 | 0.19479      | 2.62  | 0.0097    | 0.60139    | 1.66280 |
| AVE_GC     | 0.34181    | 0.09489 | 0.28253      | 3.60  | 0.0004    | 0.53951    | 1.85353 |

a. Dependent Variable: Frequency of Auditor Switching

Source: Developed for the research

#### 4.3.2.1 Unstandardized Coefficients

Unstandardized coefficients (B) were utilized to predict the impact of IVs towards the DV by formulating a regression equation. The figures generated in Table 4.9 thus lead to the construction of the regression equation as follows:

$$Y (DV_FOAS) = -0.19238 + 0.03502(AVE_LOC) + 0.10310(AVE_LOR) + 0.22813(AVE_OC) + 0.21279(AVE_AF) + 0.34181(AVE_GC)$$

As all the p-value for AVE\_LOR (p<0.0001), AVE\_OC (p=0.0021), AVE\_AF (p=0.0097), and AVE\_GC (p=0.0004) are all less than 0.05 except for AVE\_LOC (p=0.2468), hence these variables are significant to DV\_FOAS. Therefore, the equation above implies that there is a significant association between DV\_FOAS and AVE\_LOR, AVE\_OC, AVE\_AF, and AVE\_GC.

The equation predicted that the DV\_FOAS is presumed to be 0.19238 when there is an absence of factors. Nevertheless, DV\_FOAS is predicted to be increase by 0.03502, 0.10310, 0.22813, 0.21279 and 0.34181 when AVE\_LOC, AVE\_LOR, AVE\_OC, AVE\_AF and AVE\_GC are increase by 1 unit individually. By looking at the regression equation, AVE\_GC has the greatest influence on DV\_FOAS, followed by AVE\_OC, AVE\_AF, AVE\_LOR and finally AVE\_LOC.

#### 4.3.2.2 Standardized Coefficients

Standardized Coefficients measure the impacts of every variable towards the model based on changes in standard deviation units. Higher value of beta stipulates that the discrepancy in IVs would result in significant adjustment on the DV. In relation to figures in Table 4.9, all data have the standardized coefficients does not exceed 1. The beta value among the IVs is the highest with 0.28253 on AVE\_GC, followed by 0.27694 on AVE\_LOR, 0.20241 on AVE\_OC, 0.19479 on AVE\_AF and finally 0.08333 on AVE\_OC.

.

#### 4.3.2.3 Multicollinearity

In correspondence to Garson's research (2008), tolerance lower than 0.2 and variance-inflation factor (VIF) greater than 4.0 will lead to multicollinearity issue. In relative to multicollinearity statistics in Table 4.9, the tolerance and VIF for AVE\_LOC, AVE\_LOR, AVE\_OC, AVE\_AF and AVE\_GC were more than 0.2 and lower than 4.0 respectively. Thus, there is no evidence of multicollinearity problem in this research.

## 4.4 Conclusion

In this research, there are five independent variables that perceived to have influence on frequency of auditor switching among public listed T&S companies in Malaysia. However, there are only 4 variables are accepted, which are AVE\_LOR (level of risk), AVE\_OC (ownership concentration), AVE\_AF (change in audit fee) and AVE\_GC (going concern issue). The remaining variable, AVE\_LOC (level of complexity), is rejected due to non-significant result generated from the regression analysis result. Further discussion will be explained in the following chapter.

# CHAPTER 5: DISCUSSIONS, CONCLUSION AND IMPLICATIONS

#### 5.0 Introduction

The chapter reviews on the summary of analysis results, major research discoveries, implications, limitations and recommendations for future research. Subsequently before this chapter ends, an overall deduction will be concluded to feature the inclusive issue at the end of the research.

## 5.1 Summary of Statistical Analysis

## **5.1.1 Descriptive Analysis**

An aggregate total of 146 public listed T&S companies under Bursa Malaysia were chosen as the research samples. From this research, majority of the companies have changes in the audit fees within the year 2008 to year 2012. From the 146 companies, 66 companies (45.21%) have changes in the audit fee and 41 out of 146 (28.08%) companies have going concern issues.

The data exhibits that 91 out of 146 companies (62.33%) have not encountered auditors switching whereas 51 of the total companies (34.93%) have experienced auditors switching for once within the 5 years. The remaining 4 companies (2.74%) have switched their auditors twice during the years. The audit firms comprise of Big 4 accounting firms and

other non-Big 4 audit firms. Ernst & Young emerged as the main external auditor among the Big 4 audit firm in performing audit for the 146 public listed T&S companies under Bursa Malaysia.

## **5.1.2 Inferential Analysis**

#### 5.1.2.1 Pearson Correlation Coefficient

Pearson Correlation Coefficient analysis is utilised to analyse the strength of relationship among the IVs. The highest correlation between DV\_FOAS and 5 IVs is 0.643 (AVE\_OC) while the lowest correlation falls to 0.173 (AVE\_LOR). Meanwhile, a moderate relationship exists between AVE\_LOC and DV\_FOAS with correlation of 0.487. As the correlation for all the IVs is less than 0.95, thus multicollinearity problem does not exist in this research.

#### **5.1.2.2** Multiple Regression Analysis

As presented in the statistics result, R<sup>2</sup> of 0.5353 indicates that 53.53% of variation in DV\_FOAS could be justified by all IVs. The ANOVA test result ascertained the significance of model at level of 0.05 with F-value of 32.26. The regression equation generated is Y(DV\_FOAS) = -0.19238 + 0.03502(AVE\_LOC) + 0.10310(AVE\_LOR) + 0.22813(AVE\_OC) + 0.21279(AVE\_AF) + 0.34181(AVE\_GC). Thus, significant and positive relationship between AVE\_LOR, AVE\_OC, AVE\_AF and AVE\_GC with DV\_FOAS is establised. As p-value for AVE\_LOC is more than 0.05, hence AVE\_LOC is proven to be insignificant although it has a positive relationship with DV\_FOAS. From this regression,

AVE\_GC has the greatest influence on DV\_FOAS among the IVs. The value of tolerance and variance-inflation factor (VIF) indicated that no indication of multicollinearity problem in this research.

# 5.2 Discussions of Major Findings

Table 5.1: Summary Result of Hypotheses Testing

|    | Tuble 3.1 . Dullimary Result of Trypomeses Testing  |             |                   |  |
|----|---|-------------|-------------------|--|
|    | Hypotheses  | Significant | <b>Statistics</b> |  |
|    |   | Level       | Result            |  |
| H1 | There is a significant relationship between level of complexity and frequency of auditor switching.     | 0.2468      | Reject            |  |
| H2 | There is a significant relationship between level of risk and frequency of auditor switching.           | <0.0001     | Do not reject     |  |
| Н3 | There is a significant relationship between ownership concentration and frequency of auditor switching. | 0.0021      | Do not reject     |  |
| H4 | There is a significant relationship betweenchanges in audit fee and frequency of auditor switching.     | 0.0097      | Do not reject     |  |
| Н5 | There is no significant relationship between going concern issue and frequency of auditor switching.    | 0.0004      | Do not reject     |  |

Source: Developed for the research

# 5.2.1 Relationship between level of complexity and frequency of auditor switching

The findings from the data analysis proven that level of complexity have no significant association with the auditors switching. This is contradict with the past studies conducted by Boon et al. (2007) that indicated that councils with lower levels of complexity are more likely to appoint a specialist auditor. The research led by Chadegani et al. (2011) concluded that level of complexity has relationship with auditor switching and when a large firms which have more complex operational structure, it will require more expertise from large auditing firms to reduce the agency costs. This is to assure the compatibility of qualified auditor to meet the requirement for the larger company. In the meantime, the findings studied by Nazri et al., (2012) also supported that complex client firms are more likely to switch auditor as compared to normal firms. Nevertheless, research by Velury, Reisch, and O'Reilly (2003) has supported our findings and argued that as the level of complexity increases, the incumbent industry specialist auditors will be preserved in high growth companies to ensure proper audit. In addition, managers may make such retaining decision to prompt investors that their firm's financial statements are of excellence standard and reduce information risk.

# 5.2.2 Relationship between level of risk and frequency of auditor switching

The findings from the data analysis proven that level of risk have a significant association with auditor switching. This result is in accordance with the previous study carried out by Chadegani et al. (2011), Boon et al. (2007) and Suyono et al. (2013) which demonstrated that the financial condition has positive relationship with auditor switching. In order to overcome higher level of risk, the managements will appoint more reputable audit firms as to improve the confidence level of financial statement users. This study appears to agree with prior research and the results provide assurance on the reliability of financial statement information.

# 5.2.3 Relationship between ownership concentration and frequency of auditor switching

The findings from the analysis result proven that ownership concentration have a significant association with the auditor switching. Based on research carried out by Lin and Liu (2009) and Ming (2007), ownership concentration has significant relationship over the auditor switching as the shareholders with superior power and influence can manipulate the auditor choices and this would lead to the credibility of the financial report to diminish. However, there is a contradicting opinion from Bagherpour (2007), whereby ownership concentration involving both large public and private shareholders are insignificant factors variable towards auditor switching.

# 5.2.4 Relationship between changes in audit fee and frequency of auditor switching

The findings from the data analysis proven that changes in audit fee have a significant association with the auditor switching. The result agreeing with the empirical studies of Wan Mohamed et al. (2007) and Fontaine and Letaifa (2012) which advocated that audit fee could significantly influence the auditor switching. Furthermore, research conducted by Fontaine and Letaifa (2012) revealed that audit fee is the most cited reason for auditor switching. On the other hand, Suyono et al. (2013) has found that the audit fee does not have any relationship with the auditor switching.

# 5.2.5 Relationship between going concern issue and frequency of auditor switching

The findings from the data analysis proven that going concern issue have a significant association with the auditor switching. According to studies guided by Calderon and Ofobike (2008) as well as Vanstraelen (2000), it is believed that going concern issue was clearly associated with the auditor change decision as the clients want to improve the confidence level of financial statement users through reputation of auditors. Meanwhile, the research by Jackson, Moldrich, and Roebuck (2008) concluded that there is a high correlation between chances of bankruptcy and propensity of auditors to issue a going-concern opinion, leading to auditor change situation.

## 5.3 Implications of the Study

This study provides contributions to management and users of financial statement, T&S companies, accounting students and theoretical implications.

## 5.3.1Management and Users of Financial Statement

The findings on the determinants of auditor switching among Malaysia public listed T&S companies is able to shed light on how management and investors could prevent potential problem of auditor switching in the future. This research could enlighten companies on the factors that contribute to auditors switching in the early stage and thus, minimizes the possibility of auditors switching and maximizes the confidence level of financial statement users by enhancing auditor independence. As it is previously proven in Hennes, Leone, & Miller's research (2010), auditor switching could be costly in terms of monetary cost and managerial time. Thus, by reducing auditor switching problem, this study enables the management to focus more on core business with better financial and time management. This would indirectly aids better decision making. Moreover, financial statements can be produced on a timely basis. Switching of auditor would otherwise cause the management to consume extra time in selecting and familiarizing the new auditor which may lead to audit delay.

This study helps to enhance the firms' corporate governance and audit monitoring to strengthen the reliability of corporate reporting. The findings suggest that regulators' surveillance over the behaviour of controlling shareholders should be enhanced to avoid the overriding power of controlling shareholders in influencing the auditor choices in preparing the financial report. With stronger regulation, possible expropriation of the minority shareholders' interests could be avoided.

#### 5.3.2 T&S companies

Based on the findings, T&S companies should be aware that firm's level of risk is one of the prominent factors which contribute to auditor switching. When the financial condition of companies is unstable, it is highly associated with the firm's level of risk and thus, companies engage with more reputable audit firms to help to enhance the confidence of financial statement users. Ownership concentration is also influential in contributing to auditor switching as controlling shareholders will tend to expropriate the interest of minority shareholders by influencing auditor choices. Change in audit fee is leading factor to competition among the audit firms revolving the manipulation of amount of audit fees in order to attract more new clients. Therefore, T&S companies should consider the audit fees charged to prevent difficulties in the future. Notably, going concern issue is significantly related to auditor changes as companies will tend to switch to prestigious auditor if such problem exists in that financial year. However, it is found that firm's level of complexity is not a significant factor which contributes to auditor switching.

### **5.3.3** Accounting Students

This research provides insight to accounting students on the factors influencing auditor switching based on the most recent data. Although there has been studies conducted in the past, different factors of auditor switching have been identified. With the most recent data, the results have indicated that firm's level of risk, ownership concentration, change in audit fee, and going concern issue are factors which significantly causing auditor switching among public listed T&S companies.

#### **5.3.4** Theoretical

Apart from practices implications, this research imparts a handful of theoretical implications as well. This research has succeeded in verifying the variables affecting auditor switching involving the T&S companies in Malaysia, by extending the new variables such as ownership concentration and going concern issue. In view that the fitness of research model employed has been recognised, thus ownership concentration and going concern issue could be claimed to have been successfully extended as determinants in the context of auditor switching issue in Malaysia. Apart from that, this study has extended the Malaysian studies on the auditor switching issue with the latest dataset from year 2008 to 2012.

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## 5.4 Limitations of the Study

The samples selected for this research are based on public listed T&S companies only. The data used do not consists of private limited companies. Therefore, the samples are insufficient to represent the overall auditors switching issue in non listed T&S private limited companies, reducing the comprehensiveness and representativeness of the study.

Apart from that, past empirical studies on auditors switching are mostly carried out in developed countries are used in this research as reference as there are limited numbers of studies on this issue being carried out in Malaysia. Therefore, the findings of the past studies in foreign countries might not be suitable and appropriate to apply in this research in Malaysia as there are differences in terms of environment and culture in both countries.

The data and information used in this research is obtained from Bursa Malaysia. Although Bursa Malaysia is a reliable forum for information, it provides incomplete resources such as missing of annual report in a particular year. This

leads to smaller size of sample due to incomplete annual reports for certain companies.

Switching to a larger auditor may want to enhance the corporate governance whereas switching to smaller auditor to sustain the opaqueness gains. As this research only focus on quantitative variable (frequency of auditor switching), hence the qualitative variable such as direction and type of switching (switching to higher or lower-quality auditors) will not able to be explained. Therefore, reasons behind auditors switching may not able to be explained in this research.

#### 5.5 Recommendations for Future Research

Future researchers may try to covers the private limited T&S companies in order to enhance the representativeness of the study. Future researchers may do so by distributing questionnaires or interviewing key management personnel to reach to these private limited companies.

As this research is limited to past empirical studies with different of cultures, this may be resolved by choosing the empirical studies in foreign countries that have almost similar cultures as Malaysia. Researchers may opt for resources from neighbouring countries such as Singapore and Indonesia that have common cultures in the audit environment.

Missing annual reports limitation may be smoothen over by requesting the missing annual reports from the respective public listed companies. Some of the missing annual reports can be extracted from the companies' websites as well. As these annual reports are publicly available information, this limitation can be settled by writing in an email to the management of the companies.

Future studies are recommended to further extend their model to include the qualitative variable such as direction and type of switching. With this extension, the direction and type of switching may enlighten the users of financial users in

relying on the works of auditors as well as in determining the reasons behind such switching.

# 5.6 Conclusion

The research objectives has accomplished in exploring the determinants affecting auditor switching in public listed T&S companies in Malaysia by investigating the relationship between five independent variables and a dependent variable. In accordance to the analysis outcome disclosed, all five suggested hypotheses are being supported other than level of complexity. Based on Pearson Correlation Analysis and Multiple Regression Analysis, going concern issue is proven to be the most significant factor in influencing the frequency of auditor switching in public listed T&S companies in Malaysia.

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## **APPENDICES**

## **Appendix A: Summary of Past Empirical Studies**

| Level of Complexity |           |                             |                              |  |
|---------------------|-----------|-----------------------------|------------------------------|--|
| Study               | Country   | Data                        | Major Findings               |  |
| Chadegani,          | Iran      | Secondary data extracted    | Firms with high              |  |
| Mohamed,            |           | from annual general         | complexity operational       |  |
| & Jari, 2011        |           | meeting, companies'         | level will tend to switch to |  |
|                     |           | financial statements and    | larger auditing firms with   |  |
|                     |           | notes on 182 sample         | higher expertise.            |  |
|                     |           | companies listed in Tehran  |                              |  |
|                     |           | Stock Exchange (TSE) from   |                              |  |
|                     |           | 2003 to 2007.               |                              |  |
| Boon,               | Australia | Secondary data extracted    | Clients firms with lower     |  |
| McKinnon,           |           | from annual report, other   | level of complexity are      |  |
| & Ross,             |           | publicly available date for | more likely to appoint a     |  |
| 2007                |           | 125 local councils in NSW   | Big N firm.                  |  |
|                     |           | for nine years periods from |                              |  |
|                     |           | 1993 to 2002.               |                              |  |
| Nazri,              | Malaysia  | Secondary data extracted    | Complex client               |  |
| Smith, &            |           | from Bursa Malaysia web     | firms are more               |  |
| Ismail, 2012        |           | site, companies' annual     | likely to change             |  |
|                     |           | reports from Bursa Malaysia | auditor than those           |  |
|                     |           | library, and minutes of     | that are not.                |  |
|                     |           | annual general meeting from |                              |  |
| 1                   |           | Companies Commission of     |                              |  |

# Determinants Affecting The Auditor Switching: A Malaysian Study

| Malaysia on 400 companies  |  |
|----------------------------|--|
| listed on Bursa Malaysia   |  |
| over 18 year's period from |  |
| 1990 till 2008.            |  |

| Level of Risk                          |           |  |   |
|--|-----------|--|---|
| Study                                  | Country   | Data   | Major Findings  |
| Chadegani,<br>Mohamed,<br>& Jari, 2011 | Iran      | Secondary data extracted from annual general meeting, companies' financial statements and notes on 182 sample companies listed in Tehran Stock Exchange (TSE) from 2003 to 2007.                                     | Financially stressed clients are more likely to replace their audit firms, thus yield positive relationship with auditor switching.   |
| Boon,<br>McKinnon,<br>& Ross,<br>2007  | Australia | Secondary data extracted from annual report, other publicly available date for 125 local councils in NSW for nine years periods from 1993 to 2002.   | With regard to the choice of a Big N or non-Big N auditor, councils with higher audit risk are more likely to appoint a Big N audit firm. Client firms with higher levels of risk are more likely to appoint a specialist audit firm. |
| Suyono, Yi,<br>& Riswan,<br>2013       | Indonesia | Primary data where survey method is adopted by distribution of 136 questionnaires to the Chairmen of manufacturing companies listed in Indonesian Stock Exchange (ISE) as respondents between February to July 2012. | Financial condition of the client affected significantly and positively to the auditor switching.   |

| Ownership Concentration |         |                              |                            |  |
|-------------------------|---------|------------------------------|----------------------------|--|
| Study                   | Country | Data                         | Major Findings             |  |
| Lin & Liu,              | China   | Secondary data were          | Firms with a higher        |  |
| 2009                    |         | collected from the China     | percentage of total shares |  |
|                         |         | Stock Market and             | held by its controlling    |  |
|                         |         | Accounting Research          | shareholder are more       |  |
|                         |         | (CSMAR) Database, Taiwan     | likely to switch auditors. |  |
|                         |         | Economic Journal database,   |                            |  |
|                         |         | and authoritative national   |                            |  |
|                         |         | newspapers or magazine,      |                            |  |
|                         |         | such as China Securities     |                            |  |
|                         |         | Daily, Shenzhen Securities   |                            |  |
|                         |         | Times, and Shanghai          |                            |  |
|                         |         | Securities News on 182 A-    |                            |  |
|                         |         | share companies from         |                            |  |
|                         |         | different industries between |                            |  |
|                         |         | years 2001 to 2004.          |                            |  |
| Ming, 2007              | China   | Secondary data extracted     | There is an association    |  |
|                         |         | from CSMAR Financial         | between the internal       |  |
|                         |         | Database and CSMAR IPOs      | corporate governance       |  |
|                         |         | Research Database which      | mechanism and firms'       |  |
|                         |         | published by GTA             | auditor switch decision.   |  |
|                         |         | Information Technology       |                            |  |
|                         |         | Company (China) on 1,387     |                            |  |
|                         |         | A-share firms listed at      |                            |  |
|                         |         | Shanghai and Shenzhen        |                            |  |
|                         |         | Stock Exchanges over a 4     |                            |  |
|                         |         | year period from 2001 to     |                            |  |
|                         |         | 2004.                        |                            |  |

| Bagherpour, | Iran | Secondary data on 748 Ownership changes (large  |
|-------------|------|---|
| 2007        |      | observations of Tehran Stock public and private |
|             |      | Exchange (TSE) listed shareholders) are         |
|             |      | companies from 1999 to insignificant factors    |
|             |      | 2003, by excluding variable towards auditor     |
|             |      | companies listed from 2001 switching.           |
|             |      | onwards due to high number                      |
|             |      | introduction of new                             |
|             |      | industries.                                     |

| Changes in | audit fee |                             |                              |
|------------|-----------|-----------------------------|------------------------------|
| Study      | Country   | Data                        | Major Findings               |
| Suyono,    | Indonesia | Primary data where survey   | Audit fee does not affect    |
| Yi, &      |           | method is adopted by        | significantly to the auditor |
| Riswan,    |           | distribution of 136         | switching.                   |
| 2013       |           | questionnaires to the       |                              |
|            |           | Chairmen of manufacturing   |                              |
|            |           | companies listed in         |                              |
|            |           | Indonesian Stock Exchange   |                              |
|            |           | as respondents between      |                              |
|            |           | February to July 2012.      |                              |
|            |           |                             |                              |
| Wan        | Malaysia  | Secondary data extracted    | Findings shows that the      |
| Mohamed,   |           | from company's annual       | audit fee is asscociated     |
| Hussain, & |           | reports, company's websites | with auditor switching.      |
| Mohd       |           | and compact discs available |                              |
| Rodzi,     |           | from the Bursa Malaysia     |                              |
| 2007       |           | Library on companies that   |                              |
|            |           | had auditor switching       |                              |
|            |           | between the period 1996 to  |                              |
|            |           | 2004.                       |                              |

| Fontaine & | Canada | Primary data through          | Audit fees which are |
|------------|--------|-------------------------------|----------------------|
| Letaifa,   |        | interview sessions 20         | the most cited       |
| 2012       |        | financial managers in public  | reason for auditor   |
|            |        | and private companies that    | switching.           |
|            |        | used audit services from Big- |                      |
|            |        | 4 firms or non Big-4 firms    |                      |
|            |        | and distribution              |                      |
|            |        | questionnaires.               |                      |
|            |        |                               |                      |

| Going Conc | Going Concern Issue |                               |                             |  |  |  |  |
|------------|---------------------|-------------------------------|-----------------------------|--|--|--|--|
| Study      | Country             | Data                          | Major Findings              |  |  |  |  |
| Calderon & | United              | Secondary data extracted      | Going concern was clearly   |  |  |  |  |
| Ofobike,   | State               | from Audit Analytical auditor | associated with the auditor |  |  |  |  |
| 2008       |                     | change database and all       | change decision.            |  |  |  |  |
|            |                     | available auditor change data |                             |  |  |  |  |
|            |                     | from the inception of the     |                             |  |  |  |  |
|            |                     | database up to August 2006,   |                             |  |  |  |  |
|            |                     | and a final sample of 6510    |                             |  |  |  |  |
|            |                     | auditor changes has been      |                             |  |  |  |  |
|            |                     | identified.                   |                             |  |  |  |  |

| Vanstraelen, | Belgium   | Secondary data taken from      | Going concern opinions      |
|--------------|-----------|--------------------------------|-----------------------------|
| 2000         |           | CDROMs of the Belgian          | significantly increases the |
|              |           | National Bank from years       | probability of bankruptcy   |
|              |           | 1992 to 1996 that contains     | and clients are more likely |
|              |           | annual accounts of all Belgian | to switch auditor when      |
|              |           | listed companies and samples   | they receive a going        |
|              |           | contain with 1176              | concern opinion.            |
|              |           | observations.                  |                             |
| Jackson,     | Australia | Secondary data taken from      | High chances of             |
| Moldrich, &  |           | Craswell's Who Audits          | bankruptcy are correlated   |
| Roebuck,     |           | Australia database from 1994   | with propensity to issue a  |
| 2008         |           | to 2003, ASX web site,         | going-concern opinion in    |
|              |           | Aspect Huntley's Data          | causing auditor change.     |
|              |           | Analysis, Thompson's SDC       |                             |
|              |           | Platinum New Issues            |                             |
|              |           | Database. Sample of 772        |                             |
|              |           | auditor switches for listed    |                             |
|              |           | ASX entities between the       |                             |
|              |           | periods of 1995 – 2003,        |                             |
|              |           | excluding financial sector     |                             |
|              |           | firms due to the inherent      |                             |
|              |           | differences in reporting       |                             |
|              |           | nature.                        |                             |

| Frequency of Auditor Switching |         |                                 |                             |  |  |  |
|--------------------------------|---------|---------------------------------|-----------------------------|--|--|--|
| Study                          | Country | Data                            | Major Findings              |  |  |  |
| Chadegani,                     | Iran    | IVs: Change in                  | Results indicated that      |  |  |  |
| Mohamed,                       |         | managements, auditor size,      | client size and audit       |  |  |  |
| & Jari, 2011                   |         | qualified audit opinion, client | quality factors have        |  |  |  |
|                                |         | size, change in auditor fees    | negative relationships with |  |  |  |
|                                |         | and financial distress.         | auditor switch. Financial   |  |  |  |

|              |           |                                 | distress and change in       |
|--------------|-----------|---------------------------------|------------------------------|
|              |           | Secondary data extracted        | management have positive     |
|              |           | from annual general meeting,    | relationship with auditor    |
|              |           | companies' financial            | switch. However, qualified   |
|              |           | statements and notes on 182     | audit opinion and auditor    |
|              |           | sample companies listed in      | fees that were predicted to  |
|              |           | Tehran Stock Exchange           | have negative relationships  |
|              |           | (TSE) from 2003 to 2007.        | with auditor switch, yield   |
|              |           |                                 | positive relationships.      |
|              |           |                                 |                              |
| Nazri,       | Malaysia  | IVs: Change in management,      | Generally, the findings of   |
| Smith, &     |           | qualified audit opinion, client | this study are consistent    |
| Ismail, 2012 |           | size, audit quality, financial  | with those of prior studies. |
|              |           | distress and audit fees.        | Results indicated that       |
|              |           | Secondary financial data        | except for the receipt of a  |
|              |           | extracted from DataStream,      | qualified audit opinion,     |
|              |           | Bursa Malaysia handbook,        | factors such as changes in   |
|              |           | annual reports and web site     | management, client firm      |
|              |           | on sample of 300 client firms   | size, complexity and client  |
|              |           | that changed their auditors     | firm growth are proven to    |
|              |           | and a further 100 client firms  | have influence on auditor    |
|              |           | that did not change auditor,    | change.                      |
|              |           | between the years 1990 and      |                              |
|              |           | 2008.                           |                              |
|              |           |                                 |                              |
| Suyono, Yi,  | Indonesia | IVs: Financial condition of     |                              |
| & Riswan,    |           | the client, audit fee, level of |                              |
| 2013         |           | competition among audit         | ,                            |
|              |           | firms, size of audit firm, and  | among audit firms, and       |
|              |           | tenure of audit. Primary data   |                              |
|              |           | where survey method is          | significant to auditor       |
|              |           | adopted by distribution of      | switching. However, the      |
|              |           | 136 questionnaires to           | audit fee and the size of    |

| the C       | Chairmen   | of      | audit firm  | did not a  | ffect |
|-------------|------------|---------|-------------|------------|-------|
| manufacturi | ng com     | npanies | the auditor | switching. |       |
| listed in I | ndonesian  | Stock   |             |            |       |
| Exchange    | (ISE)      | as      |             |            |       |
| respondents | b          | etween  |             |            |       |
| February to | July 2012. |         |             |            |       |

### **Appendix B: Operational of Model Variables**

| Independent   | Description                    | References         | Measurement               |
|---------------|--------------------------------|--------------------|---------------------------|
| Variables     |                                |                    |                           |
| Level of      | Measurement tool for audit     | Boon, McKinnon,    | Measured by ratio scale   |
| Complexity    | difficulty for account         | & Ross, 2007.      | based on                  |
|               | balances and classes of        |                    | Total Receivables/Total   |
|               | transactions that involve      |                    | Revenue                   |
|               | additional audit period and    |                    |                           |
|               | effort (Boon, McKinnon, &      |                    |                           |
|               | Ross, 2005).                   |                    |                           |
|               |                                |                    |                           |
| Level of Risk | Probability that a randomly    | Boon, McKinnon,    | Measured by ratio scale   |
|               | selected firm at a given       | & Ross, 2007.      | based on Current          |
|               | point of time will have a      |                    | Asset/Current Liabilities |
|               | level of economic              |                    |                           |
|               | performance that may bring     |                    |                           |
|               | about a situation of financial |                    |                           |
|               | distress or even bankruptcy    |                    |                           |
|               | (Ruano & Salas, 2004).         |                    |                           |
|               |                                |                    |                           |
| Ownership     | The level of common stock      | Alexandrina, 2012. | Measured by ratio scale   |
| Concentration | held by the majority           |                    | based on percentage of    |
|               | shareholder (Woo & Koh,        |                    | shares owned by the       |
|               | 2001).                         |                    | largest shareholder.      |
|               |                                |                    |                           |

| Audit Fees  | Ratio of the preceding years  | Chadegani,       | Measured by nominal           |
|-------------|-------------------------------|------------------|-------------------------------|
| Tiddit Tees | to the auditor-change year's  | Mohamed, & Jari, | scale using dummy             |
|             | audit fee (Woo & Koh,         | 2011.            | variables. 1 = there is       |
|             |                               | 2011.            |                               |
|             | 2001).                        |                  | changes in audit fee in       |
|             |                               |                  | the year following the        |
|             |                               |                  | tender compared to the        |
|             |                               |                  | year immediately              |
|             |                               |                  | preceding the tender. 0 =     |
|             |                               |                  | otherwise.                    |
|             |                               |                  |                               |
| Going       | Situation whereby client's    | Calderon &       | Measured by nominal           |
| Concern     | company's ability to endure   | Ofobike, 2008.   | scale using. 1 = if there is  |
| Issues      | in its chosen industry (Wan   |                  | going concern condition       |
|             | Mohamed, Hussain, &           |                  | existed at time of            |
|             | Mohd Rodzi, 2007).            |                  | separation, $0 = $ otherwise. |
|             |                               |                  |                               |
| Dependent   | Definition                    | Sources          | Measurement                   |
| Variables   |                               |                  |                               |
| Auditor     | Corporate management          | Suyono, Yi, &    | Measured by ratio scale       |
| Switching   | decisions to change or retain | Riswan, 2013.    | using frequency of            |
|             | the auditor when there are    |                  | auditor change.               |
|             | changes in firm               |                  |                               |
|             | characteristics align with    |                  |                               |
|             | passage of time (Huson, Ali,  |                  |                               |
|             | Annuar, Ariff & Shamsheer,    |                  |                               |
|             | 2000).                        |                  |                               |
|             |                               |                  |                               |
|             | l .                           | I                |                               |

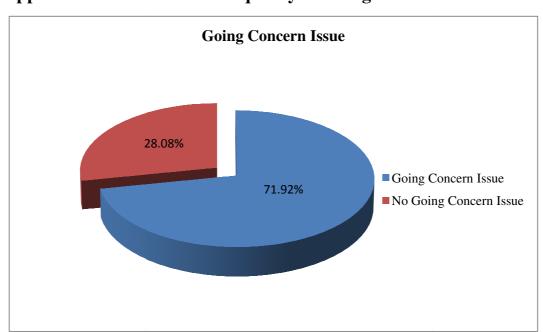
Changes in Audit Fees

54.79%

• Change
• No Change

**Appendix C: Pie Chart of Frequency of Changes in Audit Fees** 

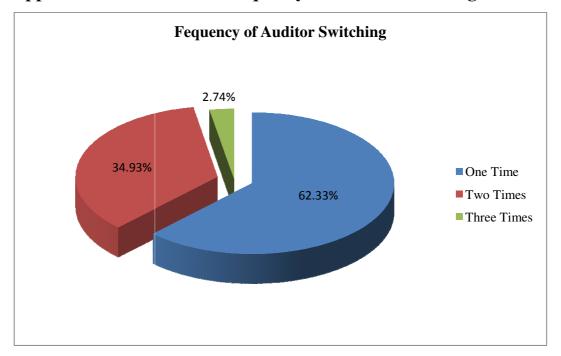
Source: Develop for the research



**Appendix D: Pie Chart of Frequency of Going Concern Issue** 

Source: Develop for the research

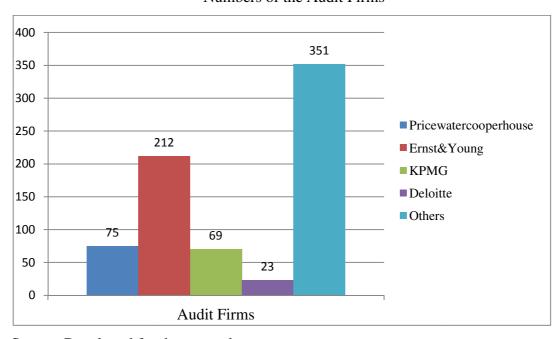
**Appendix E: Pie Chart of Frequency of Auditor Switching** 



Source: Develop for the research

**Appendix F: Bar Chart of Number of Audit Firms** 

Numbers of the Audit Firms



Source: Developed for the research

## **Appendix G: Breakdowns of Auditor Firms**

|                              | Registration |      |      |      |      |      |
|------------------------------|--------------|------|------|------|------|------|
| Audit Firms                  | Number       | 2008 | 2009 | 2010 | 2011 | 2012 |
| PricewaterhouseCoopers (PwC) | AF1146       | 16   | 16   | 16   | 14   | 13   |
| Ernst & Young (EY)           | AF0039       | 46   | 44   | 44   | 42   | 36   |
| Klynveld Peat Marwick        |              |      |      |      |      |      |
| Goerdeler (KPMG)             |              |      |      |      |      |      |
|                              | AF0758       | 13   | 14   | 13   | 14   | 15   |
| Deloitte Kassimchan          | AF0080       | 6    | 4    | 4    | 4    | 5    |
| Adam & Co.                   | AF1250       | 0    | 1    | 1    | 1    | 1    |
| AljeffriDean                 | AF1366       | 2    | 2    | 3    | 3    | 2    |
| Baker Tilly Monteiro Heng    | AF0117       | 2    | 2    | 2    | 4    | 6    |
| BDO Binder                   | AF0206       | 10   | 9    | 8    | 9    | 7    |
| Chi-LLTC                     | AF1114       | 0    | 0    | 0    | 1    | 1    |
| Crowe Horwath                | AF1018       | 9    | 12   | 14   | 13   | 13   |
| Deloitte Touche              | AF0834       | 2    | 1    | 2    | 2    | 10   |
| Folks Dfk & Co.              | AF0502       | 1    | 1    | 1    | 1    | 1    |
| GEP Associates               | AF1030       | 2    | 2    | 2    | 1    | 0    |
| HALS & Associates            | AF0766       | 1    | 1    | 0    | 0    | 0    |
| Hanafiah Raslan & Mohamad    | AF0002       | 2    | 2    | 2    | 2    | 2    |
| Hasnan THL Wong & Partners   | AF0942       | 0    | 0    | 0    | 1    | 1    |
| Hii & Lee                    | AF0123       | 0    | 0    | 0    | 1    | 0    |
| HLB LER LUM                  | AF0276       | 2    | 2    | 2    | 2    | 2    |
| KPMG Desa Megat & Co.        | AF0759       | 2    | 2    | 2    | 2    | 2    |
| Kumpulan Naga                | AF0024       | 1    | 1    | 0    | 0    | 0    |
| LEOU & Associates            | AF0659       | 1    | 0    | 0    | 0    | 0    |
| MAZARS                       | AF1954       | 0    | 4    | 3    | 3    | 3    |
| McMillan Woods Mea           | AF1995       | 0    | 0    | 0    | 1    | 1    |
| Moore Stephens Ac            | AF001826     | 3    | 3    | 3    | 2    | 0    |
| Moore Stephens               | AF0282       | 1    | 0    | 0    | 0    | 0    |
| Moores Rowland               | AF0539       | 3    | 0    | 0    | 0    | 0    |
| Morison Anuarul Azizan Chew  | AF001977     | 0    | 0    | 0    | 1    | 2    |

| NG & Co.                     | AF0580   | 1   | 1   | 0   | 0   | 0   |
|------------------------------|----------|-----|-----|-----|-----|-----|
| Ong Boon Bah & Co            | AF0320   | 1   | 1   | 1   | 1   | 1   |
| Parker Randall Mea           | AF1867   | 1   | 1   | 1   | 0   | 0   |
| Paul Chuah & Co.             | AF1056   | 1   | 1   | 1   | 2   | 2   |
| PKF                          | AF0911   | 0   | 0   | 0   | 0   | 1   |
| Poh & Co.                    | AF0587   | 1   | 1   | 1   | 0   | 0   |
| Russell Bedford Lc & Company | AF1237   | 1   | 1   | 1   | 1   | 2   |
| SJ Grant Thornton            | AF0737   | 8   | 9   | 10  | 10  | 9   |
| STYL Associates              | AF1929   | 2   | 3   | 3   | 3   | 3   |
| T H Law & Co.                | AF0942   | 1   | 1   | 1   | 0   | 0   |
| Tai, Yapp & Co               | AF0205   | 1   | 1   | 0   | 0   | 0   |
| Tam & Associates             | AF1356   | 0   | 0   | 1   | 1   | 1   |
| TKNP International           | AF001834 | 0   | 0   | 0   | 1   | 1   |
| UHY Diong                    | AF1411   | 1   | 2   | 3   | 2   | 2   |
| Wan Nadzir & Co.             | AF1234   | 1   | 0   | 0   | 0   | 0   |
| Wong Liu & Partners          | AF 0182  | 1   | 1   | 0   | 0   | 0   |
| Wong Weng Foo & Co.          | AF0829   | 0   | 0   | 1   | 1   | 1   |
|                              |          |     |     |     |     |     |
|                              |          | 146 | 146 | 146 | 146 | 146 |
|                              |          |     |     |     |     |     |

Source: Developed for the research

# Appendix H: List of Sample Selected Public Listed T&S Companies

| No. | Name of Company                          |
|-----|--|
| 1   | ADVANCE SYNERGY BERHAD (1481)            |
| 2   | <u>AEON CO. (M) BHD</u> [S] (6599)       |
| 3   | AHB HOLDINGS BERHAD [S] (7315)           |
| 4   | AIRASIA BERHAD [S] (5099)                |
| 5   | ALAM MARITIM RESOURCES BERHAD [S] (5115) |

| 6  | AMWAY (MALAYSIA) HOLDINGS BERHAD [S] (6351)         |
|----|---|
| 7  | ANALABS RESOURCES BERHAD [S] (7083)                 |
| 8  | AWC BERHAD [S] (7579)                               |
| 9  | AXIATA GROUP BERHAD [S] (6888)                      |
| 10 | BERJAYA CORPORATION BERHAD (3395)                   |
| 11 | BERJAYA LAND BERHAD (4219)                          |
| 12 | BERJAYA SPORTS TOTO BERHAD (1562)                   |
| 13 | BHS INDUSTRIES BERHAD [S] (7241)                    |
| 14 | BINTAI KINDEN CORPORATION BERHAD [S] (6998)         |
| 15 | BINTULU PORT HOLDINGS BERHAD [S] (5032)             |
| 16 | BORNEO OIL BERHAD (7036)                            |
| 17 | BOUSTEAD HOLDINGS BERHAD (2771)                     |
|    | BRAHIM'S HOLDINGS BERHAD [S] (9474) / TAMADAM       |
| 18 | BONDED WAREHOUSE BERHAD                             |
| 19 | CENTURY LOGISTICS HOLDINGS BERHAD [S] (7117)        |
| 20 | CHEETAH HOLDINGS BERHAD [S] (7209)                  |
| 21 | CHUAN HUAT RESOURCES BHD [S] (7016)                 |
| 22 | CNI HOLDINGS BERHAD [S] (5104)                      |
| 23 | COMPLETE LOGISTIC SERVICES BERHAD [S] (5136)        |
| 24 | COMPUGATES HOLDINGS BERHAD [S] (5037)               |
| 25 | DAYA MATERIALS BERHAD [S] (0091)                    |
| 26 | DAYANG ENTERPRISE HOLDINGS BERHAD [S] (5141)        |
| 27 | DESTINI BERHAD [S] (7212) / SATANG HOLDINGS BERHAD  |
| 28 | DIALOG GROUP BERHAD [S] (7277)                      |
| 29 | DKSH HOLDINGS (MALAYSIA) BERHAD [S] (5908)          |
|    | EASTLAND EQUITY BERHAD [S] (2097) / FURQAN BUSINESS |
| 30 | ORGAINISATION BERHAD                                |
| 31 | ECOFIRST CONSOLIDATED BHD [S] (3557)                |
| 32 | EDARAN BERHAD [S] (5036)                            |
| 33 | EDEN INC. BERHAD [S] (7471)                         |
| 34 | EFFICIENT E-SOLUTIONS BERHAD [S] (0064)             |
| 35 | EMAS KIARA INDUSTRIES BERHAD [S] (7189)             |

| 36 | ENGTEX GROUP BERHAD [S] (5056)                   |
|----|--|
| 37 | ESTHETICS INTERNATIONAL GROUP BERHAD [S] (5081)  |
| 38 | FABER GROUP BERHAD [S] (1368)                    |
| 39 | FIAMMA HOLDINGS BERHAD [S] (6939)                |
| 40 | FITTERS DIVERSIFIED BERHAD [S] (9318)            |
| 41 | FREIGHT MANAGEMENT HOLDINGS BERHAD [S] (7210)    |
| 42 | FRONTKEN CORPORATION BERHAD [S] (0128)           |
| 43 | FSBM HOLDINGS BERHAD [S] (9377)                  |
| 44 | GD EXPRESS CARRIER BERHAD [S](0078)              |
| 45 | GENTING BERHAD (3182)                            |
|    | GENTING MALAYSIA BERHAD (4715) / RESORT WORLD    |
| 46 | BERHAD   |
| 47 | GEORGE KENT (MALAYSIA) BERHAD [S] (3204)         |
| 48 | GLOBAL CARRIERS BERHAD (7242)                    |
| 49 | GUNUNG CAPITAL BERHAD [S] (7676)                 |
| 50 | HAI-O ENTERPRISE BERHAD (7668)                   |
| 51 | HAISAN RESOURCES BERHAD [S] (7110)               |
| 52 | HAP SENG CONSOLIDATED BERHAD (3034)              |
| 53 | HARBOUR-LINK GROUP BERHAD [S] (2062)             |
| 54 | HARRISONS HOLDINGS (MALAYSIA) BERHAD (5008)      |
| 55 | HELP INTERNATIONAL CORPORATION BERHAD [S] (7236) |
| 56 | HEXAGON HOLDINGS BHD [S] (7455)                  |
| 57 | HUBLINE BERHAD [S] (7013)                        |
| 58 | INTEGRATED LOGISTICS BHD [S] (5614)              |
| 59 | INTEGRAX BERHAD [S] (9555)                       |
| 60 | IPMUDA BERHAD [S] (5673)                         |
| 61 | JOBSTREET CORPORATION BERHAD [S] (0058)          |
| 62 | KAMDAR GROUP (M) BERHAD [S] (8672)               |
| 63 | KBES BERHAD [S] (5079)                           |
| 64 | KNUSFORD BERHAD [S] (5035)                       |
| 65 | KONSORTIUM LOGISTIK BERHAD [S] (6157)            |
| 66 | KONSORTIUM TRANSNASIONAL BERHAD [S] (4847)       |

| 67 | KPJ HEALTHCARE BERHAD [S] (5878)                 |
|----|--|
| 68 | KPS CONSORTIUM BERHAD [S] (9121)                 |
| 69 | KUB MALAYSIA BERHAD [S] (6874)                   |
| 70 | KUMPULAN FIMA BERHAD [S] (6491)                  |
| 71 | KUMPULAN PERANGSANG SELANGOR BERHAD [S] (5843)   |
| 72 | LUXCHEM CORPORATION BERHAD [S] (5143)            |
| 73 | MALAYAN UNITED INDUSTRIES BERHAD (3891)          |
| 74 | MALAYSIA AIRPORTS HOLDINGS BERHAD (5014)         |
| 75 | MALAYSIAN AIRLINE SYSTEM BERHAD [S] (3786)       |
| 76 | MALAYSIAN BULK CARRIERS BERHAD [S] (5077)        |
| 77 | MARCO HOLDINGS BERHAD [S] (3514)                 |
| 78 | MBM RESOURCES BHD [S] (5983)                     |
| 79 | MEDIA PRIMA BERHAD (4502)                        |
| 80 | MEGA FIRST CORPORATION BERHAD [S] (3069)         |
| 81 | METRONIC GLOBAL BERHAD [S] (0043)                |
| 82 | MISC BERHAD [S] (3816)                           |
| 83 | MMC CORPORATION BERHAD [S] (2194)                |
| 84 | MULPHA INTERNATIONAL BERHAD (3905)               |
| 85 | MULTI-PURPOSE HOLDINGS BERHAD (3859)             |
| 86 | MY E.G. SERVICES BERHAD [S] (0138)               |
| 87 | NAGAMAS INTERNATIONAL BERHAD [S] (8923)          |
| 88 | NAIM INDAH CORPORATION BERHAD[S] (4464)          |
|    | NATIONWIDE EXPRESS COURIER SERVICES BERHAD [S]   |
| 89 | (9806)   |
| 90 | NCB HOLDINGS BERHAD [S] (5509)                   |
| 91 | OCB BERHAD [S] (5533)                            |
| 92 | OGAWA WORLD BERHAD (5128)                        |
| 93 | OLYMPIA INDUSTRIES BERHAD (3018)                 |
| 94 | PANSAR BERHAD [S] (8419) / PWE INDUSTRIES BERHAD |
| 95 | PANTECH GROUP HOLDINGS BERHAD (5125)             |
| 96 | PARKSON HOLDINGS BERHAD (5657)                   |
| 97 | PBA HOLDINGS BHD [S] (5041)                      |
|    |  |

| 98  | PDZ HOLDINGS BHD [S] (6254)                        |
|-----|--|
| 99  | PERAK CORPORATION BERHAD [S] (8346)                |
|     | PERDANA PETROLUEM BERHAD [S] (7108)/ PETRA PERDANA |
| 100 | BERHAD   |
| 101 | PERISAI PETROLEUM TEKNOLOGI BHD [S] (0047)         |
| 102 | PERMAJU INDUSTRIES BERHAD [S] (7080)               |
| 103 | PETRA ENERGY BERHAD [S](5133)                      |
| 104 | PETROL ONE RESOURCES BERHAD [S] (7027)             |
| 105 | PETRONAS DAGANGAN BHD [S] (5681)                   |
| 106 | PHARMANIAGA BERHAD [S](7081)                       |
| 107 | PJBUMI BERHAD [S] (7163)                           |
| 108 | PJI HOLDINGS BERHAD/ YFG BERHAD [S] (7122)         |
| 109 | PROGRESSIVE IMPACT CORPORATION BERHAD [S] (7201)   |
| 110 | RELIANCE PACIFIC BERHAD (8885)                     |
| 111 | RGB INTERNATIONAL BHD (0037)                       |
| 112 | SALCON BERHAD [S] (8567)                           |
| 113 | SCICOM (MSC) BERHAD [S] (0099)                     |
| 114 | SEE HUP CONSOLIDATED BERHAD [S] (7053)             |
| 115 | SEG INTERNATIONAL BHD [S] (9792)                   |
| 116 | SENI JAYA CORPORATION BERHAD (9431)                |
| 117 | SIME DARBY BERHAD [S] (4197)                       |
| 118 | STAR PUBLICATIONS (MALAYSIA) BERHAD [S] (6084)     |
| 119 | SUIWAH CORPORATION BERHAD [S] (9865)               |
| 120 | SUMATEC RESOURCES BERHAD [S] (1201)                |
| 121 | SURIA CAPITAL HOLDINGS BERHAD [S] (6521)           |
| 122 | SYMPHONY HOUSE BHD [S] (0016)                      |
| 123 | TALIWORKS CORPORATION BERHAD [S] (8524)            |
| 124 | TANJUNG OFFSHORE BERHAD [S] (7228)                 |
|     | TASCO BERHAD [S] (5140) / TRANS-ASIA SHIPPING      |
| 125 | CORPORATION BERHAD                                 |
| 126 | TELEKOM MALAYSIA BERHAD [S] (4863)                 |
| 127 | TENAGA NASIONAL BHD [S] (5347)                     |

| 128 | TEXCHEM RESOURCES BERHAD (8702)                  |
|-----|--|
|     | TH HEAVY ENGINEERING BERHAD [S] (7206) / RAMUNIA |
| 129 | HOLDINGS BERHAD                                  |
| 130 | THE NOMAD GROUP BHD [S] (8508)                   |
| 131 | THE STORE CORPORATION BERHAD [S] (5711)          |
| 132 | TIONG NAM LOGISTICS HOLDINGS BERHAD [S] (8397)   |
| 133 | TRADEWINDS CORPORATION BERHAD (4804)             |
| 134 | TRANSOCEAN HOLDINGS BHD (7218)                   |
| 135 | TRIUMPHAL ASSOCIATES BHD [S] (9911)              |
| 136 | UMS HOLDINGS BERHAD [S] (7137)                   |
| 137 | UNIMECH GROUP BERHAD [S] (7091)                  |
| 138 | UTUSAN MELAYU (MALAYSIA) BERHAD [S] (5754)       |
| 139 | UZMA BERHAD [S] (7250)                           |
| 140 | VASTALUX ENERGY BERHAD [S] (7251)                |
| 141 | VOIR HOLDINGS BERHAD [S] (7240)                  |
| 142 | WARISAN TC HOLDINGS BERHAD [S] (5016)            |
| 143 | WIDETECH (MALAYSIA) BERHAD (7692)                |
| 144 | YINSON HOLDINGS BERHAD (7293)                    |
| 145 | YONG TAI BERHAD [S[ (7066)                       |
| 146 | YTL CORPORATION BERHAD [S] (4677)                |

Source: Developed for the research

#### **Appendix I: Pearson Correlation Coefficient Result**

|         | AVE_LOC | AVE_LOR | AVE_OC | AVE_AF | AVE_GC | DV_FOAS |
|---------|---------|---------|--------|--------|--------|---------|
| AVE_LOC | 1       | 0.384*  | 0.322* | 0.465* | 0.494* | 0.485*  |
| AVE_LOR | 0.384*  | 1       | 0.140* | 0.273* | 0.269* | 0.466*  |
| AVE_OC  | 0.322*  | 0.140*  | 1      | 0.308* | 0.428* | 0.449*  |
| AVE_AF  | 0.270*  | 0.0986* | 0.346* | 1      | 0.380* | 0.601*  |
| AVE_GC  | 0.494*  | 0.269*  | 0.428* | 0.596* | 1      | 0.601*  |
| DV_FOAS | 0.485*  | 0.466*  | 0.449* | 0.540* | 0.601* | 1       |

Correlation between Variables

Source: Developed for the research

### **Appendix J: Multiple Linear Regression Result**

Model Summary<sup>b</sup>

| Root MSE | Dependent<br>Variable | Coefficient<br>Variation | R Square | Adjusted<br>R Square |
|----------|-----------------------|--------------------------|----------|----------------------|
| 0.37847  | 0.40411               | 93.65524                 | 0.5353   | 0.5187               |

- a. Predictors: (Constant), Level of Complexity, Level of Risk, Ownership
   Concentration, Audit Fees, Going Concern Issue.
- b. Dependent Variable: Frequency of Auditor Switching

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

ANOVA<sup>b</sup>

| Model        | Sum of Square | df  | Mean Square | F     | Sig.   |
|--------------|---------------|-----|-------------|-------|--------|
| 1 Regression | 23.10402      | 5   | 4.62080     | 32.26 | <.0001 |
| Residual     | 20.05352      | 140 | 0.14324     |       |        |
| Total        | 43.15753      | 145 |             |       |        |

a. Predictors: (Constant), Level of Complexity, Level of Risk, Ownership

Concentration, Audit Fees, Going Concern Issue.

b. Dependent Variable: Frequency of Auditor Switching

Parameter Estimates<sup>a</sup>

| Model      | Unstandardized |            | Standardized | t     | Sig.   | Collineari    | ty      |
|------------|----------------|------------|--------------|-------|--------|---------------|---------|
|            | Coefficients   |            | Coefficients |       |        | Statistics    |         |
|            | В              | Std. Error | В            |       |        | Tolerance VIF |         |
| 1 Constant | -0.19238       | 0.07444    | 0            | -2.58 | 0.0108 |               |         |
| AVE_LOC    | 0.03502        | 0.03011    | 0.08333      | 1.16  | 0.2468 | 0.64654       | 1.54670 |
| AVE_LOR    | 0.10310        | 0.02341    | 0.27694      | 4.40  | <.0001 | 0.83912       | 1.19172 |
| AVE_OC     | 0.22813        | 0.07264    | 0.20241      | 3.14  | 0.0021 | 0.79902       | 1.25153 |
| AVE_AF     | 0.21279        | 0.08115    | 0.19479      | 2.62  | 0.0097 | 0.60139       | 1.66280 |
| AVE_GC     | 0.34181        | 0.09489    | 0.28253      | 3.60  | 0.0004 | 0.53951       | 1.85353 |
|            |                |            |              |       |        |               |         |

a. Dependent Variable: Frequency of Auditor Switching

Source: Developed for the research