# AUDIT COMMITTEE EFFECTIVENESS AND AUDIT REPORT LAG IN OMAN

SAEED RABEA ALI BAATWAH

UNIVERSITI UTARA MALAYSIA

2011

# AUDIT COMMITTEE EFFECTIVENESS AND AUDIT REPORT LAG IN OMAN

**A Thesis Submitted to College of Business in Partial**

**Fulfillment of the Requirement for the Degree Master**

**Science of International Accounting**

**Universiti Utara Malaysia**

**January 2011**

**By**

**SAEED RABEA ALI BAATWAH (802581)**

**KOLEJ PERNIAGAAN**
*(College of Business)*
Universiti Utara Malaysia

**PERAKUAN KERJA KERTAS PROJEK**
*(Certification of Project Paper)*

Saya, mengaku bertandatangan, memperakukan bahawa
*(I, the undersigned, certified that)*
**SAEED RABEA ALI BAATWAH (802581)**

Calon untuk Ijazah Sarjana
*(Candidate for the degree of)* **MASTER OF SCIENCE (INTERNATIONAL ACCOUNTING)**

telah mengemukakan kertas projek yang bertajuk
*(has presented his/her project paper of the following title)*

**AUDIT COMMITTEE EFFECTIVENESS AND AUDIT REPORT LAG IN OMAN**

Seperti yang tercatat di muka surat tajuk dan kulit kertas project
*(as it appears on the title page and front cover of the project paper)*

Bahawa kertas projek tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.
*(that the project paper acceptable in the form and content and that a satisfactory knowledge of the field is covered by the project paper).*

Nama Penyelia : **DR. HASNAH BINTI KAMARDIN**
*(Supervisor's name)*

Tandatangan :
*(Signature)*

Tarikh : **26 JANUARY 2011**
*(Date)*

## DECLARATION

I hereby certify that the substance of this thesis has not been already submitted to any degree and is not currently being submitted for any other qualifications.

I certify that any assistance received in preparing this thesis and all sources used have been acknowledged and referenced in this thesis.

Saeed Rabea Ali Baatwah

802581

College of Business

Universiti Utara Malaysia

06010 Sintok

Kedah

January 2011

## PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for a postgraduate degree from Universiti Utara Malaysia (UUM), I agree that Universiti library may make it unreservedly available for inspection. I further agree that permission for copy of this thesis in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor Dr. Hasnah Kamardin or, in her absence by the College of Business Dean. It is understood that any copying or publishing or using of this thesis or parts thereof for financial gain shall not be allowed without any written permission. It is also understood that due recognition shall be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from this thesis.

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

Dean

College of Business

Unversiti Utara Malaysia

06010 Sintok

Kedah Darul Aman

## ABSTRACT

This study investigates whether there is an association between audit committee effectiveness, measured by audit committee independence, size, expertise, and meetings, and audit report lag for companies listed on the Muscat Securities Market (MSM). Data were collected from 110 companies in the financial year 2009.

Descriptive analysis was used to provide insight into the time taken by external auditors to complete the audit work. The results showed that, on average, 51 days were taken to accomplish external audit function. Meanwhile, the minimum was 18 days and the maximum was 76 days.

In addition, regression analysis was performed to provide empirical evidence on which variables of effective audit committee had significant impact on audit report lag. The results showed that audit committee independence was negatively related to audit report lag. Moreover, there was a negative relationship between audit committee expertise and audit report lag. The other two variables of effective audit committee (audit committee size and frequency of audit committee meetings) were found to have insignificant association with audit report lag.

## ACKNOWLEDGEMENTS

**In the name of Allah, the Most Compassionate and the Most Merciful.**

First and foremost, *(Alhamdulillāh)* all praises be upon Allah, Lord of the Universe for all blessings that he has given His' creatures. And may His blessings, peace and favors descend in perpetuity on our beloved Prophet Muhammad (PBUH), who is mercy for the entire world. Truthfully, without Allah's blessing, grace and guidance, this dissertation could not have been written.

Second, I would like to render my utmost appreciation and gratitude to my supervisor, Dr. Hasnah Kamardin, for her thoughtful guidance, sagacious advices, valuable suggestions, and precious comments during construction my dissertation. Without her understanding, consideration and untiring advice, this dissertation would not have been completed successfully.

Also, I would like to record my sincere appreciation to my lecturers for their guidance and encouragement which have enabled me to acquire precious knowledge during my studies for MSc (International Accounting) program.

Moreover, I would like to convey my highest appreciation to my mother; without her I would never have had the courage or ability to achieve this stage of learning. My sincere appreciation also goes to my brothers and sisters for giving me their sincere love and prayers. I appreciate their encouragement and support in my study.

Last but not least, my deep love goes to my wife and my children, Sufyan and Rabea, who gave up so much for me to complete this thesis. Finally, my heartfelt appreciation

to all my friends who involved directly or indirectly in the completion of this thesis, thank you very much.

Saeed Rabea Ali Baatwah

College of Business

Universiti Utara Malaysia

January 2011

## TABLE OF CONTENTS

PAGE NO

**CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY**

## LIST OF TABLES

PAGE NO

## LIST OF FIGURES

PAGE NO

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background of the Study

Corporate reporting is one of the channels that provides information that assist external users in decision making. However, this information is required to be available within a short period of time to achieve its usefulness; otherwise, it loses some of its economic value. In line with what had been recognized by the American Accounting Association (AAA, 1955 and 1957), the Accounting Principles Board (1970), the American Institute of Certified Public Accountants (1973), the Financial Accounting Standards Board (1980), the Institute of Chartered Accountants of Canada and the Institute of Chartered Accountants of England and Wales, timeliness of corporate reporting is one of the qualitative characteristics of corporate disclosure. In addition, stakeholders and regulatory authorities, professional bodies, academicians, financial analysts, investors, and managers considered it to be an important attribute of financial accounting information.

A number of studies have concluded that the timeliness is the cornerstone of investors' decisions (Chambers & Penman, 1984; Choi & Choe, 1998; Ball, Kothari & Robin, 2000; Al-Sehali & Spear, 2004). Owusu- Ansah (2000) argues that timely reporting is an important device to mitigate insider trading, leaks and rumors in emerging capital markets. Timeliness can also be viewed as a way of reducing information asymmetry and reducing the opportunity to spread rumors about the companies' financial health and

performance (McLell & Giroux, 2000). Moreover, Leventis and Caramanis (2005) argue that timeliness is one of the available measures of audit quality.

Abdulla (1996) suggested that the shorter the time between the end of the accounting year and the publication date, the greater the benefits that can be derived from the financial statement. The delay in releasing the financial statement is most likely to increase uncertainty associated with the decisions made based on the information contained in the financial statements.

Interestingly, the importance of the timely accounting information increases with the lack of non-financial statement sources. Wallace (1993) pointed out that in emerging economies, the provision of timely information in the corporate report is assumed to be more important since other non-financial statement sources such as media releases, news conferences and financial analysts are not well developed and the regulatory bodies are not as effective as in the developed countries. Leventis, Weetman and Caramanis (2005) asserted that audited financial statements in the annual report are the only reliable source of information available to investors in emerging and newly developed capital markets.

Previous researches have argued the audit timeliness is the most influential factor in the timeliness of financial statements (Owusu-Ansah, 2000; Leventis et al., 2005). Audit timeliness (audit lag) has been defined by prior studies as the number of days elapsing between an organization's fiscal year end and the date of the audit reporting. Moreover, Bamber, Bamber and Schoderbek (1993) concluded that over 70 percent of all companies wait to announce their earnings until at least the annual audit report date.

Promoting investors' confidence in capital markets need timeliness accounting information which is affected by audit report lag (Ettredge, Li & Sun, 2006). The impact of audit report lag in announcing information accounting to interested users has motivated many researchers to investigate the reasons behind it. Based on public data of companies, audit report lag studies depend on company-specific and audit-related characteristics. These include company size, yearend, profitability, type of auditors, report content, stock price, firm complexity, quality of internal control, extraordinary items, leverage, audit opinion, audit fees, non audit fees, and corporate governance.

By using such variables, many studies have been conducted in developed countries. These include USA (Givoly & Palmon, 1982; Chambers & Penman, 1984; Ashton, Willingham & Elliott, 1987; Bamber et al., 1993; Kinney & McDaniel, 1993; Schwartz & Soo, 1996; Henderson & Kaplan, 2000; Wermert, Dodd & Doucet, 2000; Ettredge et al., 2006; Behn, Searcy & Woodroof, 2006; Lee, Mande & Son, 2008; Lee, Mande & Son, 2009), Canada (Ashton, Graul & Newton, 1989; Newton & Ashton, 1989; Knechel & Payne, 2001), Australia (Dyer & McHugh, 1975; Davies & Whittred, 1980; Lai & Cheuk, 2005), New Zealand (Courtis, 1976; Carslaw & Kaplan, 1991), France (Soltani, 2002), and Hong Kong (Jaggi & Tsui, 1999).

Compared to the developed markets, awareness of the importance of timeliness and audit report lag in developing countries only came into importance at the beginning of the 1990s. Many researchers from these countries have begun to investigate the impact of company characteristics and auditor characteristics on audit report lag; for example, Zimbabwe (Owusu-Ansah, 2000), Malaysia (Ahmad & Kamarudin, 2003; Abdullah, 2007; Che-Ahmad & Abidin, 2008), Greece (Leventis et al., 2005; Owusu-Ansah &

Leventis, 2006), Pakistan (Hossain & Taylor, 1998), Bangladesh (Imam, Ahmed & Khan, 2001; Karim, Ahmed & Islam, 2006; Hossain & Taylor, 2008), China (Haw, Park, Qi & Wu, 2003). Some findings of these studies are consistent with what have been found in developed markets but some studies also had adverse findings. Different findings may be due to different markets development and cultural factors.

In Arabic countries, few studies have been conducted to investigate the variables affecting audit report lag (Mohamad, 1995; Abdulla, 1996; Al-Ajmi, 2008, Bannany, 2008; Afify, 2009; Khasharmeh & Aljifri, 2010). Most of the data used in these studies were collected on companies listed on Egypt, Bahrain and the United Arab Emirates capital markets. These studies did not incorporate in their analysis the variables of effective audit committee that are considered to be important components to ensure audit committee contribution on financial report quality, audit quality, and internal control quality. Thus, this motivates the researcher to investigate the extent of audit report lag and its determinations in the context of the Sultanate of Oman.

Awareness of the importance of corporate governance is well recognized as a result of the world-wide financial scandals that have occurred in recent years which push regulators and professional bodies in different countries to enhance the corporate governance rules in order to regain the confidence of the users which has been shredded during the scandals. The emergence of audit committee is one of the steps to enhance corporate governance (Haron, Jantan & Pheng, 2005). Audit committee has been observed to play a very important role in the corporate governance of public companies. On February 8, 1999, recommendations were made by the Blue Ribbon Committee in response to the former Securities and Exchange Commission Chairman Arthur Levitt's

concerns regarding the audit committee effectiveness. These Blue Ribbon Committee's recommendations include composition, authority, resources and diligence of audit committee. Many capital market authorities have incorporated most of these recommendations in their listing requirements.

Davidson, Goodwin-Stewart and Kent (2005) have noted that prior studies indicate the effectiveness of an audit committee is dependent, in part, on committee's independence, frequency of meetings, and size. Several studies in audit committee effectiveness used independence, financial expertise, meetings, and size as measure of effective audit committee (e.g. Goh, 2009; Pucheta-Martínez & Fuentes, 2007; Abbott, Parker, Peters & Raghunandan, 2003; Al-Lehaidan, 2006). In the audit report lag literature, noted above, not many studies have focused on the impact of audit committee. Afify (2009) investigates the impact of the existence of audit committee on audit report lag. However, prior research shows that the mere presence of an audit committee does not imply the ability of the audit committee to effectively execute its duties (Abbott & Parker, 2000; Beasley, Carcello, Hermanson & Lapides, 2000; Carcello & Neal, 2003; Raghunandan, Read & Rama, 2001; Stewart & Munro, 2007). In Malaysia, Abdullah (2007) used audit committee independence to measure the impact of audit committee on audit report lag. He failed to find any impact of independent audit committee on audit report lag. This, however, suggests that using important characteristics of effective audit committee (size, meetings, and financial expertise) have not been previously investigated which also motivate the researcher to conduct this study. It has been noted by Leventis et al. (2005) that while prior models are able to explain a significant amount of audit report lag, a considerable portion of audit report lag remains unexplained. Afify (2009) suggests

further research to improve the predictive model of audit report lag by including additional company-specific and auditor-specific variables among these potential variables for effectiveness of audit committee.

Other motivations for this study include the attributes of capital market regulations of Oman to enhance the competitiveness of the capital market and to attract foreign investors to the local market thus the need for timely disclosure. The Capital Market Authority of Oman was established to set out rules and regulations for listed companies. One of the important steps taken by Capital Market Authority is the issuance of the Code of Corporate Governance in July 2002 which is considered as the first and best code of corporate governance in the Gulf Cooperation Countries (Al Busaidi, 2008; Saidi & Kumar, 2008). Other attributes include requiring companies to prepare their financial reporting according to international accounting standards and disclose them on quarterly basis. Moreover, the Capital Market Authority has developed its website to ensure transparency of activities. More interestingly, it may be considered as a unique requirement of disclosure in Muscat Securities Market when compared with many developed and developing markets (see Mahajan & Chander (2008) for details) is that public joint stock companies and investment funds are required to submit their audited financial reporting within 60 days (Amended Commercial Company Law 4/74 article 105, 2005).

### 1.2 Problem Statement

One of the essential ingredients of accounting information is timeliness of financial reporting. It has been stipulated by the accounting profession that the timeliness of

reports is an important characteristic of financial accounting information for the users of accounting information, and for regulatory and professional agencies (Soltani, 2002). The timely information has various benefits such as reducing information asymmetry, mitigating insider trading, reducing the spread of rumors about company's health and performance (Abdulla, 1996; Owusu- Ansah, 2000; McLell & Giroux, 2000) and so on. It is suggested that the greater benefits can be attained from financial reporting when the time between the end year and the publication date is shorter (Abdulla, 1996).

Interestingly, delay in the release of audited financial reports can be affected by auditors. A study by Bamber et al. (1993) has reported that over 70 percent of all companies wait to release the financial reporting until at least the annual audit report date. Moreover, it has been pointed out by Owusu-Ansah (2000) and Leventis et al. (2005) that the most influential factor in the timeliness of financial statements is audit timeliness.

Despite the fact that financial reporting is the only reliable source of information in emerging markets and the significance of timely reporting, financial information in these markets is still relatively limited and has a longer time lag (Owusu-Ansah & Leventis, 2006; Afify, 2009). The existing literature focuses on many variables such as company size, leverage, profitability, auditor type, industry, audit fees, year end, complexity, quality of internal control, and so on (e.g. Ashton et al., 1987; Newton & Ashton, 1989; Carslaw & Kaplan, 1991; Leventis et al., 2005; Al-Ajmi, 2008; Khasharmeh & Aljifri, 2010).

The past decade saw companies which were involved in financial scandals (e.g. Enron, Tyco, and Worldcom) that shocked the world and as a result more attention was placed

on the role of audit committees in corporate governance. Indeed, there is considerable difference in the role of audit committees across different jurisdictions (Collier & Zaman, 2005), but the oversight the financial reporting process, internal control, and audit process are the major responsibilities of audit committee (BRC, 1999; Cadbury Committee, 1992). Surprisingly, studies linking audit report lag with audit committee effectiveness are limited.

Two studies have investigated the association between audit committee and audit report lag by focusing on the impact of the existence and independence of audit committee (Abdullah, 2007; Afify, 2009). These studies ignored variables such as audit committee size, expertise, and frequency of meetings which are considered by the literature as important elements of effective audit committee (Cadbury Committee, 1992; BRC, 1999; Abbott et al., 2003; Davidson et al., 2005; Al-Lehaidan, 2006; Pucheta-Martínez & Fuentes, 2007; Goh, 2009). Accordingly, the current study attempts to explore the association between audit committee effectiveness (independence, size, expertise, and meetings) and the audit report lag by using data from one of emerging capital markets, namely, Muscat Securities Market for the year 2009.

### 1.3 Research Questions

This study basically focuses on audit committee effectiveness, which might be related to the lag of the audit reports in companies listed on Muscat Market. Accordingly, this study investigates the following research questions:

1. What is the status of audit report lag of companies listed on Muscat Securities Market?

2. What is the relationship between audit committee effectiveness (independence, size, meetings, and expertise) and audit report lag for Muscat Securities Market listed companies?

### 1.4 Research Objectives

In order to examine the impact of characteristics of effective audit committee (independence, size, frequency of meetings, and expertise) in the context of audit report lag, the following objectives are examined:

1. To investigate the extent of audit report lag of companies listed on Muscat Securities Market.

2. To determine the association between characteristics of audit committee effectiveness and audit report lag for companies listed on Muscat Securities Market.

### 1.5 Significance of the Study

Theoretically, the research into audit committee effectiveness within Oman listed companies in the context of audit report lag has contributed to the existing audit report lag literature. This study examines some characteristics of effective audit committee, namely, audit committee size, meetings, and expertise, which have not been investigated before in their relationship to audit report lag. Prior studies used only existence of audit committee and audit committee independence to examine the association between these variables and audit report lag (Abdullah, 2007; Afify, 2009).

Practically, this study considers some factors why companies do not release their audited financial reports at the same time. Therefore, the results of this study can be used to

explain to users why companies take different time to disclose audited financial reports. Moreover, this study has implications for regulators, board of directors, audit committee members and external auditors as they seek to balance the various corporate governance mechanisms to achieve greater accountability.

### 1.6 Scope and Limitation of the Study

This study has faced several limitations which hinder the scope and generalization of the results of the study. These limitations include:

1. Time constraint. Due to the limited time available, this study was not able to include variable of affective audit committee (e.g. financial literacy; authority; charter). This is difficult because data in these variables is not publicly available.

2. Audit report lag measurement. This study employs days to measure the audit report lag rather than man-hours spent on audit work. Therefore, a measurement problem could arise if audit firms spend more than a normal day's work on the audit.

3. Limited sample. Due to time constraint and the data available, the study relies on the data of companies listed on Muscat Securities Market. Therefore, companies which are not listed have been excluded. Hence, the results of this study are limited only to listed companies on Muscat Securities Market.

### 1.7 The Organization of the Study

The remainder of this study is organized into four major chapters. Chapter two summarizes the literature about audit report lag determinants and effective audit committee. Chapter three discusses theoretical framework, hypothesis development,

research model, variables measurement, and data collection. The results of the study are presented in chapter four. Chapter five summarizes the findings and suggests the avenues for future research.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This chapter presents relevant reviews related to audit report lag and audit committee effectiveness. The first section focuses on some studies conducted to investigate the factors affecting audit report lag in both developed and developing countries. The second section presents the issue of corporate governance in the context of Oman by focusing on the developing capital market in the country and the code of corporate governance. The third section provides the theoretical framework of this study. This study relies on agency theory which explains how audit committees can contribute effectively to reduce the audit report lag. Finally, the forth section highlights the literature regarding the factors that are considered to be important f that contributes to effective audit committee roles as well as empirical evidence on how these factors contribute to financial reporting quality and audit quality.

## 2.2 Audit Report Lag (ARL)

The important role of audit report lag in determining the timeliness of accounting information has been well documented. Prior literature argued that timely reporting is considered as an important mechanism to reduce insider trading, rumors, uncertainty, and information asymmetry (Abdulla, 1996; Owusu- Ansah, 2000; McLell & Giroux, 2000). Therefore, the shorter the time between the end of the accounting year and the publication date, the greater the benefits that could be derived from the financial statement (Abdulla, 1996). Owusu-Ansah (2000) and Leventis et al. (2005) pointed out

that audit timeliness is the most influential factor in the timeliness of financial statements. It was also argued that promoting investors' confidence in capital markets need timeliness accounting information which is affected by audit report lag (Ettredge et al., 2006).

Audit report lag is defined by the literature as the number of days elapsing between an organization's fiscal year end and the date of the audit report (e.g., Davies & Whittred, 1980; Ashton et al., 1989; Abdulla, 1996; Carslaw & Kaplan, 1991). Prior studies have identified a number of factors that could influence the auditor to take more time in preparing the audit report such as company-specific factors and audit-specific factors. Company-specific factors are those that enable management to produce a more timely annual report or reduce costs associated with undue delay in reporting; among these are company size, industry, gearing, profitability, and so on. In contrast, audit-related factors are those that are likely to hamper (or help) the auditor in carrying out the audit assignment and issuing the audit report rapidly; these include auditor size, audit fees, complexity and so on (Owusu-Ansah, 2000). The following is the summary of prior studies that have investigated issues related to audit report lag.

It is interesting to note that the first study conducted to determine the factors affecting audit report lag was by Dyer and McHugh (1975). This study used three company attributes such as firm size, year-end closing date, and profitability as major explanatory factors of audit report lag. It found that only company size had a negative impact upon audit lag. Another primary studies that attempted to explain audit report lag were conducted by Davies and Whittred (1980) and Givoly and Palmon (1982). These two studies employed the same variables that were used by Dyer and McHugh but added two

other variables - type of industry and report content. The studies revealed that company size, type of industry, and report content significantly affected audit report lag.

By using data from 488 companies, Ashton et al. (1987) investigated the association between 14 company characteristics and audit lag. This study concluded that seven of the 14 variables were significantly related to audit report lag. These include audit opinions, industrial sector, publicly traded, a fiscal year-end, internal controls quality, and complex technology for data-processing and interim audit work.

In Canada, two studies were carried out by using the same sample. Newton and Ashton (1989) studied the association between audit report lag and audit technology. The study revealed that firms using structured audit approaches had greater mean lag than firms using unstructured approaches. Ashton et al. (1989) investigated the relationships between eight company characteristics and audit report lag over six years (1977-1982). They found that the variables (client industry, type of audit opinion, presence of extraordinary items, and loss for the year) were significant for at least four of the six years, and three other variables (log of total assets; fiscal-year-end and audit firm) had consistent signs across the six years.

Carslaw and Kaplan (1991) conducted study to examine the determinants of audit lag for 263 companies in 1987 and 293 companies in 1988. They used company size, industry, income, extraordinary items, audit opinion, year end, ownership, and leverage as explanatory factors of audit lag. They found big and profitable companies had short audit report lag compared with small and losses companies.

The first study on audit report lag in the Gulf countries was conducted by Abdulla in 1996. He studied the association between the time lags in disclosure and five attributes of companies among 26 Bahraini companies. The study reported that there was significantly negative association between timeliness of publication and the firm's profitability, dividend distributed and firm size. It also revealed that a non-significant relationship existed between timeliness and industry membership.

Henderson and Kaplan (2000) studied the determinants of audit report lag for 93 commercial banks over the period from 1988-1933. They found that longer audit report lag was associated with small banks, loss banks, and uncertain cited in audit report. Owusu-Ansah (2000) empirically examines the audit report lead time (audit lag) for non-financial companies listed on the Zimbabwe Stock Exchange. He found that big companies, profitable companies and older companies had shorter lag time compared with other companies. In addition, the results found that extraordinary items, the month of year end, and complexity of company were significantly associated with audit lag time.

Soltani (2002) investigated the trend in audit report lag for companies listed on the French capital market. By using 5801 annual reports for period 1986-1995, he found that an improvement in timeliness of corporate and audit report was noticeable. The study also reported that the existence of a qualified auditor tended to lengthen the delay.

Leventis et al. (2005) examined the audit report lag of 171 companies listed on the Athens Stock Exchange. They utilized linear regression to examine the impact of four factors (auditor type, audit report, audit fees, and extraordinary items) on audit report

lag. The study revealed that a statistically significant association between audit report lag and a number of remarks in the audit report, the type of auditor, audit fees, an expectation of uncertainty in the audit report, and the presence of extraordinary items. The results suggested that audit report lag was reduced by appointing an international audit firm or paying a premium audit fee, but was extended by aspects of potential bad news.

Behn et al. (2006) studied the determinants of audit report lag by clustering the impediment factors in reducing past and future audit report lags into three groups for both the client side and the audit team side. These include impediments related to personnel, audit process, and technology. Based on 179 observations, the results suggested that the lack of sufficient personnel resources, both with the client and the audit firm hindered a significant reduction in prior audit report lags.

El-Banany (2008) examined the determinants of the audit report lag of twenty seven banks listed on the Egyptian Stock Exchange. The linear regression model was employed which revealed that external auditor type, bank size, audit complexity in terms of the number of branches, audit complexity in terms of diversity level and bank profitability, all had a significant impact on the audit report lag but the exceptional items did not.

Al-Ajmi (2008) investigated the determinants of the timeliness for financial and non-financial companies listed on the Bahrain Stock Exchange during the period 1999-2006. He used seven variables as explanatory factors of timeliness (capital structure; Auditors' size; good and bad news; corporate governance; accounting complexity; industry

classification). He found that the determinants of timeliness of annual reporting were company size, profitability, and leverage.

Khasharmeh and Aljifri (2010) empirically examined the determinants of audit lag in two developing countries, the UAE and Bahrain, by using accounting and market data available for 83 companies listed on either the UAE or Bahraini Stock in 2004. They used 7 variables to explain why companies had different audit report lag. This study found that some factors had significant impact on audit lag in Bahrain while in the UAE they did not. For example, profitability, sector type, and dividend payout ratio had been found in Bahrain to have a strong influence on the audit lag but in the UAE they did not have a significant impact. However, in the UAE, audit type appeared to have a strong influence on audit delay while Bahrain did not have any impact. It is worthy to note that debt ratio had been found to have a strong impact on audit report lag for both countries.

With regards to corporate governance, two studies were conducted which examine extensively the relationship between corporate governance characteristics and the timeliness of corporate reporting (Abullah, 2007; Afify, 2009).

In Malaysia, Abullah (2007) investigated the roles of the composition of board of directors, audit committee and board duality on the timeliness of reporting. He used data from listed companies on the Main Board of Kuala Lumpur Stock Exchange in respect of the financial years 1998 and 2000. Statistically, he reported that the majority of firms issued the audited financial statements within the range of 70 days and 140 days with the average, 105 days. The study concluded that board independence and the separation of the roles of board chairman and chief executive officer (CEO) were significantly

associated with timelier reporting. Unfortunately, this study failed to find evidence on audit committee independence as an important explanatory variable for reporting timeliness. The author justified the latter result by two reasons. First, audit committees in Malaysia were still developing. Second, companies formed audit committee to satisfy the listing requirements rather than maintaining the audit committees to improve the firm's financial reporting processes.

Afify (2009) investigated the impact of corporate governance characteristics, namely, independence, duality of CEO, and existence of an audit committee, on audit report lag. 85 Egyptian companies which were listed on the Cairo and Alexandria Stock Exchange (CASE) were used as study sample. This study reported that on average, the audit report lag for Egyptian listed companies took more than 67 days, while the range was from a minimum interval of 19 days to a maximum interval of 115. From the regression model, the study revealed that board independence and existence of an audit committee were negatively associated with audit reporting lag, while duality of CEO was positively associated with audit report lag. On the other hand, the study failed to find significant association between ownership concentration and audit report lag.

In fact, prior research on the association between audit committee and audit report lag only used two variables of audit committee (existence and independence) and ignore other important variables of effective audit committee. Previous studies contended that the mere presence of an audit committee did not imply the ability of the audit committee to effectively execute its duties (Abbott & Parker, 2000; Beasley et al., 2000; Carcello & Neal, 2003; Raghunandan et al., 2001; Stewart & Munro, 2007). Moreover, it was pointed out that omitting some audit committee variables that are likely to have any

impact on the audit committee effectiveness led to weak result (Sharma, 2006). Furthermore, Abullah (2007) used non-executive director as measure for audit committee independence that might be considered as insufficient measure to effectively define independence audit committee.

The arguments above have revealed that some of the important effective audit committee variables have not been investigated yet with regards to audit report lag. This has proven what have been noted by Leventis et al. (2005) that despite the fact that prior models were able to explain a significant amount of audit reporting lag, a substantial portion of audit reporting lag is still unexplained. Moreover, Afify (2009) suggested that future studies examined audit report lag by incorporating variables such as audit committee effectiveness into the analysis. Therefore, incorporating such variables of effective audit committee, namely, audit committee size, frequency of audit committee meetings, and audit committee expertise to assess such impact on audit report lag deserved to be studied.

### 2.3 Corporate Governance in Oman

In the last three decades, the Oman economy has undergone a number of reforms, resulting in a more market-oriented economy. In particular, the financial impetus extended by the Sultanate of Oman has been well received by the investors. The size of Oman economy is becoming much bigger and likewise, the expectations of various stakeholders have also increased. (Shankaraiah & Rao, 2004).

On 21 June 1988, Royal Decree 53/88 had been issued to establish a stock exchange called Muscat Securities Market. This came after Oman recognized that a strong

financial sector based on well-established financial companies and a suitable environment are the key elements to keep up with considerable global competitiveness of the world market. This decree set out the legal framework for the establishment of the market as an independent organization to regulate and control the Omani securities market and to participate with other organizations in setting up the infrastructure of the Sultanate's financial sector. Indeed, this action is accompanied by a strong and continued growth in the economy but has not reached globally (Saidi & Kumar, 2008).

It has been proven that the combination of both regulated and controlled activities in the market had undermined the control role of the Muscat Securities Market. Therefore, the idea of separating the role of regulation and control market activities was suggested. On 9 November 1998, Royal Decree 80/98 had been issued to spilt Muscat Securities Market into two separate entities, namely- the Capital Market Authority and the Muscat Securities Market. The decree set out the duties of Capital Market Authority. These include organizing and overseeing the issue and trading of Securities, supervising Muscat Securities Market, and overseeing all companies operating in the field of securities, while Muscat Securities Market is an independent entity offering the place and the role for trading the Securities. On 25 November 1998, Royal Decree 82/98 was issued to establish the Muscat Depository and Securities Registration Company. Its responsibility includes registration and transfer of ownership of securities and safe keeping of ownership documents (depository) in the Sultanate.

The government of Oman recognized that instituting a well-established securities industry in the country and holding proper accounting standard would give a lot of confidence to corporate management and investors in the stock market. Therefore, in

2001, Capital Market Authority required all companies listed on Muscat Securities Market to prepare their financial statements according to International Accounting Standards (IAS) issued by the International Accounting Standards Committee (IASC) and interpretations issued by the Standing Interpretation Committee of the IASC (Shankaraiah & Rao, 2004).

The importance of good corporate governance has been recognized by the Omani government as this would improve the competitiveness of the capital market sector thus attracting foreign investors to the local market (Al Busaidi, 2008), achieving better corporate performance, and establishing better relationship with all stakeholders (Shankaraiah & Rao, 2004). In fact, corporate governance in Oman is not new; there are some aspects of corporate governance which had been addressed by the Commercial Companies Law 4/74 in 1974, for example, the relation between the boards and executive managements of companies and shareholders.

Prior to the issuance of the code of corporate governance in 2002, Capital Market Authority enacted considerable laws and regulations that focus on timely disclosure which, in turn, would enhance the shareholders' rights especially minority shareholders and boosted the confidence in the market. Moreover, it issued rules addressing the transactions with related parties. Also, in August 2001, the Corporate Governance Rules was issued to address the terms and conditions for electing directors and rules convening Annual General Meeting (AGM) (Al Busaidi, 2008).

Interestingly, based on the recommendation of the corporate governance workshop in Golf Cooperation Countries organized by Capital Market Authority on the 3 June 2002,

the Capital Market Authority issued the code which is considered as the first country in Golf Cooperation Countries to have issued the code of corporate governance. The code principally concerned five aspects that are largely compliant with the Organization for Economic and Cooperation Development (OECD) principles of corporate governance (Harabi, 2007). These principles include: (1) the rights of shareholders, (2) the equitable treatment of shareholders, (3) the role of stakeholders in corporate governance, (4) disclosure and transparency and (5) the responsibility of the board.

The code set out the mechanisms for the composition and functions of the board of directors; audit committee; external auditors; internal control; related party transactions; corporate governance report; executive management (see the code of corporate governance for Muscat Securities Market listed companies, 2002). It is worthy to note that the provisions of the code are not fully implemented at the time of the issuance of the code because Capital Market Authority wanted to give listed companies the opportunity to get more insight regarding the importance of the code. However, on 1 January 2004 full implementation was required.

More interestingly, it has been debated that compliance with the code would incur high cost for companies without attaining any improvement in the company performance. Capital Market Authority then conducted a study to investigate this matter. The study revealed that there was a good compliance with the code by companies and remarkable improvement on the performance of most companies listed in the market. As a result, investors' confidence was enhanced. Besides that, a survey was conducted to report the status of the code of corporate govemance among Golf Cooperation Countries. It was

revealed that Oman was the first country in the Golf Cooperation Countries to have the code of corporate governance (Al Busaidi, 2008; Saidi & Kumar, 2008).

Thus, the purpose of this study is to examine the association between audit committee effectiveness and audit report lag. Therefore, it is important to highlight some aspects of audit committee with regard to the code of corporate governance of Oman. The board of directors of companies listed on Muscat Securities Market shall set up an audit committee comprise at least three members, all of whom should be non-executive directors and a majority of whom should be independent. Moreover, at least one member of the committee shall have finance or accounting expertise. It is also recommended that the chairman of the committee shall be an independent director and at least four meetings should be held a year and the majority of directors present in the meeting are independent. The terms of reference, place and quorum of the meeting and description of the method of discharge of the responsibilities should be specified by the committee.

The primary responsibilities of the audit committee are to review the integrity of financial reporting, oversight the independence of the external auditors, oversight of the adequacy of the internal control system, check audit plan and result, work with internal audit, and review risk management. It is recommended that for audit committee to be more effective it should be given authority and resources (see Administrative Decision 6/2002 for details).

### 2.4 Agency Theory

An agency relationship is defined as a contract under which one or more principals engage another person (the agent) to perform some service on their behalf. To enable

this performance, delegation of some decision making authority to the agent is needed (Jensen & Meckling, 1976). Agency theory has suggested that owing to the separation of corporate management and ownership, shareholders require protection because management (agent) may have agendas different from their shareholders (principle), and thus may not always act in the interests of the absentee owners (Fama & Jensen, 1983; Fama, 1980; Jensen & Meckling, 1976). The principal delegates decision making responsibility to their agent. The agents are charged with using and controlling the economic resources of the company. However, the management may not always maximize the value of the shareholders due partly to adverse selection and moral hazard that arise from information asymmetry.

Agency theory focuses on resolving problems arising from the agency relationship. Often, the sources of these problems are external in nature arising from asymmetries of information, differences in attitude towards risk and differences in decision-making rights (Islam, Islam, Bhattacharjee & Islam, 2010). Heinrich (2002) identifies that agency problems may arise between three parties: (1) between shareholders and top management (2) between controlling and minority shareholders and (3) between shareholders and creditors. To limit these problems, both principal and agent have to increase investment in information systems and control mechanisms to reduce agency costs associated with information asymmetry (Jensen & Meckling, 1976; Fama & Jensen 1983). These control mechanisms might offer maximum gains for all parties since the agent would bear agency costs that occur when principals discount the value of the firm, based on the likelihood of adverse selection, shirking and moral hazard (Alchian & Demsetz, 1972; Jensen & Meckling, 1976).

Indeed, agency theory has provided the foundation for theoretical research and daily implementation of corporate governance mechanisms that have been used to oversee the management of publicly traded corporations. Fama and Jensen (1983) published article that posited the role of board of directors as a monitoring instrument. To deal with agency problem, an oversight role of monitoring managers is the primary role of directors. Therefore, in order to be effective, the board delegates some oversight duties to its committees, among these committees is the audit committee. Pincus, Rusbarsky and Wong (1989) claimed that the roles of audit committee could be explained within the framework of agency theory whereby the contract between the principal and agent allows the agent to conduct the business on behalf of the principal.

The status of audit committees can be considered as an important part of the decision control system for internal monitoring by boards of directors (Fama, 1980; Fama & Jensen, 1983). Therefore, the role of the audit committee, as a governance mechanism, is to reduce information asymmetry between inside and outside board members, thus diminishing agency problems (Eichenseher & Shields, 1985; Pincus et al., 1989).

Despite the fact that the role of audit committees across different jurisdictions is of considerable difference (Collier & Zaman, 2005), the primary responsibilities of the audit committee are to oversee financial reporting process, internal control system, audit activity and assessing the company risk (DeZoort, Hermanson, Archambeault & Reed, 2002). To achieve these duties, the committee must be an effective monitor, thus giving rise to the recent governance recommendations and regulations such as the Blue Ribbon Committee, 1999; Cadbury Committee, 1992; Sarbanes-Oxley act 2002.

An agency perspective has argued that an effective audit committee can fulfill its oversight role when it is independent of management, has financial expertise members, has sufficient directors, and holds more meetings (Carcello, Hollingsworth, Klein & Neal, 2006). Studies have shown that audit committees which compose of independent and expertise directors, holds many meetings, and has large size is associated with financial reporting quality, audit quality, and robust internal control system (Beasley et al., 2000; Carcello & Neal, 2000; Abbott, Parker & Peters, 2004; Scarborough, Rama & Raghunandan, 1998; Abbott & Parker, 2000; Archambeault & DeZoort, 2001; Krishnan, 2005; Goh, 2009). On the other hand, past research also has reported that audit report lag leads to insider trading, rumors about the company's health and increase in information asymmetry. Therefore, it is expected that effective audit committee would contribute to shorter the audit lag. Thus, the current study examines whether some of the characteristics of audit committee effectiveness such as audit committee independence, frequency of audit committee meetings, audit committee size, and audit committee expertise would affect the audit report lag.

**2.5 Audit Committee Effectiveness (ACE)**

It has been declared by the Securities and Exchange Commission that audit committee is an important element of corporate governance and is instrumental in ensuring the quality of financial reporting. Prior literature provides various definitions of audit committee. For example, KPMG Peat Marwick (1993) defines it as a standing committee of the board of directors whose broad objective is to give additional assurance regarding the reliability of financial information used by the board, and financial statements issued by the company. More elaborative definition has been provided by Rickard (1993). He

defines audit committee as consisting of a group of senior staff, chaired by the chief executive officer or his deputy. The committee's responsibility is to safeguard the independence of the internal audit function and ensure continual improvement in the management performance and accountability by seeking action on the internal and external audit reporting. In fact, these two definitions have provided both implicitly or explicitly that audit committee is a sub-committee of the main board of directors of a company and its roles is to provide assurance of the quality of financial reporting and corporate accountability; links between the external auditor and the board; facilitates the monitoring process; enhances the independence of an auditor from management.

The first recommendation of the formulation the audit committee was made by the New York Stock Exchange in 1939 followed by the Securities and Exchange Commission in 1972. Recently, most authorities of capital markets have made formulation of audit committee mandatory by all listed companies. Many reasons have been given by previous research regarding the formulation of the audit committee. Among these reasons are to protect shareholders' interests, to guide management and to enhance corporate credibility (Pomeranz, 1977); to reduce the liability of the board , to establish links between the external auditor and the board, to reduce illegal activities and to prevent fraudulent financial reporting (Cobb, 1993); to reduce agency costs (information asymmetry) (Turley & Zaman, 2004).

The role of audit committee has been developed by many countries as an attempt to ensure more responsible corporate governance and restore public confidence that disappeared due to the numerous companies' scandals (see Mohamed & Hussain, 2005 for more details on audit committee development). This pivotal role of audit committees

has also been recognized by the academic literature and recent corporate governance pronouncements. In the UK, The Cadbury committee (1992) highlighted the role of the audit committee as a central mechanism for ensuring good financial reporting and internal control. The Blue Ribbon Committee (1999) made specific recommendations on how to improve the effectiveness of audit committees. DeZoort et al. (2002) suggested that an effective audit committee could ensure the reliability of financial reporting, internal control, and management risk. They noted that there were four fundamental determinants of effective audit committee. These include: (1) composition - such as independence, expertise, integrity, and objectivity; (2) authority – such as responsibilities; (3) resources – such as adequate number of members; (4) diligence – such as the number of committee meetings.

It has been noted that two main lines of research can be discerned in the existing audit committee literature. The first began with the early studies published in the United States in the 1980s. These studies focused on assessing the association between the effectiveness of audit committee and variables such as auditor switching, overstatement of annual earnings and shareholder or third-party litigation against firms. However, these studies provide only inconclusive evidence of audit committee effectiveness, and further research is therefore necessary to identify the situations in which audit committee add value to corporate governance and, in particular, to financial reporting. In 1990s, the second line of research emerged and the main aim of these studies was the analysis of factors related with the audit committee themselves on the assumption that their effectiveness was associated with their internal structure and functioning (Pucheta-Martínez & Fuentes, 2007).

Past studies revealed that audit committee was associated with financial reporting quality (Turley & Zaman, 2004). Logically, financial reporting quality would be enhanced by a high audit quality. Abbott, Parker, Peters and Raghunandan (2003) pointed out that audit committee members may suffer from a loss of reputation and/or face the possibility of litigation in the event of audit failure; therefore committee members have strong incentives to demand a high quality audit (Stewart & Munro, 2007). It is worthy to note that audit quality has previously been measured by using the size or specialist audit firm (Craswell, Francis & Taylor, 1995; DeAngelo, 1981). Therefore, it is expected that big and specialist audit firms have great resources and qualify staff, thus audit work could be performed efficiently and effectively.

In the audit process, Doss (2004) noted that auditors needed to extend their scope of work and perform additional substantive tests to compensate for the control weakness. Therefore, the involvement of audit committee in the strengthening of internal controls might result in a reduction in the auditor's assessment of control risk (Sharma, Boo & Sharma, 2007; Goodwin-Stewart, & Kent, 2006; Cohen & Hanno, 2000), and hence the need for less testing. Also, audit committees can play a positive role in the resolution of disputes between the auditor and management (Turley & Zaman, 2004; Cohen, Krishnamorthy & Wright, 2002) and then improvement in overall audit quality (Karamanou & Vafeas, 2005).

More recently, Sharma et al. (2007) conducted an experimental study by manipulating corporate governance strength as strong, moderate and weak to test the impact on risk, audit planning and testing. The manipulations related to both board and audit committee characteristics; the latter including audit committee composition, meeting frequency and

interaction with the external auditors. The study found that the client's corporate governance structure influenced auditors' assessments of both control risk and audit risk, planned audit hours and the level of substantive testing. From the above discussion, it is suggested that audit report lag may be sensitively affected by effective audit committee.

The agency theory, mentioned above, has provided a meaningful prediction which indicated that audit committees are important mechanism to ensure the agent works to maximize the shareholders' wealth. It is also noted that the role of audit committee in internal corporate governance is to reduce the information asymmetry which would lead to a decrease in the agency problems. By doing so, it was suggested that audit committee should possess some crucial characteristics such as independent members, sufficient size, expert members, and frequent meetings to perform its duties more effectively. The following is some empirical evidence on how effective audit committee contributes to protect the shareholders from undesirable behavior.

### 2.5.1 Audit Committee Independence

The importance of audit committee independence has been recognized since the early 1940s. For example, the Securities and Exchange Commission has had a continuing interest in promoting effective and independent audit committees (See SEC 1999). Also, since 1978 companies listed on New York Stock Exchange are required to maintain audit committees which comprise wholly independent members. In Muscat Securities Market, listed companies are required to maintain an audit committee whose members comprises only of non-executive directors and a majority of them being independent.

According to the guidelines of audit committees by Capital Market Authority, an independent director is defined as a director who or any of his/her first relatives did not occupy any senior post in the company in the last two years and also they did not have any relation with the company, its parent company or its affiliated or sister companies which could result in financial transactions.

Prior literature has argued that there are many advantages for companies with the involvement of independent directors. Watts and Zimmerman (1978) have contended that managers often maximize their self-interest at the expense of the shareholders, thus installing outside directors (independent) would eliminate such activities. Other argument for the inclusion of outside directors was advanced by Fama and Jensen (1983). They suggested that outside directors had incentives to develop reputation as experts in decision control; therefore, their existence in the board would enhance internal control mechanism. Interestingly, it is pointed out that the most reliable guardian of the public interest is independent audit committee (Levitt, 1998). This suggests that the main purpose of involving independent member in the committee is to reduce agency problems.

Based on the advantages that are claimed to be attained when audit committee members are independent, a number of researches have been conducted to investigate the audit committee independence with many variables. With regard to the financial reporting quality, Beasley et al. (2000) found that companies with fewer independent audit committees committed fraud while their counterparts did not. Abbott et al. (2004) investigated the impact of audit committee independence on the likehood of financial misstatement; the study found that independence of the committee was negatively

related to misstatement. Another study had also been conducted by Abbott et al. (2000); they found that firms were less likely to be sanctioned by Securities and Exchange Commission for fraudulent or misleading financial reporting.

Klein (2002) investigated the association between audit committee independence and abnormal accruals. The study revealed that audit committee independence was negatively associated with abnormal accruals. Saleh, Iskandar and Rahmat (2007) assessed the independence of audit committee with earning management for 548 companies operating in Malaysia. They found that the practices of earnings management were reduced in companies with fully independent audit committee members. This finding is inconsistent with Rahman and Ali (2006) who found independence audit committee was insignificant in reducing earning management practices.

Pucheta-Martínez and Fuentes (2007) analyzed the relationship between the likelihood that a company would receive a qualified audit report and the existence and characteristics of the audit committee. Based on companies which voluntarily formed audit committee, the study found that independent audit committee reduced the likelihood of receiving an error or non-compliance qualification.

Other studies have focused on the impact of audit committee independence on audit aspects. Scarborough et al. (1998) found that audit committee independence was associated with a stronger internal audit function. Also, Raghunandan et al. (2001) in their study came to the same result. Abbott and Parker (2000) examined the relationship between independent audit committees and audit quality. This study found that firms with independent audit committee members were more likely to hire industry-specialist

external auditors. This result has also been proven by Chen, Moroney and Houghton (2005).

Archambeault and DeZoort (2001) investigated the relationship between the independence of audit committee and suspicious auditor switches. The study revealed that companies with a non-suspicious auditor change had a bigger percentage of independent directors on the audit committee compared to those with a suspicious audit change.

Other studies also investigated the association between audit committee independence and internal control system. Krishnan (2005) found that companies with independent audit committee were significantly less likely to have internal control problems. Goh (2009) investigated the association between audit committees and board of directors with remediation of material weaknesses in internal control. He found that the independent audit committees were more likely to remediate material weakness in a timely manner.

### 2.5.2 Audit Committee Size

The size of the audit committee is considered to be important determinants of audit committee effectiveness (Dezoort et al., 2002). As mentioned earlier, audit committee is responsible to carry out varies duties which are expected to be effectively implemented. To do so, audit committee requires sufficient resources, in particular the size of the committee. A sufficient number of audit committee members can help the committee to discharge its duties efficiently. Most professional committees and capital market

authorities, among this Capital Market Authority, recommend companies to establish audit committee of at least three directors.

There have been some studies looking at the role and importance of audit committee size. Abbott et al. (2004) investigated the audit committee size with the likehood of incidence of financial misstatement. They found that a minimum audit committee size was not significantly associated with the decrease in the incidence of fraud. A study was conducted by Archambeault and DeZoort (2001) to investigate the impact of audit committee size on suspicious auditor switching. The study reported that there was a negative association between audit committee size and suspicious auditor switching.

Felo, Krishnamurthy and Solieri (2003) found that audit committees with large membership were associated with financial reporting quality. Saleh et al. (2007) predicted the size of audit committee is negatively related to the magnitude of earnings management for Malaysian companies. The result was consistent with their prediction.

Pucheta-Martínez and Fuentes (2007) posited that audit committee size affected the enhancement of financial information quality. They reported that audit committee size was negatively associated with receiving qualified audit opinion. Goh (2009) without specific direction hypothesized that audit committee size affects firms' timeliness in remediation of material weakness in internal control. The results revealed that companies with large members of the audit committee were more likely to remediate material weakness in a timely manner.

### 2.5.3 Audit Committee Expertise

Financial expertise has been defined by Blue Ribbon Committee (1999) as past employment experience in finance or accounting, having professional certification in accounting, or any comparable experience or background which results in the individual's financial sophistication, including being or having been a CEO or other senior officer with financial oversight responsibilities. As is generally known, the major responsibilities of the audit committee are reviewing the financial reporting, internal control, and audit process. Ideally, it is assumed that audit committee members possess knowledge in accounting or finance to be able to address such issues.

It was posited by the Public Oversight Board (1993) that the effectiveness of the audit committee is affected, first and foremost, by the expertise of members of audit committees in the areas of accounting and financial reporting, internal controls and auditing. It is also reported by DeZoort (1998) and DeZoort and Salterio (2001) that knowledgeable audit committees are better equipped to understand auditor judgments and discern the substance of disagreements between management and the external auditor. Consequently, most world-class capital markets require companies to have audit committee with at least one member possessing financial expertise. Like others, Muscat Securities Market requires listed companies to establish audit committee that comprises at least one member who is a finance or accounting expert.

A number of studies have been carried out to assess the role of audit committee expertise. McMullen and Raghunanthan (1996) examined 121 companies with financial reporting problems and problem-free companies. They found that firms with financial

problems were unlikely to have audit committee members with financial expertise. DeZoort and Salterio (2001) examined the association between audit committee expertise and the ability of such committees to resolve auditor and management disputes. They reported that audit committee with expert members was more likely to support auditors in their disputes with management. Using audit firm managers and executive MBA graduates, McDaniel, Martin and Maines (2002) examined the influence of expertise on the assessment of financial reporting quality. They found that experts made better assessment of financial reporting quality compared to non-expert.

Abbott and Parker (2004) investigated the relationship between audit committee expertise and financial reporting restatement. They reported that firms with financial experts on audit committees were less likely to experience financial reporting restatement or fraud. Abbott et al. (2003) examined the association between audit committee characteristics and audit fees. In contrary with Carcello, Hermanson, Neal and Riley (2002) findings, the study found support for all hypotheses and provided empirical evidence that there is positive relationship between audit committee expertise and audit fees.

Davidson, Xie and Xu (2004) investigated the stock returns surrounding the appointment of directors who possessed financial expertise on audit committee. They found that significantly positive stock price reaction when new members of audit committees had financial expertise. Using U.S. data for investigating the association between audit committee financial expertise and earning management, Carcello et al. (2006) found that accounting and certain types of non accounting financial expertise reduced earnings management. In Malaysia, the same findings have been concluded by Saleh et al. (2007).

Zhang, Zhou and Zhou (2007) found that firms were more likely to have internal control problems if their audit committees had lower financial expertise. Moreover, Goh (2009) found that firms with audit committees that had financial expertise members were more likely to remediate material weakness in a timely manner.

### 2.5.4 Frequency of Audit Committee Meetings

It has been posited that an active audit committee is expected to provide an effective monitoring mechanism thus the reliability of financial reporting should be enhanced. Song and Windram (2004) suggested that an active audit committee has a positive influence on its effectiveness. Audit committee activities cannot easily be measured. Therefore many studies have used audit committee meetings as a proxy for audit committee activities (e.g. Beasley, 1996; Beasley et al., 2000; Abbott et al., 2004). Audit committee meetings can provide the shareholders with an indicator to assess the ability of audit committee to effectively discharge its duties. Menon and Williams (1994) argued that having several audit committee meetings would generally indicate a more serious effort to monitor management. It is reported by KPMG Peat Marwick Report (1988) that in order to carry out an audit committee functions, it would need to hold a minimum of two meetings during the year. This has been well recognized by many capital market authorities among these is Capital Market Authority. It requires audit committees of listed companies on Muscat Securities Market to hold meetings at least four times a year with the presence of the majority of independent directors.

A number of studies have been conducted to examine the impact of audit committee meetings on financial reporting output and audit processes. Beasley et al. (2000) studied

the relationship between the number of audit committee meetings and the likelihood of having fraud financial reports. The results showed that companies committed frauds held one meeting per year, while non-fraud companies held two meetings or more per year.

Abbott et al. (2000) indicated that firms with audit committees that met at least twice per year were less likely to be sanctioned by the Securities and Exchange Commission for financial reporting problems. In other study, Abbott and Parker (2000) examined the association between audit committee characteristics and the selection of a high quality auditor. The study revealed that firms with audit committees which convened more than two meetings per year were more likely to hire a specialist auditor.

Archambeault and DeZoort (2001) found that companies with an audit committee that met less frequently were more likely to commit a suspicious auditor switch compared to companies with an audit committee which met more frequently. Abbott et al. (2003) found companies with audit committees that met at least four times a year were more likely to have a lower non-audit services ratio compared to those with audit committees that met fewer than four times a year.

Saleh et al. (2007) investigated the association between the effectiveness of some audit committee characteristics and management behavior with respect to earning management. Consistent with the findings of Xie, Davidson and DaDalt (2003), this study reported that there was a negative relationship between audit committee meetings and earnings management.

Experimentally, Stewart and Munro (2007) examined the impact of audit committee existence, the frequency of audit committee meetings and the auditor's attendance at

meetings on external audit aspects. These external audit aspects included audit risk, audit efficiency, audit testing, auditor–client conflict resolution, audit quality, and audit fees. The study found that frequency of meetings were significantly associated with reducing audit risk, increasing partner hours, and resolving conflicts with management, increasing in audit fees, and improving the overall level of audit quality.

### 2.6 Summary

This chapter mainly focuses on the previous studies that had investigated factors affecting audit report lag. The empirical studies provide evidence on factors influencing the time taken to complete the external audit function (e.g. firm size, auditor type, profitability, industry, audit opinion, audit fee). From these studies, it can be inferred that limited studies employed audit committee effectiveness variables as explanatory variables of audit report lag.

Moreover, it also focuses on audit committee literature that considers audit committee as one of the important mechanism of corporate governance. Agency perspective provides more insight on variables that should be considered to ensure audit committee work effectively. It is revealed that audit committee independence, size, expertise, and meetings as the main factors of effective audit committee. The reviewing of empirical studies has extensively provided evidence on the importance of effective audit committee. They revealed that the involvement of audit committee that comprises independent and expert members, sufficient size, and more meetings held lead to strong internal control system, thus enhancing the financial reporting as well as audit quality. Therefore, this study expects that audit report lag for companies which consider audit

committee effectiveness to be short. This expectation can be interpreted into that auditors may widely rely on the internal auditor's results and then they might choose selective tests to collect audit evidence, thus, the time taken to audit company accounts will be short. Moreover, auditor often determines the scope of the audit based on internal control system test results; when the internal control is strong auditors tend to limit their audit scope which, in turn, leads to shorter time to completing the external audit function.

# CHAPTER THREE

# RESEARCH DESIGN AND METHODOLOGY

## 3.1 Introduction

A theoretical framework is developed in order to answer the following research questions: What is the status of audit report lag of listed companies in Oman? And what is the relationship between audit committee effectiveness (independence, size, meetings, and expertise) and audit report lag of listed companies in Oman. The first section of this chapter provides the theoretical framework of this study followed by hypotheses development, variable measurement, model specification, and data collection.

## 3.2 Theoretical Framework

The framework shown in Figure 3.1 explains the association between the independent variables and dependent variable. Based on what have been mentioned in chapter 2, this study proposes that audit committee effectiveness variables (independence audit committee, audit committee size, audit committee expertise, and frequency of audit committee meetings) influence the audit report lag. Each of the variables and the development of hypotheses will be discussed in the following section.

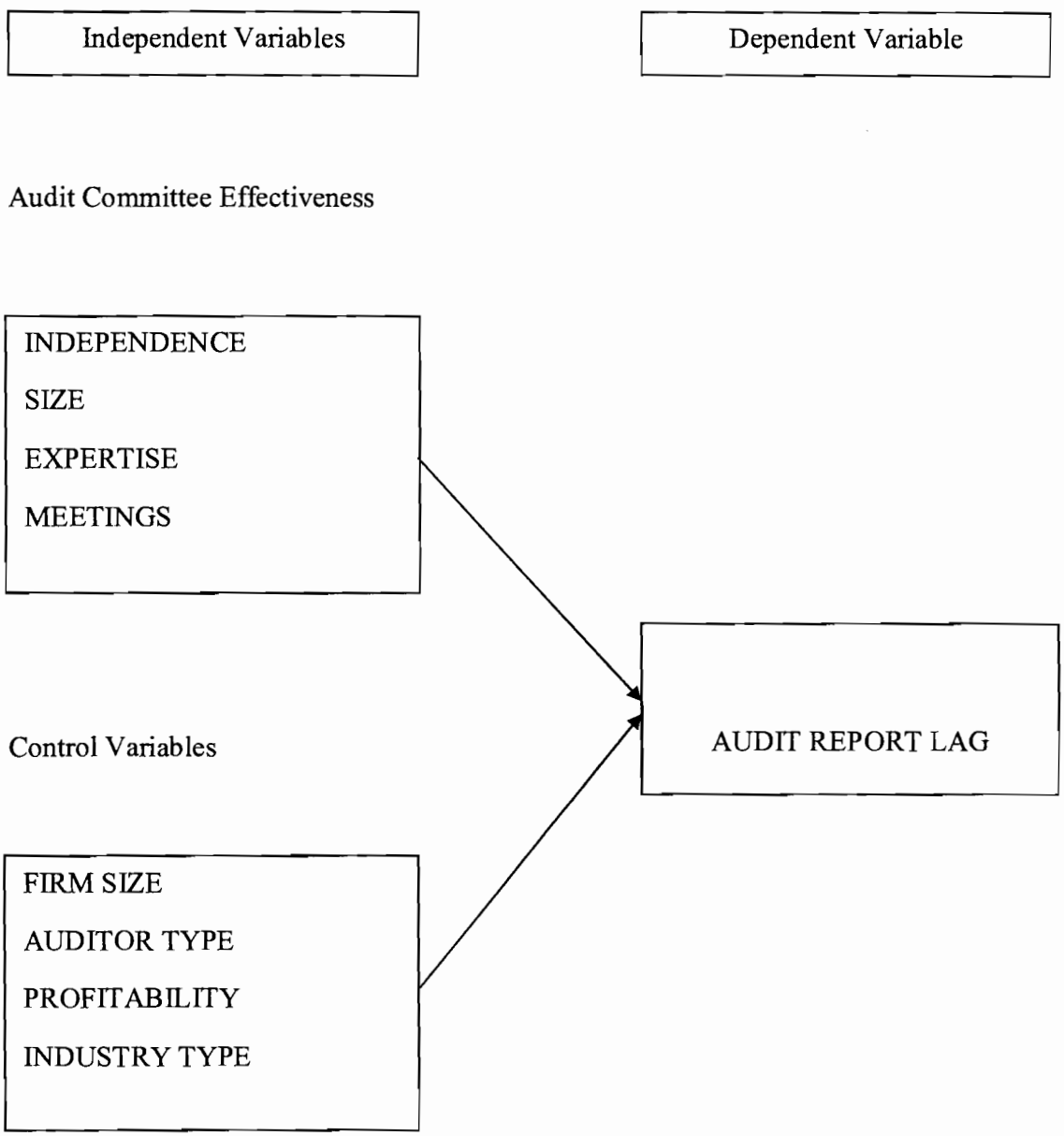


**Figure 3.1: Research Framework**

### 3.3 Hypotheses Development

Four hypotheses are developed to examine four independent variables that would give an impact on dependent variable. Recent evidence suggests that a substantial portion of audit report lag is unexplained (Leventis et al., 2005). Therefore, incorporating such variables of effective audit committee, namely, independence, size, meetings, and expertise to assess such impact on audit report lag deserved to be studied. For this purpose, the following hypotheses were developed to test the variables.

#### 3.3.1 Audit Committee Independence

The Muscat Securities Market of Oman requires listed companies to have audit committees that exclusively compose of non-executive directors and majority of them being independent. Prior studies claimed many advantages of having independent directors (e.g. Watts & Zimmerman, 1978; Fama & Jensen, 1983; Levitt, 1998). Many empirical studies have investigated the association between audit committee independence with financial reporting outputs, audit aspects, and internal control system. For instant, Beasley et al. (2000) report negative relationship between independent audit committee and fraud. Also, Saleh et al. (2007) found that companies that maintain solely independent audit committee have reduced the practice of earning management.

As for other important duties of audit committee, Raghunandan et al. (2001) provide evidence that audit committee independence leads to strong internal audit function. It was evident that independent audit committee members tend to hire more sophisticated external auditors (Chen et al., 2005). Moreover, Krishnan (2005) found that independent audit committee negatively associates with internal control problems.

The above studies have asserted that audit committee with independent directors conducts its duty to review financial reporting process, internal control system, and audit process more effectively. In other words, involving independent directors in the audit committee would improve the quality of audit, the quality of financial reporting and subsequently the timeliness of financial reporting. Therefore, the existence of a large number of independent directors in audit committee would reduce the audit report lag. Thus, the following hypothesis was constructed:

***H1: There is a negative relationship between audit committee independence and audit report lag***

### 3.3.2 Audit Committee Size

Audit committees are responsible to carry out a variety of duties which require sufficient resources to ensure that the duties are effectively implemented. One of these resources is the sufficient size of audit committee. According to the Oman code of corporate governance, companies shall maintain audit committee size of not fewer than three members. The size of audit committee was investigated with the quality of financial reporting and internal control systems. Saleh et al. (2007) document a negative relationship between the audit committee size and the magnitude of earnings management for Malaysian companies. Pucheta-Martínez and Fuentes (2007) found that audit committee size is negatively associated with qualified audit opinion. More recently, Goh (2009) revealed that companies with large size of audit committee are more likely to remediate material weakness in a timely manner.

A larger audit committee increases the resources available to the committee and increase the quality of oversight. It is also expected that a large audit committee with a variety of knowledge can address complicated issues and recommend to the board and management with meaningful advice regarding the quality of financial reporting and internal control systems. Thus, it is predicted that a large number of audit committee members would help the company to enhance its effectiveness and reduce the audit report lag. The following hypothesis is developed:

***H2: There is a negative relationship between audit committee size and audit report lag***

### 3.3.3 Audit Committee Expertise

The main duties of audit committee are reviewing the financial reporting, internal control, and audit process. Therefore, audit committee members should possess knowledge in accounting or finance. The code of corporate governance in Oman requires listed companies to have at least one member of the audit committee with accounting or finance expertise. Abbott et al. (2002) provide evidence that financial reporting restatement or fraud is less likely to be in firms with financial experts on audit committees. Carcello et al. (2006) and Saleh et al. (2007) reported that accounting and certain types of non-accounting financial expertise reduce earnings management. Zhang et al. (2007) find that firms are more likely to have internal control problems if their audit committees do not include financial expertise.

It is assumed that audit committees with members possessing accounting and finance knowledge could effectively contribute to the processing of financial reporting preparation and internal and external auditing. In other words, expert audit committee

members will help to reduce the committed errors and mistakes in the preparation of financial reporting and consequently, the audit work and time will be reduced. Therefore, audit report lag would be short. Hence, the following hypothesis is proposed:

***H3: There is a negative relationship between audit committee expertise and audit report lag***

### 3.3.4 Frequency of Audit Committee Meetings

Audit committee meetings are indicators of active audit committee. Companies listed on Muscat Securities Market are required to hold at least four meetings during the financial year. Prior evidence provides meaningful results on the importance of holding many meetings. Beasley et al. (2000) document that companies that held one meeting per year committed fraud while companies with two or more meetings per year did not commit fraud. Xie et al. (2003) and Saleh et al. (2007) reported that audit committee meetings were negatively associated with earning management. Stewart and Munro (2007) found that audit risk was reduced and overall audit quality improved by holding many meetings.

It can be said that audit committee that holds more meetings during the year is more effective in discussing and resolving the problems in the financial reporting, internal control system and audit plan and scope. This suggests that when the time elapse between meetings is short, the problems would be indentified and resolved in timely manner. Thus, it is expected that audit committee that holds many meetings would reduce the audit report lag. The following hypothesis is proposed:

*H4: There is a negative relationship between frequency of audit committee meetings and audit report lag*

### 3.4 Variables Measurement

#### 3.4.1 Dependent Variable

The focus of this study is audit report lag. This variable is measured by using the number of days between the date of financial year end and the date of the auditor's report. This measure is mostly used in audit report lag literature (e.g. Newton & Ashton, 1989; Carslaw & Kaplan, 1991; Bamber et al., 1993).

#### 3.4.2 Independent Variables

##### 3.4.2.1 Audit Committee Independence

Based on the definition of independent director in the code of corporate governance of Oman, this study measures the audit committee independence by identifying the proportion of independent directors in the audit committee. This measure was used by Pucheta-Martínez and Fuentes (2007), Goodwin-Stewart and Kent (2006), and Karamanou and Vafeas (2005).

##### 3.4.2.2 Audit Committee Size

The size of audit committee is measured by the number of directors in the committee. This number includes both non-executive independent directors and non-executive non-independent directors. The number of directors in audit committee has been widely used in audit committee studies as a measure of committee size (e.g. Saleh et al., 2007; Goh, 2009; Pucheta-Martínez & Fuentes, 2007).

#### 3.4.2.3 Audit Committee Expertise

The code of corporate governance of Oman requires listed companies to involve in their committees at least one member with accounting or finance expertise. In fact, the code does not provide specific definition of accounting or finance expertise; therefore, this study used the Blue Ribbon Committee's definition to classify the audit committees that have members with accounting or finance expertise. Following Carecello and Neal (2003), saleh et al. (2007), Goodwin-Stewart and Kent (2006), and Goh (2009), this study measures the audit committee expertise by the proportion of audit committee members with accounting or finance expertise.

#### 3.4.2.4 Frequency of Audit Committee Meetings

In order to measure this variable, this study follows the measurement provided by Goh (2009), Pucheta-Martínez and Fuentes (2007), and Davidson et al. (2005). These studies used the number of meetings held during the year as measurement of audit committee frequency of meetings.

### 3.4.3 Control Variables

#### 3.4.3.1 Firm Size

Firm size is widely used as an explanatory variable for audit report lag (e.g. Dyer & McHugh, 1975; Carslaw & Kaplan, 1991; Abdulla, 1996; Henderson & Kaplan, 2000; Owusu-Ansah, 2000; Al-Ajmi, 2008). Majority of audit report lag studies found a significant relationship between firm size and audit report lag. The direction of this relationship is negative. Most of these studies justify such findings through the following

reasons. Larger firms have a strong internal control and they have the ability to pressure auditors to complete the audit work in a timely manner (Carslaw & Kaplan, 1991). Furthermore, it is argued that larger companies have more resources to pay relatively higher audit fees and able to pay these fees sooner. Moreover, the management of larger companies has greater incentives to reduce both audit lag and earnings report lag since they are closely monitored by investors, trade unions and regulatory agencies. This larger external pressure forces them to report on time (Dyer & McHugh, 1975).

The size of the firm has been measured by different measures such as total assets, capital employed, turnover, number of employees and company's market value. However, total assets are considered to be the best measure of the firm size because they reflect the maximum amount of wealth at risk (Abdel-Khalik, 1993). Total assets have commonly been used to measure size in previous studies of audit report lag (e.g. Afify, 2009; Owusu-Ansah & Leventis, 2006; Ashton et al., 1989; Davies & Whittred, 1980). Therefore, in this study, total asset of the company is used to measure the firm size. Based upon the results of prior studies that found a negative relationship between firm size and audit report lag, this study expects that the firm size will have a negative relationship with audit report lag.

#### 3.4.3.2 Auditor Type

Auditor type is also investigated as a variable that has significant impact on audit report lag. Previous studies classify auditors into two groups, Big four and non-Big four (e.g. Ahmed & Kamarudin, 2003; Al-Ajmi, 2008; Afify, 2009; Khasharmeh & Aljifri, 2010). Big four refers to one of the widely known accounting firms such as KPMG, Ernst and

Young, Pricewaterhouse Corporation and Deloitte & Touche, while non-big four refers to local accounting firms. It is argued that companies that hire internationally affiliated audit firms (Big four) have shorter audit report lag compared to other audit firms. Many reasons have been advanced to justify this argument. Leventis et al. (2005) point out that the internationally affiliated audit firms have incentive to increase the market share in the audit market. Therefore, they tend to perform the audit jobs in a shorter time compared to other audit firms. Hossain and Taylor (1998) argued that the larger and better known audit firms have more human resources than smaller firms.

Studies by Owusu-Ansah and Leventis (2006), Al-Ajmi (2008), Afify (2009), and Khasharmeh and Aljifri (2010) empirically found a significant negative relationship between external auditor type and audit lag. Based on these results, the study expects big four audit firms to perform the audit function quicker than other firms and then audit report lag of their clients would be short. The Big four audit firms are assigned "1" and non-Big four audit firms are assigned "0".

#### 3.4.3.3 Profitability

Profitability has previously been investigated as explanatory variable of audit report lag (e.g. Ashton et al., 1987; Carslaw & Kaplan, 1991; Bamber et al., 1993). Several studies assumed that companies with profit have incentives to release this good news quicker than companies with a loss. This assumption has been justified in many ways. First, Carslaw and Kaplan (1991) claimed that a company facing a loss would require the auditor to schedule their audit in order to start the audit later than usual. By doing so, there would be a delay in conveying the bad news to the public. Conversely, companies

having higher profitability may require the audit to be completed as quickly as possible in order to quickly release the good news. Second, they also argued that auditors are more cautious during the audit process in response to a company loss if the auditor believes that the company's loss increases the likelihood of financial failure or management fraud. Third, companies with income that is lower than expected may spend additional time verifying reported results or searching for unrecorded income (Afify, 2009).

Several studies found a negative relationship between profitability and audit report lag (e.g. Ashton et al., 1989; Abdulla, 1996; Jaggi & Tsui, 1999; Abdullah, 2007; El-Banany, 2008; Afify, 2009). Hence, this study predicts a negative association between profitability and audit report lag. Different measures have been used in the literature to represent firm profitability but this study follows Leventis et al. (2005) and Afify (2009) to measure profitability by using net income to total assets.

#### 3.4.3.4 Industry Type

Industry type has been used as an explanatory variable for audit report lag by earlier researches (Ashton et al., 1989; Carslaw & Kaplan, 1991; Leventis et al., 2005; Afify, 2009; Khasharmeh & Aljifri, 2010). Most of these researches divided industries into two categories, financial (e.g. banks and other financial institutions and insurance companies) and non-financial (e.g. manufacturing and constructing companies). It has been argued that financial companies are expected to have shorter audit lag compared to others (Ahmed & Kamarudin, 2003). This is because the financial companies seem to have little or no inventory. Inventories are difficult to audit and represent an area where

material errors frequently occur. Thus, a lower percentage of inventory assets, relative to other types of assets, may lower audit lag for financial companies (Carslaw & Kaplan, 1991).

Consistent with these arguments, it has been found by Ashton et al. (1989), Newton and Ashton (1989), Bamber et al. (1993), Afify (2009), and Khasharmeh and Aljifri (2010) that financial companies have shorter audit report lag compared to non-financial companies. It is anticipated that the negative relationship exists between industry type and audit report lag. This study follows previous studies in measuring industry type (Ashton et. al., 1987; Carslaw & Kaplan, 1991; Leventis et al., 2005; Afify, 2009). It is coded "1" if the company is classified as financial company and "0" if it is classified as non-financial company. This study classifies the companies into financial and non-financial industry based on the Muscat Securities Market classification.

### 3.4.4 Model Specification and Analysis

The variables used in this study are derived through a review of literature including: e.g. Dyer & McHugh, 1975; Abdullah, 2007; Afify, 2009; Khasharmeh & Aljifri, 2010. Thus, the following multiple regression analysis is used to examine the association between audit committee effectiveness (independence, size, expertise, and meetings) and audit report lag.

$$ARL = \beta 0 + \beta 1\ ACIND + \beta 2\ ACSIZE + \beta 3\ ACEXP + \beta 4\ ACMEET + \beta 5\ SIZE + \beta 6\ AUDTYPE + \beta 7\ PROF + \beta 8\ INDUS + \epsilon$$

Where:

ARL = audit report lag

ACIND = audit committee independence

ACSIZE = audit committee size

ACEXP = audit committee expertise

ACMEET = frequency of audit committee meetings

SIZE = firm size

AUDTYPE = auditor type

PROF = profitability

INDUS = industry type

$\epsilon$ = Error term

The measures of each variable are described and summarized in Table 3.1 below.

**Table 3.1: Summary of Measures of Variables**

| Variables Definition | Variable Name | Measurement | Expected Relationship |
|---|---|---|---|
| AC Independence | ACIND | The proportion of independent members in the audit committee | Negative |
| AC Size | ACSIZE | The number of directors in the audit committee | Negative |
| AC Expertise | ACEXP | The proportion of audit committee members with accounting or finance expertise | Negative |
| AC Meetings | ACMEET | The number of meetings held during the year | Negative |
| Firm Size | SIZE | Natural log of yearend total assets | Negative |
| Auditor Type | AUDTYPE | Dummy variable, "1" if the auditor one of big four and "0" otherwise | Negative |
| Profitability | PROF | Net income to the total assets | Negative |
| Industry Type | INDUS | Dummy variable, "1" if the company classified as financial company "0" otherwise | Negative |

### 3.5 Data Collection

In this study, the population includes all companies that are listed on the Muscat Securities Market (www.Muscat Securities Market .gov.om/default.aspx). According to Muscat Securities Market as at 31 December 2009, there were 120 companies listed which were quoted on three types of markets: organized market; parallel market; and third market. All companies on the Muscat Securities Market are required to follow the code of corporate governance issued by the Capital Market Authority regardless of their

type of industry and size. Thus, the sampling frame of this study is based on all the 120 listed companies.

### 3.5.1 Sample Selection

As mentioned above, there were 120 companies listed on Muscat Market at the end of 2009. The number of companies is relatively small compared to other capital markets in the region. Therefore, annual reports of the year ended 2009 for all companies listed in the organized, parallel and third markets of Muscat Securities Market were selected in this study. Indeed, this year is chosen due to three reasons. First, it is the year after the global financial crisis in 2008 that saw many capital markets, one of them being Muscat Securities Market, suffered from its consequences. Hence, it is expected that there are many lessons that have been learned by the regulators and companies from this crisis especially in shareholders protection area. Second, in 2009, Capital Market Authority issued new Executive Regulation of the Capital Market that brought significant amendments such as disclosure requirements. Finally, the 2009 annual reports is the latest source of the information available at the time when the study was initially conducted.

### 3.5.2 Data Collection Procedures

This study used companies' annual reports (secondary data) that were mainly gathered from Muscat Securities Market website to collect data on hypothesis variables. Data on dependent variable was extracted from audit report, while data on independent and control variables were gathered from corporate governance report, balance sheet, and

income statement. This technique is chosen because it can provide a lot of information that may be helpful in problem solving (Sekaran, 2003).

It is assumed that data for 120 companies listed on Muscat Market would be gathered but this study only involved 110 companies. It was found that three companies did not have any data on the Muscat Securities Market website. Therefore, they were excluded. The other seven companies were found to have incomplete data. As such, they were also excluded from the study.

### 3.6 Data Analysis

The study uses different statistical tests to examine the hypothesized relationship including first, the descriptive statistics (mean, minimum, maximum, and standard deviation) to describe the characteristics of the sample. Second, assumption tests were conducted to provide insight about the normality, homoscedasticity of data. Furthermore, correlation analysis was used to check which variables have strong and weak correlation with dependent variable and to check the multicolinearty among independent and control variables. Finally, multiple regression was employed to analyze the effect of these variables on the period taken by external auditor to complete the audit function.

### 3.7 Summary

In this chapter, theoretical framework was developed based on the argument that audit committee effectiveness contributes to financial report quality, audit quality, and internal control. Also, it provided hypotheses developments that tried to answer the questions for

this study. These hypotheses predicted negative relationship between independence, size, expertise, and frequency of audit committee meetings and audit report lag.

Based on prior studies, this study employed the same measurements of the hypotheses variables. It also extended prior studies by using audit report lag model with some additional variables that were expected to have an impact on audit report lag. This chapter also discussed the method and procedures used to collect the data about hypotheses variables. Annual reports of companies listed on Muscat Market as at 31 December of 2009 were the main input of data analysis. On that date, there were 120 companies listed on Muscat Securities Market. The final sample for analysis involved 110 companies after excluding 10 companies with incomplete data. Finally, short descriptions on the types of analysis that were used to examine the hypotheses were presented.

# CHAPTER FOUR

# FINDINGS AND DISCUSSION

## 4.1 Introduction

In this chapter, the results of the statistical analysis are presented and discussed. The first section provides descriptive analysis for the study sample which includes mean, maximum, minimum, and standard deviation. The second section presents assumption tests that include normality, homoscedasticity, and multicolinearity tests. The Third section discusses correlation analysis which includes discussion about which variables have high correlation with independent and dependent variables. It provides insight into the presence of multicolinearity between the independent and control variables that may affect regression analysis. Finally, regression analysis is conducted to provide evidence on the ability of the model to explain the variances in audit report lag and which variables have significant impact on audit report lag.

## 4.2 Descriptive Statistics

Table 4.1 provides descriptive analysis for the study variables. From this table, the mean for audit report lag for Muscat Securities Market companies is 51 days. That means the time taken by external auditors of Muscat Securities Market companies to complete audit work is, on average, 51 days with the minimum of 18 days and maximum of 76 days. This suggests that most Muscat Securities Market companies met the requirement of disclosure in Muscat Securities Market which is 60 days after the year end. Interestingly, this provides evidence that, on average, audit report lag in Oman is shorter compared to other developing countries. For example, in Egypt, Afify (2009) reported

that, on average, 67 days were taken to complete external audit function from a sample of 85 listed companies in 2007. Abdullah (2007) found companies listed on Bursa Malaysia from 1998 to 2000 took on average, 105 days to release their audited financial reports. Moreover, companies listed on Bangladesh stock exchange during 1990-1999 were reported to take 192 days to release annual reports (Karim et al., 2006). While in Greece, Owusu-Ansah and Leventis (2006) reported that, on average, 113 days were taken by companies listed on the Greece capital market in 1999. This provides an indicator on the importance of timeliness in Oman since the audited financial reports as the main and reliable sources that can be used to reduce agency costs.

**Table 4.1: Descriptive Analysis**

| | N | Minimum | Maximum | Mean | Std. Deviation | Skewness |
|---|---|---|---|---|---|---|
| ARL | 110 | 18.00 | 76.00 | 51.56 | 13.08 | -0.54 |
| ACIND | 110 | 0.00 | 1.00 | 0.93 | 0.15 | 0.51 |
| ACSIZE | 110 | 3.00 | 6.00 | 3.43 | 0.67 | -0.13 |
| ACEXP | 110 | 0.20 | 1.00 | 0.68 | 0.27 | -0.79 |
| ACMEET | 110 | 4.00 | 11.00 | 5.10 | 1.32 | 1.04 |
| SIZE | 110 | 13.80 | 22.49 | 17.32 | 1.80 | -2.92 |
| PROF | 110 | -0.27 | 0.33 | 0.04 | 0.09 | 1.44 |
| AUDTYPE | 110 | 0.00 | 1.00 | 0.68 | 0.46 | -0.17 |
| INDUS | 110 | -0.00 | 1.00 | 0.27 | 0.44 | 1.66 |

With regards to audit committee effectiveness variables, it reports that the mean of the independent directors in audit committee is 0.93 with minimum 0.00 and maximum 1.00 indicating that companies listed on Muscat Securities Market companies tend to establish audit committee with majority, if not full, independent directors. It was observed that only one company did not comply with the code of corporate governance

that required listed companies to form audit committee with non-executive directors and majority of them were independent. The mean of audit committee size of Muscat Securities Market companies is 3.4 directors with minimum of 3 directors and maximum of 6 directors. This suggests that all Muscat Securities Market companies have audit committees with size not fewer than three members which comply with the code of corporate governance requirement.

The mean for audit committee expertise is 0.68 with minimum and maximum values ranging from 0.20 to 1.00. This means that Muscat Securities Market companies have audit committees with at least one director who has accounting or finance knowledge. This indicates that all Muscat Securities Market companies adhere to the code of corporate governance that requires companies to establish audit committee with at least one member having accounting or finance expertise. Finally, it shows that the mean of audit committee meetings is 5 meetings with minimum 4 meetings and maximum 11 meetings. This suggests that Muscat Securities Market companies have audit committees which met five times during 2009 which were relatively higher than the minimum requirement by the code of corporate governance that requires audit committee to hold meetings not fewer than four times a year. Overall, this study concludes that all companies listed in Muscat Securities Market, except one company, comply with the code of corporate governance issued by Capital Market Authority.

For the control variables, it reveals that the mean of firm size as measured by the natural log of total assets for Muscat Securities Market companies in 2009 is 17.32 with minimum and maximum size 13.80 and 22.49 respectively. These figures reveal that the size of Muscat Securities Market companies is relatively small when compared to the

companies listed in Egypt, 20.52 and UAE, 21.27 capital markets (Afify, 2009; Khasharmeh & Aljifri, 2010). Regarding company profitability, it appears that the mean of profitability for Muscat Securities Market companies is 0.046 ranging from -0.27 losses to 0.33 profits. This suggests that Muscat Securities Market companies were less profitable compared to Egyptian companies that, on average, were profitable at 0.10 (Afify, 2009). For auditor type, the mean is 0.68 indicating that 68% of the sample companies were audited by big four while 32% audited by non-big four. This suggests that Muscat Securities Market companies tend to hire more specialist and qualified auditors to ensure audit quality and financial reports quality. Finally, the mean for industry type is 0.27 indicating that 27% of the sample companies were financial companies while 73% were non-financial companies.

### 4.3 Assumption Tests in Regression Analysis

An important element of simple linear regression analysis is checking whether the basic assumption of normality, homoscedasticity, and multicolinearity are met (Hair et al., 2006). First assumption, normality, is checked through a histogram of the distribution of the residual and scatter plot diagrams of standardized residual. The result is shown in Figure 4.1 and Figure 4.2 indicating that the distribution approximated a normal curve, indicating the data conforms to the normality assumption.

Second assumption, homoscedasticity, is evaluated through scatter plot diagrams. The result in Figure 4.3 suggests that the variance of dependent variable is the same for all values of the independent variables as no different pattern in the data point is discovered. Final assumption, multicolinearity, is evaluated by examining the correlation analysis

and Variance Inflation Factors (VIF) which are presented in following section. Overall, the results suggest that the assumptions of normality, homogeneity, and multicolinearty of data are met.

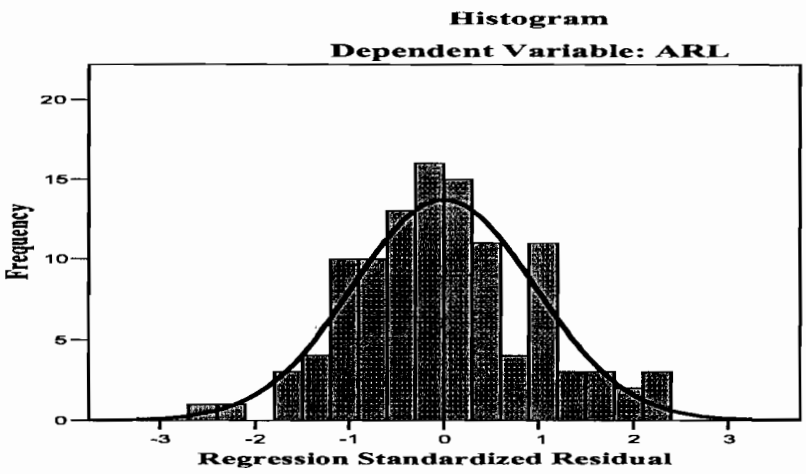


**Figure 4.1: Normality Test for ARL**

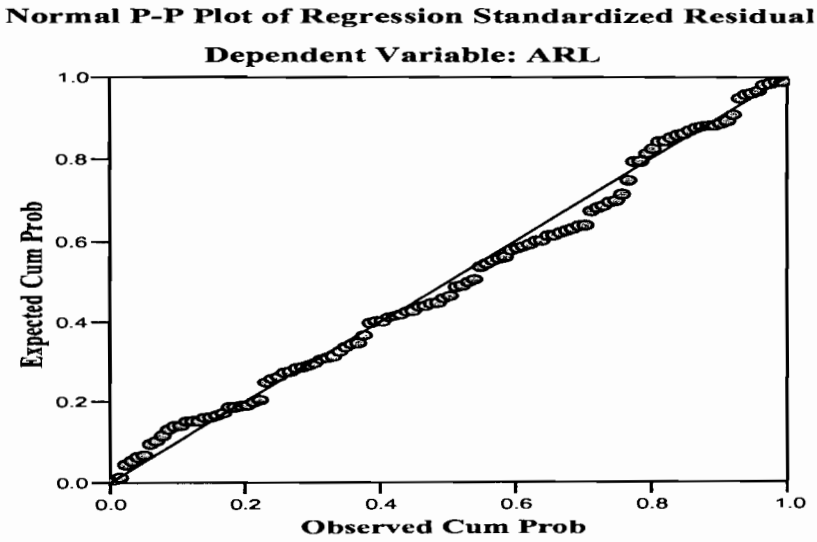


**Figure 4.2: Linearity Test for ARL**

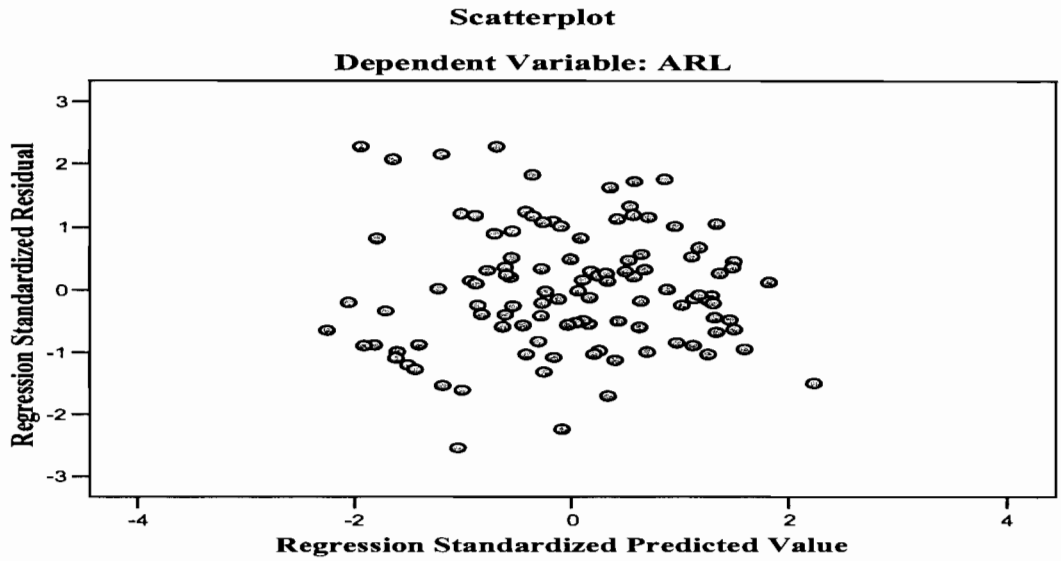


**Figure 4.3: Homoscedasticity Test for ARL**

## 4.4 Correlation Analysis

Correlation analysis shows the correlation between two variables. It can be used to check the existence of multicolinearty problem among independent variables. From Table 4.2, it appears that four variables have significant correlation with audit report lag. Audit committee independence and audit committee expertise are negative significantly correlated to audit report lag at 10% and 1% respectively. This means that the presence of high proportion of independent directors in the audit committee decreases the audit report lag. Also, audit report lag is shorter when the audit committee comprises high proportion of directors with accounting or finance knowledge.

**Table 4.2: Correlation Coefficient between Variables for Overall Sample of 110 Companies**

| | ARL | ACIND | ACSIZE | ACEXP | ACMEET | SIZE | PROF | AUDTYPE | INDUS |
|---|---|---|---|---|---|---|---|---|---|
| ARL | 1 | -.157(*) | .047 | -.551(***) | .107 | -.573(***) | -.022 | .016 | -.444(***) |
| ACIND | | 1 | -.079 | .050 | .040 | .015 | .019 | .079 | .061 |
| ACSIZE | | | 1 | -.225(**) | .033 | .109 | .091 | .125 | -.064 |
| ACEXP | | | | I | -.074 | .360(***) | .057 | .054 | .324(***) |
| ACMEET | | | | | 1 | .073 | .138 | .096 | -.062 |
| SIZE | | | | | | 1 | -.015 | .255(***) | .448(***) |
| PROF | | | | | | | 1 | .124 | -.101 |
| AUDTYPE | | | | | | | | 1 | .024 |
| INDUS | | | | | | | | | 1 |

***/**/* Correlation is significant at 0.01/ 0.05/ 0.10 respectively

The other two variables are control variables. Firm size is negatively significant correlated with audit report lag at 1% suggesting that when the size of the firm increases audit report lag decreases. The same result was found with industry type which reported a significantly negative correlation at 1% between industry type and audit report lag indicating that financial companies tend to have shorter audit report lag. Other

variables which include audit committee size, audit committee meetings, profitability, and auditor type appear to have a weak correlation with audit report lag.

The above mentioned is the description for the correlation between independent variables and dependent variable. For the correlation among independent and control variables, it appears that audit committee size is negatively significant correlated with audit committee expertise at 5%. This means that when the size of the audit committee increases, the proportion of expert directors in the audit committee decreases. Also, it reveals a significant positive correlation between audit committee expertise and firm size at 1% indicating that if the size of the firm increases, these companies tend to have high proportion of expert directors on the audit committee. Moreover, it shows that audit committee expertise has positive significant correlation with industry type at 1% suggesting that high proportion of expert directors in the audit committee are found in financial companies.

The result also shows correlation between firm size and two control variables. The first correlation is with auditor type. The firm size is significant positively correlated with auditor type at 1% indicating that if the size of firm increases, the motivation of hiring big four audit firms also increases. Second, firm size has a positive significant correlation with industry type at 1%. This means that large companies are usually financial companies.

The above discussion provides evidence that the highest correlation between independent and control variables is between company size and industry type at 0.448. This suggests that multicolinearty problem does not exist since the correlation between

the variables is less than 0.70. This study also conducted other analysis to check multicolinearty problem among independent variables by using Variance Inflation Factors (VIF). In Table 4.4, the results show that VIF value is less than two for each variable which indicate that there is no multicolinearty problem between the independent variables.

### 4.5 Regression analysis Results

By using a multiple regression technique, this section presents an analysis and discussion of the relationship between audit committee effectiveness (measured by audit committee independence, size, expertise, and meetings) and audit report lag. It also discusses the relationship between control variables, company size, auditor type, profitability, and industry, and audit report lag.

In Table 4.3 regression analysis reports that the $R^2$ for the model is 0.535 and adjusted $R^2$ is 0.498. This indicates that the model is capable of explaining 53.5 percent of the variability in the audit report lag in the sample of this study. It also indicates that 49. 8 percent of the total variance in audit report lag is explained by independent and control variables, while the other 50.2 percent is explained by other factors. Moreover, the model is highly significant (F-statistic = 14.499, $p < 0.000$). This suggests that the model significantly explains the variations in audit report lag in Oman.

**Table 4.3: Summary of the Regression Model**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | 0.731(a) | 0.535 | 0.498 | 9.271 | 14.499 | 0.000(a) |

a Predictors: (Constant), INDUS, AUDTYPE, ACIND, ACMEET, ACSIZE, PROF, ACEXP, SIZE
b Dependent Variable: ARL

The results of linear regression using audit report lag as dependent variable and effective audit committee as the test variables are presented in Table 4.4. The variable of interest audit committee independence (ACIND) is found to be significantly negative at 5% and consistent with the study hypothesis. It indicates that the Muscat Market companies with high proportion of independence audit committee are associated with earlier release of audited financial reports. This finding is not consistent with Abdullah (2007) who failed to find a significant impact of audit committee independence on audit report lag. One possible explanation of this difference could be attributed to the definition of audit committee independence. Abdullah's study used the term "non-executive directors" to determine audit committee independence that might cause the lack of variability in the sample, while the current study used term "independent directors" to determine audit committee independence.

The variable of interest, audit committee expertise (ACEXP), is found to be significant at 1% with the same expected direction indicating that there was a negative association between audit committee expertise and audit report lag. In other words, Muscat Securities Market companies with high proportion of directors who have accounting or finance expertise are associated with earlier release of audited financial reports. Thus, the hypothesis of this variable is supported. This result is consistent with the theories and

with empirical studies that found a significant impact of expertise directors on financial report quality, audit quality, and internal control quality (McDaniel et al., 2002; Abbott & Parker, 2004; Zhang et al., 2007).

Audit committee size (ACSIZE) is negatively found but insignificant, $p > 10\%$ indicating that there is no association between audit committee size and audit report lag. In other words, Muscat Securities Market companies that have large audit committee are not associated with quicker disclosure of audited financial reports. Therefore, the hypothesis of this variable is not supported. One possible explanation of insignificant impact could be attributed to the lack of variability in this variable. It was observed that majority of Muscat Securities Market companies have audit committee size with three members.

Frequency of Audit committee meetings (ACMEET) are found to be insignificant, $p > 10\%$. Thus there is no association between audit committee meetings and audit report lag. In other words, Muscat Securities Market companies that held more meetings during the year are not associated with shorter audit report lag. The hypothesis of this variable is not supported. A possible explanation for positive and insignificant result could be that more meetings indicate more issues are faces by the company which need more audit work and thus longer lag.

**Table 4.4: The Coefficients of Multiple Regression Analysis**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics |
|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | VIF |
| 1 | (Constant) | 123.559 | 11.873 | | 10.406 | 0.000 | |
| | ACIND | -12.207 | 5.861 | -0.143 | -2.083 | 0.040 | 1.020 |
| | ACSIZE | -0.443 | 1.410 | -0.023 | -0.314 | 0.754 | 1.135 |
| | ACEXP | -16.883 | 3.774 | -0.349 | -4.473 | 0.000 | 1.320 |
| | ACMEET | 1.012 | 0.686 | 0.103 | 1.476 | 0.143 | 1.051 |
| | SIZE | -3.137 | 0.608 | -0.432 | -5.159 | 0.000 | 1.524 |
| | PROF | -6.951 | 9.568 | -0.051 | -0.726 | 0.469 | 1.066 |
| | AUDTYPE | 4.433 | 2.005 | 0.159 | 2.211 | 0.029 | 1.116 |
| | INDUS | -3.855 | 2.302 | -0.132 | -1.675 | 0.097 | 1.345 |

a Dependent Variable: ARL

For control variables, the study reports that three control variables, firm size (SIZE), auditor type (AUDTYPE), and industry (INDUS), have significant impact on audit report lag at 1%, 5%, and 10% respectively. Firm size is negatively associated with audit report lag and it is consistent with the hypothesis of the study. This implies that large Muscat Securities Market companies are associated with the earlier release of audited financial reports. This finding is consistent with prior studies (Chambers & Penman, 1984; Carslaw & Kaplan, 1991; Abdullah, 1996; Owusu-Ansah & Leventis, 2006; Afify, 2009). In line with the hypothesis, industry type is negatively associated with audit report lag. This result is consistent with the theories and empirical studies that suggest financial companies have a short audit report lag compared to non-financial companies (Givoly & Palmon, 1982; Ashton et al., 1989; Afify, 2009; Khasharmeh & Aljifri, 2010).

Contrary to the hypothesis, it finds that auditor type is positively associated with audit report lag. The result indicates that Muscat Securities Market companies which were audited by big four audit firms have longer audit report lag than companies audited by

non-big four firms. This result is contrary with Ashton et al. (1989), Leventis et al. (2005), and Owusu-Ansah and Leventis (2006) findings but is consistent with Afify (2009) and Lee et al. (2009) findings who found auditor type has significant positive impact on audit report lag at 10% and 1% respectively. A possible explanation of this result is that big four audit firms are more exposed to reputation and litigation risk, therefore they tend to follow conservative audit approach that requires them to increase audit scope and substantive tests which, in turn, increase the hours spent to audit client's accounts and then longer audit report lag.

Finally, profitability (PROF) is found to be negatively associated with audit report lag, but insignificant, $p > 10\%$. This suggests that the tendency of quickly or slowly releasing audited financial reports by profitable companies or less profitable companies in Muscat Securities Market does not exist. This finding is in line with prior studies (Davies & Whittred, 1980; Leventis et al., 2005; Hossain & Taylor, 1998). The result may be explained by that the profitable companies did not achieve the market expectation or even though industry average, therefore they considered such sign (profit) as not good news to motivate them to release audited financial reports as quicker as possible.

### 4.6 Summary

In this chapter, descriptive, assumption, correlation, and regression analysis were presented and discussed. The results showed that Muscat Securities Market companies took, on average, 51 days to release audited financial reports. It also revealed that most Muscat Securities Market companies have full independent audit committee with size ranging from 3-6 directors. Furthermore, audit committee expertise is found to be in all

Muscat Securities Market companies with at least one director having accounting or finance knowledge. Finally, it reports that Muscat Securities Market companies, on average, held 5 meetings during the year 2009.

Assumption test was performed to check normality, homoscedasticity, and multicolinearity of the data. Histogram, scatter plot diagrams, scatter plot diagrams of standardized residual correlation analysis and variance inflate factor (VIF) reports that assumptions are met. Correlation analysis was also conducted to provide insight into the correlation among variables. It reports that four variables, ACIND, ACEXP, SIZE, and INDUS have significantly negative correlation with audit report lag, while other variables, ACSIZE, ACMEET, AUDTYPE, and PROF, do not have such correlation. It also shows that the data are free from multicolinearity problem..

Finally, regression analysis was carried out to determine which variables have significant impact on audit report lag. It reports that the study variables explain 53.5% of the variances in audit report lag for Muscat Securities Market companies with significant at 1%. It also reveals that four variables, i.e. ACIND, ACEXP, SIZE, and INDUS, have significantly negative association with ARL and one variable (AUDTYPE) has a significant positive relationship with ARL. Other variables were found to be insignificant. This means that H1 and H3 were supported while H2 and H4 were rejected. Also, it reports that only two control variables, SIZE and INDUS, met the study expectation while the other two control variables, AUDTYPE and PROF, did not meet the study expectation.

# CHAPTER FIVE

# CONCLUSION AND FUTURE RESEARCH

## 5.1 Introduction

In this chapter, the conclusions which are based on the findings are presented. It is followed by the suggestions for future studies related to audit report lag.

## 5.2 Conclusion

The main objective of the study is to examine the association between audit committee effectiveness and audit report lag in Oman. The time taken, audit report lag, by external auditor to audit company accounts is considered as the main factor influencing the timeliness of financial reports. Many studies have investigated audit report lag by using various company and auditor attributes, but audit committee effectiveness is seldom explored. This study uses audit committee independence, size, expertise, and frequency of meetings which are argued as the main determinants of audit committee effectiveness (Goh, 2009; Pucheta-Martínez & Fuentes, 2007; Abbott et al., 2003).

The analysis of sample of Muscat Securities Market companies shows that external auditors take on average of 51 days to complete the auditing of company accounts with a minimum of 18 days and maximum of 76 days. With regards to regression analysis, the results show that only two independent variables, audit committee independence and audit committee expertise, are negatively significant associated with audit report lag. The findings support the argument that audit committee independence and expertise are important determinants of audit committee effectiveness. It also shows that audit

committee size and audit committee meetings do not play crucial role in audit report lag. Furthermore, the findings reveal that three control variables, size, industry, and auditor have significant impact on audit report lag. Size and industry type are negatively associated with audit report lag and consistent with prior studies, while auditor type is found to be positive and inconsistent with most prior studies. Also, it reports that profitability is insignificantly associated with audit report lag, indicating the tendency of quickly releasing financial reports is not motivated by profitable companies. Overall, the results are consistent with H1 and H3 while H2 and H4 are not supported.

### 5.3 Future Research

Based on the study limitations and findings, this study suggests future research to overcome the limitations of the study and provides more insight into the determinants of audit report lag. The current study uses independent audit committee, size, expertise, meetings as determinants of audit committee effectiveness; hence, future study is suggested to incorporate other variables of effective audit committee such as financial literacy, authority and charter (BRC, 1999) to provide more insight into how effective audit committee is in influencing audit report lag. It is also recommended that for future study to use the real hours spent to audit company accounts instead of the days as a measure of audit report lag because it is not fair to use days as measure for the time taken to complete audit work if some audit firms spend more than a normal day's work on the audit.

This study analyzes the determinants of audit report lag based on companies listed on Muscat Securities Market. Therefore, further studies are suggested to rationally

generalize the findings of the study by using companies listed and unlisted on Muscat Securities Market. Moreover, the data of this study is based on annual reports for the year 2009 which is 7 years after the issuance of the code of corporate governance. Thus, future study may be conducted to investigate the impact of audit committee effectiveness on audit report lag by using data pre and post the corporate governance code issuance. Finally, it is suggested that for future studies, the number of meetings is used to study the impact of frequency of audit committee meetings on audit report lag but the results show insignificant impact of this variable. Hence, using other measures such as the attendance of directors, the issues discussed, the presence of external and internal auditors, and the duration of meeting, could provide meaningful measurement for audit committee meetings (Beasley, Carcello, Hermanson, & Neal, 2009).

### 5.4 Summary

This thesis has examined four hypotheses concerning the association between the effectiveness of audit committee and audit report lag. By using multiple regression, two hypotheses, H1 and H3, are supported while the others, H2 and H4, are rejected. The findings of this thesis have made an important contribution by providing empirical evidence on how audit committee contributes to reduce agency problem by reducing the audit report lag. Moreover, it provides more insight into audit report lag by involving variables that have received little attention thus far. This thesis confronts a variety of limitations such as time constraint, audit report lag measurement and limited sample size. Therefore, it is suggested that future research to be conducted to overcome such limitations.

## REFERENCES


Abbott, L. J., & Parker, S. (2000). Auditor selection and audit committee characteristics. *Auditing, 19*(2), 47-66.

Abbott, L. J., Park, Y., & Parker, S. (2000). The effects of audit committee activity and independence on corporate fraud. *Managerial Finance, 26*(11), 55-68.

Abbott, L. J., Parker, S., & Peters, G. F. (2004). The effectiveness of Blue Ribbon Committee recommendations in mitigating financial misstatements: An empirical study. *Auditing: A Journal of Practice & Theory, 23*(1), 69-87.

Abbott, L., Parker, S., Peters, G., & Raghunandan, K. (2003). The Association between Audit Committee Characteristics and Audit Fees. *Auditing: A Journal of Practice & Theory, 22*(2), 1 2.

Abdel-Khalik, A.R. (1993), "Why do private companies demand auditing? A case for organizational loss of control", *Journal of Accounting, Auditing and Finance*, Vol. 8 No. 1, pp. 31-52

Abdulla, J. Y. A. (1996). The timeliness of Bahraini annual reports. *Advances in International Accounting*, 9, 73–88.

Abdullah, S. (2007). Board Composition, Audit Committee and Timeliness of Corporate Financial Reports in Malaysia. *Corporate Ownership & Control*, 4(2), 33-45.

Accounting Principles Board. (1970). Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises. Statement No. 4, American Institute of Certified Public Accountants, New York.

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

Ahmad, R. A. R., & Kamarudin, K. A. (2003). Audit delay and the timeliness of corporate reporting: Malaysian evidence. *Working paper*, MARA University of Technology, Shah Alam.

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

Al-Ajmi, J. (2008). Audit and reporting delays: Evidence from an emerging market. *Advances in Accounting, 24*(2), 217-226.

Al-Busaidi, H. S. (2008). Oman's Experience in issuing and implementation of the Code of Corporate Governance.

Alchian, A., & Demsetz, H. (1972). Production, information costs and economic organization. *American Economic Review*, 62(5), 777-95.

Al-Lehaidan, I. (2006). Audit Committee Effectiveness: Australia and Saudi Arabia.

Al-Sehali, M., & Spear, N. (2004). The decision relevance and timeliness of accounting earnings in Saudi Arabia. *International Journal of Accounting*, 39,197–217.

American Accounting Association. (1957). Accounting and Reporting Standards for Financial Statements and Preceding Statements and Supplements. Sarasota.

American Institute of Certified Public Accountants. (1973). Objectives of Financial Statements. New York.

Archambeault, D., & DeZoort, F. (2001). Auditor opinion shopping and the audit committee: An analysis of suspicious auditor switches. *International Journal of Auditing*, 5, 33-52.

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

Ball, R., Kothari, S. P., & Robin, A. (2000). The effect of institutional factors on properties of accounting earnings: International evidence. *Journal of Accounting and Economics*, 29, 1–51.

Bamber, E. M., Bamber, L.S, & Schoderbek, M. P. (1993). Audit structure and other determinants of audit report lag: an empirical analysis. Auditing. *A Journal of Practice and Theory*, 12(1), 1–23.

Beasley, M. S., Carcello, J. V., Hermanson, D. R., & Lapides, P. D. (2000). Fraudulent Financial Reporting: Consideration of Industry Traits and Corporate Governance Mechanisms. *Accounting Horizons*, 14(4), 441–454.

Beasley, M. S., Carcello, J. V., Hermanson, D. R., & Neal, T. L. (2009). The Audit Committee Oversight Process. Contemporary Accounting Research. 26(1), 65-122.

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

Blue Ribbon Committee. (1999). Improving the Effectiveness of Corporate Audit Committee. New York.

Cadbury Committee. (1992). Report of the Committee on Financial Aspects of Corporate Governance Including Code of Best Practice. London: Gee Company Ltd.

Capital Market Authority. (2002). Code of Corporate Governance for Muscat Securities Market Listed Companies. Sultanate of Oman. Available at: http://www.Muscat Securities Market .gov.om/default.aspx.

Carcello, J. Hollingsworth, C., Klein, A., & Neal, T. (2006). Audit Committee Financial Expertise, Competing corporate governance mechanisms and earning management. *Working paper* available at http://papers.ssm.com/sol3/papers.cfm?

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

Carcello, J., & Neal, T. (2000). Audit committee composition and auditor reporting. *Accounting Review*, 75(4), 453-467.

Carcello, J., & Neal, T. (2003). Audit Committee Characteristics and Auditor Dismissals Following New Going Concern Reports. *Accounting Review*, 78(1), 95–117.

Carslaw, C., & Kaplan, S. (1991). An examination of audit delay: further evidence from New Zealand. *Accounting and Business Research*, 22, 21–32.

Chambers, A. E., & S. H. Penman. (1984). Timeliness of reporting and stock price reaction to earnings announcements. *Journal of Accounting Research* (Spring).

Che-Ahmad, A., & Abidin, S. (2008). Audit Delay of Listed Companies: A Case of Malaysia. *International Business Research, 1*(4), 32-39.

Chen, M., Moroney, R., & Houghton, K. (2005). Audit committee composition and the use of an industry specialist audit firm. *Accounting and Finance*, 45(2), 217-239.

Choi, J., & Choe, C. (1998). Explanatory factors for trading volume responses to annual earnings announcements: Evidence from the Korean stock market. *Pacific-Basin Finance Journal*, 6,193–212.

Cobb, L. (1993). An investigation into the effect of selected audit committee characteristics on fraudulent financial reporting. *Doctoral Dissertation*, University of South Florida.

Cohen, J. R., & Hanno, D. M. (2000). Auditors' consideration of corporate governance and management control philosophy in preplanning and planning judgments. *A Journal of Practice & Theory*, 19(2), 133–46.

Cohen, J. R., Krishnamorthy, G., & Wright, A. (2002). Corporate governance and the audit process. *Contemporary Accounting Research*, 19, 573–94.

Collier, P., & Zaman, M. (2005). Convergence in European corporate governance: The audit committee concept. *Corporate Governance*, 13(6), 753–68.

Courtis, J.K. (1976). Relationship between Timeliness of in Corporate Reporting and Corporate Attributes. *Accounting and Business Research*, 6, 45-56.

Craswell, A. Francis, J., & Taylor, S. (1995). Auditor brand name reputation and industry specializations. *Journal of Accounting and Economics*, 20, 292-322.

Davidson, R., Goodwin-Stewart, J., & Kent, P. (2005). Internal Governance Structures And Earnings Management. *Accounting and Finance*, 45(2), 241–67.

Davidson, W.N., Xie, B. & Xu, W. (2004). Market reaction to voluntary announcements of audit committee appointments: the effect of financial expertise. *Journal of Accounting & Public Policy*, 23, 279-93.

Davies, B., & Whittred, G. P. (1980). The Association Between Selected Corporate: Attributes and Timeliness in Corporate: Reporting: Further Analysis. *Abacus, 16*(1), 48-60.

DeAngelo, L. (1981). Auditor independence, low-balling and disclosure regulation. *Journal of Accounting and Economics*, 3(2), 113-127.

DeZoort, F. (1998). An analysis of experience effects on audit committee members' oversight judgments. *Accounting, Organizations and Society*, 23, 1-22.

DeZoort, F. T., Hermanson, D. R., Archambeault, D. S., & Reed, S. A. (2002). Audit Committee effectiveness: a synthesis of the empirical Audit Committee Literature. *Journal of Accounting Literature*, 21, 38–75.

DeZoort, F., & Salterio, S. (2001). The effects of corporate governance experience and audit knowledge on audit committee members' judgments. *A Journal of Practice and Theory*, 20, 31- 47.

Doss, M. (2004). Section 404 reports on internal control: Impact on ratings will depend on nature of material weaknesses reported. Moody's Investors Service, Global Credit Research. *Global Credit Research*.

Dyer, J.C., & McHugh, A.J. (1975). The Timeliness of the Australian Annual Reports. *Journal of Accounting Research*, 13, 204-19.

Eichenseher, J., & Shields, D. (1985). Corporate director liability and monitoring preferences. *Journal of Accounting and Public Policy*, 4, 13-31.

El-Bannany, M. (2008). Factors Affecting Audit Report Lag In Banks: The Egyptian Case. *Corporate Ownership and Control, 5*(3), 54-61.

Ettredge, M., Li, C., & Sun, L. (2006). The impact of internal control quality on audit delay in the SOX era. *Auditing: A Journal of Practice & Theory, 25*(2).

Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy*, 88(2), 228-307.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *The journal of law and Economics, 26*(2), 301.

Felo, A., Krishnamurthy, S., & Solieri, S. (2003). Audit committee characteristics and the perceived quality of financial reporting: An empirical analysis. *Working Paper*, available athttp://papers.ssrn.com/sol3/papers.cfm?abstract_id=401240, 19/06/2004.

Financial Accounting Standards Board. (1980). Qualitative Characteristics of Accounting Information. Statement of Financial Accounting Concepts No. 2, Stamford, Connecticut.

Givoly, G., & Palmon, D. (1982). Timeliness of Annual Earnings Announcements: Some Empirical Evidence, *The Accounting Review*, 12(3), 486-508.

Goh, B. (2009). Audit committees, boards of directors, and remediation of material weaknesses in internal control. *Contemporary Accounting Research, 26*(2), 549-579.

Goodwin-Stewart, J., & Kent, P. (2006). Relation between external audit fees, audit committee characteristics and internal audit. *Accounting and Finance*, 46(3), 387–404.

Hair, J., Black, W., Babin, B., Anderson, R., and Tatham, R. (2006). *Multivariate Data Analysis*, 6th ed. Pearson Prentice Hall, Upper Saddle River, New Jerse.

Harabi, N. (2007). State of Corporate Governance in Arab Countries: An Overview. Available at http://ideas.repec.org/p/pra/mprapa/4566.html.

Haron, H., Jantan, M., & Pheng, E. G. (2005). Audit committee compliance with Kuala Lumpur Stock Exchange listing requirements. *International Journal of Auditing, 9*(3), 187-200.

Haw, I.G., Park, K., Qi, D., & Wu, W. (2003). Audit qualification and timing of earning announcements: evidence from China. *A Journal of Practice & Theory*, 22(2), 121-46.

Heinrich, R. P. (2002). Complementarities in corporate governance: Springer Verlag.

Henderson, B. C., & Kaplan, S. E. (2000). An examination of audit report lag for banks: A panel data approach Auditing. *A Journal of Practice and Theory*, 19(2), 159–174.

Hossain, M.A., & Taylor, P.J. (1998). An examination of audit delay: evidence from Pakistan. Available at: www3.bus.osaka-cu.ac.jpapira98archivespdfs64.

Hossain, M.A., & Taylor, P.J. (2008). Relationship between selected corporate attributes and audit delay in developing countries: empirical evidence from Bangladesh. *Working paper*, University of Manchester.

Imam, S., Ahmed, Z.U., & Khan, S.H. (2001). Association of audit delay and audit firms' international links: evidence from Bangladesh. *Managerial Auditing Journal*, 16(3), 129-33.

Jaggi, B., &Tsui, J. (1999). Determinants of audit report lag: Further evidence from Hong Kong. *Accounting and Business Research*, 30(1), 17–28.

Jensen, M., & Meckling, W. (1976). Theory of the Firm: Managerial Behavior, Agency Costs, and Capital Structure. *Journal of Financial Economics*, 3, 305-60.

Karamanou, I., & Vafeas, N. (2005). The association between corporate boards, audit committees, and management earnings forecasts: an empirical analysis. *Journal of Accounting Research*, 43(3), 453-86.

Karim, W., Ahmed, K., & Islam, A. (2006). The effect of regulation on timeliness of corporate financial reporting: evidence from Bangladesh. Available at: http://joaag.com/uploads/2-_KarimAhmed_Islam.

Khasharmeh, H. A., & Aljifri, K. (2010). The Timeliness Of Annual Reports In Bahrain And The United Arab Emirates: An Empirical Comparative Study. *The International Journal of Business and Finance Research, 4*(1), 51-71.

Kinney Jr., W. R., & McDaniel, L. S. (1993). Audit delay for firms correcting quarterly earnings. Auditing. *A Journal of Practice and Theory*, 12, 135–142.

Klein, A. (2002). Economic determinants of audit committee independence. *Accounting Review*, 77(2), 435–452.

Knechel, W.R., & Payne, J.L. (2001). Additional evidence on audit report lag. *A Journal of Practice & Theory*, 20(1), 137-46.

KPMG Peat Marwick. (1988). The Audit Committee. KPMG Peat Marwick.

KPMG Peat Marwick. (1993). Booklet On Audit Committee. KPMG Peat Marwick.

Krishnan, J. (2005). Audit committee quality and internal control: An empirical analysis. *The Accounting Review,* 80(2). 649-75.

Lai, K.-W., & Cheuk, L.M.C. (2005). Audit report lag, audit partner rotation and audit firm rotation: evidence from Australia. *Working paper*, City University of Hong Kong, Kowloon.

Lee, H. Y., Mande, V., & Son, M. (2009). Do Lengthy Auditor Tenure and the Provision of Non Audit Services by the External Auditor Reduce Audit Report Lags? International Journal of Auditing, 13(2), 87.

Lee, H.-Y., Mande, V., & Son, M. (2008). A comparison of reporting lags of multinational and domestic firms. *Journal of International Financial Management and Accounting*, 19(1), 28-56.

Leventis, S., Weetman, P., & Caramanis, C. (2005). Determinants of audit report lag: Some evidence from Athens stock exchange. *International Journal of Auditing*, 9, 45–58.

Levitt, A. (1998). The numbers game. Remarks delivered at the NYU Center for Law and Business. New York, NY, September 28.

Mahajan, P., & Chander, S. (2008). Determinants of Timeliness of Corporate Disclosure of Selected Companies in India. *Indian Accounting Review, 11*(1), 29-63.

McDaniel, L., Martin, R., & Maines, L. (2002). Evaluating financial reporting quality: The effects of financial expertise versus financial literacy. *Accounting Review*, 77(4), 139-167.

McLelland, A., & Giroux, G. (2000). An empirical analysis of auditor report timing by large municipalities. *Journal of Accounting and Public Policy, 19*(3), 263-281.

McMullen, D., & Raghunandan, K. (1996). Enhancing audit committee effectiveness. *Journal of Accountancy*. 182(2), 79-81.

Menon, K. & Williams, J. (1994). The use of audit committees for monitoring. *Journal of Accounting and Public Policy*, 13, 121–139.

Mohamad, A. A. (1995). A study of factors determining to audit report delay. *Economic and Business Review*, 2, 913-43.

Mohamed, E., & Hussain, M. (2005). The Role of Audit Committees in Enhancing a Transparent Corporate Reporting. *Humanomics, 21*(1), 30-47.

Owusu-Ansah, S. (2000). Timeliness of corporate financial reporting in emerging capital markets: Empirical evidence from the Zimbabwe Stock Exchange. *Accounting and Business Research*, 30, 241–254.

Owusu-Ansah, S., & Leventis, S. (2006). Timeliness of Corporate Annual Financial Reporting in Greece. *European Accounting Review*, 15/2, 273-287.

Pincus, K., Rusbarsky, M., & Wong, J. (1989). Voluntary formation of corporate audit committees among NASDAQ firms. *Journal of Accounting and Public Policy*, 8(4), 239-265.

Pomeranz, F. (1997). Audit committees: where do we go from here? *Managerial Auditing Journal*, 12(6), 281-284.

Public Oversight Board. (1993). A Special Report by the Public Oversight Board of the SEC Practice Section, AICPA.

Pucheta-Martínez, M., & De Fuentes, C. (2007). The Impact of Audit Committee Characteristics on the Enhancement of the Quality of Financial Reporting: an empirical study in the Spanish context. *Corporate Governance: An International Review, 15*(6), 1394-1412.

Raghunandan, K., Read, W. J., & Rama, D. V. (2001). Audit Committee Composition, Gray Directors and Interaction with Intemal Auditing. *Accounting Horizons, 15*(2).

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

Rickard, P. (1993). Audit committees - the next generation. *Australian Accountant,* 63(10), 35-38.

Saidi, N. & Kumar, R. (2008). Corporate governance in the GCC. Corporate Governance Paper, Hawkamah: The Institute for Corporate Governance, Dubai.

Saleh, N., Iskandar, T., & Rahmat, M. (2007). Audit committee characteristics and earnings management: evidence from Malaysia. *Asian Review of Accounting, 15*(2), 147-163.

Sarbanes, P., & M. Oxley. (2002). Sarbanes-Oxley Act of 2002. Washington, DC: U.S. Congress.

Scarborough, P., Rama, D., & Raghunandan, K. (1998). Audit committee composition and interaction with internal auditing: Canadian evidence. *Accounting Horizons*, 12(1), 51-62.

Schwartz, K. B., & Soo, B. S. (1996). The association between auditor changes and reporting lags. *Contemporary Accounting Research*, 13(1), 357–370.

Sekaran, U. M. (2003). *Research methods for business: A skill building approach.* USA, New York: John Wiley & Sons, Inc.

Shankaraiah, K., & Rao, D. N. (2004). Corporate governance and accounting standards in Oman: an empirical study on practices. International Conference.

Sharma, D. S., Boo E., & Sharma, V. D. (2007). The impact of corporate governance on auditors' client assessment, risk assessment and planning judgments. *Working Paper*, Auckland University of Technology, Department of Accounting.

Sharma, V. D. (2006). The Effects of Independent Audit Committee Member Characteristics and Auditor Independence on Financial Restatements. *Unpublished PhD thesis, Griffith University, Australia.*

Soltani, B. (2002).Timeliness of corporate and audit reports: some empirical evidence in the French context. *The International Journal of Accounting*, 37, 215-46.

Song, J., & Windram, B. (2004). Benchmarking audit committee effectiveness in financial reporting. *International Journal of Auditing, 8*(3), 195-205.

Stewart, J., & Munro, L. (2007). The impact of audit committee existence and audit committee meeting frequency on the external audit: Perceptions of Australian auditors. *International Journal of Auditing, 11*(1), 51-69.

Turley, S., & Zaman, M. (2004). The corporate governance effects of audit committees. *Journal of Management and Governance*, 8(3), 305-332.

Wallace, R. (1993). The Timeliness of Corporate Reporting: A Comparative Study of South Asia. *Advances in International Accounting*, 16, p. 18.

Watts, R. L., & Zimmerman, J. L. (1978). Towards a positive theory of the determination of accounting standards. *Accounting Review*, 112-134.

Wermert, J.G., Dodd, J.L., & Doucet, T. A. (2000). An empirical examination of audit report lag using client and audit firms cycle times. Available at: www.cbpa.drake.edu/dodd/research/mbaa/MBAA%20ARL%20Paper,%.

Xie, B., Davidson, W. N., & DaDalt, P. J. (2003). Earnings management and corporate governance: The role of the board and the audit committee. *Journal of Corporate Finance*, 9, 295–316.

Zhang, Y., Zhou, J., & Zhou, N. (2007). Audit committee quality, auditor independence, and internal control weaknesses. *Journal of Accounting and Public Policy, 26*(3), 300-327.

**APPENDIX 1: LIST OF COMPANIES**

| No | Company Name |
|---|---|
| 1 | Al AHLIA CON. IND50% |
| 2 | AL SHUROOQ INV |
| 3 | AL-OULA CO |
| 4 | BANK Muscat |
| 5 | CEMENT & GYPSUM |
| 6 | DHOFAR BEVERAGES |
| 7 | DHOFAR CATTLEFEED |
| 8 | DHOFAR FISHERIES |
| 9 | DHOFAR INSURANCE |
| 10 | DHOFAR INT. DEV |
| 11 | FLEXIBLE IND |
| 12 | GALFAR ENGINEERING |
| 13 | GULF INT. CHEMICALS |
| 14 | MUSCAT THREAD MILLS |
| 15 | NATIONAL BEVERAGES |
| 16 | OM. EMIRATES (OM) |
| 17 | OMANI EURO FOODS |
| 18 | ONIC. HOLDING |
| 19 | SOHAR POWER |
| 20 | TAAGEER FINANCE |
| 21 | UNITED FINANCE |
| 22 | Al SAFFA FOODS |
| 23 | AES BARKA |
| 24 | AHLI BANK |
| 25 | AL BATNA DEV. & INV |
| 26 | AL OMANIYA FIN. SER |
| 27 | BANK DHOFAR |

| | |
|---|---|
| 28 | DHOFAR TOURISM |
| 29 | FOOD INTERNATIONAL |
| 30 | GULF INV. SER |
| 31 | GULF MUSHROOM |
| 32 | INTERIOR HOTELS |
| 33 | MUSCAT FINANCE |
| 34 | NAT. BK. OF OMAN |
| 35 | NAT. HOSPITALIT INST |
| 36 | NAT. MINERAL WATER |
| 37 | NATIONAL PACKAGING |
| 38 | OMAN CHROMITE |
| 39 | OMAN ORIX LEASING |
| 40 | OMANI INT.MARKETING |
| 41 | OMINVEST |
| 42 | RENAISSANCE SERVICES |
| 43 | SOHAR POULTRY |
| 44 | TAGHLEEF INDUSRIES |
| 45 | VOLTAMP ENERGY |
| 46 | AL JAZEIRA SERVICES |
| 47 | AL-MAHA PETROLEUM |
| 48 | BANK SOHAR |
| 49 | DHOFAR POULTRY |
| 50 | GULF HOTELS (OMAN) |
| 51 | MUSCAT NAT. HOLDING |
| 52 | NAT. DETERGENT |
| 53 | NATIONAL ALUMINUIM |
| 54 | NATIONAL GAS |
| 55 | OMAN CHLORINE |
| 56 | OMAN INT. BK |
| 57 | OMAN OIL MARKETING |

| | |
|---|---|
| 58 | OMAN TEXTILE HOLDING |
| 59 | OMAN UNITED INS |
| 60 | OMANTEL |
| 61 | PACKAGING CO. LTD |
| 62 | PORT SERVICE CORP |
| 63 | RAYSUT CEMENT |
| 64 | SALALAH MILLS |
| 65 | SALALAH PORT SERVICE |
| 66 | SWEETS OF OMAN |
| 67 | UNITED POWER |
| 68 | AL ANWAR CERAMIC |
| 69 | AL BATINAH HOTELS |
| 70 | AL SHARQIA INV |
| 71 | CONSTRUC. MAT. IND |
| 72 | ENGINEERING & INVEST |
| 73 | GULF STONE |
| 74 | JAZEERA STEEL PRODCT |
| 75 | KAMIL POWER |
| 76 | MAJAN GLASS |
| 77 | NAT. PHARM. MEDICINE |
| 78 | NATIONAL BISCUIT |
| 79 | OMAN CEMENT |
| 80 | OMAN CERAMIC |
| 81 | OMAN FIBER |
| 82 | OMAN FILTERS IND |
| 83 | OMAN HOTELS |
| 84 | OMAN MEDICAL PROJECT |
| 85 | OMAN REFRESHMENT |
| 86 | SALALAH BEACH RESORT |
| 87 | AL ANWAR HOLDING |

| | |
|---|---|
| 88 | AL FAJAR AL ALAMIA |
| 89 | AREEJ VEGETABLE OIL |
| 90 | COMPUTER STATIONERY |
| 91 | DHOFAR UNIVERCITY |
| 92 | FINANCIAL SERVICES |
| 93 | FINCORP |
| 94 | Global Investment |
| 95 | HOTELS MGMT. INT |
| 96 | MAJAN COLLEGE |
| 97 | MUSCAT GASES |
| 98 | NATIONAL FINANCE |
| 99 | NATIONAL SECURITIES |
| 100 | OMAN AGRICULT. DEV |
| 101 | OMAN CABLE INDUSTRY |
| 102 | OMAN EDUCATION |
| 103 | OMAN FISHERIES |
| 104 | OMAN FLOUR MILLS |
| 105 | OMAN INV. & FIN |
| 106 | OMAN NAT. DAIRY |
| 107 | OMAN PACKAGING |
| 108 | SAHARA HOSPITALITY |
| 109 | SHELL OMAN MARKETING |
| 110 | TRANSGULF HOLDING |

## APPENDIX 2: REGRESSION ANALYSIS

**Descriptive Statistics**

| | Mean | Std. Deviation | N |
|---|---|---|---|
| ARL | 51.5636 | 13.08022 | 110 |
| ACIND | .9309 | .15305 | 110 |
| ACSIZE | 3.4364 | .67085 | 110 |
| ACEXP | .6864 | .27026 | 110 |
| ACMEET | 5.1000 | 1.32686 | 110 |
| SIZE | 17.3212 | 1.80260 | 110 |
| PROF | .0460 | .09581 | 110 |
| AUDTYPE | .6818 | .46790 | 110 |
| INDUS | .2727 | .44740 | 110 |



**Correlations**

| | | ARL | ACIND | ACSIZE | ACEXP | ACMEET | SIZE | PROF | AUDTYPE | INDUS |
|---|---|---|---|---|---|---|---|---|---|---|
| Pearson Correlation | ARL | 1.000 | -.157 | .047 | -.551 | .107 | -.573 | -.022 | .016 | -.444 |
| | ACIND | -.157 | 1.000 | -.079 | .050 | .040 | .015 | .019 | .079 | .061 |
| | ACSIZE | .047 | -.079 | 1.000 | -.225 | .033 | .109 | .091 | .125 | -.064 |
| | ACEXP | -.551 | .050 | -.225 | 1.000 | -.074 | .360 | .057 | .054 | .324 |
| | ACMEET | .107 | .040 | .033 | -.074 | 1.000 | .073 | .138 | .096 | -.062 |
| | SIZE | -.573 | .015 | .109 | .360 | .073 | 1.000 | -.015 | .255 | .448 |
| | PROF | -.022 | .019 | .091 | .057 | .138 | -.015 | 1.000 | .124 | -.101 |
| | AUDTYPE | .016 | .079 | .125 | .054 | .096 | .255 | .124 | 1.000 | .024 |
| | INDUS | -.444 | .061 | -.064 | .324 | -.062 | .448 | -.101 | .024 | 1.000 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sig. (1-tailed) | ARL | . | .050 | .313 | .000 | .134 | .000 | .408 | .434 | .000 |
| | ACIND | .050 | . | .206 | .303 | .338 | .438 | .422 | .207 | .263 |
| | ACSIZE | .313 | .206 | . | .009 | .366 | .129 | .172 | .097 | .254 |
| | ACEXP | .000 | .303 | .009 | . | .221 | .000 | .275 | .289 | .000 |
| | ACMEET | .134 | .338 | .366 | .221 | . | .223 | .076 | .159 | .261 |
| | SIZE | .000 | .438 | .129 | .000 | .223 | . | .440 | .004 | .000 |
| | PROF | .408 | .422 | .172 | .275 | .076 | .440 | . | .099 | .146 |
| | AUDTYPE | .434 | .207 | .097 | .289 | .159 | .004 | .099 | . | .402 |
| | INDUS | .000 | .263 | .254 | .000 | .261 | .000 | .146 | .402 | . |
| N | ARL | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| | ACIND | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| | ACSIZE | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| | ACEXP | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| | ACMEET | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| | SIZE | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| | PROF | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| | AUDTYPE | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| | INDUS | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 |

**Variables Entered/Removed (b)**

| Model | Variables Entered | Variables Removed | Method |
|---|---|---|---|
| 1 | INDUS, AUDTYPE, ACIND, ACMEET, ACSIZE, PROF, ACEXP, SIZE(a) | . | Enter |

a All requested variables entered.
b Dependent Variable: ARL

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .731(a) | .535 | .498 | 9.27051 | .535 | 14.499 | 8 | 101 | .000 |

a Predictors: (Constant), INDUS, AUDTYPE, ACIND, ACMEET, ACSIZE, PROF, ACEXP, SIZE

**ANOVA (b)**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 9968.878 | 8 | 1246.110 | 14.499 | .000(a) |
| | Residual | 8680.177 | 101 | 85.942 | | |
| | Total | 18649.055 | 109 | | | |

a Predictors: (Constant), INDUS, AUDTYPE, ACIND, ACMEET, ACSIZE, PROF, ACEXP, SIZE
b Dependent Variable: ARL

**Coefficients (a)**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. | 95% Confidence Interval for B | | Correlations | | | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound | Zero-order | Partial | Part | Tolerance | VIF |
| 1 | (Constant) | 123.559 | 11.873 | | 10.406 | .000 | 100.006 | 147.113 | | | | | |
| | ACIND | -12.207 | 5.861 | -.143 | -2.083 | .040 | -23.834 | -.581 | -.157 | -.203 | -.141 | .980 | 1.020 |
| | ACSIZE | -.443 | 1.410 | -.023 | -.314 | .754 | -3.240 | 2.354 | .047 | -.031 | -.021 | .881 | 1.135 |
| | ACEXP | -16.883 | 3.774 | -.349 | -4.473 | .000 | -24.370 | -9.395 | -.551 | -.407 | -.304 | .758 | 1.320 |
| | ACMEET | 1.012 | .686 | .103 | 1.476 | .143 | -.349 | 2.373 | .107 | .145 | .100 | .952 | 1.051 |
| | SIZE | -3.137 | .608 | -.432 | -5.159 | .000 | -4.343 | -1.931 | -.573 | -.457 | -.350 | .656 | 1.524 |
| | PROF | -6.951 | 9.568 | -.051 | -.726 | .469 | -25.930 | 12.029 | -.022 | -.072 | -.049 | .938 | 1.066 |
| | AUDTYPE | 4.433 | 2.005 | .159 | 2.211 | .029 | .456 | 8.411 | .016 | .215 | .150 | .896 | 1.116 |
| | INDUS | -3.855 | 2.302 | -.132 | -1.675 | .097 | -8.421 | .712 | -.444 | -.164 | -.114 | .743 | 1.345 |

a Dependent Variable: ARL

**Coefficient Correlations (a)**

| Model | | | INDUS | AUDTYPE | ACIND | ACMEET | ACSIZE | PROF | ACEXP | SIZE |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Correlations | INDUS | 1.000 | .079 | -.060 | .070 | .053 | .094 | -.167 | -.390 |
| | | AUDTYPE | .079 | 1.000 | -.087 | -.050 | -.081 | -.106 | .008 | -.244 |
| | | ACIND | -.060 | -.087 | 1.000 | -.041 | .075 | -.014 | -.019 | .034 |
| | | ACMEET | .070 | -.050 | -.041 | 1.000 | .029 | -.133 | .106 | -.119 |
| | | ACSIZE | .053 | -.081 | .075 | .029 | 1.000 | -.104 | .274 | -.195 |
| | | PROF | .094 | -.106 | -.014 | -.133 | -.104 | 1.000 | -.129 | .057 |
| | | ACEXP | -.167 | .008 | -.019 | .106 | .274 | -.129 | 1.000 | -.300 |
| | | SIZE | -.390 | -.244 | .034 | -.119 | -.195 | .057 | -.300 | 1.000 |
| | Covariances | INDUS | 5.299 | .367 | -.813 | .111 | .173 | 2.071 | -1.451 | -.546 |
| | | AUDTYPE | .367 | 4.021 | -1.018 | -.069 | -.230 | -2.038 | .060 | -.297 |
| | | ACIND | -.813 | -1.018 | 34.348 | -.163 | .620 | -.791 | -.422 | .120 |
| | | ACMEET | .111 | -.069 | -.163 | .471 | .028 | -.874 | .276 | -.050 |
| | | ACSIZE | .173 | -.230 | .620 | .028 | 1.988 | -1.402 | 1.460 | -.167 |
| | | PROF | 2.071 | -2.038 | -.791 | -.874 | -1.402 | 91.538 | -4.664 | .332 |
| | | ACEXP | -1.451 | .060 | -.422 | .276 | 1.460 | -4.664 | 14.246 | -.689 |
| | | SIZE | -.546 | -.297 | .120 | -.050 | -.167 | .332 | -.689 | .370 |

a Dependent Variable: ARL

**Collinearity Diagnostics (a)**

| Model | Dimension | Eigen value | Condition Index | Variance Proportions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (Constant) | ACIND | ACSIZE | ACEXP | ACMEET | SIZE | PROF | AUDTYPE | INDUS |
| 1 | 1 | 7.045 | 1.000 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| | 2 | .864 | 2.856 | .00 | .00 | .00 | .00 | .00 | .00 | .58 | .00 | .21 |
| | 3 | .611 | 3.394 | .00 | .00 | .00 | .00 | .00 | .00 | .38 | .01 | .52 |
| | 4 | .270 | 5.111 | .00 | .00 | .00 | .01 | .00 | .00 | .01 | .92 | .01 |
| | 5 | .112 | 7.916 | .00 | .00 | .02 | .71 | .05 | .00 | .00 | .01 | .10 |
| | 6 | .052 | 11.694 | .00 | .01 | .14 | .01 | .81 | .00 | .01 | .00 | .00 |
| | 7 | .031 | 15.136 | .00 | .50 | .36 | .07 | .04 | .00 | .01 | .00 | .00 |
| | 8 | .012 | 24.038 | .09 | .34 | .46 | .19 | .09 | .25 | .01 | .00 | .02 |
| | 9 | .004 | 44.259 | .91 | .14 | .02 | .01 | .01 | .75 | .00 | .05 | .13 |

a Dependent Variable: ARL