



**THE DETERMINANTS OF AUDIT FEES:  
AN ANALYSIS OF THE INDONESIAN  
LISTED COMPANIES**

**BY**

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FULFILMENT OF THE REQUIREMENT FOR  
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## ABSTRACT

Many studies have been conducted on the determination of audit fees in developed countries. However, there are not many studies on the determination of audit fees in developing countries, specifically in Indonesia. This study, therefore, tries to identify the determinants of audit fees in Indonesia based on the determinants of audit fees that have been reported by prior studies which are auditee size, auditee risk, auditee complexity, auditee profitability and auditor employed. The study also aims to explore whether there is any difference in the determinants of audit fee across industries in Indonesia. Finally, another objective of this study is to investigate whether there is any difference between the determinants of audit fees of small companies and big companies in Indonesia. By regressing the data related to the financial and non-financial information of 187 companies listed in the Jakarta Stock Exchange for the year 2003, the study confirms that most of the findings of the previous studies are also applicable to the Indonesian market. Auditee size, auditee risk, auditee complexity and the auditor employed are positively significant to the determination of audit fees in Indonesia. This study also finds that there are marked industry differences in modelling audit fees in Indonesia. Another finding is that there are also differences between the determinant of audit fees of small companies and big companies in Indonesia.

## ملخص البحث

هناك عدد من الدراسات التي تتعلّق بتحديد أتعاب المراجعة في الدول المتقدّمة. ومع ذلك، ليست هناك دراسات متوفّرة في أتعاب المراجعة في الدّول النامية، خاصّةً في إندونيسيا. وبناءً على ذلك، فإنّ هذه الدراسة تحاول اكتشاف حقيقة تحديد أتعاب المراجعة في إندونيسيا بناءً على تحديد أتعاب المراجعة التي قد بيّنتها الدراسات السابقة من ناحية الحجم، ومقدار المخاطرة، والتّعقيد، والمربحية، والمراجع المستخدمة. والدراسة تحاول كذلك اكتشاف الفوارق في تحديد التدقيق الحسابي بين الشركات في إندونيسيا. وأخيراً، هذه الدراسة لها هدف آخر هو تحقيق ما إذا كان هناك فرق بين تحديد أتعاب المراجعة بين الشركات الصغيرة والشركات الكبيرة. بالرجوع إلى البيانات التي تتعلّق بالمعلومات الماليّة وغير الماليّة من خلال ١٨٧ شركة مسجّلة في بورصة أسهم جاكرتا عام ٢٠٠٣، فإنّ الدراسة تؤكّد بأنّ معظم النتائج من الدراسات السابقة لا تزال تتناسب أيضاً مع سوق إندونيسيا، علماً بأنّ الحجم، ومقدار المخاطرة، والتّعقيد، والمربحية، والمراجع المستخدم في غاية الأهمية في تحديد أتعاب المراجعة في إندونيسيا. وهذه الدراسة اكتشفت أن هناك فوارق واضحة ملحوظة بين المصانع في نوعيّة التدقيق الحسابي في إندونيسيا. واكتشاف آخر، هو وجود الفوارق في تحديد أتعاب المراجعة بين الشركات الصغيرة والشركات الكبيرة في إندونيسيا.

## APPROVAL PAGE

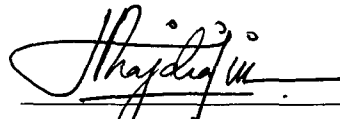
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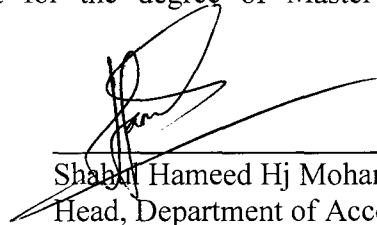
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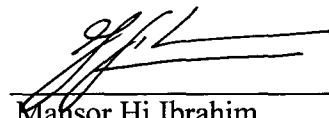
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## DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degree at IIUM or other institutions.

Sartini Wardiwiyono

Signature .....



Date .....

July 11<sup>th</sup> 2005

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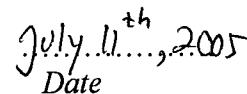
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AN ANALYSIS OF THE INDONESIAN LISTED  
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*This thesis is especially dedicated to:*

*My beloved husband, Mas Awan, for loving me tenderly,*

*My beloved parents, Bp/Ibu Wardiwyono, for their love and prayers,*

*My son, Nabil Ghazy, for teaching me the meaning of sacrifice,*

*My big brother, Mas Jumar, for become my second father.*

*Thank you for your support.*

*I love you.*

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# CHAPTER 1

## INTRODUCTION

### 1.0 INTRODUCTION

Audit fees are an issue of concern for both client companies as auditees and the audit firms, as disagreement regarding fees may result in conflict and misunderstanding between the two parties (Low et al., 1990). On the one hand, auditees (clients) are often surprised at the high level of audit fees that they should pay, and on the other hand, the auditors often feel that the audit fees are inadequate to cover the cost that they have incurred in performing the necessary audit processes. This situation is also true in the case of Indonesia. A disagreement may occur due to the lack of understanding of the basis and rationale in determining audit fees in Indonesia. Hence, the auditees may want to know how to minimize their audit fees based on the audit fees' determinants. Therefore, it is essential to develop a model which explains as well as analyzes the determinants of audit fees, specifically in Indonesia.

Although there are many studies on audit fees, most of the studies were conducted in developed countries such as the United States of America (USA) (Simunic, 1980; Palmrose, 1986) and the United Kingdom (UK) (Chan et al., 1993; Pong and Whittington, 1994; Goddard and Masters, 2003). The USA and UK's structure of the audit market is different from that in Indonesia, as Indonesia is a developing country. Unlike in the USA or UK, most Indonesian accounting firms are very small. As reported by *BAPEPAM* (Capital Market Supervisory Agency), 67% of the 155 Indonesian accounting firms are sole practitioners (Anvaripour and Reid, n.d.).

Therefore, the existence of audit firms which are affiliated with the Big 4 audit firms may dominate the market for audit services as the Big 4 audit firms may provide a better quality of audit than other audit firms (Firth, 1985; Chan et al., 1993).

Currently, there is only one study on audit fees determination in Indonesia (Basioudis and Fifi, 2004). This research, therefore, tries to extend Basioudis and Fifi's study in order to get a better understanding of audit fees determination in Indonesia. There was no considerable change in the business environment in Indonesia during the three years of 2000<sup>1</sup> and 2003<sup>2</sup>. However, this study differs from Basioudis and Fifi's study, and these differences could provide a better understanding of audit fees in Indonesia. The major differences are as follows. Firstly, some of the proxies for the independent variables in this study differ from those in Basioudis and Fifi. Secondly, the sample of this study represents 66% of the population of companies listed in the Jakarta Stock Exchange, whereas Basioudis and Fifi's sample only covers 25% of the population. Thirdly, this study undergoes further analysis by looking at industry sub sample and company size sub sample in order to investigate whether there is any difference in the determinants of audit fees across industries and between small companies and big companies, but Basioudis and Fifi did not.

Therefore, in line with the explanation above, the primary aim of this research is to determine the factors that affect audit fees in Indonesian listed companies. Consequently, this study attempts to identify the variables that affect audit fees, especially the main determinant of audit fees in Indonesia. The secondary objective is to investigate whether there is any difference in audit fees determinants among

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<sup>1</sup> Year 2000 is the year of the data used by Basioudis and Fifi.

<sup>2</sup> Year 2003 is the year of the data of this study.

industries, and between big companies and small companies in Indonesia. After stating the aims of this research, these aims are reiterated in terms of research questions in order to list clearly the questions that this research intends to investigate and answer. The research questions are:

- i) What are the determinants of audit fees in Indonesia?
- ii) Is there any difference in the audit fee determinants across industries in Indonesia?
- iii) Is there any difference between the audit fee determinants of big companies and small companies in Indonesia?

The current study modifies the models developed by some previous studies (such as Firth, 1985; Low et al., 1990; Chan et al., 1993; Pong and Whittington, 1994, Gerrard et al., 1994; Karim and Moizer, 1996; Taylor and Simon, 1999; Joshi and Bastaki, 2000; and Basioudis and Fifi, 2004). In order to answer the research questions mentioned above, five independent variables, which are auditee size, auditee complexity, auditee risk auditee profitability and the type of auditor employed, are included as determinants of audit fees.

Regressions were run on the overall sample, industry specific sub-samples and company size sub-samples. The main results are, in general, auditee size is positively significant in determining audit fees in the Indonesian listed companies' context. Auditee complexity, auditee risk and the type of auditor employed are also positively significant in explaining the determination of audit fees in Indonesia. Another finding is that there are marked industry differences in the determinants of audit fees in

Indonesia. Moreover, there are also noticeable differences in the determinants of audit fees between small companies and big companies.

## **1.1 MOTIVATION AND CONTRIBUTION OF RESEARCH**

Although the motivation of this study has been implied earlier in the chapter, the motivation, along with the contribution of this study, are elaborated in this section. This research is motivated by the fact that Indonesian-related evidence on audit fees is lacking. As mentioned before, most previous studies are from developed countries where the structure of the audit market and the extent of competition within that market are dissimilar to that in Indonesia. Hence there is a need for more extensive research. One of the areas open to further research is audit fee determination. Moreover, there is no guideline for companies in Indonesia to determine their audit fees. A study as this could assist accounting regulators in initiating a guideline to ensure that reasonable and fair audit fees are charged by the auditors, based on the determinants of audit fees.

Another factor that motivates this study is that the result of this study is expected to be useful to both the auditee and the auditor. For the auditee (clients), the evidence from this research will help them in better understanding the basis and the rationale for the amount of audit fees charged. For the auditor, the outcome of this research is expected to be of use to help them to optimize the fees that they charge to cover the cost that they have incurred in performing necessary audit processes. Thus, it is hoped that this study will contribute towards minimizing the conflict between auditor and auditee.



## **1.2 STRUCTURE OF DISSERTATION**

The dissertation is divided into six chapters. As can be seen, the current chapter, Chapter 1, is the introductory chapter for the dissertation. It consists of the objectives of the research, the research questions, and a brief mention of the sample, research method, main results and the motivation and the contribution of this study. Chapter 2 briefly reviews the relevant literature on audit fees determination. Chapter 3 discusses the background of the audit services market in Indonesia and the research hypotheses are formulated. Chapter 4 is the 'Research Method' chapter in which the model for and measurement of the variables of the model are described. It is also where the data collection and data analysis techniques used in this research are explained. Chapter 5 presents the results and discussion of the analysis of the results of this study. And lastly, Chapter 6 contains a concise summary of the main facts of this dissertation and the research findings. Some conclusions are drawn. This final chapter also discusses the limitations of the current study, then some recommendations for future research are made.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0. INTRODUCTION**

This chapter briefly discusses the literature on the determinants of audit fees. It is divided into three sections. Section 1 provides a general overview of the literature on audit fees determination, whereas section 2 specifically focuses on discussing the studies directly related to this study. Lastly, section 3 concludes.

#### **2.1. EMPIRICAL STUDIES ON THE DETERMINANTS OF AUDIT FEES**

There are many empirical studies, with respect to the determinants of audit fees. These empirical studies can be classified into studies from different countries and studies from different industries. Each category of those empirical studies is discussed below.

The empirical studies from different countries can be categorized into studies from a single country and studies in more than one country. Studies within a single country are as follows: Australia (Francis, 1984; Francis and Stoke, 1986), Bahrain (Joshi and Bastaki, 2000), Bangladesh (Karim and Moizer, 1996), Canada (Anderson & Zhegal, 1994), Indonesia (Basioudis and Fifi, 2004), Japan (Taylor, 1997), New Zealand (Firth, 1985; Adams et al., 1997), Pakistan (Simon and Taylor, 1997), Singapore (Low et al., 1990), South Korea (Taylor et al., 1999), UK (Goddard and Masters, 2003; Chan et al., 1993), and USA (Simunic, 1980; Palmrose, 1986; Francis and Simon, 1987). The majority of these studies have identified some variables which influence

audit fees in their respective country of study. These variables relate to auditee characteristics such as auditee size, risk, complexity, profitability and auditor characteristics such as auditor size and auditor location.

In general, studies within a single country found that auditee characteristics, such as auditee size, auditee risk, auditee complexity, auditee profitability and auditor size variables, could explain the determination of audit fees. Positive association was observed between auditee size and audit fees measured by total assets as well as turnover (Simunic, 1980; Firth, 1985; Francis & Stokes, 1986; Palmrose, 1986; Low et al., 1990; Chan et al., 1993; Gerard et al., 1994; Anderson & Zhegal, 1994; Pong & Whittington, 1994; Karim and Moizer, 1996; Taylor & Simon, 1999; Joshi & Bastaki, 2000; Basioudis and Fifi, 2004). Positive association was also observed between auditee complexity measured by the number of subsidiaries, number of foreign operation and debtors to total asset ratio (Simunic, 1980; Firth, 1985; Palmrose 1986; Low et al., 1990; Thornton and Moore, 1993; Gerard, et al., 1994; Pong and Whittington, 1994; Karim and Moizer, 1996; Taylor and Simon, 1999; Joshi and Bastaki, 2000; Basioudis and Fifi, 2004). Moreover, auditee risk which was measured by gearing ratio, the existence of loss in previous year, the ratio of inventory to receivable were found as one of the determinants of audit fees in many countries (Firth, 1985; Francis & Stokes, 1986; Low et al., 1990; Chan et al., 1993; Gerard et al., 1994; Anderson & Zhegal, 1994; Pong and Whittington, 1994; Karim and Moizer, 1996; Taylor & Simon, 1999; Joshi and Bastaki, 2000; Basioudis and Fifi, 2004). The impact of auditee profitability measured by return on asset, return on equity, the ratio of net profit to sale and pre-tax profit on the determination of auditee fees was varied. Some studies found auditee profitability was positively significantly associated with

audit fees, such as Joshi and Bastaki (2000). Other studies found it was negatively significant, such as Chan et al. (1993), and some others found it was insignificant, such as Karim and Moizer (1996). Lastly, the impact of auditor size, which is measured by using a dummy variable 1 if the auditor is a Big 4 audit firm and 0 otherwise, on the determination of audit fees is also varied. Some studies found that it was positively significant such as Palmrose (1986), Low et al. (1990), Chan et al. (1993), Pong and Whittington (1994), Karim and Moizer (1996), and Joshi and Bastaki (2000). However, some of the studies from single countries did not find a significant impact of auditor size on the determination of audit fees such as Simunic (1980), Firth (1985) and Basioudis and Fifi (2004).

Studies within international borders (more than one country) were conducted by Haskins and Williams (1988) and Taylor and Simon (1999). Haskins and Williams (1988) made a comparison of audit fees' determinants between Australia, New Zealand, Ireland, UK and USA. Haskins and William (1988) found that size, complexity, profitability and auditor size had a significant impact on the determination of audit fees in the sample countries. In addition, it was found that determinants of audit fees did not significantly differ across sample countries. In the current researcher's opinion, this is possible as the sample countries came from an almost similar background, which is from developed countries.

A study which included more countries than Haskins and Williams (1988) was that of Taylor and Simon (1999). Taylor and Simon (1999) identified the determinants of audit fees in 20 countries from both developed countries such as Australia, Canada, Japan, Ireland, UK, US and from developing countries such as Chile, Hong Kong,

India, Korea, Malaysia, Pakistan, Singapore, Zimbabwe. Basically, this study identified the determinants of audit fees in the related countries as a whole. The variables related to auditee characteristic were auditee size measured by the natural logarithm of total assets, auditee complexity measured by the number of subsidiaries, auditee risk measured by gearing ratio and the existence of loss in the previous year, and the involvement of the companies in the financial sector as well as the mining sector. Variable related to auditor characteristics was the employment of the Big 6 (now Big 4) audit firms. The findings show that, besides variables related to auditee characteristics and auditor characteristics, variables related to country specific determinants also have a significant impact on the determination of audit fees in the global market of audit services. Variables related to country specific determinants were litigation, disclosure and regulation. The litigation variable is related to litigation pressures against auditors. An index based on several environmental and political factors, which affected the possibility of litigation against the audit firms, was used as a proxy for litigation. As stated by Taylor and Simon (1999), this index was developed by a leading insurance brokerage firm, which maintained a litigation index<sup>3</sup> for purposes of pricing insurance premiums for large international accounting firms in countries across the world. With regard to the disclosure variable, it is related to the disclosure of financial reporting. An index of international financial disclosure<sup>4</sup> developed by the Center for International Financial Analysis and Research (CIFAR) was used as a measure of the disclosure variable. The last variable related to country specific determinants was regulation. Specifically, it refers to the regulation of the

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<sup>3</sup> The litigation index, which ranged from 0 to 10, was calculated individually for a portfolio of about 110 countries and is updated annually. The higher the index, the higher is the chance of litigation.

<sup>4</sup> The international financial disclosure index was developed by examining annual reports for about 1000 companies from 44 countries in order to assess the informativeness of annual reports across countries

process of financial reporting. Taylor and Simon (1999) used a measure of the intensity of financial reporting process regulation developed by Cooke and Wallace (1990). This measure reflects the extent to which several aspects of financial reports are regulated in each respective country<sup>5</sup>. Basically, those three country specific determinants were found to be positively significant in determining audit fees across 20 countries. This means the more litigation pressure there is, the more extensive disclosure is required or the more extensive regulated financial reporting is in a particular country, the higher the audit fees paid by the client.

In addition to studies from different countries, some studies were conducted on different industries as well as different sectors. The empirical studies that have been conducted under different industries or different sectors are Rubin (1988), Low et al. (1990), Gerrard et al. (1994), Ward et al. (1994), and Adams et al. (1997). Rubin (1988) and Ward et al. (1994) identified the determinants of audit fees for public sector industry in the USA. They reported that the size of the organization, the existence of loss in the previous year, entity complexity, audit production factors, and auditor size were found as determinants of audit fees for public sector industry in the USA. As in the private sector reported in studies from different countries, the size of the organization, measured by total population in which the organization operates, had a positively significant impact on the determination of audit fees in the public sector in the USA. The existence of loss, which was measured by debt per capita and the complexity of entity, which was measured by the number of different services provided were also positively significant. The audit production factor, which was

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<sup>5</sup> Cooke and Wallace (1990) rated 80 financial reporting variables across countries. For each variable, it was scored as a: 4 when it was required, 3 when it was insisted upon, 2 when it was predominantly used, 1 when it was infrequently used, 0 when it was rarely used. Then, the sum of the ratings was divided by 80 to determine each country index.

measured by a dummy variable 1 if the audit was performed in the busy season (November to March) and 0 otherwise, was also positively significant. Lastly, auditor size measured by a dummy variable 1 if the entity was audited by a Big 4 audit firm and 0 otherwise was also positively significant. Therefore, the determinants of audit fees for public sector organizations in the USA did not differ from the many studies in the private sector.

With regard to Adams et al. (1997), they identified audit fees determinants for the life insurance industry in New Zealand. The findings of Adams et al. show that the size of the company and the complexity of the organization significantly influence the determination of audit fees for the life insurance industry in New Zealand. Similar to studies from different countries, the size of company, which was measured by the natural logarithm of total asset, was positively significant. Positive association was also observed between the complexity of organization measured by Herfindahl's concentration index<sup>6</sup> and audit fees. As a result, the determinants of audit fees for the life insurance industry in New Zealand did not differ from those of other studies. Two other studies that also identified the determinants of audit fees in the different industries are Low et al. (1990) and Gerard et al. (1994) These studies will be discussed further in the next section as they are included as two of the main papers referred to by this current study.

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<sup>6</sup> This index is computed for each company as follows.

$$H = \sum_{i=1}^n S_i^2$$

Whereby, n is the number of business segment, S is turnover of *i*th plus total values of annual premiums of the company. It was used to measure the diversification of a company The higher the value of H, the more complex the company is

With respect to the research methods used by the earlier studies mentioned above, all studies used similar research methods in identifying the determinants of audit fees regardless of a single country setting, more than one country setting, or sector/industrial setting. By using the multiple regression model based on cross sectional data relating to audit fees and their determinants, they tested the hypotheses developed which were almost similar. In addition, in all the studies the data used was collected from annual reports.

## **2.2 REVIEW OF RELEVANT LITERATURE**

Although there are many previous studies on audit fees determination as mentioned before, only the studies presented in Appendix I are discussed in this section. This is because those studies are considered as the main papers referred to by the current studies as they tested all the independent variables used in this current study. Moreover, some of them examined audit fees determination across industries such as Low et al. (1990) and Gerard et al. (1994) and one of them examined the determinants of audit fees for large companies and small companies (Chan et al., 1993)<sup>7</sup>. In addition, the review of the literature in this section has basically been organized chronologically.

The first work referred to by this current study is a study by Firth (1985). Firth conducted his study on the determinants of audit fees in New Zealand. Specifically, the study investigates the cross-sectional differences in audit fees of 96 non-manufacturing companies whose shares were traded on the New Zealand Stock

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<sup>7</sup> As mentioned in Chapter 1 this study also intends to investigate the determinants of audit fees across industries and the determinants of audit fees for large companies and small companies.