

Quality and Audit Fees: Evidence from Pakistan

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Abstract

Audit quality has been in the limelight for researchers over the last two to three decades. Researchers have endeavored to find out the factors that impact the quality of audit conducted by the auditors. The recent financial crises and financial scandals have further enhanced the importance of this topic. Although it is an empirically established fact that auditor's performance is impeded by a number of factors that curb its independence however sudden surge in the emoluments of auditors during the last decades has actuated the researchers to study audit quality in context of compensation fee paid to the auditors. The results of studies differ as some are of the view that audit quality improves with the payment of excess fee while the rest are of the opposite view. Unluckily, Pakistan has been less explored in this regard and not even a single study has addressed the issue of audit quality in Pakistan. This study has attempted to analyze audit quality in context of abnormal or extra fee paid to auditor. Audit conducted without independence of auditor is futile and results in impairment of audit quality. Independence of auditor is usually curbed by extra fee paid to him, and auditor in fear of losing a lucrative fee does not report the misrepresentations of financial statements in his audit report. This study uses discretionary accruals as surrogate of audit quality which are computed by Cross-sectional Modified Jones Model (1995). The results are fortunately good for Pakistan and study has observed that auditors in Pakistan do not compromise on their standards and honesty when paid extra fee. In Pakistan, the quality of audit is not impaired when auditors are paid extra fee and the auditors work with diligence and exert extra effort to improve the audit quality. Therefore, the assertion that audit quality is impaired when high fee is paid to auditors does not hold well in Pakistan.

Keywords: Audit fee, Audit Quality

Introduction

Auditor's role in society is to assure interested third parties that corporate report and financial statements are true and fair reflection of company's performance. In order to perform this role, it is essential that auditors are independent of client. Independence is necessary for performing quality audit (Dart, 2011). Thus it is necessary that auditor must make an independent opinion after the examination of financial statements. An audit would be futile if it is conducted without full independence because the independence of an auditor has major impact on the audit quality. It can be argued that the audit quality is a function of auditor independence (Larcker and Richardson, 2004).

The independence of auditor can be curbed if the auditor is economically dependent upon the client. Economic dependence on client means that either the major share of auditor's revenue comes from a single client or auditor is paid high above his expectations and efforts. Therefore, the study of audit quality in context of audit fee is an interesting issue which shall be explored in this study. Although the relationship between audit quality and audit fee is examined in various studies, but still the relationship is ambiguous. There may be two different consequences of paying excess fee to auditor. The auditor may increase effort in the process of audit resulting in a higher quality of audit (Mitra et al., 2009); conversely, excess fee paid to auditor may make him dependent on his client and hence there is a threat of low audit quality (Choi et al., 2010). Auditor may not raise issues with the material misstatement of client because he has risk of losing a lucrative fee.

It is believed that examining fees paid by firms to auditor in the context of auditor profitability better captures the relation between audit quality and auditor independence (Hoitash et al., 2005). Moreover, the auditor's independence can be best analyzed by looking at the fees paid to them relative to their expected amount i.e. adjusted for their effort, time spent and risk. Therefore this study will explain the relationship between audit quality and audit fee by splitting audit fee into expected and unexpected (abnormal) component.

The objective of this study is to analyze audit quality in context of Pakistan by using the discretionary

accruals as measure of audit quality. The audit quality is analyzed by examining its relationship with abnormal or excess audit fees. Audit fee can be divided into normal and abnormal fee (Choi et al., 2010). Normal fees are determined by the factors which are common across the clients such as size, complexity and client risk, while the abnormal fees are as a result of negotiation between the client and auditor and may be called as excess fees. Thus, the objective is to see whether the audit excess fee (abnormal fee) has an impact on audit quality or not.

1.2 Purpose and significance of study

Pakistan has not been explored much regarding auditing and therefore, a very scant literature is available in this regard. Previous audit studies conducted in Pakistan have focused audit fees and its determinants in Pakistan, while no study has emphasized the issue of audit quality. This study therefore, explores the relationship of audit fee and audit quality which has never been studied in Pakistan.

1.3 Implications of study

The practical advantage of this study is that it will help in assessing the performance of auditors and the quality of audit conducted by them when remunerated above their expectations. Moreover, the relationship between audit fee and audit quality is ambiguous and needs further evidence. The current study therefore, adds to the literature by providing the analysis of audit quality and its relationship with audit fees in context of Pakistan which has never been addressed in the past. This study will also explain auditor's professionalism in Pakistan. The rest of the paper is organized as follows: next section reviews the literature of audit fee and its relationship with audit quality. Then the research strategy and methodology used to find out relationship of audit fee and audit quality is discussed. Next the statistical analysis and results generated from audit quality model are discussed. The last section concludes the study.

Review of Literature

2.1 Audit quality

An audit would be of high quality if the auditor is fully independent while conducting the audit (DeAngelo, 1981). The independence of auditor can be curbed by different factors and the important one among those factors is fee given by the client to auditor. An auditor dependent upon a particular client may conduct the audit in a lenient way and therefore compromise the quality of audit. The study of audit quality and audit fee is necessary as it helps both regulators and auditors to improve the audit quality standards.

2.1.1 Audit (abnormal) fee and audit quality

Literature of auditing shows mixed evidence regarding the relationship between high or abnormal fee paid to client and audit quality. It is said by researchers that high fee paid to the auditor may encourage him to put his maximum efforts in conducting the audit and disclose the material financial misstatements of his client. On the other side, high fee paid to auditor may make him economically dependent upon his client and the auditor will be reluctant to disclose material misstatements, if any, of the client. Some of the mixed evidences regarding (abnormal) audit fee and audit quality are discussed ahead.

Larcker and Richardson (2004), conducted a study to find out the relationship between high (abnormal) fee paid by clients to auditing firms and quality of accruals in financial statements of client (audit quality). The study covers US market with 5103 firm year observations and time period of two years 2000-2001. Similar to previous studies, absolute discretionary accruals is used as proxy for audit quality and regressed on different measures of fee. Abnormal audit fee is considered for analysis instead of total fee to find out the audit quality when the auditors are paid excess of their remuneration and abnormal audit fee of auditor is found out from the residuals of traditional (Simunic, 1980) audit fee model. They say that the relationship between accruals (proxy for audit quality) and abnormal audit fee is positive only when the audit fee is measured by using ratio of non-audit fee to total audit fee, otherwise there is no significant relationship between earnings quality and auditor's independence. Larcker and Richardson (2004), say that the relationship between audit quality and audit fee is sensitive to the measures used for auditor independence. The overall results of their study suggest that auditors care about their reputation and 'reputation protection' refrains them from being lenient for a client in the audit of his financial misstatements. Therefore auditors do not compromise their independence even they are paid high fees.

Contrary to above findings, Hoitash et al. (2007), in their study of auditor fee and audit quality find evidence that audit quality is impaired when auditors are paid high fee above their expectations. They say that the relationship between auditor's independence and audit quality can be best described if the fees paid by client are analyzed in context of the profitability of auditor. The independence of auditor is thus influenced by the amount of fee relative to the auditor effort. Hoitash et al. (2007), say that an auditor may not raise objection with the misstatements of client who is paying him a lucrative fee and above the efforts done by him in conducting the audit. Hoitash et al. (2007), conduct their study by analysis of US market, taking 13860 observations for time period of four years 2000-2003. They use performance matched absolute discretionary accruals and current

accruals relating to cash flows as proxy for audit quality. These both proxies for audit quality are regressed on total and abnormal audit fee. The result of their study shows that there is a significant positive relationship between (total and abnormal) fee and both type of accruals used as proxy for audit quality. The relationship was significant and positive in all the years of analysis. The results show that economic bonding between client and auditor leads to impairment of audit quality. Hoitash et al. (2007), conclude that an auditor if paid above his efforts and risk is likely to avoid any conflict with his client regarding material misstatements and thus compromise on the audit quality.

Similar findings are shown by Choi et al. (2010), in their study of US market regarding audit quality and audit fee. Choi et al. (2010), say that the actual audit fee paid to auditor by a client consists of two parts i.e. normal and abnormal. Normal fees depend upon the factors which are common across all the clients. The normal fee of auditor can also be called as expected fee. The other part of actual audit fee i.e. abnormal fee is unusual and unexpected component of audit fee. The abnormal fee depends upon the auditor client relationship and negotiation power of both auditor and client. Choi et al. (2010), conduct their study by using 2081 firm year observations covering time period from 2000 to 2003. Similar to previous studies, absolute discretionary accruals is used as proxy for audit quality and regressed on abnormal audit fee. The results of their study show that there is a significant positive relationship between abnormal audit fee and discretionary accruals (inverse measure of audit quality) when the abnormal fees are positive. While the relationship between abnormal audit fee and audit quality is insignificant when the abnormal fees are negative or less than expectations. It means that the auditors which are paid high above their expectations compromise on audit quality and they think that high fee can outweigh the risk and costs associated with litigation or reputation loss. This study also shows that when auditors are not paid above their expectations then they do not compromise on audit quality as they have less incentives and more loss to suffer in case of litigation or audit failure.

The study done by Mitra et al. (2009), negates the conclusion drawn by the study of Hoitash et al. (2007), and Choi et al. (2010). Mitra et al. (2009), conducted a study of US market to test the audit quality and audit fee relationship. They say that independence of an auditor can be impaired if an auditor gets unexpected high fee from his client. Study uses a sample of 1142 firms covering time period of six years i.e. 2000 to 2005. Similar to previous studies, performance matched discretionary accruals are used as proxy for audit quality and computed from modified cross-sectional Jones model (Dechow, 1995). The audit fee is split into two components expected (normal) and unexpected fee (abnormal). The results of study show that the amount of discretionary accruals had negative relationship with both expected and unexpected fee. Mitra et al. (2009), say that the high fees paid to auditors do not curb their independence rather it helps in improving the quality of audit. Auditors exert extra effort in improving the audit quality and this shows that auditors care about their reputation and honesty.

Kraub et al. (2011), find out the results contrary to the findings of Mitra et al. (2009), Kraub et al. (2011), tested the relationship of audit quality and audit fee in German market. Study uses a sample of 717 firms and the period of study is from 2004 to 2009. Audit quality is measured with two proxies i.e. accounting restatement or error announcements and discretionary accruals. Similar to previous studies, abnormal fee is used instead of total fee in analysis. They say that abnormal fees can be called as attempted bribe to auditors and clients by giving abnormal fees to auditors urge the auditors not to object or raise questions at the financial misstatements and earnings management. The results of study show that both proxies for audit quality have positive relationship with the positive abnormal fee. The auditors which get positive abnormal fee from their clients allow the clients to indulge in earnings management resulting in lowered audit quality. Results show that the auditors which get positive abnormal fees from clients do not want to leave those clients and the benefits of staying with the same client are far more than the costs associated with the audit failure of that client which may result in reputation loss. Thus the study suggests that the independence of auditors is curbed by the abnormal fees, and the auditors getting abnormal fee greater than their expectations (i.e. positive abnormal fee) do not disclose the financial misstatements or earnings management of their client(s).

Lin and Hwang (2010), conducted a meta-analysis of studies conducted regarding audit fee and their impact on audit quality. They say that earnings management has been used as proxy for audit quality in almost all the studies of auditing. Earnings management occurs when manager use their own judgment in financial reporting to alter the financial reports. These alterations done by managers are either meant to mislead the stockholders about the performance of company or to attain personal benefits (which are contingent with the profitability of company). Lin and Hwang (2010), say that the audit quality is multidimensional and unobservable; therefore a single trait or characteristic of auditor can't be the surrogate for the quality of audit conducted. Lin and Hwang (2010), conducted the meta-analysis on 27 studies (till 2006) related to earnings management (audit quality) and audit fee. Their results suggest that high audit fee charged by auditor is negatively related to the quality of audit. This means that high fee charged by auditor impairs his independence and thus the auditor becomes economically dependent upon the client which lowers the quality of audit. Lin and Hwang (2010), say that if the auditor is given fee in commensurate to his efforts then the quality of audit is not

lowered. The results of this study, however, cannot be generalized due to the fact that the study was conducted using only 27 studies which are quite less.

Similar kinds of findings are shown by Asthana and Boon (2012), in their study of US market. They explore relationship between abnormal fee and audit quality. Asthana and Boon (2012), say that auditors are hired by clients and compensated by clients for their efforts which creates and economic bonding between client and audit. They say that greater economic bonding between auditor and client degrades audit quality. Asthana and Boon (2012), say that the fact economic bonding undermines audit quality depends upon expected costs and benefits of auditor. Study tests assertion that abnormal fee impairs audit quality. Absolute discretionary accruals is used as proxy for audit quality which is calculated by cross-sectional modified jones model. This study uses 140796 observations and covers a time period of ten years i.e. 2000-2009. Results of the study show that abnormal audit fee impairs audit quality and hypothesis of Asthana and Boon (2012), holds true.

Keeping in view the conflicting evidences regarding (abnormal) audit fee and audit quality, this study will add to literature by providing empirical evidence about relationship of audit fee and audit quality.

Research strategy and methodology

This section discusses the methods and techniques to find out the relationship of auditor fee with audit quality.

3.1 Data and sample size

This study uses secondary data and the companies listed on Karachi Stock Exchange (KSE) 100 index have been included in the study. The reasons for selecting companies from KSE-100 index are that, KSE-100 index is deemed to be the representative of corporate sector of Pakistan and largest stock exchange of Pakistan in terms of market capitalization. Moreover, the study uses amount of audit fee paid by companies and only the companies listed on KSE-100 index are bound to disclose the audit fee in the footnotes of their annual reports (Section 230, Companies Ordinance 1984). The study uses convenient sampling because of data availability issues and only non-financial firms have been used in the study due to the differing asset structure and revenue generation pattern of financial firms. Moreover, audit quality studies rarely include financial companies because those companies do not have necessary data for analysis. The data covers whole sectors of KSE-100 index and at least ten companies should be selected from a single sector otherwise results of cross sectional Modified Jones Model would not be valid (Dechow, 1995).

Additionally, a company is included in the analysis if it meets the following criteria:

- It should have annual reports from the year 2007 to 2011
- It should have disclosed audit fee in all of the years under analysis
- It should have generated sales in all of its years under analysis

On the basis of above criteria and restriction of choosing at least ten companies from single sector, 150 companies from seven sectors were selected for the analysis. Annual reports of each company were retrieved from its website.

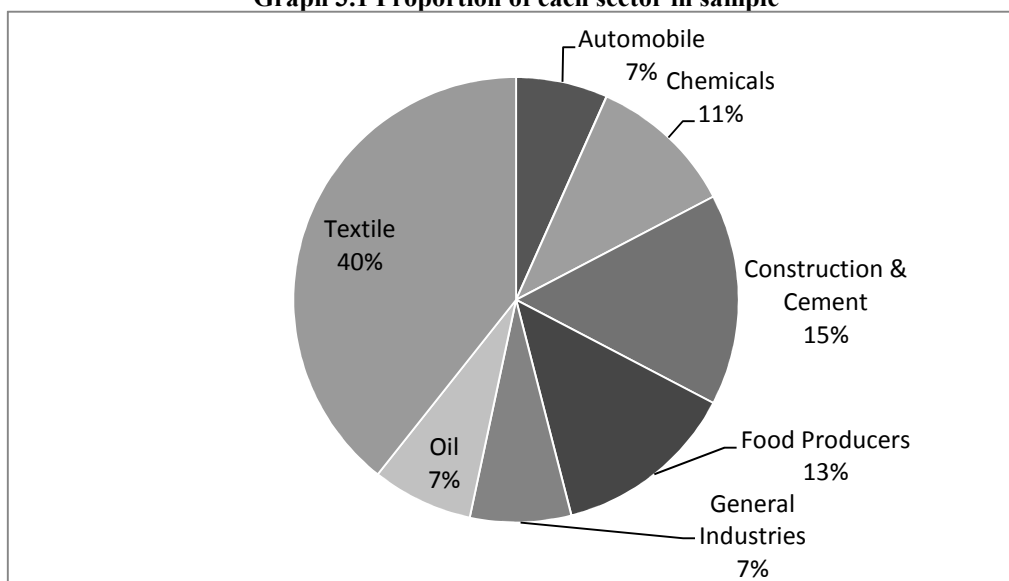
The following table describes the number of companies included in the sample from each sector.

Table 3.1 Sector wise summary of companies selected in the sample

S.No	Name of Sector	Number of Companies
1	Automobile	10
2	Chemicals	16
3	Construction & Cement	23
4	Food Producers	20
5	General Industries	11
6	Oil Sector	11
7	Textile	59
	Total	150

Number of companies included in the sample from textile sector is highest because this sector has got the highest number of companies among all sectors of KSE-100 index. Following graph displays the proportion of each sector in total sample.

Graph 3.1 Proportion of each sector in sample



3.2 Audit quality

3.2.1 Measurement of audit quality

This section describes the method and process of finding audit quality. Audit quality is analyzed in context of high payment of audit fee i.e. abnormal audit fee. First the proxy for audit quality is discussed and after that audit quality of auditors is analyzed in context of high audit fee.

Audit quality is an unobservable attribute and therefore, a single characteristic or trait of auditor cannot describe the audit quality (DeAngelo, 1981). Researchers therefore use different proxies for assessing the audit quality. Discretionary accruals are the most common proxy to gauge the audit quality and, therefore this study uses discretionary accruals as proxy for audit quality. Discretionary accruals show the managerial interference into financial reporting process. Moreover, discretionary accruals show the extent to which managers manipulate earnings and therefore disclose the level of earnings management by managers (Choi et al., 2010). Therefore, if the level of discretionary accruals is high then one can say that managers are involved in earnings management. High level of discretionary accruals and earnings management thus reveals that audit quality is low as auditors are unable to find and report the earnings management.

Healy (1985), first used accrual based approach for finding out the earnings management. However, difficulty in this approach is to decompose accruals into managed (discretionary) and unmanaged (non-discretionary) components (Peasnell et al., 2000). The most common method for finding out discretionary accruals is cross-sectional modified Jones model (Dechow, 1995, 2002). It is a precise measure of discretionary accruals and it can decompose accruals into both discretionary and non-discretionary accruals. A study by Peasnell et al. (2000), shows that cross sectional modified Jones model is the most powerful at detecting manipulations than the time-series model.

Modified Jones Model

This study uses modified Jones model (Dechow, 1995) with adjustment of performance variable as the performance of a firm results in misspecification (Kothari, 2005).

Model 1:

$$\frac{TACC}{TA_{t-1}} = \alpha \left(\frac{1}{TA_{t-1}} \right) + \beta_1 \left(\frac{\Delta REV - \Delta REC}{TA_{t-1}} \right) + \beta_2 \left(\frac{PPE}{TA_{t-1}} \right) + \beta_3 (ROA_{t-1}) + \varepsilon$$

Where;

TACC = Total Accruals, difference between Earnings (before extraordinary items and discontinued operations) and operating cash flow (OCF).

TA_{t-1} = Total lagged Assets

ΔREV = Change in Revenue from previous year to this year

ΔREC = Change in Receivables from start to end of the year

PPE = Property, plant and equipment

ROA_{t-1} = Lagged Return on Assets which is calculated as net income before extraordinary items of prior period divided by lagged total assets

ϵ is the error term which indicates the discretionary accruals.

The modified model is designed to reduce the measurement error of discretionary accruals when discretion is applied over sale (Dechow, 1995). This modified version of the Jones model (1991) assumes that all changes in uncollected credit sales at the end of the event period result from earnings management. The reasoning behind this modification is that earnings are easier to manage via credit sales than cash collections.

Discretionary accruals are found by estimating the model by industry year estimation process i.e., the Discretionary accruals of firms from different industry are estimated separately. The estimates from the above equation are used to find out non-discretionary accruals which are then subtracted from total accruals to find out the discretionary accruals. Hence:

Model 2:

$$\frac{NDACC}{TA_{t-1}} = a \left(\frac{1}{TA_{t-1}} \right) + b_1 \left(\frac{\Delta REV - \Delta REC}{TA_{t-1}} \right) + b_2 \left(\frac{PPE}{TA_{t-1}} \right) + b_3 (ROA_{t-1})$$

Where NDACC is non-discretionary accruals and a, b_1, b_2 and b_3 are estimates of α, β_1, β_2 and β_3 respectively. Non-discretionary accruals for every firm are calculated and then subtracted from total accruals to find out discretionary accruals of that firm.

$$\text{Total Accruals} = \text{Discretionary Accruals} + \text{Non-Discretionary Accruals}$$

$$TACC = DACC + NDACC$$

$$\text{Discretionary Accruals} = \text{Total Accruals} - \text{Non-Discretionary Accruals}$$

$$DACC = TACC - NDACC$$

The estimation process is cross sectional and Discretionary accruals for each company are estimated separately. In this study absolute discretionary accruals (ABDISC) is used which will capture the effect of both income increasing and income decreasing accruals (Mitra et al, 2009). Absolute discretionary accruals have no sign.

Following table describes about the variables and their definition:

Table 3.2 Variables along with the definitions (Modified Jones Model)

Dependent Variable: TACC	
Variable Definition: Total Accruals, difference between Earnings (before extraordinary items and discontinued operations) and operating cash flow (OCF).	
Independent Variable	Variable Definition
ΔREV	Change in Revenue from previous year to current year
ΔREC	Change in Receivables previous year to current year
PPE	Property, plant and equipment
ROA_{t-1}	Lagged Return on Assets, calculated as net income before extraordinary items of prior period divided by lagged total assets
$TA_{t-1} =$	Total lagged Assets (Previous year assets)

3.2.2 Abnormal audit fee and audit quality

Abnormal audit fee is the fee paid to auditor above or below his expectations. It can be positive or negative (Choi et al, 2010). The case of abnormal fee arises when auditors feel they are not given audit fee in commensurate with their efforts. Abnormal fee, as described, can have both positive and negative consequences. It can raise the level of audit quality or can impair the audit quality. First the process of finding audit quality is discussed and after that audit quality is analyzed in context of abnormal audit fee.

Abnormal audit fee

Abnormal audit fee is quite simple to calculate and the process is similar to that of absolute discretionary accruals. First, predicted or expected audit fee is found with the help of following model that is used to determine factors of audit fee:

Model 3:

$$AFEE = \alpha + \beta_1 SIZE + \beta_2 INVREC + \beta_3 SEG + \beta_4 CR + \beta_5 ROA + \beta_6 LOSS + \beta_7 BIG4 + \beta_8 YEAR + \beta_9 MNC + \epsilon$$

Where;

α = intercept

$AFEE$ = Natural log of audit fees¹ charged by auditor

$Size$ = Natural log of Total assets

¹Natural log of audit fee and assets is used to linearize the relationship between audit fee and firm size.

INVREC = Inventory plus receivables

SEG = Square root of number of business segments in which the company operates

CR = Liquidity measure (current ratio).

ROA = Return on Assets.

LOSS = Dummy variable for loss. Equal to 1 if firm experienced a loss during the year.

BIG4 = Dummy variable for Big 4 firm. Equal to 1 if the auditing firm is from BIG4

YEAR = Dummy variable for year end. Equal to 1 if the financial year of company ends on 30th June

MNC = Dummy variable for origin of company. Equal to 1 if firm is Multinational company.

ε = Error Term

Following are the steps involved in finding abnormal audit fee:

1. Estimates of equation (from Model 3) which is used for determining audit fee are used to find out predicted or expected audit fee i.e.

$$E \text{ AFEE} = a + b_1 \text{SIZE} + b_2 \text{INVREC} + b_3 \text{SEG} + b_4 \text{CR} + b_5 \text{ROA} + b_6 \text{LOSS} + b_7 \text{BIG4} + b_8 \text{YEAR} + b_9 \text{MNC}$$

Where EAFEE is expected audit fee and a , b_1 , b_2 , b_3 , b_4 , b_5 , b_6 , b_7 , b_8 and b_9 are estimates of α , β_1 , β_2 , β_3 , β_4 , β_5 , β_6 , β_7 , β_8 and β_9 . Unlike, modified Jones model for finding discretionary accruals, the audit fee equation is not estimated separately for every industry rather all are estimated at once.

2. Once estimates are obtained, expected audit fee for every firm is calculated.

3. This estimate is in form of natural log so exponent of value is taken to convert it into rupees form.

4. After that the amount is subtracted from actual audit fee to get abnormal audit fee:

$$\text{Abnormal Audit Fee} = \text{Actual Audit Fee} - \text{Expected Audit Fee}$$

The abnormal audit fee can be positive or negative (Choi et al, 2010). If abnormal fee is positive, then auditor considers the actual audit fee above his expectations and efforts. While the negative abnormal fee suggest that auditor expected more than the actual amount paid to him.

Audit quality and abnormal audit Fee

After abnormal fee and discretionary accruals for each firm is found, analysis is made regarding the audit quality in context of abnormal audit fee. Following model is used for finding out the audit quality:

Model 4:

$$ABDISC = \alpha + \beta_1 ABFEE + \beta_2 \text{BIG 4} + \beta_3 \Delta \text{SALES} + \beta_4 \text{LEV} + \beta_5 \text{LOSS} + \beta_6 \text{CFO} + \beta_7 \text{SIZE} + \varepsilon$$

Where;

ABDISC = Absolute Discretionary Accruals

ABFEE = Abnormal Audit Fee

BIG 4 = Dummy variable for Big 4 firm

Δ SALES = Change in sales from previous year to this year

LEV = Leverage variable

LOSS = Dummy variable for loss

CFO = Cash flow from operations

SIZE = Size of client's business

Absolute Discretionary Accruals (ABDISC) and Abnormal Audit Fee (ABFEE) are described earlier and rest of variables included in the model are control variables which need to be elaborated.

Control Variables

Following are the control variables used in the audit quality model which control for either absolute discretionary accruals or abnormal audit fee:

BIG 4

Research has shown that Big 4 or their affiliated audit firms restrict their clients in earnings management and therefore the true relationship of audit quality may not be observed (Choi et al, 2010). The reason is that Big 4 firms care for their reputation (reputation hypothesis) and therefore they ensure that their client is not engaged in activities that result in manipulation of earnings. Therefore, Big 4 dummy variable has been included in the model to control for such effect and its value equals 1 if the auditing firm is affiliated with Big 4 auditing firms.

Change in Sales (Δ Sales)

Change in sales is calculated as difference in sales of company from previous year to this year. This variable is included to control for earnings management and hence discretionary accruals. Research has shown that growth effects can impact earnings management of a company (Hoitash et al, 2007). Therefore, Δ SALES is used to control for potential growth effect on earnings management.

Leverage (LEV)

Leverage of a company is calculated as total liabilities divided by its total assets. Companies which have high leverage can boost their earnings management (Mitra et al, 2009), and therefore, leverage variable is included to control for such effects.

LOSS

Behaviour of company’s manager can change if he foresees loss in his company. He can manipulate earnings either to retain his job and bonuses, or to retain the shareholders of company. He may manipulate accounting figures to show that the company is not in losses and has a bright and viable future. Therefore, it can be said that loss in a company may result in more likelihood of earnings management than a company which is not facing loss. Value of LOSS variable is equal to 1 if the firm faces loss in year of analysis.

CFO (Cash flow from operations)

Kothari et al. (2005), find out that discretionary accruals and firm performance have positive relationship. Therefore, firm performance can impact earnings management or discretionary accruals. CFO (cash flow from operations) variable has been included to control for such effect because cash flow from operations is usually considered as measure of company’s performance. Cash flow from operations or operating activities is given in the financial statements of companies.

Size

It has been seen that earnings management is quite low in large firms due to their stability therefore SIZE variable is included and use to control the size effect (Dechow and Delv, 2002). It is calculated by taking natural log of assets. Moreover, firms large in size tend to pay high to auditors and therefore, the level of abnormal fee can surge (Hoitash et al, 2007). SIZE variable therefore controls for both discretionary accruals and abnormal fee.

Following table describes about the variables and their definition:

Table 3.3 Variables along with the definitions (Audit quality and abnormal audit fee)

Dependent Variable: ABDISC	
Variable Definition: Absolute discretionary accruals (proxy for audit quality)	
Independent Variable	Variable Definition
ABFEE	Abnormal Audit Fee
Control Variables	
BIG 4	Dummy variable for Big 4 firm, equal to 1 if the auditing firm is an affiliate of Big 4 firm
$\Delta SALES$	Change in sales, current year’s sales less previous year’s sale
LEV	Leverage, calculated by total liabilities over total assets
LOSS	Dummy variable for loss, equal to 1 if the company faces loss in year of analysis
CFO	Cash flow from operations
SIZE	Size of client’s business measured by natural log of total assets

If the relationship is negative between absolute discretionary accruals and abnormal audit fee, then it can be concluded that audit quality gets higher when high fee is paid to auditors and they perform more diligently to control for manipulations and earning management. Auditors, therefore care for their reputation and do not compromise on standards (Mitra et al., 2009, Larcker and Richardson, 2004, Choi et al, 2010). While if the relationship is positive between the absolute discretionary accruals and abnormal audit fee, then conclusion can be drawn that the independence of auditors gets curbed by high payment of audit fee and they compromise on their standards and do not care for reputation. They only want to earn profit from audit and do not report misrepresentations of their client in fear of losing a lucrative audit fee (De Angelo, 1981). Audit quality and audit fee relationship is further tested by splitting audit fee into predicted audit fee (PFEE) and abnormal audit fee (ABFEE). PFEE and ABFEE are components of actual total audit fees, which influence the auditor’s economic rationality in the course of planning and executing an audit. Hence, it is appropriate to evaluate the association of both variables with audit fees in the same analysis rather than testing the association of each to the exclusion of the other in the model (Mitra et al, 2009).

3.3 Statement of Hypothesis

This study will test the following hypothesis:

“There is no relationship between audit quality and abnormal (excess) audit fee”

3.4 Estimation Techniques

As the study intends to find out the determinants of audit fee and relationship between audit fee and audit quality, so Ordinary Least Square (OLS) estimation method is used for this purpose. Moreover, modified Jones model (Dechow, 1995), used for finding out discretionary accruals, is estimated cross-sectionally because of following reasons:

- In order to use a time series modified Jones model, data of at least seven or ten years is required (Dechow, 2002)

- Due to lengthy time period involved, time-series model can get misspecified due to non-stationarity (Subramanyam, 1996)
- Cross-sectional model enhances sample size
- Cross-sectional modified Jones model is better specified than any other model used for detecting discretionary accruals (Bartov, Gul and Tsui, 2001)

The relationship between audit quality and audit fee is also checked by cross-sectional estimation method. Audit fee model (used for finding out the determinants of audit fee) is estimated on cross-sectional basis to find out abnormal fee for each year. Descriptive statistics are used to describe the variables present in the study.

Results and discussion

This section explains the statistical analysis and results of OLS estimation. Descriptive statistics are also explained in these sections.

4.1 Audit quality

Relationship between absolute discretionary accruals (proxy for audit quality) and audit fee is shown in the table:

Table 4.1 OLS results of Audit quality and Abnormal fee

Indep Variables	Dependent Variable (ABSDISC)									
	2007		2008		2009		2010		2011	
	β	p-value	β	p-value	β	p-value	β	p-value	β	p-value
Intercept	0.4017	0.0106**	0.2595	0.0279**	-0.0902	0.3345	0.1392	0.1261	0.1358	0.2095
ABFEE	8.23E-08	0.4549	-1.10E-07	0.0353**	-7.91E-08	0.0163**	1.74E-08	0.3658	7.85E-09	0.6547
SIZE	-0.0154	0.0320**	-0.0097	0.0635	-0.0086	0.0474**	-0.0043	0.3043	-0.0035	0.4797
LEV	0.0085	0.8333	0.0708	0.0318**	-0.0190	0.4885	0.0299	0.1982	0.0123	0.5594
Δ SALES	-6.95E-12	0.3362	2.89E-12	0.2188	-3.78E-12	0.0850	1.65E-12	0.3818	4.58E-13	0.7000
CFO	1.28E-11	0.2059	-2.29E-13	0.9690	-3.91E-12	0.3382	-5.41E-12	0.1612	-4.58E-12	0.2545
BIG4	-0.0376	0.0474**	-0.0141	0.2546	-0.0028	0.7972	-0.0252	0.0231**	-0.0061	0.5861
LOSS	-0.0131	0.4885	-0.0365	0.0050**	-0.0091	0.4334	-0.0224	0.0846	-0.0014	0.9086
R ²	0.069127		0.155440		0.078776		0.076416		0.025967	
Adjusted R ²	0.023239		0.113806		0.033364		0.030888		-0.022049	

*Significant at 1 percent

**Significant at 5 percent

Where ABFEE is abnormal fee, SIZE is proxy for client's size of business measured by natural log of assets, LEVERAGE is proportion of leverage in business measured by total debt over total assets, Δ Sales is change in sales from previous year to current year, CFO is cash flow from operations, BIG4 is proxy for big 4 firm, LOSS is proxy for loss.

Looking at the OLS results it is observed that, relationship between absolute discretionary accruals and audit fee is significantly negative in year 2008 and 2009. This means that if the auditors are paid high fee they spend extra time and exert extra effort to improve the audit quality (Mitra et al, 2009). The negative relationship means that absolute discretionary accruals get low as fee for auditors are above their expectations. It means that auditors perform their duties with more diligence when they are paid high fee above their expectations and do their best to stop earnings management. This relationship means that auditor's independence is not impaired by high audit fee and therefore, audit quality is not impacted by high audit fee (Larcker and Richardson, 2004).

Further it can be seen from OLS results that variables SIZE and BIG4 (proxies for client's size of business and big4 auditors respectively) show significant negative relationship with absolute discretionary accruals. This shows that businesses or clients which are larger in size reduce or control absolute discretionary accruals and therefore audit quality is high in large businesses (Dechow and Delv, 2002). Moreover negative relationship of BIG4 variable (proxy for big4 firm) with absolute discretionary accruals show that big4 firms also control absolute discretionary accruals and therefore audit quality is high in clients which are audited by big4 firms than the clients which are audited by non-big4 firms (Sun et al., 2011).

The relationship between (abnormal) audit fee and audit quality is further analyzed by splitting audit fee into expected (predicted) and unexpected (abnormal) audit fee. The results of analysis by splitting audit fee into predicted fee and abnormal fee are shown below:

Table 4.2 OLS results of audit quality after segregation of audit fee

Indep Variables	Dependent Variable (ABSDISC)									
	2007		2008		2009		2010		2011	
	β	p-value	β	p-value	β	p-value	β	p-value	β	p-value
Intercept	0.5570	0.0345**	0.1941	0.2917	-0.1861	0.2647	0.1699	0.2864	0.1818	0.2137
ABFEE	8.38E-08	0.4480	-1.10E-07	0.0358**	-8.24E-08	0.0135**	1.73E-08	0.3712	6.28E-09	0.7261
PFEE	1.77E-07	0.4600	-5.08E-08	0.6441	-3.94E-08	0.4869	6.89E-09	0.8183	1.05E-08	0.6381
SIZE	-0.0247	0.0892	-0.00597	0.5358	-0.0136	0.1089	-0.0058	0.4587	-0.0058	0.4068
LEV	0.0125	0.7585	0.0681	0.0426**	-0.0149	0.5968	0.0290	0.2215	0.0114	0.5891
Δ SALES	-8.45E-12	0.2614	3.35E-12	0.1907	-3.76E-12	0.0867	1.51E-12	0.4473	9.06E-14	0.9493
CFO	1.00E-11	0.3554	2.64E-13	0.9649	-3.21E-12	0.4460	-5.61E-12	0.1577	-5.41E-12	0.2192
BIG4	-0.0283	0.2145	0.0180	0.2296	0.0076	0.5582	-0.0244	0.0385**	-0.0048	0.6808
LOSS	-0.0062	0.7851	-0.0377	0.0046*	-0.0122	0.3291	-0.0215	0.1171	-0.0014	0.9013
R ²	0.072737		0.156722		0.081940		0.076763		0.027499	
Adjusted R ²	0.020126		0.108876		0.029852		0.024381		-0.027678	

*Significant at 1 percent **Significant at 5 percent level

Where ABFEE is abnormal fee, PFEE is predicted or expected fee, SIZE is proxy for client's size of business measured by natural log of assets, LEVERAGE is proportion of leverage in business measured by total debt over total assets, Δ Sales is change in sales from previous year to current year, CFO is cash flow from operations, BIG4 is proxy for big 4 firm, LOSS is proxy for loss.

Results show that even after the segregation of audit fee into expected (predicted) and unexpected component, the unexpected or abnormal audit fee shows a significant negative relationship with absolute discretionary accruals. This shows that auditors do not exert extra effort on the basis of their predicted or expected fee rather they exert extra effort only when paid high above their expectations. They pay back the extra audit fee by working in an effective manner to ensure audit quality is not compromised.

Results support the fact that auditors care for their reputation and do not succumb to lucrative fees given by clients. Therefore, seventh hypothesis is rejected and it can be concluded that auditors in Pakistan care for their reputation and put extra effort to improve audit quality. Thus audit quality is not impaired even if auditors are paid high fee above their expectations.

Conclusion

This study examines a sample of 150 firms during the period 2007-2011 to explore relationship between audit fee and audit quality in Pakistan. Results indicate audit quality in Pakistan is not a problem when high fee is paid to the auditors as shown by results. The independence of auditors is not curbed by payment of high audit fee and auditors do not compromise on audit quality. In Pakistan, auditors work harder than before and ensure a high quality of audit is done when they are paid extra fee above their expectations. No result show that auditors compromise on audit quality when they are paid high fee than their expectations. The result is further supported by splitting audit fee into normal or predicted audit fee and abnormal audit fee. Therefore, the assertion that auditors compromise their standards when paid extra fee is rejected in Pakistan. Auditors in Pakistan do not compromise on their values for lucrative audit fee and instead they work with more diligence to ensure high quality audit.

This study, however, has certain limitations. The analysis is limited to 150 companies due to the availability of data which may limit in generalization of results. As audit quality cannot be measured with accuracy and therefore no exact proxy exists for measuring audit quality. This research uses discretionary accruals as the proxy for audit quality, so it may not completely reflect the actual audit quality.

Future researchers can focus upon certain issues not addressed in this study. For instance inclusion of corporate governance measures in analysis of audit quality (and audit fee) will lead to a better explanation of audit fee and audit quality. Further, the independence of auditor and its impact on audit quality can be analyzed in depth by segregating audit fee into audit and non-audit fee.

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