AUDIT COMMITTEE CHARACTERISTICS AND FIRM PERFORMANCE OF PUBLIC LISTED COMPANIES IN MALAYSIA

BY

CHEAH SIEW SEAN
CHEW SI CHYI
KUAN TIAN CHOO
LOW XIN YI
POON ZHEN HONG

A research project submitted in partial fulfillment of the requirement for the degree of

BACHELOR OF COMMERCE (HONS) ACCOUNTING

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF BUSINESS AND FINANCE
DEPARTMENT OF COMMERCE AND ACCOUNTANCY

AUGUST 2016

DECLARATION

We hereby declare that:

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

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

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

(4)   The word count of this research report is 11,200.

Name of Student:	Student ID:	Signature:
1. CHEAH SIEW SEAN	14ABB05905	
2. CHEW SI CHYI	13ABB07030	
3. KUAN TIAN CHOO	13ABB07267	
4. LOW XIN YI	13ABB07349	
5. POON ZHEN HONG	13ABB07631	

Date: 01/08/2016

ACKNOWLEDGEMENT

With this given opportunity we would like to express our gratefulness to whoever has assisted us to complete this project by giving us support, advices and guidelines to accomplish this project.

First of all, we would like to thank Universiti Tunku Abdul Rahman for giving the resources and opportunity to engage us in this project. We gain more knowledge experiences which could help us in understanding the areas that we may involve in the future, for instances, the auditing area that we develop in this project.

Besides, we would like to express our gratitude for the kindness and sincerity to our supervisor, Ms. Kogilavani a/p Apadore and research project coordinator, Ms. Shirley Lee Voon Hsien who have led and guided us in this project. Their knowledge and experiences help in smoothing the accomplishment of this project.

Lastly, we would like to give the highest credit to all of the group mates who have been working together conscientiously in completing this project. All the contributions and hard work are highly appreciated.

DEDICATION

We would like to dedicate this final year thesis to our parents and friends who give full encouragement, guidance and advice throughout this research study. We are glad to have their supports and motivation when we face challenges in completion of this research study.

TABLE OF CONTENT

Page

LIST OF TABLES

LIST OF FIGURES

Page

LIST OF APPENDICES

LIST OF ABBREVIATIONS

AC	AUDIT COMMITTEE
ACBUSY	AUDIT COMMITTEE BUSYNESS
ACEXP	AUDIT COMMITTEE EXPERTISE
ACIND	AUDIT COMMITTEE INDEPENDENCE
ACSIZE	AUDIT COMMITTEE SIZE
AT	AGENCY THEORY
BMLR	BURSA MALAYSIA LISTING REQUIREMENTS
EVA	ECONOMIC VALUE ADDED
GST	GOODS AND SERVICES TAX
ICT	INFORMATION AND COMMUNICATION TECHNOLOGY
ROA	RETURN ON ASSETS
ROE	RETURN ON EQUITY
SAS	STATISTICAL ANALYSIS SOFTWARE
TQ	TOBIN'S Q
VIF	VARIANCE INFLATION FACTOR

PREFACE

Audit committee is an oversight committee to oversee the financial reporting process and to monitor the management from manipulating figures for their own interest which are supported by agency theory. According to Bursa Malaysia Main Market Listing Requirement, all the listed companies are required to include the company's audit committee report in their annual report. It is because all the public listed companies are required to establish an audit committee as stipulated by Bursa Malaysia to ensure that investor protection remains intact, high standards of business conduct are maintained by listed issuers and an efficient and effective regulation is in place.

Public listed companies are the key part of Malaysian economy. However, there is still lack of studies regarding the relationship between audit committee characteristics and firm performance. Therefore, this research aimed to identify the audit committee characteristics and firm performance of public listed companies in Malaysia and thus provides a deeper understanding on the impacts of audit committee mechanisms on firm performance of Malaysia's listed companies.

Apart from mandatory obligations which are particularly needed to make disclosure as declared by listing standards of Bursa Malaysia, this propose to study busyness of audit committee on firm performance as , as there is no solid evidence or research conducted in Malaysia about variable among listed companies. Thus, this study will help the practitioners such as managers, auditors, regulators as well as future researchers to gain further understanding in audit mechanisms and its impact on the firm performance.

ABSTRACT

The purpose of this study aims to identify the relationship between audit committee characteristics and firm performance. Past studies regarding the impact of characteristics of audit committee on firm performance are more focus on the mandatory obligations which are particularly need to make disclosure as declared by listing standards of Bursa Malaysia. In addition to common variables in audit committee such as size, financial expertise and independence, we propose to study the effect on firm's performance on another characteristic of the audit committee, namely busyness of audit committee.

The target population selected for this research is the public listed companies in Malaysia. Secondary data of this study will be collected from annual reports published on Bursa Malaysia. The data collected is subsequently analyzed by adopting correlation and multiple regression analysis. Pearson Correlation Analysis and Multiple Linear Regression Analysis are used to analysis the collected data.

With the application of agency theory, this study provides additional knowledge to future academicians and researchers that wish to study in this area. Besides, the results of this study contribute to the companies and its management in decision making. Nevertheless, the audit committee characteristics that influence the firm performance most efficiently are identified. Therefore, the structure of audit committee in public listed companies is able to be enhanced and lead to a higher level of firm performance.

CHAPTER 1: RESEARCH OVERVIEW

1.0   Introduction

Chapter 1 discusses the research summary which consists of five sections. Firstly, the research background will be discussed. Next the problem statement will be deliberate to highlight the issue occurred. Then, questions and objectives of the research which address the purpose of this study will be included. Lastly, the significance of the study as well as the chapter layout will be presented in the last part of the chapter.

1.1   Background of the Study

Audit committee is an oversight committee who helps in overseeing the financial reporting process and in monitoring company's management from manipulating figures for their own interest which are supported by agency theory (Emmanuel, Ayorinde, & Babajide, 2014; Deloitte, 2015). Therefore, effectiveness of audit committees will prevent the collapse of corporate skyscrapers such Transmile and Megan Media scandals, by enhancing the internal control of management and firm's performance (Norwani, Mat, Mohamad, Zuriyati, Chek, & Tamby, 2011). As stated in KPMG (2015), Enhanced Disclosure (2011) and Bouaziz (2012), Audit committee is a significant monitoring mechanism to oversee the management of companies.

Since 1st August 1994, Bursa Malaysia make it as compulsory to have audit committees in every public listed company and has been mandatory to include audit committee report into companies' annual report (Bank Negara Malaysia, 2005). MCCG also has the same requirement for all public companies. Under BMLR and MCCG, the minimum number of audit committee is 3 members, whom mostly are INEDs. Besides,

audit committee of listed companies should also consist a minimum of one audit committee member with financial literate among the audit committee members. Studies of Matari, Swidi, Fadzil, and Matari (2012) and Joher (2005) reported that audit committee characteristics such as size and independence of audit committee has become the usual structure of good corporate governance in measuring firm performance.

According to Elliot and Elliot (2011), firm performance of a company will be measured by Return on Equity (ROE) which is formulated as net profit after tax (NPAT) divided by total equity (TE). By using ROE, it can measure corporation's profitability and investigate the ability of a company to generate from equity or internal capital (Khatab, Masood, Zaman, Saleem, & Saeed, 2011). Moreover, Wet and Toit (2007) also pointed out that ROE is the top ratio as it is more relevant and widely used in measuring firm performance and financial statement.

1.2   Problem Statement

Enquiry for audit committee is under increase enquiry due to failure of corporate governance in Malaysia's companies such as the Enron, Megan Media and Transmiles (Harrast & Olsen, 2007). An accounting scandals may result in the accuracy and honesty of accounting called into question which will tarnish the reputation and take down the performance of the companies. Therefore, the rise of the accounting scandals had showed great importance of audit committee in improving controls of financial reporting (Norwani et al., 2011). Audit committee has responsibilities to monitor or review the company's accounting and financial policy (Madawaki & Amaran, 2013; Harrast & Olsen, 2007). As mentioned by Amer, Ragab and Shehatain 2014, audit committee regarded as supplementary mechanism of internal governance as to improve the firm performance.

There are various past empirical researches being conducted to determine how audit committee characteristics impact on firm performance. The main three audit committee characteristics have been greatly emphasized in past studies to reduce failure of corporate governance (Arbenathy, Herrmann, Kang, & Krishnan, 2013). According to Amer et al. (2014), independence of audit committee can provide objectivity oversight and monitor the management of the companies. Furthermore, competent audit committee with financial expertise has enough experience in overseeing the financial reporting process in the companies (Aldamen, Duncan, Kelly, McNAmara, & Nagel, 2012). Furthermore, as stated by Baxter and Cotter (2009), larger size of audit committee can share their different expertise and skill in improving firm performance.

However, there are several deficiencies in the past studies. Firstly, past studies are mostly found to examine how the audit committee characteristics will affect the quality of financial reporting rather than focusing on firm performance (Mamun, Yasser, Rahman, Wickramasinghe, and Nathan, 2014; Samaha, Khlif, & Hussainey, 2014; Rainsbury, Bradbury, & Cahan, 2009; Vlaminck & Sarens, 2013). Besides, incompatible result show that the former firm performance is better related to audit committee while the latter showed an opposite relationship between audit committee characteristics and firm performance (Siam, Laili, & Khairi, 2015; Aryan, 2015).

Past studies discuss about the impact of characteristics of audit committee on firm performance are more focus on the mandatory obligations which are particularly needed to make disclosure as declared by listing standards of Bursa Malaysia (Li, Mangena, & Pike, 2012; Aldamena, Duncan, Kelly, McNamarab, & Nagelc, 2012). Therefore, we propose to study busyness of audit committee on firm performance, which means the multiple directorships held by the audit committee members. Limited past studies of this variable in Malaysia has greatly motivated us to study the busyness of audit committee and emphasis on the impact of multiple directorships of audit committee members on firm's performance.

1.3   Research Questions and Objectives

This Table 1.1 has highlighted objectives and questions for this research. The characteristics of audit committee that affect the firm performance of Public Listed Companies in Malaysia have been included in the table of research objectives and questions.

Table 1.1: Research Objectives and Questions

Research Objectives	Research Questions
General: To identify the characteristics of audit committee that affects the firm performance of Public Listed Companies in Malaysia in 2015.	General: What are the characteristics of audit committee that affect the firm performance of Public Listed Companies in Malaysia in 2015?
Specific: i. To investigate whether the *independence* of audit committee members will affect the firm performance of Public Listed Companies in Malaysia in 2015. ii. To investigate whether the *size* of audit committee will affect the firm performance of Public Listed Companies in Malaysia in 2015. iii. To examine whether the *financial expertise* of audit committee members will affect the firm performance of Public Listed Companies in Malaysia in 2015.	Specific: i. Will *independence* of audit committee members affect the firm performance of Public Listed Companies in Malaysia in 2015? ii. Will *size* of audit committee affect the firm performance of Public Listed Companies in Malaysia in 2015? iii. Will *financial expertise* of audit committee members affect the firm performance of Public Listed Companies in Malaysia in 2015?

iv. To examine whether the *busyness* of audit committee members will affect the firm performance of Public Listed Companies in Malaysia in 2015.	iv. Will *busyness* of audit committee members affect the firm performance of Public Listed Companies in Malaysia in 2015?

1.4   Significance of the Study

1.4.1 Academic/ Theoretical Contribution

The study concerning in investigating the agency issues about the audit committee characteristics in companies listed under stock exchange market and indicating importance for this theory after a significant amount of empirical studies on this theory. Besides, this research has included a new characteristics of audit committee, the audit committee busyness which is not mandate to be disclosed in audit committee report. Therefore, this study will theoretically and empirically constitute on the agency theory which will be an improved research model for the future researchers.

Previous study that investigate the connection for audit committee characteristics and companies' performance with audit committee busyness in their study are limited. Thus, this study will help the researchers to gain further understanding in audit committee and its impact on the firm performance. The unique setting of Malaysia provides additional knowledge to future academicians and researchers that wish to study in this area. The contributions are make from this study for the past research in audit committee and also motivate more future studies on audit committee to firm performance.

1.4.2 Practical/ Managerial Contribution

This research provides useful information to public regarding the relationship between selected components in audit committee and the performance of Malaysia's public listed companies. The study results contribute to companies as well as its management in decision making and reducing the principal-agent problem with audit committee in the company. Public listed companies can gain better understanding for the future prospect and effectiveness of management. Additionally, this research will provide information to stakeholders in measuring the firm's performance and build confidence in decision making.

1.5 Outline of the Study

Chapter 1 is discussing about the background of audit committee. Next, the relationship between independent variable (independence, size, financial expertise and busyness of audit committee) and dependent variable (firm performance) will be shown in Chapter 2. The theory will also be reviewed from prior research. Research model and hypothesis development will be included in this chapter. Subsequent Chapter 3 will present the research methodology while Chapter 4 will show the result that generated from SAS analysis. Meanwhile in Chapter 5 can be going to further discuss the consequences, limitations and suggestions to future researcher.

1.6 Conclusion

As conclusion for this chapter, a short brief of audit committee characteristics and firm performance has been presented. For the purpose of this study, research objectives and questions have been shortened to get better understanding. Lastly, the influence of this study has been clarified in the significance of this study.

CHAPTER 2 LITERATURE REVIEW

2.0 Introduction

This chapter begins with the main theoretical foundation applied in the study, agency theory, continued by evaluation of the prior empirical studies and a theoretical research outline studying the correlation of audit committee characteristics and firm performance. On the last section of this chapter, hypothesis for this study will be developed in the last part of this chapter.

2.1   Theoretical/Conceptual Foundation

2.1.1 Agency Theory

Agency theory was originated in the early of 1970s and the first scholars to propose agency theory were Stephen Ross and Barry Mitnick (Mitnick, 2006). Agency theory had been highly applied in the companies in the year 1980's because companies had the assumption which the managers are agents work on behalf of shareholders who are so called principals (Zajac & Westphal, 2004). According to agency theory, agency issue may occur due to separation of corporate management and ownership as the agents have control rights in the company and they may conduct opportunistic behaviors which are exploiting interests of principals (Jensen & Meckling 1976; Fama & Jensen 1983). Meanwhile, Fama and Jensen (1983) asserted that agency costs have basically reduced welfare of principal, resulting in the agency problem such as the incurrence of expenses due to the incentives or monitoring of agents.

Agency theory has been adopted widely in various research areas such as in management field in identifying whether the management in the Shariah-approved companies in Malaysia will fulfill their own interest through earning management (Abdullah, 2013), information and communication technology (ICT) field in determining how motivate the academic employee in continue use of ICT in management (Boe, Gulbrandsen, & Sorebo, 2015) and finally in the supply management to obtain greater understanding of the relation between the logistic service providers and the shipper (Kudla & Wissing, 2012). In the study of Mohiuddin and Karbhari (2010), it is stated that an audit committee has great influence on the quality of financial report with characteristics of independence, financial expertise, busyness, and size. These are in line with the BMLR. There are some past studies which similar with our research have also been conducted focused on audit committee and the financial performance of firms in Malaysia.

Agency theory could be comprehended in a more inclusive manner which agent has contractual relationship with the principal as shareholders do not control the company by themselves but they will delegate responsibilities to the agent as to help them run the operation of company. According to Kersten, Blecker, and Meyer (2009), people are always self-interested to maximize their own utilities. Besides, it is stated that agent would maximize their own benefits instead of the best interests of the principal because of asymmetric information (Madi et al., 2014). The issues of hidden information or action from agents may arise due to the failure of principals to monitor the agents' actions comprehensively and thoroughly. (Boe et al., 2015).

According to Lee (2014), argument from agency theory states those high ratios of independent boards of audit committee definitely improve firm performance since agency theory always assume that managers are usually selfish and act with individualistic actions. Thus, effective independence of audit committee who does not have personal or monetary relationship with company can protect shareholders' interests by monitoring the activities of management. Agency theory also suggested

audit committee can strengthen their monitoring effectiveness with advanced financial and accounting knowledge by preventing corporate fraud therefore alleviating agency issue between managers and shareholders and lead to a better firm performance (Zahirul, Nazrul, & Bhattacharjee, 2010). In agency theory, high quality multiple directorships of audit committee held by non-executive directors possess diverse knowledge and experiences in managing the operation of companies of different industry can act as an effective monitoring mechanism to supervise the integrity of the financial statements of the company as to reduce agency conflict and improve the firm reputation as well as firm performance (Baccouche, 2015). Last but not least, by applying agency theory, a larger size of committee has diverse knowledge base or deeper understanding to monitor management information systems can also help to reduce agency cost and boast up firm performance (KPMG, 2006).

2.2 Review of the Prior Empirical Studies

Table 2.1 below states the definition of dependent variable (Firm Performance) and independent variables (independence, size, expertise and busyness of audit committees) of this study.

Table 2.1 Definition of Dependent and Independent Variables

Dependent Variable	Definition
Firm Performance	• Firm performance shows how much does a company generate from the equity or internal capital and whether the company has an efficient and effective management to improve its performance (Berman, Knight, & Case, 2013; Elliot, & Elliot, 2011). • Companies' performance shows the effectiveness of monitoring mechanisms in controlling the agency problem (Ward, Brown, & Rodriguez, 2009; Azim, 2012). • Firm performance will be measured by Return on Equity (ROE), which is formulated as net profit before tax divided by total shareholder equity (Kabajeh, Nu'aimat, & Dahmash, 2012; Kim, & Rasiah, 2010).

Independent Variables	Definition
Independence of audit committee	• Audit committee independence can be measured by number of independent members serving in an audit committee group (Matari, Swidi, Fadzil, & Matari, 2012).

	• Independent views on financial reporting will be provided by independent audit committees and ensuring committees are not dominated by the management or CEO whose work the committee is to monitor (MCCG, 2007).
	• The independent committees and chair will lead to better improvement in powers of the committee, and reduce the chances for expropriation by insiders and agency problem (Yeh et al., 2011).
Size of audit committee	• The size of audit committee is determined by how many audit committee members are employed by a firm (Al-Rassas & Kamardin, 2015).
Expertise of audit committee	• Expertise of audit committee is defined as how many accounting experts or financial literates is in an audit committee group. The expertise can be measured by accounting qualification, finance industry experience or membership of professional associations held, such as Malaysian Institute of Accountants (MIA) and many more (Mamunet al., 2014).
	• The existence of experts among audit committee enhances effectiveness of audit committee in performing its monitoring function (Carcello et al., 2011).
	• Ghafran and O'Sullivan (2013) realize that investors will do valuation on the existence of audit committee and they positively aware the appointment of experts among audit committee.
Busyness of audit committee	• Busyness of an audit committee is determined by how many directorships are holding by an audit committee (Jubb, 2000).
	• Directors who hold more than 3 directorships are considered overcommitted leading them to face difficulties in detecting fraud and irregularities which will adversely impact the quality of

| | reporting and company's performance (Davison, Stening, &Wai, 2004; Emmanuel et al., 2014). |
| | • Multiple directorship can cause exposing to varied management practices, policies and styles leading them to gain more experience in different areas which will enhance investors' confidence. More investments to be placed in a firm will boost up its performance (Zajac, 2008). |

2.2.1 Independence of Audit Committees

Aanu, Odianonsen, and Foyeke (2014) investigated effect on a firm's performance by using four audit committee characteristics including audit committee independence, financial expertise, size, and meetings. There were 25 manufacturing firms being selected from the year 2004-2011. The result of Pearson Moment Correlation revealed that independence of the audit committee is positively related to ROE as it claimed that company with independent audit committee will be relatively more reliable to invest in, and this will boost up the performance of a company.

Study conducted by Mamun et al. (2014) examined the relation between audit committee characteristics and financial reporting among public listed companies in Malaysia. The sample collected were 75 firms and covered fiscal years of 2008-2010. Their performance measurement tool was Economic Value Added (EVA) and F-test to obtain the results. The research concluded that audit committee independence was significantly connected with financial reporting because independent audit committees can reduce biased accounting information which will improve the investment.

Wang and Huynh (2013) has classified firm's performance into financial and non-financial performance in their research. Sample size of 25 listed companies from year 2004 to 2011 were chosen whereby data was collected from financial reports. The study

utilizes multiple regressions (F-test) to test the hypotheses. The results indicated that the independence of the audit committee can positively affect a firm's performance due to diverse background and expertise.

The main purpose of study conducted by Abdullaha, Halim and Nelson (2014) was to examine the consequences of new regulation to the earnings management. One of the variable tested in this study was audit committee independence. 2,124 sets of data observations were collected from 708 sets annual reports in year 2009 to 2011. The periods used included prior and after the creation of the new regulation. The results showed that audit committee independence cannot lower the management earnings.

2.2.2 Size of Audit Committee

Amer et al. (2014) has used audit committee size as a variable in their research to oversee the impact of audit committee characteristics on company's performance in Egyptian companies listed under stock exchange which the measurement of ROE, ROA and Tobin's Q (TQ). Pearson correlation coefficients showed that the more audit committee in the company, the lower the ROE and TQ.

Azim (2012) has determined the consequences of corporate governance mechanisms on performance of a company whereby audit committee size was one of the mechanisms. The sample size were 1500 companies which are selected from the 500 top companies listed under ASX in year 2004 -2006. This study has used multi linear regression analysis with and variance analysis as their measurement. The result showed the audit committee's size has a negatively affected performance of firm due to inefficient governance.

In the study conducted by Al-Rassas and Kamardin (2015), there is an investigation on contribution of audit committee characteristics to the quality earnings. The samples

used in the research were 508 firms which listed under Bursa Malaysia. They stated that company may have process losses due to diffusion accountability if audit committee size is over large.

On contrary, there was an adverse relation as noted in a research carried out by Matari et.al. (2012) between audit committee characteristics and performance of the public listed companies in Saudi Arabia. Sample data for 135 companies in year 2010 has been collected from Saudi Stock Market. Audit committee size was one of the independent variable for the research with measurement for the total directors on the audit committee. Findings of Pearson and the Multiple Linear Regression analysis has proved that size of audit committees and firm's performance are significantly related as they may have wider knowledge based and more authority.

2.2.3 Expertise of Audit Committee

Rahmat, Iskandar, and Saleh (2009) has examined the audit committee characteristics in a financial and non-financial distressed companies. 146 public listed companies in Bursa Malaysia were the matched-pair samples. Results of logistic regressions showed financially distress is caused by many audit committee financial experts. They explained that audit committee with enough accounting and finance knowledge will monitor financial and operational reports more efficient.

Bouaziz (2012) aimed to identify the effect on financial performance with the presence of audit committees whereby financial expertise of audit committee was one of the independent variables. He collected data of the sample size of 26 companies from official website of Financial Market Council and scholarship and Hausman test has been conducted in this study. The conclusion of this research proved that financial performance will be improved if audit committees consists many financial experts.

Hamdan et al. (2013) in the research on consequences of audit committee characteristics on firm's performance has concluded that financial expertise of audit committee had remarkable relationship with firm's performance. They collected total of 212 companies as their samples in year 2008 and 2009. Tests such as normal distribution, Multicollinearity, Autocorrelation test, and the Ordinary Least Squares tests have been adopted in this study.

2.2.4 Busyness of Audit Committee

Research done by Baccouche, Hadriche, and Omri (2013) was to inspect the links between audit committee multiple directorships and management earnings. The research has gathered data from 88 non-financial firms in year 2008. Co-relation regression analysis has been carried and found that audit committee busyness has brought negatively related to firm's performance as they have less capacity to do monitoring and controlling the actions of management.

Moreover, Ismail, Iskandar, and Rahmat (2008) has investigated whether audit committee and external audit are connected with financial reporting quality. They have collected data of 108 listed companies from Bursa Malaysia. Logistic stepwise regression has been conducted whereby the results evidenced multiple directorships in audit committee will improve various investments and hence, improving performance.

In a research done by Vlaminck and Sarens (2015), they studied the how audit committee characteristics related to quality of financial statements. They have collected data of 60 listed companies as samples. The Pearson's correlation tested the relationship between multiple directorships of audit committee s. Results concluded that there will be a better financial reporting if the audit committee holds more than 3 directorships as they will focus more on management behavior to avoid manipulation

as well as protecting own reputation, hence increase the confidence of investors to invest more.

Furthermore, there was a research carried out by Chiranga and Chiwira (2013) to study linkage between multiple directorships and firm performance. They have utilized data of 42 listed companies in 2006-2012. They found out that multiple directorships will not affect firm's performance as there was no value added in the presence of multiple directorships.

2.3 Proposed Conceptual Framework/Research Model

Figure 2.1 shows the relation effect for the dependent variable (Firm Performance) and independent variables (Audit committee independence, size, expertise and busyness.)

Figure 2.1: Theoretical Research Model Studying the Relationship for the Four Audit Committee's Characteristics and Firm Performance of Public Listed Companies in Malaysia
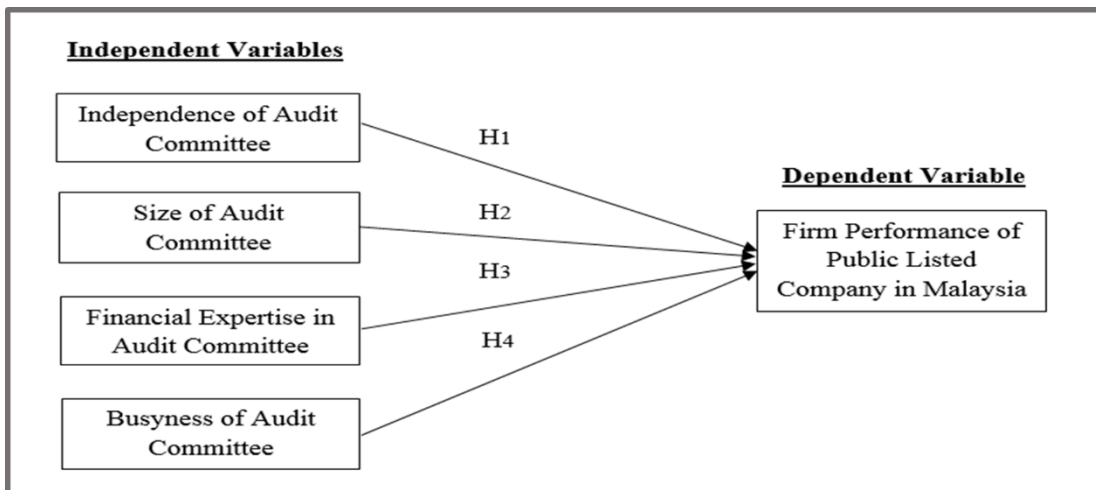
Source: Developed for the research

2.4   Hypothesis Development

In accordance with the previous empirical studies on the characteristics of Audit Committee that are affecting the firm performance of Public Listed Companies in Malaysia, the following hypotheses are developed.

H1: There is a significant relationship for the independence of the audit committee and the firm performance of public listed companies in Malaysia.

H2: There is a significant relationship for the size of the audit committee members and the firm performance of public listed companies in Malaysia.

H3: There is a significant relationship for the financial expertise in audit committee and the firm performance of public listed companies in Malaysia.

H4: There is a significant relationship for the audit committee busyness and the firm performance of public listed companies in Malaysia.

2.5 Conclusion

As a conclusion, the above chapter has fully adopted the agency theory in the study. In accordance with the previous empirical studies, the proposed theoretical framework and four hypotheses are established. The research methodology will be presented under Chapter 3.

CHAPTER 3 RESEARCH METHODOLOGY

3.0 Introduction

In this chapter, the research methodologies that will be used to conduct this study will be discussed. This has included the research, population, sample and sampling procedure. Besides, data collection method and measurements of variable in the research will be included in this chapter. Lastly, data analysis techniques were identified at the end of this chapter.

3.1 Research Design

Quantitative methodology will be carried out because audit committee characteristics and ROE can be estimated, classified, and quantified into figure form (Fabozzi, Focardi, & Ma, 2005). Besides, the result generated is more objective, specific and has higher reliability (Fabozzi et al., 2005).

By applying secondary data collection in this study benefits future researchers with high quality of data source (Cheng & Phillips, 2014) and brings unbiased outcome as it is nonreactive or unobtrusive (Little et al., 2014) Besides, it is inexpensive and time effective as the data needed are already available (Hulley, Cummings, Browner, Grady,& Newman, 2013).

The research design to identify the audit committee characteristics impact on Malaysian Public Listed Companies performance is cross-sectional study since it collect the data at one point in time which in the year 2015 for the subject matters (Bryman& Bell, 2003, Zikmund, 2003; Gray, 2004).

3.2   Population, Sample and Sampling Procedures

The target population of this study is the Malaysian public listed companies as the audit committee practices are mandatory for public listed companies according to Bursa Malaysia listing requirements and MCCG (Mamun et al., 2014). Thus, it is largely conceived the public listed companies can provide more reliable information to this research based on the disclosures made by the companies.

Sampling is adopted in this study to make an inference on the population due to time constraints. Sampling brings lower cost, less effort to administer, better response rates and greater accuracy (Anca-oana, 2013). Fielding, Lee, and Blank, 2008 have stated that it is impractical or impossible to survey an entire population, because of cost or other practical constraint. Therefore, sampling is recommended as it enables to generalize results for larger population (Kukull & Ganguli, 2012)

The sampling frame for this study is the public listed companies traded in the Bursa Malaysia's Main Market excluded Access, Certainty, Efficiency (ACE) Market due to the Bursa Malaysia listing requirements differences (Church, 2001). ACE Market is mainly for the new start-up companies and the listing criteria are less stringent than Main Market which do not need to provide operating and profit records for tracking in entering to the market (Yatim, 2011) and this could significantly impact the results' generalization whereas the Main Market are more stringent in term of following the full set of listing requirements including disclosure of financial information to the public.

Probability sampling techniques are used where the probability of inclusion for every member of the population is determinable (Teddlie & Yu, 2007). This study will apply simple random sampling technique as it involves selecting a relatively large number of units from the population in a random manner where each company listed under Bursa Malaysia has an equal chance of being included in the sample. As suggested by Zabri,

Ahmad and Wah (2016) and Othman, Ishak, Arif and Aris (2014) in their researches which is similar to this study, the effective sample size for population between 750 to 850 is 100 to 150 with confidence level of 95 per cent. Therefore, 100 companies are selected for this study which is within the suggested sample size as mentioned by the researchers.

3.3 Data Collection Method

The secondary data was adopted in this study to analyse the effects between the variables. Secondary data is the quantitative data gathered by people and it often being transformed into statistical information in the form of graphs, tables, text or appendixes inside the published reports (Church, 2001). This research gathered the sample data from year 2015 annual reports published by the 100 Public Listed Companies from Bursa Malaysia official website. The information used to compute and examine the variables can be extracted from the reports including the financial statements, statement on corporate governance, audit committee report and other relevant statements and reports. The data collection period of this study begun in the middle of May 2016 to ensure the findings are meeting with the research deadline on August 2016.

3.4   Variables and Measurement

The measurements of variables are shown as follows. Meanwhile, the details of definition, sources and measurements of variables will be shown in the Appendix B.

i.   Firm performance is calculated by applying ROE which is ratio scale based on the net profit after tax divided by total equity (Santos &Brito, 2012).

ii.   Independence of audit committee is measured by *ratio* scale based on total number of independent director to that of the audit committee (Adeyemi, Okpala, &Dabor, 2012).

iii. Size of audit committee is measured by *ratio* scale based on the natural logarithm of number of audit committee (Zhang, Zhou, & Zhou, 2007).

iv.   Financial expertise of audit committee measured by *ratio* scale based on total number of accounting qualification, finance industry experience or audit committee who is a membership of professional associations to that the total of audit committee members. (Abernathy, Beyer, & Stefaniak, 2015).

v.   Busyness of audit committee is estimated by number of independent audit committees who holds more than 3 directorships in Public Listed Companies (Wang, Xie, & Zhu, 2015). It is measured by nominal scale. 1 if the director is holding more than 3 directorships, 0 is otherwise (Adeyemi et al., 2012).

3.5   Data Analysis Techniques

3.5.1 Descriptive analysis

As stated by Zikmund (2003), descriptive analysis is referring to a transformation of data into an understandable form through data rearranging, ordering, and manipulating. Large amount of data will be simplified, and presented in a reasonable way (Jaggi, 2003). Besides, other purposes to conduct descriptive analysis include showing information objectively and exploring relationship between situations (Williams, 2007). In addition, numerical method such as mean, median and standard deviation will be as an outline to give a clear picture about the data collection since the numerical method will be more reliable and accurate (Kent, 2007). Meanwhile, the graphical method is carrying out by using histogram, pie chart, and bar chart in order to recognize pattern of data (Hair, Money, & Page, 2007). In this research, Statistical Analysis System (SAS) computer software program will be used to interpret and summarize the data that have obtained from the published annual reports in Bursa Malaysia.

3.5.2 Inferential Analysis

3.5.2.1 Multiple Linear Regression Analysis

Multiple linear regression analysis will be adopted as there were more than two variables to be studied in this research (Higgins, 2005). It examines the correlation among multiple variables including numerous independent variables and dependent variables (Mantis & Simon, 2003; Mamun et al., 2014). A regression model will be created so that the specific research outcomes can be predicted. Normality, without extreme values and linearity are the assumptions of using Multiple Linear Regression analysis (Uyanik & Guler, 2013).

Therefore, the model will be written as followed:

$$FP = \beta_0 + \beta_1 ACIND + \beta_2 ACSIZE + \beta_3 ACEXP + \beta_4 ACBUSY + \varepsilon$$

Where the variables are stated as followed in Table 3.1:

Table 3.1: The details of the model of Multiple Linear Regression Analysis

Symbol	Description	Measurement	Variable
β_0	Constant	-	-
β_{1-5}	Slope of independent variables	-	-
ε	Random error	-	-
FP	Firm Performance	Firm performance is measured in ROE, which is formulated as net profit before tax divided by total equity.	Continuous variable
$ACIND$	Independence of audit committee	Number of independent directors to that of the audit committee.	Continuous variable
$ACSIZE$	Size of audit committee	Natural logarithm of number of audit committee.	Continuous variable
$ACEXP$	Financial expertise of audit committee	Total number of accounting qualification, finance industry experience or membership of professional associations of audit committee to the total number of audit committee.	Continuous variable
$ACBUSY$	Busyness of audit committee	1 if the director is holding more than 3 directorships, 0 is otherwise.	Dummy Variable

Accept H_0 when p-value is not less than 0.05, otherwise reject H_0.

3.5.2.2 Pearson Correlation Coefficient

Pearson Correlation Coefficient determines how strong of linear relationship among tested dependent variable and independent variables （Bolboaca & Jantschi, 2006). Result will summarize the degree of values between the two variables correspond with each other. Range value of correlation coefficient value start from -1 to +1. According to Malawai (2012), a positive association shows that value decrease of one variable is corresponding with the value decrease of the other variable and vice versa, meanwhile, zero correlation shows that two variables do not have linear relationship exist among each other. From table 3.2, according to, it found that coefficient range 0.91-1.00 is considered very strong association; coefficient range 0.71-0.90 has strong association, coefficient range 0.41-0.70 has moderate association, coefficient range 0.20-0.40 has small but definite relationship (Hair, Money, Samouel, & Page, 2007)

If highly correlated independent variables, it may raise multicollinearity issue which will affect the overall result (Hair, Money, & Page, 2007). Hence, coefficient value which is lesser than 0.90 is recommended as to prevent multicollinearity problem (Hair, Black, Babin, Anderson, & Tatham, 2006). Few remedial actions such as collecting additional data and model specification are implemented to overcome the multicollinearity problem (Paul, 2006).

Table 3.2: Rule of Thumb for Pearson Correlation Coefficient

Coefficient range	Strength of Association
$\pm$0.91 to $\pm$1.00	Very Strong
$\pm$0.71 to $\pm$0.90	High
$\pm$0.41 to $\pm$0.70	Moderate
$\pm$0.20 to $\pm$0.40	Small but definite relationship
$\pm$0.00 to $\pm$0.20	Slight, almost negligible

Source: Hair, J., Money, A., Samouel, P., & Page, M. (2007).

3.6   Conclusion

This particular chapter has discussed about the methodology to collect and analyze data for this study. Data collected will be analysed by descriptive data analysis, Pearson Correlation Analysis and Multiple Linear Regression Analysis. Lastly, result from the analysis of this study is further discuss in the Chapter 4 and Chapter 5.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

There various statistics analysis was carried out in this chapter by using Statistical Analysis Software (SAS). SAS will process and generate the results based on the data collected. The results generated was used to examine the research's hypotheses that has been constructed in previous chapter. Analysis of descriptive and inferential will be presented under this chapter as well.

4.1 Descriptive Analysis

4.1.1 Respondents Demographic Profile

Table 4.1: <u>Demographic Profile of 100 Listed Companies Respondents in Malaysia</u>

Sectors		Frequency	Percentage (%)	Valid Percentage (%)	Cumulative Percentage (%)
Valid	Industrial Products	30	30.00	30.00	30.00
	Plantation	1	1.00	1.00	31.00
	Finance	4	4.00	4.00	35.00
	Properties	10	10.00	10.00	45.00
	Construction	9	9.00	9.00	54.00

	Trading or Services	22	22.00	22.00	76.00
	Consumer Products	20	20.00	20.00	96.00
	REITS	1	1.00	1.00	97.00
	Technology	3	3.00	3.00	100.00
	Total	100	100.00	100.00	

Source: Developed for the research

Figure 4.1: Summary of Respondents Demographic Profile
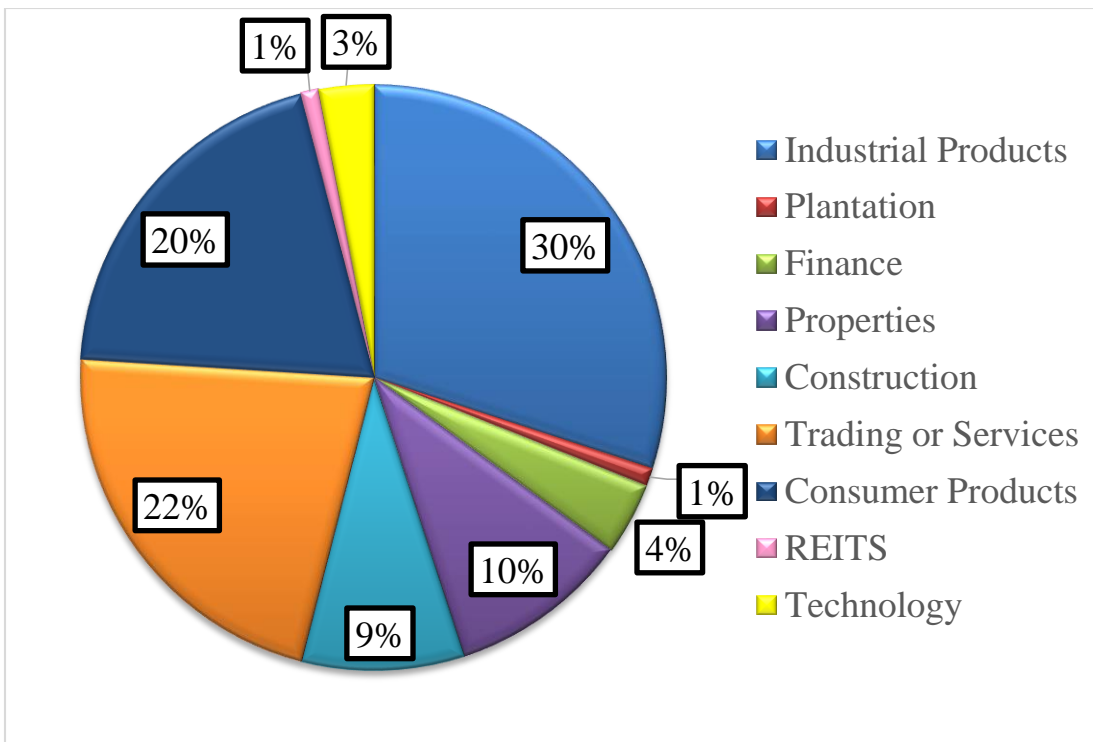
Source: Developed for the research

Table 4.1 shows the data results shown in term of frequency and percentage after the collected data being analysed. There are total nine sectors for the 100 research sample respondents participated in the market including products of industrial, trading or services, products of consumer, properties, construction, finance, plantation, technology and real estate investment trusts.

According to Figure 4.1, the industrial products sector has occupied the largest percentage of 30% compared to other industries, followed by two other sectors which is trading or services with 22% and consumer products with 20%. The sectors with the lowest percentage are the plantation and real estate investment trusts with only 1% as well as the technology and finance industry has only shared by 3% and 4% respectively. The rest of the two sectors out of the nine sectors which is construction and properties has also shared for 9% and 10% respectively.

As overall, among the nine sectors in the 100 respondents, there are four sectors that shared less than 5% which are plantation (1%), real estate investment trusts (1%), technology (3%) and finance (4%). The sectors that in between 6% to 10% are construction (9%) and properties (10%). The trading or services (20%), consumer products (22%) and industrial products (30%) are the sectors that occupied in between 20% to 30%.

4.1.2 Central Tendencies Measurements of Constructs

Table 4.2: Central Tendencies Measurements (CTM) for Independent and Dependent Variables

	N=100			
Variable	**Mean**	**Std. Deviation**	**Minimum**	**Maximum**
Dependent Variable				
Firm Performance	10.7498	5.13862	-11.39	20.84
Independent Variables				
Independence of AC	0.95380	0.11508	0.67	1.00
Size of AC	3.16000	0.35845	3.00	4.00
Financial Expertise of AC	0.36530	0.11714	0.25	0.75
Busyness of AC	0.90000	0.30151	0	1.00

Source: Developed from research

CTM for 4 independent variables and a dependent variable in year 2015 have been shown in table 4.2. Firm's performance (dependent variable) was determined by ROE, had the mean of 10.7498 and standard deviation was at 5.13862. Moreover, the minimum ROE was -11.39 while maximum ROE was 20.84.

On the other hand, the mean for ACIND was 0.9538 while its standard deviation was 0.11508. It showed that almost all audit committees in the sample companies were independent audit committees. The minimum and maximum values were 0.67 and 1.00

respectively. Among the samples of 100, average ACSIZE was 3.16000, meanwhile the standard deviation was 0.36845. This simply means that all samples fulfil the minimum requirement (minimum 3 audit committees) as listed in Bursa Malaysia. Minimum size of audit committee was 3 while maximum was 4.

In terms of ACEXP, 0.11714 was the standard deviation. The mean of 0.36530 showed that all companies had at least 1 financial expert among audit committees. It can also be seen in the minimum value which was 0.25. The maximum ratio in financial expertise was 0.75. Besides, the mean of ACBUSY was 0.9000 while its standard deviation was 0.30151. This could be explained by samples mostly had audit committees who held more than 3 directorships. The minimum value was 0 while the maximum was 1.

4.2 Scale Measurement

4.2.1 Reliability Test

This research is built on secondary data which is extracted from companies' annual reports. The information is collected from published annual reports obtained from Bursa Malaysia in the year 2015. According to Iatridis in the year 2013 and Muttakin and Khan in the year 2014, larger companies are possibly more noticeable in the public eye and are more ethically sensitive, thus face greater scrutiny from controllers (Peters and Romi, 2013). As a result, these companies more likely to disclose true information in annual reports (Sulaiman, Abdullah, & Fatima, 2014). Therefore, the data collected is assumed to be reliable. Hence, reliability test does not apply in this research.

4.2.2 Normality Test

Normality tests assess the likelihood that a given data set comes from a normal distribution (Singh, & Masuku, 2014). As mentioned by Ghasemi and Zahediasl in year 2012, the distribution of the data can be ignored when the samples comprising of hundreds of observations. Based on central limit theorem, the sampling distribution tends to be normal in large samples (> 30 or 40) regardless of the shape of the data (Field, 2009; Elliott & Woodward, 2007). Chapter 16 of BMLR has listed the penalties imposed that will be imposed for breach of listing requirement which included non-disclosure or inaccurate financial disclosures to ensure truthful, unambiguous, precise, succinct and contains adequate information for informed investment decisions making. As information for this research is extracted from annual reports of public listed companies through Bursa Malaysia official website, therefore normality test does not apply in this research as well.

4.3 Inferential Analysis

4.3.1 Pearson Correlation Analysis

Table 4.3: Correlations between Variables

	ROE	ACIND	ACSIZE	ACEXP	ACBUSY
ROE					
Pearson Correlation	1	0.56145	0.13393	-0.20674	0.62651
Sig. (2-tailed) N		<.0001	0.1840	0.0390	<.0001
ACIND					
Pearson Correlation	0.56145	1	0.17609	-0.04594	0.44190
Sig. (2-tailed) N	<.0001		0.0797	0.6499	<.0001
ACSIZE					
Pearson Correlation	0.13393	0.17609	1	-0.02219	-0.03637
Sig. (2-tailed) N	0.1840	0.0797		0.8266	0.7194

ACEXP					
Pearson Correlation	-0.20674	-0.04594	-0.02219	1	-0.16788
Sig. (2-tailed) N	0.0390	0.6499	0.8266		0.0950
ACBUSY					
Pearson Correlation	0.62651	0.44190	-0.03637	-0.16788	1
Sig. (2-tailed) N	<.0001	<.0001	0.7194	0.0950	

Source: Develop for the research

Whereby,

N= 200

ROE = Return on Equity

ACIND = Independence of audit committee

ACSIZE = Size of audit committee

ACEXP = Financial Expertise of audit committee

ACBUSY = Busyness of audit committee

Coefficient (R) and the associated significant value are being examined as to analyse correlation coefficient. The strength of association between two variables is showed in Table 4.3. Pearson Correlation Analysis included ACSIZE, ACBUZY, ACEXP and ACIND as independent variables and, ROE as dependent variable which is the indicator of firm performance.

By checking the correlation point of independent variables able to detect the multicollinearity issue (Garson, 2006). The correlation among ACIND and all other independent variables are between -0.04594 and 0.44190. Furthermore, the correlation between ACSIZE and all other independent variables are between -0.02219 and -0.03637. Lastly, the correlation between ACEXP and all other independent variables are between -0.02219 and -0.04594 where the correlation between ACBUSY and all other independent variables are between -0.03637 and 0.44190. Independent variables have correlation lesser than 0.9 in this study which will then prove that there is without existence of multicollinearity. The results above are satisfying the assumption of Multiple Linear Regression analysis and allowing standard analysis of regression coefficients. The fulfilment of assumption is as well strengthened by the results in Multiple Linear Regression test.

4.3.1.1 Independence of Audit Committee

H1: There is a significant relationship between the independence of the audit committee and firm performance of Public Listed Company in Malaysia.

There is a significant association among ACIND and firm performance as proved by Person Correlation Analysis. R-value of 0.56145 categorized between ± 0.41 and ± 0.70 which shows that ACIND and firm performance is moderate relationship.

Significant relationship among ACIND and firm performance is shown as the result showed that significant value of 0.000 is smaller than 0.05 ($p<0.05$). Thus, null hypotheses (H_0) is rejected and alternative hypotheses (H_1) is accepted.

4.3.1.2 Size of Audit Committee

H2: There is a significant relationship between the size of the audit committee members and firm performance of Public Listed Company in Malaysia.

ACSIZE has significant relationship with firm performance. Correlation coefficient value at 0.13393 categorized between ± 0.00 and ± 0.20 and it has slight but negligible association among ACSIZE and firm performance.

0.000 of significant value is greater than 0.05 (p>0.05) which shows that ACSIZE is insignificant with firm performance. Therefore, null hypotheses (H_0) is accepted and alternative hypotheses (H_2) is rejected.

4.3.1.3 Financial Expertise of Audit Committee

H3: There is a significant relationship between the financial expertise in audit committee and firm performance of Public Lusted Company in Malaysia.

From Table 4.3, r-value proves that ACEXP has significant association with firm performance. Value of r is -0.20674 and categorized between ± 0.20 and ± 0.40, so, association among ACEXP and firm performance is small but definite.

0.000 of significant value is smaller than 0.05 (p<0.05) shows that ACSIZE is perfectly significant with firm performance. Therefore, null hypotheses (H_0) is rejected and alternative hypotheses (H_3) is accepted**.**

4.3.1.4 Busyness of Audit Committee

H4: There is a significant relationship between the busyness of audit committee and firm performance of Public Listed Company in Malaysia.

As shown by Pearson Correlation Analysis, it proved there is a significant relationship among ACBUSY and firm performance. The r-value of 0.62651 categorized between of ± 0.41 and ± 0.70 indicates that the audit committee busyness has a moderate relationship with firm performance.

0.000 of significant value of is smaller than 0.05 ($p<0.05$) which proves that there is a significant relationship among ACBUSY and firm performance. Therefore, H0 is rejected and (H4) is accepted.

4.3.2 Multiple Linear Regression Analysis

Table 4.4: Model Summary of Multiple Linear Regression Analysis

Model Summary[b]

Root MSE	Dependent Mean	Coefficient Variance	R-Square	Adjusted R-Square
3.65874	10.74980	34.03540	0.5135	0.4930

a. Predictors: (Constant), ACIND, ACSIZE. ACEXP, ACBUSY

b. Dependent Variable: ROE

Source: Developed for the research

As shown in the table above, R-Square (R^2) value of 0.5135 which also refer to 51.35% of variances in dependent variable, firm performance (ROE) can be predicted from the independent variables, which are audit committee independence (ACIND), audit committee size (ACSIZE), audit committee financial expertise (ACEXP), and audit committee busyness (ACBUSY). Likewise, it also points out that the remaining 48.65% of variance in ROE would be further discuss by other variables which are excluded in this research. Besides, R-Square is referred to as the coefficient of determination. As 49.30% of the adjusted R^2 defined that a reliable value which yield in the variation of ROE. Then, to enhance the explanation of variable towards the firm performance, the numbers of predictors' variables will be collaborated to this model. In short, this model is adequate for variation prediction.

Table 4.5: Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Pr> F
Model	4	1342.43260	335.60815	25.07	<.0001
Error	95	1271.70420	13.38636		
Corrected Total	99	2614.13680			

a. Predictors: (Constant), ACIND, ACSIZE. ACEXP, ACBUSY

b. Dependent Variable: Firm Performance (ROE)

Source: Developed for research

Table 4.5 show that p-value that < 0.0001 is lower than 0.05. Hence, this results suggest that this model is statically fit and significant. From the reading obtained from the F Distributions and Significance Tables with 0.05 significance level display that the F value is 2.45 (Weiers, 2010) when v1 (degree of freedom in the numerator) is 4 and v^2 (degree of freedom in the denominator) is 95. As the F-test statistics produced (F=25.07) is more than F value ($F_{0.05}$=2.45), it means at least one of the four variables can be used to model ROE. Hence, it also provides that the model is a significant better model fit.

Table 4.6: Parameter Estimates

Variable	Unstandardized coefficient		Standardized Coeffiecient	t-value	Sig	Collinearity Statistics	
	β	St.Error	β			Tolerance	VIF
Constant	-12.80023	4.28196	0	-2.99	0.0036	0	0
ACIND	15.01703	3.64943	0.33632	4.11	<.0001	0.76658	1.30449
ACSIZE	1.24184	1.02311	0.08904	1.21	0.2278	0.95153	1.05094
ACEXP	-4.89930	3.18802	-0.11169	-1.54	0.1277	0.96954	1.03142
ACBUSY	7.88033	1.39079	0.46238	5.67	<.0001	0.76895	1.30048

a. Dependent Variable: Firm Performance (ROE)

Source: Developed for the research

4.3.2.1 Unstandardized Coefficients

Founded on the Table 4.6, unstandardized coefficient (β) represent an equation could be formulated as:

ROE = -12.80023 + 15.01703 (ACIND) + 1.24184 (ACSIZE) – 4.89930 (ACEXP) +7.88033 (ACBUSY)

where firm performance is measured in ROE, which is calculated as net profit after tax divided by total equity; ACIND is number of independent directors to that of the audit committees; ACSIZE is natural logarithm of number of audit committees; ACEXP is number of accounting qualification, finance industry experience or membership of professional associations of audit committee to the total of audit committee member; and ACBUSY is 1 if the director is holding more than 3 directorships, 0 is otherwise.

H1: There is a significant relationship between the independence of the audit committee and firm performance of Public Listed Companies in Malaysia.

Table 4.6 shows that ACIND has significant relationship with ROE, as the p-value of ACIND located at 0.0000, which is lower than 0.05. When other variables are remained unchanged, every one additional unit rise in ACIND will lead to ROE rise by 15.01703 units.

H2: There is a no significant relationship between the size of the audit committee members and firm performance of Public Listed Companies in Malaysia.

However, ACSIZE was found that it has no significant effect to ROE, as the p-value of ACSIZE is 0.2278, which more than 0.05. When other variables are remained unchanged, every one additional unit rise in ACSIZE will lead to ROE rise by 1.24184 units.

H3: There is a no significant relationship between the financial expertise in audit committee and firm performance of Public Listed Companies in Malaysia.

Furthermore, the Table 4.6 indicates that ACEXP has no remarkable influence to ROE, since the p-value is 0.1277 which greater than significant value 0.05. Hence, every one additional unit rise in ACEXP will lead to ROE decline by 4.89930 units, whereas other variables are remained constant.

H4: There is a significant relationship between the busyness of audit committee and firm performance of Public Listed Companies in Malaysia.

Moreover, based on the Table 4.6, ACBUSY is also perceived to impose the greatest influence on ROE at p-value is 0.0000. Thus, every one additional unit rise in ACBUSY will lead to ROE rise by 7.88033 units, whereas other variables are remain constant.

4.3.2.2 Standardized Coefficients

Standardized coefficients were examined in this research for the purpose to determine the contribution of every variable towards the conceptual model. Any significant change on dependent variable will be resulted from the high beta of independent variable.

The results in Table 4.6 indicated that all independent variables are less than 1 according to the column of standardized beta coefficients. The largest beta value is ACBUSY (0.46238), followed by ACIND (0.33632), ACSIZE (0.08904), and ACEXP (-0.11169).

4.3.3.3 Multicollinearity

Tolerance value and Variance Inflation Factor (VIF) have been calculated in order to determine the problem of multicollinearity among variables. Founded on the Table 4.6, the highest rate of Variance Inflation Factor and lowest value of tolerance were 1.30449 and 0.76658 respectively. Since these values are within the conservative benchmark of VIF<10.00 (Hassan, & Naser, 2013) and tolerance >0.10 (Brien, 2007). Therefore, multicollinearity problem had no existed in this research (Ott & Longnecker, 2010).

4.4 Conclusion

In this chapter, SAS software has been used to interpret the data into charts, figures, and tables. From the above analyses, only 2 independent variables which are ACIND and ACBUSY have impact the Firm Performance. In the last chapter, there are several aspects will be discussed. These include the summary of statistical analysis, discussion of major findings, managerial implications, limitations of the study and recommendation.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

Beginning of this chapter has showed the summary of descriptive and inferential analyses continue with discussion of major research findings for the hypotheses testing. Suggestions and boundaries of this study will also be discussed in this chapter with the suggestions for future study. Last of all, a complete discussion of this study is concluded in the final section of this chapter.

5.1 Summary of Statistical Analysis

5.1.1 Descriptive Analysis

The samples selected in this research are the 100 companies that listed under Bursa Malaysia's Main Market. Table 4.2 shows a summarization of the descriptive analysis between the Firm Performance (dependent variable) and the Audit Committee Characteristics included the Audit Committee independence, size, financial expertise and its busyness (independent variables) in which the analysis are done from the data collected from the 100 listed companies' published annual reports in 2015.

According to the results from table 4.2, the performance of the companies that with the measurement of return on equity has a mean value of 10.75 with the value of minimum of -11.39 and the maximum of 20.84. In the independent variables, ACSIZE has the greater mean value of 3.16 compared to other independent variables and also with the value range of minimum 3 and maximum 4. The variable with lowest mean value is the ACEXP with 0.37 and also the lowest value range of minimum with 0.25 and maximum

with 0.75. Furthermore, the ACIND has recorded with the minimum and maximum value range of 0.67 and 1 respectively and with 0.96 mean value, followed by the ACBUSY with mean value of 0.90 and range between 0 (minimum) and 1 (maximum) because ACBUSY is measured by the dummy variables that coded by 0 and 1.

5.1.2 Inferential Analysis

5.1.2.1 Pearson Correlation Analysis

Table 5.1: Summary of Pearson Correlation Analysis

Alternative Hypothesis	Pearson Correlation	Strength	Significant p-value	Significance of correlation	Result
H1: There is a significant relationship between the independence of audit committee and firm performance of Public Listed Companies in Malaysia.	0.56145	Moderate	<.0001	Significant	Reject H0 & Accept H1
H2: There is a significant relationship between the size of the audit committee member and firm performance of Public Listed	0.13393	Slight but negligible	0.1840	Insignificant	Accept H0 &Reject H2

Companies in Malaysia.					
H3: There is a significant relationship between the financial expertise in audit committee and firm performance of Public Listed Companies in Malaysia.	-0.20674	Small but definite	0.0390	Significant	Reject H0 &Accept H3
H4: There is a significant relationship between the busyness of audit committee and firm performance of Public Listed Companies in Malaysia.	0.62651	Moderate	<.0001	Significant	Reject H0 & Accept H4

Magnitude of association among independent variables and dependent variables is being measured by the application of Pearson correlation analysis. These independent variables include independence of audit committee, size of audit committee, financial expertise of audit committee and busyness of audit committee while dependent variable is firm performance.

As the results shown in the Table 5.1, ACIND and ACBUSY have moderate correlation with firm performance which is 0.56145 and 0.62651. ACEXP have small but definite relationship with firm performance which is -0.20674. ACSIZE has slight but negligible correlation with firm performance which is 0.1840.

Based on the both significant value, ACIND, ACEXP and ACBUSY has significant relationship with firm performance whereas ACSIZE has insignificant relationship with firm performance.

5.1.2.2 Multiple Linear Regression Analysis

Table 5.2: Multiple Linear Regression Analysis for Firm Performance (ROE)

R-Square	F Value	Pr>F
0.5135	25.07	<.0001

Source: Developed for the research

As presented in the Table 5.2, R^2 value is 0.5135 which also refer that 51.35% of variation in dependent variable which is firm performance could be justified by all independent variable. In the same time, it also indicated that remaining 48.65% of variance in dependent variable which is firm performance would be further discussed by other variable which are excluded in this research.

Besides, the ANOVA test had shown the result of p-value< 0.0001 which below than 0.05 had indicated that this model is statically remarkable and fit. With the F value produced (F=25.07) is more than F critical value of 2.45, it is known that models are fit. In this research, there is no multicollinearity problem

Table 5.3: Summary of Multiple Linear Regression Analysis for Firm Performance (ROE)

Alternative Hypothesis	Significant p-value	Results
H1: There is a significant relationship between the independence of the audit committee and firm performance of Public Listed Companies in Malaysia.	<0.0001	Reject H_0 & Accept H_1
H2: There is a significant relationship between the size of the audit committee members and firm performance of Public Listed Companies in Malaysia.	0.2278	Accept H_0 & Reject H_2
H3: There is a significant relationship between the financial expertise in audit committee and firm performance of Public Listed Companies in Malaysia.	0.1277	Accept H_0 & Reject H_3
H4: There is a significant relationship between the busyness of audit committee and firm performance of Public Listed Companies in Malaysia.	<0.0001	Reject H_0 & Accept H_4

Source: Developed for the research

Founded on the Table 5.3, there are significant relations among ACIND and ACBUSY and dependent variable which is firm performance are established as p-value is less than 0.05. ACIND and ACBUSY have significant influenced on firm performance as the p-value located less than 0.0001, which obviously less than 0.05. Likewise, ACSIZE and ACEXP have no remarkable influence on firm performance as these p-values are 0.2278 and 0.1277 correspondingly which greater than significant value of 0.05. Besides, the regression generated is ROE = *-12.80023 + 15.01703 (ACIND) + 1.24184 (ACSIZE) – 4.89930 (ACEXP) +7.88033 (ACBUSY).*

5.2 Discussions of Major Findings

5.2.1 Relationship between Independence of Audit Committee and Firm Performance of Public Listed Companies in Malaysia

According to findings, H_1 was accepted which means that independence of the audit committee was related significantly on firm performance of public listed companies in Malaysia. This was because significant level was less than 0.0001. The result was supported by Aanu et al. (2014) whereby they claimed that presence of independence will reduce wrong accounting information and improve the confidence of investors to the firm which will directly improve the firm's performance. The study by Mamun et al. (2014) also agreed that independent audit committee will positively related to financial reporting because they can reduce biased accounting information.

Consistently, Wang and Huynh (2013) stated that independence of audit committee will have undue impact on investment also to the firm's performance. It seems that independent audit committee s can resolve agency problems and produce unbiased reports. However, studies by Abdullaha et al. (2014) contradicted with this research whereby they claimed that some independent audit committee neither help in reducing

earnings management nor improving company's profitability, but increasing fraud to happen in the firm.

5.2.2 Relationship between Size of Audit Committee and Firm Performance of Public Listed Companies in Malaysia

Analysed findings proved that size of the audit committee was insignificantly connected to firm performance of public listed companies in Malaysia as p-value was 0.2278 which was higher than 0.05. Hence, this study rejected H_2 and accepted H_0. Unfortunately, it was not the result as predicted, whereby most prior studies contradicted with this research as they all claimed that there was a significant relationship. There was only one study which carried out by Chandrasegaram et al. (2013) aligned with this research whereby the authors argued that audit committee size and firm performance were not related. They raised up a question that would many audit committee who possess diverse knowledge help out in monitoring and improving the firm performance.

This research was not in line with results of few studies such as Amer et al. (2014) and Azim (2012) Al-Rassas and Kamardin (2015) who claimed that audit committee size was significantly related to firm performance. They stated audit committee with responsibility diffusion due to large size of audit committee will affect their task and directly affect the firm's performance. In addition, the result of Matari et al. (2012) stated that the size of audit committee will significantly affect the firm performance due to the authority given and wide knowledge base.

5.2.3 Relationship between Financial Expertise of Audit Committee and Firm Performance of Public Listed Companies in Malaysia

The result of p-value which was 0.1277 showed that audit committees in Malaysia refuse to have financial experts in audit committee team, as financial experts will not help much in improving a firm's performance. Therefore, similar with the size of audit committee, this research rejected H_3 but accepting H_0. This research was supported by one study carried out by Aryan (2015) who stated that audit committee expertise will not related to firm performance as financial experts only helps to deter management from committing irregularities but not improving firm's performance.

They were numerous studies contradicted with this research. Rahmat et al. (2009) and Bouaziz (2012) claimed that audit committee with sufficient accounting knowledge will help in improving firm performance as they have better understanding in the accounts. In a nut shell, Hamdan et al. (2013) and Emmanuel et al. (2014) also stated using financial knowledge, they can detect the manipulation easily and accurately. They also claimed that they can oversee a firm's financial control effectively.

5.2.4 Relationship between Busyness of Audit Committee and Firm Performance of Public Listed Companies in Malaysia

This research claimed that there was a remarkable connection ($p < 0.0001$) between busyness of audit committees and firm performance of public listed companies in Malaysia, therefore H_4 was accepted. Research carried out by Vlaminck and Sarens (2015) and Ismail et al. (2008) were similar to this research. They argued that with the experience and good reputation, audit committee with multiple directorships will attract the correct people to invest in the company, hence, improving the firm performance.

Baccouche (2013) supported that audit committee busyness was significantly connected with firm performance, but in a negative direction. He claimed that audit committee roles are to prevent and detect practices of earnings management, their effectiveness will be affected if they are busy. Kuang (2007) and Ojulari (2012) also stated that audit committee who held more than 3 directorships will not be able to monitor management actions and this will reduce the confidence of investors leading to poor performance. Moreover, Emmanuel et al. (2014) also proved that audit committee multiple directorships will significantly impact corporate financial reporting if they have overcommitted.

Last but not least, research done by Chiranga and Chiwira (2013) did not support this research as they explained that no value will be added on firm's performance even with the presence of multiple directorships. They may even absent in the meeting due to the busyness.

5.3 Implications of Study

5.3.1 Managerial Contributions

This research aims to examine impact of independent, size, financial expert and busyness of audit committee to the firm performance of the public listed companies in Malaysia. The study findings shown that there is the relationship significantly affect the audit committee characteristics (Independent Variables) and the firm performance (Dependent Variable). The implications have brought to various interest parties with the results of this study.

By knowing how the component of the audit committee affect the firm performance, the research findings enable public listed companies to establish a sound audit committee structure that lead to improve their firm performance in which they can ensure to fulfill the mandatory requirement from the regulatory bodies that consider important to the company performance which are the audit committee members' independence, the number required for the audit committee in the company and the financial expert needed in the team. in addition, to understand the significant effects of these audit committee components able to help to reduce the agency costs to instill better oversight function over the audit committee members.

Besides that, findings of this research helps management to make better decision on what are the characteristics of audit committee that they should focus on to allocate minimum resources in order to enhance the audit committee functions and thus maximize the performance of the company. For instance, management of public listed companies can be focus on this study's independent variable, audit committee busyness that have significant affect the firm performance by which public listed companies may perform screening test for each of the selected member to ensure they have not holding

more than three to five directorships other than the company same as the restriction imposed by Main Market listing requirements in the director perspective 15.06 to ensure they are performance in accordance to only a company interest.

Furthermore, other stakeholders who rely on the financial information of the company to make their economic decision will also have a brief understanding with the findings of this study about the audit committee characteristics, structure and its importance in observing the parties who prepare and present the financial information as well as its responsibility to ensure the company is running in the track of governance. For instance, the independent of the audit committee member will apparently more trustworthy compared to non-independent members.

5.3.2 Theoretical Implications

The improvement of the research model brings further implications to the future researchers with specifically added a limited study independent variable, audit committee busyness in the study on audit committee characteristics in relation to firm performance in Malaysia and the findings of this research has shown its significant relationship to the performance of a firm. This new variable adds value to the future academic research with its impact on the similar topic as well as the other related areas. Besides, the deeper discovering on the agency theory regarding to this research make further contribution to future researcher on the importance of the audit committee and their oversight responsibility towards company information and operations are interrelated to the relationship of the principal-agent.

5.4 Limitations of the Study

Some restrictions which might influenced the interpretation of findings in the research should be emphasized. It is crucial to identify the limitations that constrain the study so that future researchers able to use the limitations as an opportunity to describe the need for future research.

First, this research is only concentrate on four audit committee characteristics as independent variables and their impacts firm performance in Malaysia. There are some other characteristics of audit committee are not included in this study. Thus, additional independent variables should be included to provide more meaningful findings.

Furthermore, majority of past studies that conducted in Malaysia are only focused on the audit committee characteristics that are mandate to be disclosed in the audit committee report rather than other characteristics such as audit committee busyness. Hence, there are only limited numbers of past studies that carried out in Malaysia to be used as reference. Therefore, this might affect the literature review and the investigation of research problem in this research.

Apart from that, this research was only theoretically constructed on the agency theory in relation to audit committee characteristics and firm performance. Thus, this has limited the study on concentrating on the principal-agent relationship without taking consideration on other related parties such as other stakeholders' interest.

Apart from that, time to complete this research is constrained as researchers are needed to complete the study within half year period. Thus, there is lack of time to gather more data and information and limit the ability to conduct a thorough analysis of the results.

5.5 Recommendation of the Study

First, additional independent variables have to be incorporated in future studies to strengthen the findings and bring a clearer understanding by delivering further explanation on the relationship. Hence, future studies are encouraged to explore other audit committee characteristics that are not incorporated in this research such as frequencies of audit committee meeting and experience of audit committee members, which could impact the effectiveness of audit committee and firm performance of public listed companies in Malaysia.

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

Future researches are recommended to incorporate other theories that are link with audit committee characteristics and firm performance, such as stakeholder theory, stewardship theory and resource dependence theory. For example, by including stakeholder theory, results are able to be interpreted based on stakeholder theory which conforms to the audit committee as corporate governance to expedite a good relationship between management and stakeholders, thereby enhancing the firm's performance.

Lastly, it is suggested that the study can be improved to longitudinal research. For instance, conducting longitudinal research allow future researchers demonstrate a test on the association among audit committee characteristics and firm performance before and after implementation of Goods and Services Tax (GST) in Malaysia. This may enhance the research as it includes and reflects the most recent economic development in Malaysia.

5.6 Conclusion

The study is aimed to identify the impacts of audit committee characteristics on public listed companies' firm performance in Malaysia. The result in shows that two variables in this study which are independence and busyness of audit committee have a remarkable relationship with the firm performance. Meanwhile, outcomes from this research show that size and financial expertise of audit committee has no significant relationship with firm performance. Furthermore, several limitations have been identified in this research so that future researchers could avoid these limitations and make improvements to the research studies in this area. Besides that, there are several recommendations which have been presented in this study to overcome the limitations of this research so as to extent the knowledge of future researchers in their studies with better improved results.

References

Aanu, O. S., Odianonsen, I. F., & Foyeke, O. I. (2014). Effectiveness of audit committee and firm financial performance in Nigeria: An empirical analysis. *Journal of Accounting and Auditing: Research & Practice,* 1-12.

Abdullah, W. R. W. (2013). Earnings Management: Evidence Concerning Shariah-approved Companies in Malaysia. Unpublished doctoral dissertation, Lincoln University, New Zealand.

Abdullaha, S. N., Halim, N. F. C. A., &Nelson, S. P. (2014).The impact of new regulation on earning quality among Malaysian firms. *International Journal of Economics, Management and Accounting*, *22*(2), 21-68.

Abernathy, J.L., Beyer, B., Masli, A., & Stefaniak, C. M. (2015).How the source of audit committee accounting expertise influences financial reporting timeliness. *Current Issues in Auditing*, *9*(1), 1-9.

Adeyemi, S. B., Okpala, O., & Dabor, E. L. (2012). Factors affecting audit quality in Nigeria.*International Journal of Business and Social Science*, *3*(20), 198-209.

Aldamena. H., Duncan, K., Kelly, S., McNamarab. R., &Nagel, S. (2012). Audit committee characteristics and firm performance during the global financial crisis*, Accounting and Fiannce, 52*(4), 971-1000.

Al-Rassas, A., & Kamardin, H. (2015). Internal and external audit attributes, audit committee characteristics, ownership concentration and earnings quality: evidence from Malaysia. *Mediterranean Journal of Social Sciences*, *6*(3), 458-470.

Amer, M., Ragab, A. A., &Shehata, S. E. (2014). Audit committee characteristics and firm performance: Evidence from Egyptian listed companies. *Proceedings of 6th Annual American Business Research Conference.*

Anca-oana, C. (2013). Necessity of audit sampling in the audit of financial statement: Non-Statistical sampling versus statistical sampling. *Economy Series*, 3, 40-43.

Arbenathy, J. L, Herrmann, D., Kang, T., & Krishnan, G. V. (2013). Audit committee financial expertise and properties of analyst earnings forecasts. *Advances in Accounting*, *29*, 1-11.

Aryan, L. A. (2015). The relationship between audit committee characteristics, audit firm quality and companies' profitability. *Asian Journal of Finance & Accounting, 7*(2), 215-226.

Azim, M. (2012). Corporate governance mechanisms and their impact on company performance: A structural equation model analysis. *Australian Journal of Management*, *37*(3), 481-505.

Baccouche, S. (2015). Directors' multiple directorships and their appointment to board committees: Evidence from France. *International Review of Management and Business Research*, *4*(1), 332-335.

Baccouche, S., Hadriche, M., & Omri, A. (2013). The impact of audit committee multiple-directorships on earnings management: Evidence from France. *The Journal of Applied Business Research, 29*(5), 1333-1342.

Bank Negara Malaysia. (2005). Guidelines for audit committees and Internal Audit Department (Part A). Retrieved from http://www.bnm.gov.my/guidelines/02_insurance_takaful/03_prudential_stds/ 08_audit_comm.pdf.

Baxter, P., & Cotter, J (2009). Audit committees and earnings quality. *Accounting & Finance*, *49*(2), 267-290

Bedard, J., & Gendron, Y. (2010). Strengthening the financial reporting system: Can audit committees deliver? *International Journal of Auditing, 14*(2), 174-210.

Berman, K., Knight, J., & Case, J. (2013).*Financial intelligence: A manager's guide to knowing what numbers really mean*. Business Literacy Institut*e*.

Boe, T., Gulbrandsen, B., &Sorebo, O. (2015). How to stimulate the continued use of ICT in higher education: Integrating information systems continuance theory and agency theory. *Computers in Human Behavior*, *50*, 375-384.

Bolboaca & Jantschi., (2006). Pearson versus Spearman, Kendall's Tau Correlation Analysis on Structure-Activity Relationships of Biologic Active Compounds. *Leonardo Journal of Sciences,* 9*(*1), 179-200.

Bouaziz, Z. (2012). The impact of the presence of audit committees on the financial performance of Tunisian companies. *International Journal of Management & Business Studies, 2*(4), 57-64.

Brien, R. M. (2007). A Caution Regarding Rules of Thumb for Variance Inflation Factors. *Quality& Quality*, *41*, 673-690.

Bryman, A., & Bell, E. (2003). *Business Research Methods* (1[st]ed.). UK:Oxford University Press.

Bursa Malaysia. (2015). *[MAIN LR] CHAPTER 15 – Corporate Governance.*

Carcello, J.V., Neal, T.L., Palmrose, Z.V., &Scholz, S. (2011), CEO involvement in selecting board members, audit committee effectiveness, and restatements. *Contemporary Accounting Research*, *28*(2), 396-430.

Chandrasegaram, R., Rahimansa, M. R., Rahman, S. K. A., Abdullah, S., &Mat, N. K. N. (2013). Impact of audit committee characteristics on earnings management in Malaysian public listed companies. *International Journal of Finance and Accounting, 2*(2), 114-119.

Chang, R. D., & Wei, J. T. (2010). Effects of governance on investment decisions and perceptions of reporting credibility: Investment experience of Taiwanese individual investors. *Asia Pacific Journal of Management*. *28*(1)*,* 139-155.

Cheng, H. G., & Phillips, M. R. (2014). Secondary analysis of existing data: opportunities and implementation. *Shanghai Archives of Psychiatry*, *26*(6), 371–375. http://doi.org/10.11919/j.issn.1002-0829.214171

Chiranga, N., & Chiwira, O. (2013). The impact of multiple directorships on performance for companies listed on the Johannesburg stock exchange. *Proceedings of 8th Annual London Business Research Conference Imperial College, London*.

Church, R, M. (2001). The Effective Use of Secondary Data. Learning and Motivation, *33*, 32–45.

Croushore, D. (2011). Frontiers of real-time data analysis. Journal of Economic Literature, 49(1), 72-100

Davison, A. G., Stening, B. W., & Wai, W. T. (2004).Auditor concentration and the impact of interlocking directorates. *Journal of Accounting Research, 22*(1), 313-317.

Delloitte. (2015). *Audit Committee Resource Guide*. Publisher: Deloitte Development LLC

Elliot, B., & Elliot, J. (2011). *Financial Accounting and Reporting* (14th ed.). United Kingdom: Pearson Education Limited.

Elliott, A. & Woodward, W. (2007).*Statistical analysis quick reference guidebook*. Thousand Oaks, Calif.: Sage Publications.

Emmanuel, E., Ayorinde, B., & Babajide, O., (2014). Audit committee multiple directorships and financial reporting quality. *Mediterranean Journal of Social Sciences, 5*(20), 628-637.

Enhanced Disclosure. (2011). Audit committee Reports Global Disclosure Guidelines. *The Enhanced Disclosure Working Group.* Publisher: The Enhanced Disclosure Working Group

Fabozzi, F. J., Focardi, S. M., & Ma, C. K. (2005).Implementable quantitative research. *The Journal of Alternative Investments*, *8*(2), 71-79.

Fama, E. F., &Jensen, M.C., (1983).Separation of ownership and control. *Journal of Law & Economics*, *26*(2), 301-26.

Field, A. (2009). *Discovering statistics using SPSS*. LA: SAGE Publications.

Fielding, N., Lee, R., & Blank, G. (2008).*The SAGE Handbook of Online Research Methods*. Los Angeles: SAGE.

Garson, G. D. (2016). Testing statistical assumptions asheboro. NC: Statistical Publishing Associates.

Garven, S. (2015). The effect of board and audit committee characteristics on real earning management: Do boards and audit committees play a role in its

promotion or constraint? *Academy of Accounting and Financial Studies Journal*, *19*(1), 67-84.

Getting to grips with the goods and services tax. (2015, April 01). *BeritaDaily.* Retrieved from http://www.beritadaily.com/opinion/2015-03-31/185/getting-to-grips-with-the-goods-and-services-tax.

Ghafran, C., & O'Sullivan, N. (2013). The governance role of audit committee: reviewing a decade of evidence", *International Journal of Management Reviews*, *15*(4), 381-407.

Ghasemi, A. & Zahediasl, S. (2012). Normality Tests for Statistical Analysis: A Guide for Non-Statisticians. *Int J Endocrinol Metab*, *10*(2), 486-489. http://dx.doi.org/10.5812/ijem.3505

Ghauri, P. N. (2005). *Research methods in business studies: A practical guide.* Pearson Education. NY: McGraw Hill.

Gray, D. E. (2004). *Doing research in the real world*. London: Sage Publications.

Gray, D. E. (2013). *Doing research in the real world* (3rd ed.). London: Sage Publications.

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

Hair, J., Black, B., Babin, B., Anderson, R., & Tatham, R. (2006). Multivariate Data Analysis (6th ed.). Harlow: Pearson Education.

Hamdan, A. M., Sarea, A. M., & Reyad, S. M. R. (2013). The impact of audit committee characteristics on the performance: Evidence from Jordan. *International Management Review*, *9*(1), 32-42.

Harrast, A. S., & Olsen, L. M. (2007).Can audit committees prevent management fraud? *CPA Journal, 77*(1), 24-27.

Hassan, Y. M., & Naser, K. (2013). Determinants of Audit Fees: Evidence from an Emerging Economy. *Institutional Business Research*, *6*(8), 13-25.

Hinggis, J. (2005). *The Radical Statistician* (5[th]ed.). The Managment Advantage, Inc.

Hulley, S. B., Cummings, S. R., Browner, W. S., Grady, D. G., & Newman, T. (2013). *Designing Clinical Research* (4[th]ed.). Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.

Iatridis, G.E. "Environmental Disclosure Quality: Evidence on Performance, Corporate Governance and Value Relevance." Emerging Market Review 14 (2013): 55-75.

Ismail, H., Iskandar, T. M., & Rahmat, M. M. (2008).Corporate Reporting Quality, audit committee and Quality of Audit. *Malaysian Accounting Review, 7*(1), 21–43

Jaggi, S. (2003).*Descriptive Statistics and Exploratory Data Analysis*. Retrieved from http://www.iasri.res.in/ebook/EB_SMAR/e-book_pdf%20files/Manual%20II/1-Descriptive%20Statistics.pdf

Jensen, M.C., & Meckling, W.H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics,3*(4), 305-360

Joher, H. (2005). Corporate governance structure and firm performance: Empirical evidence from Bursa Malaysia, Kuala Lumpur. *International Business & Economics Research Journal, 4*(9), 59-66.

Jubb, C. A. (2000). *Choosing an Auditor: Corporate Governance, Interpersonal Associations and Investor Confidence*. Unpublished Doctoral dissertation, University of Melbourne.

Kabajeh, M. A. M., Nu'aimat, S. M. A. A., & Dahmash, F. N. (2012). The relationship between the ROA, ROE and ROI ratios with Jordanian insurance public companies market share prices. *International Journal of Humanities and Social Science, 2*(11), 115-120.

Kan, R., Robotti, C., & Shanken, J. (2009).Pricing model performance and the two-pass cross-sectional regression methodology. *Working Paper Series (Federal Reserve Bank of Atlanta)*, *11*, 1-60.

Kent, J.A. (2007). *Kent and Riegel's Handbook of Industrial Chemistry and Biotechnology.* Retrieved from

https://books.google.com.my/books?id=zPZWYerB3SYC&pg=PA178&dq=desc
riptive+analysis+with+numerical+and+graphical&hl=en&sa=X&redir_esc=y#v=
onepage&q=descriptive%20analysis%20with%20numerical%20and%20graphica
l&f=false

Kersten, W., Blecker, T., & Meyer, M. (2009).*Supply chain performance management: Current approaches*. Retrieved from https://books.google.com.my/books?id=dgJsqu6w2-
UC&pg=PA56&dq=self+interest+assumption+in+agency+theory&hl=en&sa
=X&ved=0ahUKEwiA2Oi1yajLAhUEPo4KHcJlAsUQ6AEIIDAB#v=onepag
e&q=self%20interest%20assumption%20in%20agency%20theory&f=false

Khatab, H., Masood, M., Zaman, K., Saleem, S., &Saeed, B. (2011). Corporate governance and firm performance: A case study of Karachi stock market. *International Journal of Trade, Economics and Finance*, *2*(1), 39-43.

Kim, P.K.,&Rasiah, D. (2010), Relationship between corporate governance and bank performance in Malaysia during the pre and post Asian financial crisis, *European Journal of Economics, Finance and Administrative Sciences*, *21*,39-63.

KPMG, (2006).The changing roles of audit committee. Retrieved from, http://www.kpmg.com.my/kpmg/publications/aci/atb_june06.pdf

KPMG. (2015). *Audit committee Guide*. Publisher: KPMG's Audit Committee Institute.

Kuang, C. (2007). *Audit committee characteristics and earnings management in New Zealand*. Unpublished master's thesis, Auckland University of Technology.

Kudla, N. L., & Wissing, T.K. (2012). Sustainability in shipper-logistics service provider relationships: A tentative taxonomy based on agency theory and stimulus-response analysis, *Journal of Purchasing and Supply Management, 18*(4), 218-231.

Kukull, W., & Ganguli, M. (2012). Generalizability: The trees, the forest, and the low-hanging fruit. *Neurology*, *78*(23), 1886-1891.

Kumar, N. and Singh, J. P. (2012), 'Audit committee as corporate governance mechanism; Myths and realities.*9th Aims International Conference on Management*

Lee, P. C. (2014). A theoretical analysis of the audit committee's role in China. *Global Journal of Management and Business Research, 14(5), 1-13.*

Li. J., Mangena, M., & Pike, R. (2012*).* The effect of audit committee characteristics on intellectual capital disclosure. *The British Accounting Review, 44*(1), 98-110.

Little, W., Vyain, S., Scaramuzzo, G., Cody-Rydzewski, S., Griffiths, H., & Strayer, E. (2014).*Introduction to Sociology – 1st Canadian Edition* (1st Ed.). CA: BC Campus.

Madawaki, A., & Amaran, N. A. (2013). Audit committees: How they affect financial reporting in Nigerian companies. *Journal of Modern Accounting and Auditing, 9*(8), 1070-1080.

Madi, H. K., Ishak, Z., & Manaf, N.A.A. (2014).The impact of audit committee characteristics on corporate voluntary disclosure. *Procedia - Social and Behavioral Sciences*, *164*, 486-492.

Malawai, M. J. (2012). A guide to appropriate use of Correlation coefficient in medical research.*The Journal of Medical Association of Malawi, 24*(3), 69-71.

Malaysian Code on Corporate Governance. (2007). Retrieved from www.sc.com.my/eng/html/cg/cg2007.pdf

Malaysian Institute of Accountants. (2014). A guide to understanding annual reports: Malaysian listed companies. Publisher: CPA Australia

Mamun, A. A., Yasseer, Q. R., Rahman, M.A., Wickramasinghe, A., & Nathan, T. M. (2014). Relationship between audit committee characteristics, external auditors and EVA of public listed firms in Malaysia.*Corporate Ownership of Control*, *12*(1), 899-909.

Mantis, P., & Simon, G. (*2003*). *Multiple Regression Basics.* Unpublished manuscript, New York University, Stern School of Business.

Matari, Y. A. A., Swidi, A. K. A., Fadzil, F. H. B., & Matari, E. M. A. (2012). Board of directors, audit committee characteristics and performance of Saudi Arabia

listed companies. *International Review of Management and Marketing*, *2*(4), 241-251.

Mitnick, B. M. (2006). *Origin of the theory of agency: an account by one of the theory's originators*. Unpublished doctoral dissertation, University of Pittsburgh, Pittsburgh, Pennsylvania, United States.

Mohd. Ghazali, N.A. "Ownership Structure and CSR Disclosure: Some Malaysian Evidence." *Corporate Governance* 7, no. 3 (2007): 251-66.

Mohuiddin, M., & Karbhari, Y. (2010), 'Audit committee Effectiveness: A Critical Literature Review', *Journal of Business and Economics*, *9*, 97-125

Muttakin, M.B., and A. Khan. "Determinants of Corporate Social Disclosure: Empirical Evidence from Bangladesh." *Advance in Accounting, Incorporating Advance in International Accounting* (2014): In press.

Norwani., Mat, N., Mohamad., Zuriyati, Z., Chek., &Tamby, I. (2011). Corporate governance failure and its impact on financial reporting within selected companies. *International Journal of Business and Social Science, 2*(21), 205-213.

Ojulari, O. (2012). *Corporate governance: The Relationship between audit committees and Firm Values*. Unpublished master's thesis, Kwara State University, Malete.

Othman, R., Ishak, I, F., Arif, S. M. M., &Aris, N. A. (2014). Influence of audit committee characteristics on voluntary ethics disclosure. *Procedia - Social and Behavioral Sciences*, *145*, 330- 342.

Ott, R. L., & Longnecker, M. (2010). An Introduction to Statistical Methods and Data Analysis (6th ed.). Canada: Cencage Learning.

Owolabi, S. A., &Dada, S. O. (2011). Audit committee: An instrument of effective corporate governance. *European Journal of Economics, Finance and Administrative Sciences*, *35*, 173-183.

Paul, R. K. (2006). Multicollinearity: Causes, Effects and Remedies. Unpublished professor's thesis.

Persons, O. S. (2011) Characteristics and financial performance of no ethics-code firms.*Journal of Academic and Business Ethics*, 1-14.

Peters, G.F., and A.M. Romi. "Discretionary Compliance with Mandatory Environment Disclosures: Evidence from SEC Filings." *J. Account. Public Policy* 32 (2013): 213-36.

Rahmat, M. M., Iskandar, T, M., &Saleh, N. M. (2009). Audit committee characteristics in financially distressed and non-distressed companies. *Managerial Auditing Journal*, *24*(7), 624-638.

Rainsbury, E., Bradbury, M., & Cahan, S. F. (2009).The impact of audit committee quality on financial reporting quality and audit fees. *Journal of Contemporary Accounting & Economics, 5*(1), 20-33.

Richter, T. (2012). International marketing mix management: Theoretical framework, contingency factors and empirical findings from worldmarkets. Berlin: Logos Verlag.

Saat, N. A. M., Karbhari, Y., Jason, Z. X., & Heravi, S. (2012). Factors affecting independent audit committee members' effectiveness – The case of listed firms on Bursa Malaysia. *World Review of Business Research*, *2*(3), 132-147.

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

Samaha, K., Khlif, H., & Hussainey, K. (2014)**.**The impact of board and audit committee characteristics on voluntary disclosure*: A meta-analysis,Journal of International Accounting, Auditing and Taxation, 24,* 13-28.

Santos, J. B., & Brito, L. A. L. (2012).Toward a subjective measurement model for firm performance. *Brazilian Administration Review*, *9*(6), 96-117.

Sarens, G., & Vlaminck, N.D. (2015). The relationship between audit committee characteristics and financial statement quality: Evidence from Belgium. *Journal of Management Government*, *19*, 145-166.

Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research Methods for Business Students* (6th ed.). Italy: Pearson Education Limited.

Siam, Y. A., Laili, N. H., & Khairi, K. F. (2015). The Relationship between audit committee characteristics and earnings management among Jordanian listed companies: Proposing conceptual framework. *Research Journal of Finance and Accounting, 6*(18), 2-10.

Singh, A. & Masuku, M. (2014).Assumption and Testing of Normality for Statistical Analysis. *American Journal of Mathematics and Mathematical Sciences*, *3*(1), 169-175.

Sulaiman, M., Abdullah, N., & Fatima, A. (2014).Determinants of Environmental Reporting Quality in Malaysia. *International Journal of Economics, Management and Accounting*, *22*(1), 63-90.

Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research*, *1*(1), 77-100.

Uyanik, G. K., & Guler, N. (2013).A study on Multiple Linear Regression analysis.*Procedia-Social and Behavioral Sciences, 106*, 234-240.

Vlaminck, D. N., & Sarens, G. (2013). The relationship between audit committee characteristics and financial statement quality: Evidence from Belgium. *Journal of Management & Governance, 19*, 145-166.

Wang, C., Xie, F., & Zhu, M. (2015).Industry expertise of independent directors and board monitoring. *Journal of Financial and Quantitative Analysis, 50*(5), 929-962.

Wang, D. H., & Huynh, Q. L. (2013). Complicated relationships among audit committee independence, non-financial and financial performance. *Journal of Knowledge Management, Economics and Information Technology*, *5*(3), 1-19.

Ward, A. J, Brown, J.A., & Rodriguez, D. (2009). Governance bundles, firm performance, and the substitutability and complementarity of governance mechanisms. *Corporate governance: An International Review*, *17*, 646–660.

Weiers, R. M. (2010). Introduction to business statistics (7th ed.). Cengage South Western

Wet, D. J. H. V. H., & Toit, D. E. (2007), Return on equity: A popular, but flawed measure of corporate financial performance. *South African Journal of Business Management*, *38*, 59-69.

Williams, C. (2007). Research Methods. *Journal of Business & Economic Research, 5*(3), 65-72.

Yatim, P. (2011). Underpricing and board structures: An investigation of Malaysian Initial Public Offerings (IPOs). *Asian academy of management journal of accounting and finance, 7*(1), 73–93.

Yeh, Y.H., Chung, H., &Liu, C.L. (2011), Committee independence and financial institution performance during the 2007-2008 credit crunch: Evidence from a multi-country study. *Corporate governance: An International Review*, *19*(5), 437-458.

Zabri, S., Ahmad, K., & Wah, K. (2016). Corporate governance practices and firm performance: Evidence from top 100 public listed companies in Malaysia. *Procedia Economics and Finance*, *35*, 287-296.

Zahirul, M., Nazrul, M., & Bhattacharjee, S. (2010).Agency problem and the role of audit committee: Implications for corporate sector in Bangladesh. *International Journal of Economics and Finance*, *2*(3), 177-188.

Zajac, E. J. (2008). Interlocking directorates as an inter-organizational strategy: A teat of critical assumptions. *Academy of Management Journal*, *31*(2), 428-438.

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.

Zikmund, W. (2003).*Business Research Methods* (7[th]ed.). Thomson South Western, Mason, USA

Zikmund, W. G. (2003). *Business research methods* (7th ed.). United States: Thomson South Western.

Appendix A: Summary of Past Empirical Studies

Study	Country	Measurement and Data Collection	Major Findings
Abdullaha, Halim, and Nelson (2014)	Malaysia	• Multiple regressions • Independence of audit committee measured by number of non-executive director from audit committee while firm performance is measured by ROA. • Sample comprises 2,124 observations collected from the annual reports of 708 firms for three years from 2009–2011	• The result does not show relationship between audit committee **independence** and earnings management
Aanu, Odianonsen, and Foyeke (2014)	Nigeria	• Regression and correlation analysis • Independence of audit committee measured by percentage of nonexecutive director in the audit committee and firm performance is measured by ROA, ROE and ROCE. • 25 manufacturing firms were selected and from which data were collected for the period (2004-2011)	• The result showed a positive significant relationship between **independence** of the audit committee and firm performance

Wang and Huynh (2013)	Vietnam	• Multiple regressions and F-test • Independence of audit committee measured by number of non-executive director from audit committee while financial and non-financial performance is measured by ROE and ROA. • Sample size was 25 listed companies from year 2004 to 2011 whereby data was collected from financial reports	• The result showed audit committee **independence** positively affects non-financial and financial performance
Mamun, Yasser, Rahman, Wickramasinghe, and Nathan (2014)	Malaysia	• EVA and F-test • Independence of audit committee measured by number of non-executive director from audit committee and firm performance is measured by EVA • Sample is 75 firm year observations and covers fiscal years 2008-2010	• The result showed audit committee **independence** is positively associated with financial reporting.
Amer, M., Ragab, A. A., and	New York, USA	• Pearson correlation coefficients for ROE, ROA and Tobins' Q	• The result showed a negative correlation

			between **size** of audit committee and firm performance
Shehata, S. E. (2014).		• Audit committee size measured by if audit committee have at least three members considered as 1, otherwise 0 • Sample collected from 50 listed companies in 15 industries active in Egyptian from year 2004 to 2012	between **size** of audit committee and firm performance
Azim (2012)	Australia	• Multiple regression and analysis of variance (ANOVA), • Audit committee size is measured by number of directors on the board • The initial sample consists of 1500 company-year observations from the top-500 ASX-listed companies from 2004 to 2006	• The result showed a negative relationship between **size** of audit committee and firm performance
Chandrasega ram, R., Rahimansa, M. R., Rahman, S. K. A., Abdullah, S., Mat,	Malaysia	• Regression analysis • audit committee size measured by the number of audit committee members • Sample collected from 153 Malaysian public listed companies' annual reports in year 2011	• The result showed no relationship between **size** of audit committee and firm performance

andNK. N. (2013).			
Al-RassasandKamardin (2015)	Malaysia	• Multiple regression and discretionary accruals • Audit committee size measured with the total number of audit committee members • The final sample of the study is 508 firms from 822 firms. Data were collected from Data Stream and annual reports available on the Bursa Malaysia website.	• The result showed the relationship between **size** of audit committee and firm performance was in negative direction
Matari, Y. A. A., Swidi, A. K. A., Fadzil, F. H. B., andMatari, E. M. A. (2012).	Malaysia	• Pearson correlation analysis and multiple linear regression analysis • audit committee size measured with the total number of directors on the audit committee • 135 companies' sample data in year 2010 collected from Saudi Stock Market	• The result showed a significant correlation between **size** of audit committee and firm performance

Rahmat, Iskandar, and Saleh (2009)	• Malay sia	• Sample size was 146 public listed companies • audit committee characteristics are examined in size, independence, activity, and accounting knowledge	• Higher number of the audit committees with **financial literate,** the better the firm performance will be (positive relationship).
Emmanuel et al. (2014)	Nigeria	• Z-test • 15 commercial banks are the samples • Financial experts mean audit committee who are financial literacy	• **Financial literates** can significantly improve quality of financial reporting and firm performance.
Bouaziz (2012)	Tunisian	• Hausman test • 26 companies are the sample size • Audit committee characteristics are examined in size, independence, meeting, and expertise	• Significant positive relationship between audit committee with **financial expertise** and financial performance
Hamdan et al. (2013)	Jordan	• normal distribution test, and the Multicollinearity test, the Autocorrelation	• Significant positive relationship

		test, and the Ordinary Least Squares (OLS) test • collected total of 212 companies as their samples • Audit committee characteristics are measured in independence expertise, and activity and size.	between **financial expertise** of audit committee and firm performance
Aryan (2015)	Jordan	• Multiple regressions • Independence of audit committee measured by number of non-executive director from audit committee while profitability of company measured by (Sales – Cost of Goods Sold) / Sales • Data extracted from industrial companies' annual reports for six years (2009-2014)	• The result showed no relationship between audit committee **financial expertise** and company profitability
Baccouche, Hadriche, and Omri (2013)	France	• Sample size was 88 non-financial firms • Multiple directorships are measured in number of directorships	• Audit committee **busyness** has brought a negative impact on firm's performance.

Kuang (2007)	New Zealand	• Used 150 listed companies as their samples • Audit committee characteristics are audit committee independence, expertise, shareholdings and multiple directorships	• Negative relationship between firm performance and audit committee with **multiple directorships**
Ojulari (2012)	Nigeria	• Test of association • 25 companies including 50 to 150 subsidiaries • Firm's values are in ROE, NPM, STG, TQ and dividend yield while IV includes Directors Independence, financial literacy, frequency of meetings, and multiple directorships	• Negative relationship between ROE and audit committee with **multiple directorships**
Ismail, Iskandar, andRahmat (2008)	Malaysia	• Logistic stepwise regression • 108 listed companies	• Audit committee **busyness** are positively related to reporting quality
Vlaminck andSarens (2015)	Belgium	• Pearson's correlation • 60 listed companies • Audit committee characteristics are	• There was a positive relationship between

		measured in audit committee directors' profiles, the audit committee's meeting frequency, and the size of the audit committee	financial statement quality and audit committee holds more than **3 directorships**
Chiranga and Chiwira (2013)	Johannesburg	• 42 listed companies • Multiple directorships are measured by number of directorships held	• Audit committee who held **multiple directorships** will have no relationship in firm's performance

Appendix B: Definition, Source and Measurement of Variables

Independent Variable	Item	Definition	Sources	Measurement
Independence of Audit Committee	IV1	Number of independent members serving in an audit committee group	Hamdan et al. (2013)，Matari et al. (2012)，Adeyemi et al. (2012).	Ratio scale based on total number of independent director to that of the audit committee.
Size of Audit Committee	IV2	Total number of audit committee members employed by the firm.	Al-Rassas&Kamardin (2015), Garven (2015), Zhang et al. (2007).	Ratio scale based on the natural logarithm of number of audit committee.
Financial Expertise of Audit Committee	IV3	Audit committee members have accounting qualification, finance industry experience or membership of professional associations.	Hamdan et al. (2013), Abernathy et al. (2015), Mamun et al. (2014).	Ratio scale based on total number of accounting qualification, finance industry experience or membership of professional associations of audit committee to the total number of audit committee.

Busyness of Audit Committee	IV4	Number of independent audit committee who hold more than 3 directorships in public listed companies.	Wang et al. (2015), Adeyemi et al. (2012), Baccouche(2015).	Nominal scale. 1 if the director is holding more than 3 directorships, 0 is otherwise.
Dependent Variable				
Firm Performance	DV	ROE which can reveal the rate of return received by shareholders generated by money invested in the company.	Elliot et al. (2011), Santos &Brito (2012), Khatab et al. (2011).	Ratio scale based on the net profit after tax divided by total equity.