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The Dynamics Of Audit Committee Characteristics, External Audit Quality, And Firm Performance. Evidence From Firms Listed In Pakistan Stock Exchange

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Abstract
Audit quality and committee features are critical for any firm to ensure efficient and effective management of resources. Policymakers, scholars, and practitioners can all benefit from learning more about the connection between audit committee features and restatements. Thus, the purpose of this study is to explore the Characteristics of Audit Committee dynamics, external audit quality and firm performance using six years data of non financial firms listed in KSE 100 index. The result demonstrates that based on P values of all variables are significant but only one variable which is EAQ, is insignificant because the value of T is 0.523 which is less than 2. The result conclude that Audit committee characteristics as it produces positive association with firm performance but considerably low. So, if the Businessmen and policy makers focus of Audit committee characteristics it can be produce higher significant results which can boost up the firm performance.

Keywords: Audit Committee Characteristics, External Audit Quality, Fir Performance

Introduction

Audit quality and committee features are critical for any firm to ensure efficient and effective management of resources, as stated by (Sharma, Naiker & Lee, 2009). As a major strategy in the accounting system's deployment, it allows management to examine the efficiency of each division and, ultimately, the company's bottom line. Companies trading on the stock exchanges in any country rely on audits to ensure that their financial statements and reports are accurate and reliable. Institutions of all stripes that are tasked with verifying company records rely on this as its foundation. The efficiency and credibility of the institution's audit department within the organization’s practices as part of the corporate governance structure of the firm's management and practices are reflected in the functions of

internal audit, which in turn reflect the quality of the financial reports or information that the institution maintains to create confidence among the stakeholders.

When financial statements are restated, it is because of major errors or omissions that were previously undisclosed. Recent years have seen a rise in restatements, raising serious concerns about the reliability of financial accounts (Levitt 1998). The SEC, the NYSE, and the NASD all expressed concern about the rising number of restatements, prompting the formation of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees (BRC). The BRC's work aims to enhance the audit committee's capacity to oversee financial reporting by formulating new recommendations in this area. There were ten suggestions in the report that the BRC released in October 1999. (BRC 1999). The focus of this research is on how well various BRC suggestions work in the setting of restatements.

Policymakers, scholars, and practitioners can all benefit from learning more about the connection between audit committee features and restatements. To begin, there is a dearth of literature on restatements, their frequency, and their underlying causes (Kreutzfeldt and Wallace 2000). Second, the frequency with which restatements are occurring has increased dramatically, by 750 percent between 1992 and 1998. Finally, unlike fraud, which has been studied extensively, restatements provide insights about the audit committee's potential to impact the efficacy of internal and external audits in a different scenario. As a result, a restatement could indicate a weak internal control system and/or auditor. In contrast, explicit fraud may involve top-level management deliberately bypassing internal controls and hiding the situation from the external auditor, making it unreasonable to anticipate detection by either set of auditors using conventional audit methods (Nieschwietz et al. 2000). Therefore, fraud may not be as illuminating concerning the audit committee's oversight of the internal and external audit processes.

DeAngelo (1981) defines internal audit quality as the probability that an auditor would detect and explain away a substantial mistake. In this context, audit quality refers to two distinct features: the auditor's ability to detect errors and the auditor's willingness to report any errors found during an audit. The accounting qualifications (AQ) and auditing experience (AEXP) of the internal audit team are two characteristics that should be documented during an evaluation of internal audit quality. Although auditing services has been well perceived as one of the mechanisms that is used to mitigate the agency problem that mostly exists between the management of the firms and the shareholders, the effect of internal audit quality on a company's financial performance has not been studied extensively by most scholars in emerging economies. When it comes to defending shareholder interests and serving the other stakeholders in public enterprises throughout the world, the auditing service is just one more piece of the corporate governance framework and an important aspect of the regulatory system. The quality of an audit is measured by how accurately it portrays an organization's performance over time in terms of financials and other metrics; this is known as "independence," "objectivity," "consulting activity," and "assurance" (The Institute of Internal Auditors, 2008). It's an effort to make the entity's risk management, operations, and administration better so that the desired outcomes are attained, the wealth of shareholders is protected, and the consumers of financial accounting information have access to reliable data. It aids the institution in developing discipline, enhancing its management process, and managing risks to reach its objectives. Managers are constantly adjusting the firm's returns in order to boost their compensation and provide the greatest possible return to the firm's shareholders. However, if an auditor can guarantee the quality of returns, the principle will have more faith in

the return created by the firm and give that metric more weight when drafting the managers' contract to prevent any potential for conflicts of interest (Dunn et al., 2000).

With its primary responsibility for looking out for shareholder interests in matters of financial supervision and control, the audit committee (henceforth "AC") is widely regarded as the most significant board subcommittee (MoIlah & Talukdar, 2007). The Audit Committee's major responsibility is to monitor the company's financial reporting process, evaluation of financial reports, internal accounting controls, audit process, and, more recently, risk management processes (Klein, 2002). The foregoing is true also for audit committees of UK firms, the responsibilities of which have grown with the adoption of various Corporate Governance Codes beginning with Cadbury's Report on the Financial Aspects of Corporate Governance. The major recommendations for audit committees in the UK are currently put forth in the UK Corporate Governance Code established in 2010 by the Financial Reporting Council (previously the Combined Code). After recent corporate scandals, the need of audit committees and good corporate governance in general became clear.

There is mounting evidence that the qualities of audit committee members are crucial to the success of audit committees (Abbott et al., 2003). Many commentators stress the need of holding regular audit committee meetings, having a majority of independent members on the committee, and having at least one member with financial competence (Carcello et al., 2002). Although studies in this field have shown mixed results, it is apparent that knowledgeable board members and audit committee members can increase a company's worth (Bronson et al., 2009). Firm performance may benefit from increased audit committee diligence, which has been linked to more frequent audit committee meetings (Sharma et al., 2009). Abbott et al. (2004) state that the likelihood of fraudulent or misleading reporting is reduced when audit committees hold at least two meetings each year.

Problem Statement

Two natural conclusions may be drawn from the public demand for greater honesty and openness in company financial reporting and the prevalence of accounting scandals in recent years. Resolving the complex accounting maneuvers that have clouded financial statements has elevated the importance of internal auditing expertise. Corporate governance has evolved in response to public pressure and government intervention. That's why there's a higher standard of ethical and legal accountability for business representatives. Investors' concerns about the reliability of financial reports have been alleviated in part due to these results. However, internal audit results and recommendations are still not being strictly adhered to. The emergence of financial scandals has resulted in tighter rules and improved standards for accounting and governance of corporations. Investors lost a lot of money in the World.com and Enron scams, therefore in 2002 the United States passed the Corporate and Auditing Accountability and Responsibility Act (Sarbanes and Oxley, 2002). The Act is an attempt to fix the flawed financial controls and inefficient internal auditing that contributed to these disasters. According to ISA, an external auditor's role is not to uncover fraud or other irregularities, but rather to report on their discovery. Internal audit should be aware of it before the external auditor does, and the audit committee should be aware of it thanks to the reports generated by internal audit.

Literature Review

Audit Committee and Firm Performance

Any project would be incomplete without a thorough examination of the relevant literature, which paints a picture of the current status of research in the field. This section of the work

will initially focus on the most relevant theories related to the topic at hand. Following that, we'll go into the basic definitions and structure for corporate governance in the United Kingdom. Afterwards, we'll talk about the most crucial AC features, such as its size, meeting frequency, independence, and competence, and we'll link the theory to the appropriate prior literature, which is also presented in the tables.

Main Theories

The authors approached corporate governance from several vantage points and theoretical frameworks. Researchers have acknowledged the Agency Theory, Stakeholder Theory, Stewardship Theory, and Resource Dependence Theory as useful for understanding corporate governance concerns. Therefore, these theories serve as the theoretical underpinning for our investigation, illuminating the relationship between AC traits and business outcomes (Nelson and Jamil, 2011).

Agency Theory

According to Agency Theory, the principal can influence the agent to behave in his or her best interests by providing incentives and bearing the costs of activities that monitor and limit the agent's self-interest actions (Jensen and Meckling, 1976). The principal, by providing incentives and keeping tabs on the agent's actions, can ensure that the agent serves the principal's interests. A non-affiliated AC is one of the established measures to lessen the agent's self-serving tendency. Subcommittees of the full board, made up of directors with appropriate attributes like independence, expertise, and experience, are one example of a governance mechanism that can help mitigate the negative effects of information asymmetry and, in turn, help protect against or at least mitigate the agent's self-interest (Aldamen et al., 2012).

Stakeholder Theory

The Agency Theory has been criticised for its seeming lack of a long-term perspective and explanation of a company's goals (Freeman, 1984). An alternative to the Agency Theory is the Stakeholder Theory, which is defined by authors like Fort and Schipani (2000) as "ensuring the conditions of the responsibilities to the various stakeholders to create value and coordinate the management levels among various stakeholders," where these stakeholders can be anything from stockholders and employees to customers and creditors to suppliers and competitors and even the whole of society. According to this school of thought, the shareholders aren't the only ones who should gain from corporate governance. Despite its popularity, Jensen (2001) notes that proponents of the Stakeholder Theory have failed to offer practical answers to the many competing interests of stakeholders that organizations must safeguard. Because of this, he proposed a version of Stakeholder Theory he called "enlightened Stakeholder Theory." He implied that a company would not be able to increase the shareholders wealth if any stakeholder is ignored or mistreated.

Stewardship Theory

The Agency Theory, which holds that agents are self-centered and individualistic, is at odds with the Stewardship Theory, which posits that managers are concerned with the welfare of the owners and the overall performance of the organization (Donaldson & Davis, 1991). According to this belief, executives will stop at nothing to satisfy their stockholders (Boyd et al., 2011). Ntim (2009) stated that the firm's performance would improve if the executives were given more authority and were trusted with the company's future. This contention was based on the Stewardship Theory. Based on the notion, a committee's performance and output will improve if it has a larger proportion of executive directors than independent directors (Al Mamun et al., 2013). Some of the credit for this success may go to the directors' in-depth understanding of the company and its industry

(Ntim, 2009). Assuming that the steward's actions are meant to protect the long-term welfare of the principal, the Stewardship Theory assumes that the steward is able to unify the different interests of stakeholders and that he acts voluntarily in a way that will protect the interest and welfare of others (Hernandez, 2012).

Additionally, this idea supposes that people are driven to work by the satisfaction they have while carrying out their duties. Therefore, the emphasis on managers' extrinsic rewards is not as fundamental in this theory as it is in Agency Theory. Given the technical expertise, experience, and knowledge of the company and the finance industry that inside directors bring to the table, they will be able to contribute more to the decisions of the board's subcommittees, at least according to the assumptions of the Stewardship Theory as applied to financial services firms.

Anderson et al. (2004) is of the opinion that with increase in audit committee experience in a firm can reduce its cost of debt which ultimately improves company performance. Raghunandan et al. (2001) examined that a member in audit with finance and accounting background is more likely to have lengthy meetings with audit officers and review and examine audit proposals and reports in more efficient manner. This ultimately improves the procedure of internal control in a firm and the entire financial reporting system move towards efficiency and longterm performance of a firm is enhanced. Abbot et al (2003) argued that financial expertise of audit committee is significantly related with audit fees. They also asserted that higher audit fee is evidence of greater financial expertise at audit committee level and thereby improving financial performance of a firm in short term and long term. Defond et al (2005) suggested that the appointment of a financial expert in audit committee leads to positive market reaction in stock market thereby ensuring higher financial returns for a stock. Archambeault et al.. (2008) are of the opinion that incentive compensations for audit committee improves financial returns of a firm. The existence of financial experts in audit committee in a firm improves firm financial performance

Characteristics of Audit Committee

This article argues that disparities in AC features are the most likely cause of any governance-related performance gaps. Further analysis will be conducted on the four most important characteristics of an AC as identified by the existing literature:

(i) size;
(ii) (ii) meeting frequency;
(iii) (iii) independence; and
(iv) (iv) competence.

Audit Committee Size

The AC unit's size is the primary dividing line. One argument suggests that a larger membership body will be able to better oversee company operations, leading to enhanced productivity. However, other scholars argue that, contrary to popular belief, larger audit committees might lead to ineffective governance. There is evidence, according to Sharma et al. (2009), that the number of AC meetings is inversely related to the presence of several directors, an independent AC chair, and AC independence. They also discovered a correlation between AC size, institutional and management ownership, financial expertise, and board independence, and the increased probability of financial misreporting.

A minimum of three independent non-executive directors, or two in the case of smaller firms, are required by the UK Corporate Governance Code's "the board should form an AC."

Multiple authors analyzed the correlation between AC size and business success. The following tables provide an overview of the findings from the research that found a negative or positive association. Hermalin and Weisbach's (2003) groundbreaking study on the relationship between board size and business

performance has important implications for understanding the relationship between the size of the AC and the performance of an organization. Based on their findings, they concluded that "big boards can be less successful than tiny boards" (emphasis added). If a board is too large, agency problems (such director free-riding) will increase, and the board's role in management will become more symbolic. Empirical tests conducted by (Sharma et al., 2009) lend credence to this perspective. He controls for other factors that are expected to affect Tobin's Q and investigates the association between board size and Q for a sample of significant U.S. firms. The data from Yermack points to a considerable inverse link between board size and Q. Eisenberg et al. (1998) provide evidence that a similar pattern exists for a sample of small and medium-sized Finnish enterprises, corroborating the Yermack conclusion. According to the numbers, it appears that the relationship between board size and business value is inverse (Hermalin and Weisbach, 2003).

Audit Quality and Firm Performance

An audit is considered high-quality if and only if the auditors are able to detect and report errors in the client's accounting system. Controversy about audit quality has persisted for decades, with data suggesting that poor audits are a major contributor to financial and corporate scandals (Soltani, 2014). Audit quality as external corporate governance monitoring has been shown to improve company performance in prior research. This research uses two proxy measures of audit quality to demonstrate the impact that these measures can have on a company's bottom line. The primary impetus for this study is the practice of switching auditing firms. Proponents of rotating audit firms argue that doing so improves audit quality by increasing auditor independence, which in turn boosts the performance of the corporations they examine. But many who disagree with audit rotation say its costs outweigh its benefits.

Agency theory states that people related with organization can help improve firm performance by understanding their core functions and perform their functions extreme levels of quality and diligence. Hutchinson and Zain (2009) found a positive relationship between audit quality and firm performance. Fadzil et al (2005) argued that quality of auditors is directly in the interest of shareholders as their financial knowledge, expertise in their profession and their transparent track record all adds to quality of auditors and then firm financial performance. KPMG (1999) asserted that established that audit plays an important role in improving financial performance and help identifying and eradicating every type of financial and non financial embezzlements in a firm. Roth (2004) is of the opinion that a proper internal control is required in order to maintain quality in financial reporting in a firm. As these financial reports provides basis for decisions taken by a firm. Inadequate control system in accounting procedures of a firm leads to lower productivity and thereby minimizing profitability of a firm. Humphrey (2006) argued that firm employees receive appreciation for their contribution through audit interviews and reviewing audit reports along with auditors. Meletta (2004) asserted management and audit committees regularly strive to improve performancemanagement in audit departments. It can be achieved through enforcing programs for quality assurance and to implement appropriate framework for performance measurement.

Companies can be evaluated using a variety of different ratios. Indicators of accounting success highlighted by Spira (1999) include return on assets (ROA), return on equity (ROE), and return on investment (ROI) (ROI). These are commonly used as metrics for evaluating business success. ROE is still a useful tool, even though others like Internal Rate of Return

(IRR), Cost of Capital (CofC), and Discounted Cash Flow (DCF) modelling have emerged. While this strategy prioritizes profits for shareholders, it has the unfortunate side effect of masking a number of issues. Financial techniques can help businesses artificially sustain high ROE, masking underlying declines in performance. Conversely, ROA is immune to the illusions that may arise from using deceptive financial tactics. Tobin's Q ratio is another popular monetary indicator of a company's success. It is determined by dividing the current market price of the company by the cost to replace its assets.

Theoretical Framework

The following theoretical framework is developed based on the literature cited

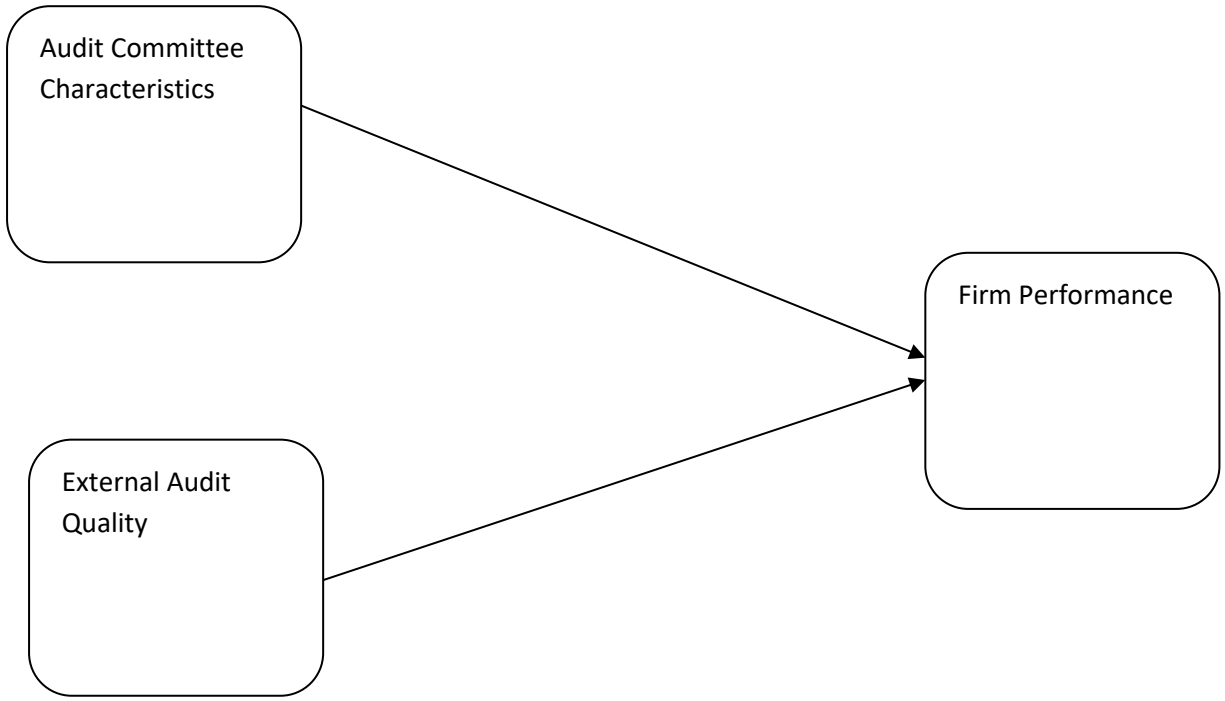

Figure 1. Theoretical Framework

Research Methodology

The methodology used in this investigation was explanatory. Explanatory research is a type of study whose primary goal is to uncover the nature and underlying causes of the correlation or causation between a set of independent and dependent variables. The population of study includes a group of individuals, events, or objects that have a common noticeable attribute and adjust to a given description. The population of this study includes all firms listed in Pakistan Stock Exchange. Secondary data was collected from firms listed in Pakistan Stock Exchange. The sample of study includes all non-financial firms listed in KSE 100 index. All financial firms were excluded from KSE 100 index for collecting secondary data from their annual reports. There were total 21 financial firms in commercial banking, modaraba, close end mutual funds, insurance and investment banking sectors. There are 79 non-financial firms included in KSE 100 index. Secondary data was collected from their published annual reports based on their availability in the period 2016 to 2021.

Variables of the study

Dependent Variable

Firm Performance

Firm performance will be measured through return on assets. Return on assets is the proportion or percentage of net profit to total assets of firm.

ROA = Net Profit/Total Assets

Independent Variables

External Audit Quality

Internal audit quality is the combined possibility that an auditor will become aware of and account for material misstatement. In this case, the meaning of audit quality is composed of two mechanisms that are: the capacity to spot misstatements and the readiness to divulge the misstatements that are discoveredin an audit assignment. Audit quality will be assessed through a check list given in Appendix B. Such measures are also used by Aslam and Haron, 2020; Chaudhry et al., 2020 and Khan and Subhan, 2019. Audit quality will be estimated using content analysis technique for all non-financial firms in KSE 100 index.

Audit Committee Characteristics

The major goal behind forming the audit committee is to increase auditing quality and questioning of board of directors. It is a group of persons selected from members of the board of directors who are responsible for retaining independence of the auditor. It is also an attempt to evaluate the role and qualities of the audit committee with regard to independence of committee members, its size, and frequency of meetings, in addition to the experience and knowledge which members of the committee have to monitor management behavior. Audit committee characteristics will be assessed through a check list given in Appendix B. Such measures are also used by Aslam and Haron, 2020; Chaudhry et al., 2020 and Khan and Subhan, 2019. Audit committee characteristics will be estimated using content analysis technique for all non-financial firms in KSE 100 index.

Control Variables

Firm Size

Firm size will be measured using log of total assets of a firm

Firm size = Log (Assets)

Leverage

Firm leverage shows financial risk of a firm. It will be measured by taking proportion of total debt to total firm equity.

Leverage = Total Debt/Total Equity

Statistical Model

The following statistical will be used to estimate the impact of external audit quality and audit committee characteristics on firm performance for firms listed in Pakistan Stock Exchange. To estimate this relationship summary statistics, pooled OLS, fixed effect, random effect and Hausman test will be used.

$ROA = B_0 + B_1ACC + B_2EAQ + B_3FS + B_4LEV + e$

Where

ROA = Return on Assets

ACC = Audit Committee Characteristics

EAQ = External Audit Quality

FS = Firm Size

LEV = Firm Leverage

e = error term

Analysis

A descriptive statistic is a summary statistic that quantitatively describes or summarizes features from a set of data, whereas descriptive statistics is the process of applying and evaluating those statistics.

For two purposes, descriptive statistics are used.

1. To convey fundamental information about variables in a dataset

2. To draw attention to potential correlations between variables.

Descriptive Statistics

Descriptive statistics always show the measures of central tendency such as Mean, Median, Maximum, and Minimum; measurements of dispersion or varia ation such as Standard Deviation; and descriptive statistics such as Skewness and Kurtosis. Here Table 1 shows measures of the value of Mean, Standard Deviation and No of observations.

Step 1: N is the number of observations in your sample. This count does not contain missing values. Here the no of observations ae 402 which is quite sufficient sample for the study.

Table 1: Descriptive Statistics

	Mean	Std. Deviation	N
ROA	0.523394	0.2759782	402
FS	3512232.5	290384.41	402
LEV	0.44033	0.288575	402
ACC	0.84963	0.656777	402
EAQ	0.826525	0.584694	402

Actually, larger samples also provide more accurate estimates of process characteristics like the mean and standard deviation. The current research study has a sample size of 402, which is sufficient for data distribution. The mean of the ROA is 0.523394, for FS that is 3512232.5. Mean for LEV is 0.44033, for ACC the mean is 0.84963 and for EAQ the mean 0.826525. The similarly standard deviation for ROA is 0.2759782, while for FS the Standard deviation is 290384.41, for LEV the standard deviation is 0.288575, for ACC the standard deviation is 0.656777 and for EAQ the standard deviation is 0.584694. All of the values simply indicate that the standard deviation is nearer to the mean and so it can be inferred that the dispersion ion the data is not that much which is quite good indication for the data.

Correlation Analysis

In statistics, correlation is a statistical term which describes the degree in which two or more variables move in coordination with one another. The coordination in statistics describes, if two variables are move in the same directions then this coordination is called positive correlation while when the movement of two variables direction is down then this is said to be negative correlation.

The correlation coefficient value in between 0.5 and 0.7 shows variables can be considered moderately correlated. The coefficient magnitude falls in between 0.3 and 0.5 show low correlation.

Here in the Table no. 2 the correlation between ROA and ACC is 0.14 which means that there is positive association between ROA and ACC and that 14 %. So, it simply means that if ROA move in some direction the other variable which is ACC should move in the same direction with 14% of the acceleration of the ROA. Similarly, the correlation value between ROA and EAQ is 0.113 which means that there is positive association between ROA and EAQ and that 13 %. So, it simply means that if ROA move in some direction the other variable which is EAQ should move in the same direction with 13% of the acceleration of the ROA. The Correlation between ROA and FS 0.24 which simply that there is positive association between ROA and FS and that 24 %. So, it simply means that if ROA move in some direction the other variable which is FS should move in the same direction with 24% of the acceleration of the ROA. Similarly, the correlation value between ROA and LEV is

0.051 which means that there is positive association between ROA and LEV and that 5.1 %. So, it simply means that if ROA move in some direction the other variable which is ACC should move in the same direction with 5.1 % of the acceleration of the ROA.

Table 2: Correlations

		ROA	ACC	EAQ	FS	LEV
ROA	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	402				
ACC	Pearson Correlation	.140**	1			
	Sig. (2-tailed)	0.005				
	N	402	402			
EAQ	Pearson Correlation	.113*	.673**	1		
	Sig. (2-tailed)	0.023	0			
	N	402	402	402		
FS	Pearson Correlation	0.24	.304**	.272**	1	
	Sig. (2-tailed)	0.003	0	0		
	N	402	402	402	402	
LEV	Pearson Correlation	0.051	.113*	110*	0.003	1
	Sig. (2-tailed)	0.005	0.024	0.028	0.959	
	N	402	402	402	402	402

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

*. Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis

In the world of data analysis, regression ranks among the highest in both significance and frequency of application. It's a method of statistics that helps to clarify the nature of the association between a dependent variable and a set of independent variables (s). An independent variable is one that you control, whereas a dependent variable is one whose behaviour or characteristics you seek to anticipate or characterise. The areas or pieces of data that you believe may have an effect on the dependent variable could be considered independent variables.

In doing so, it answers a couple of important questions —

- What variables matter?
- To what extent do these variables matter?
- How confident are we about these variables?

Here in the below table of model summary the main value which are considerable are R square value Adjusted R Square values, F Values and P values. The R square value for the model 1 is 0.13 which simply means that the independent variables, which are ACC and EAQ, show the explained variations in the dependent variable which is 0.13 or 13 % which is not that much

higher but it can be inferred on the basis of the R square value that there is some considerable change which the independent variables try to bring in the dependent variable and so that 13%. In the same way the adjusted R square is 0.12 which simply means that the independent variables, which are ACC and EAQ, show the explained variations in the dependent variable which is 0.12 or 12 % which is not that much higher but it can be inferred on the basis of the R square value that there is some considerable change which the independent variables try to bring in the dependent variable and so that 12%.

Similarly, the R square for the model 2 is 0.22 which simply means that the control variables, which are FS and LEV, show the explained variations in the dependent variable which is 0.22 or 22 % which is also not that much higher but it can be inferred on the basis of the R square value that there is some considerable change which the independent variables try to bring in the dependent variable and so that 22%. In the same way the adjusted R square is 0.21 which simply means that the independent variables, which are ACC and EAQ, show the explained variations in the dependent variable which is 0.21 or 21 % which is not that much higher but it can be inferred on the basis of the R square value that there is some considerable change which the independent variables try to bring in the dependent variable and so that 21%.

Similarly, the F change Value for the model 1 is 3.63 which is nearer to 4 and it can be simply inferred that the model is almost fit. The fit model means that the selected variables can bring significant change in the dependent variable or it can be simply said that the model is significant. Similarly, the F change Value for the model 2 is 3.812 which is also nearer to 4 and it can be simply inferred that the model is almost fit. As mentioned above that the fit model means that the selected variables can bring significant change in the dependent variable or it can be simply said that the model is significant. Likewise, the Significant f change value for model 1 is 0.004 or 0.4 % which is less than 0.05 or 5%. So, it simply means that the model is significant and model is fit. The fit model means that the selected variables can bring significant change in the dependent variable or it can be simply said that the model is significant. Similarly, the Significant f change value for the Model 2 is 0.003 or 0.3% which is less than 0.05 or 5%. So, it simply means that the model is significant and model is fit. The fit model means that the selected variables can bring significant change in the dependent variable or it can be simply said that the model is significant.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.056[a]	0.13	0.12	0.2762335	0.13	3.63	2	399	0.004
2	.148[b]	0.22	0.21	0.2743068	0.19	3.812	2	397	0.003

a. Predictors: (Constant), LEV, FS

b. Predictors: (Constant), LEV, FS, EAQ, ACC

Several parameters, summarised in a table, are calculated and interpreted during ANOVA. Using statistical software or a Microsoft Excel® spreadsheet makes the computations much easier in practise. Let's have a look at the typical output of a one-way ANOVA, in the form of a results table, before diving into the specifics of the calculations from basic principles. How the findings are interpreted will also be examined.

Sum of Square (SS): When determining the SS terms, a series of squared error terms is added together. For the within-group SS term SSw, we focus on the dissimilarities between each data point and the group average. The Total SS term is interested in the deviation from the data's mean (the "grand or overall mean") rather than the mean itself. The convenient between-group SS term is calculated by subtracting the Total SS from the SS for each individual group.

Degree of Freedom: Table 1 displays results from a one-way ANOVA with N observations across k groups. As with a normal N-size data set, the total number of degrees of freedom is N minus 1. Since there are k groups to analyse, the between-group effect has k minus one degrees of freedom. The within-group SS term has degrees of freedom equal to N - k, where N is the total number of groups. Obviously, the degrees of freedom for the within-group SS can be reduced to k(n - 1) and the total number of observations to N - kn if all data sets contain the same number of replicates, n.

Mean of Square: In traditional ANOVA, the mean squares are the most important statistic. They are measures of dispersion, determined by dividing the total squared difference in means between and within groups by the appropriate number of degrees of freedom. The between-group MS term (also written as M1) is denoted by Mb in Table 1, while the within-group MS term is denoted by Mw (sometimes denoted M0). The subsequent test for significance between group means makes use of the mean squares. 3 The variance components, or the individual variances for each effect that adds to the overall dispersion of the data, can also be estimated using these mean squares. In the next blog post, I'll go into detail about the methods currently being used to achieve this goal.

F or F Ratio: The mean squares are compared using an F-test as indicated in the above table. The hypothesis for the F -test in Table 1 are: Ho : MSb = MSw H1 : MSb > MSw If all means are ‘equal’ (or not significantly different), the two mean squares should also be not significantly different and hence Ho is true. We expect MSb to be equal or greater than MSw as it has included an extra element of variance between group and variance cannot be negative. Therefore this F-test is a one-tailed test for whether MSb is greater than MSw with formula MSb/MSw. This is the value shown in the column F in Table 1. No value for F is given for the residual mean square, as there is no other effect with which it can usefully be compared.

Fcrit and P Value: It is common practice for ANOVA tables to include an additional column or two: the critical value Fcrit against which the calculated value F is to be compared at a chosen significance level, and a p-value including the significance of the test. They are crucial for making sense of the result. For instance, if the significance level is set at 0.05, then the MSb is not significantly different from the MSw and the group means are not significantly different from each other if the calculated F value is less than Fcrit at this significance level or the calculated p-value is greater than 0.05.

Here in the below table the considerable values to be explained are F Values and P Values. The F value for model 1 is 6.3 which is greater than 4 and it simply means that the model is fit. The fit model means that the selected variables can bring significant change in the dependent variable or it can be simply said that the model is significant. Similarly for Model 2 the F value is 7.225 which also greater than 4 and it simply means that the model is fit. The fit model means that the selected variables can bring significant change in the dependent variable or it can be simply said that the model is significant. While discussing the values of P, the model 1 P value is 0.005 or 0.5 % which is less than 5 % and it simply means that the model is significant and the alternative hypothesis has been selected while the null hypothesis has been rejected. Similarly, by looking at the value of P for the Model 2, that is 0.00000 or simply 0% which is less than 5 % and it simply means that the

model is significant and the alternative hypothesis has been selected while the null hypothesis has been rejected.

Table 4: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.096	2	0.048	6.3	0.005
	Residual	30.446	399	0.076		
	Total	30.542	401			
2	Regression	0.67	4	0.167	7.225	0
	Residual	29.872	397	0.075		
	Total	30.542	401			

a. Dependent Variable: ROA
b. Predictors: (Constant), LEV, FS
c. Predictors: (Constant), LEV, FS, EAQ, ACC

The amount and direction of the association between a predictor and a response are quantified by a regression coefficient. In a regression equation, coefficients represent the multipliers applied to the term values.

Assuming that all other terms in the model remain the same, the coefficient for a term shows the change in the mean response associated with a change in that term. The direction of the relationship between the term and the answer is denoted by the sign of the coefficient. The magnitude of a term's effect on the response variable can be roughly gauged by looking at the size of its coefficient. However, the calculations for significance take into account the volatility in the answer data, so the size of the coefficient does not indicate whether a term is statistically significant. Determine whether or not the phrase is statistically significant by looking at its p-value.

Here in the Below Table No 5, we would explain the P values of concerned variables and also the T Values. The P value for the FS in the model is 0.005 or 0.05% which is less than 5 % and it simply means that the Alternative hypothesis for the FS in the model is selected while the Null hypothesis has been rejected. Similarly for LEV the P value in the model is 0.003 or 0.03% which is less than 5 % and it simply means that the Alternative hypothesis for the FS in the model is selected while the Null hypothesis has been rejected. For ACC the P value in the model is 0.006 or 0.06% which also less than 5 % and it simply means that the Alternative hypothesis for the FS in the model is selected while the Null hypothesis has been rejected. For EAQ the P Value is 0.601 or 6 % which is slight higher than the 5% and it can be inferred that the Alternative hypothesis has been rejected while the Null hypothesis has been selected.

Similarly, if we look at T value of every concerned variable in the model so they are almost higher than 2 which is also a sign of significance for every concerned variable in the model and so it can be conclusively inferred that the alternative hypothesis has been selected while the null hypothesis have been rejected. Only for one variable which EAQ the T value is less than 2 and that 0.523 which indicate that the null hypothesis has been selected and alternative hypothesis has been rejected.

Table 5: Coefficients[a]

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B

		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	0.55	0.027		20.293	0	0.496	0.603
	FS	2.276	0	2.024	0.04	0.005	0	0
	LEV	3.048	0.048	3.051	3.013	0.003	0.142	0.046
2	(Constant)	0.477	0.039		12.371	0	0.401	0.552
	FS	2.081	0	0.022	4.18	0.001	0	0
	LEV	0.032	0.048	0.033	2.68	0.004	0.126	0.062
	ACC	0.05	0.029	0.119	2.751	0.005	0.006	0.107
	EAQ	0.017	0.032	0.035	0.523	0.601	-0.046	0.079

a. Dependent Variable: ROA

Mixed Model Analysis

A "mixed model" consists of two types of model components: fixed effects, which define systematic relationships like overall changes over time and/or experimentally induced group differences, and random effects, which account for variability among subjects around the systematic relationships captured by the fixed effects. Statistical models with both fixed effects and random effects are called mixed models, mixed-effects models, or mixed error-component models. Such models have many applications across the physical, biological, and social sciences. They shine brightest in longitudinal research situations, in which the same statistical units are measured over time, and in clustered, interconnected research settings. Mixed effects models are often preferred over more conventional approaches like repeated measures analysis of variance because of their advantage in dealing with missing values. Below is the result of the Mixed Model analysis which include both fixed effects as well as random effects.

Model Dimension[a]

		Number of Levels	Covariance Structure	Number of Parameters
Fixed Effects	Intercept	1		1
	ACC	289		288
	EAQ	317		62
Random Effects	FS + LEV[b]	2	Variance Components	2
Residual				1
Total		609		354

a. Dependent Variable: ROA.

Type III Tests of Fixed Effects[a]

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	323.651	695.57	0
ACC	34	401.025	5.773	0
EAQ	62	401.011	8.091	0

a. Dependent Variable: ROA.

a. Dependent Variable: ROA.

Estimates of Covariance Parameters[a]

Parameter		Estimate	Std. Error
Residual		0.010565	0.000746
FS	Variance	.000000[b]	0
LEV	Variance	0.091146	0.132668

a. Dependent Variable: ROA.

b. This covariance parameter is redundant.

Discussion

If we look to the chapter no 4 so the entire results have been given there and that is a sign or say indication to which side our research is can give us the clue. First of all, if we look to the correlation result so the all the variables in the model are positively correlated among each other and which simply means that the variable have positive association/strength of relationship among each other. Then coming towards the regression analysis so the both of the models are explaining some portion of the variations which are 13% and 22 % respectively. Similarly, the overall P value is giving significant results by having the values less than 5 % while for individual variables the P values are also giving significant result but only one variable is giving insufficient result which is EAQ and whose P Value is more than 5 % which is 6 %. Same is the condition with T value for every individual variable that is significant because the values for T are more than 2 while only for one variable, which is EAQ, is in significant because that is 0.523 and that is less than 2.

The conclusion of the stated two values, which are T and P, is that the Alternative hypothesis has been selected and Null hypothesis has been rejected while the only for EAQ the Null hypothesis has been selected and the alternative hypothesis has been rejected. Similarly, if we look to the research objectives so they are;

- To examine the effect of audit committee characteristics on firm performance
- To examine the effect of external audit quality on firm performance

Accordingly, both of the objective has been achieved, one with the significant result and other with the insignificant result

Now if we look to the research questions so they are;

- What is the impact of audit committee characteristics on firm performance?
- What is the impact of external audit quality on firm performance?

Now accordingly both of the research question has been answered. The answer for the first research question is that ACC has significant impact on the Firm performance while the EAQ has insufficient impact on firm performance.

Recommendations and Future Research Directions

Based on the findings of the research it can be inferred that the recommendations of the research are linked with the significance of the research in such way that this research may beneficial for the following parties.

Businesses and policy makers: The Business men and policy makers should focus in the Audit committee characteristics as it produces positive association with firm performance but considerably low. So, if the Businessmen and policy makers focus of ACC it can be produce higher significant results which can boost up the firm performance. While the other variable which is EAQ produces insignificant result due to which the businessmen and the policymakers

should also focus upon such dimension in order not spoil the firm performance

Researchers and Students: Another recommendation is for the students and researchers , here in this study model the one variable produce significant result while the other produces insignificant result so the students and researcher may take some other variable in the combination Like Accounting Information system, Managerial Ownership or fraud and embezzlement etc which might produce strong significant result comparatively.

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