

**Are Big 4 Audit Fee Premiums Always Related to Superior Audit Quality?
Evidence from India's Unique Audit Market**

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Are Big 4 Audit Fee Premiums Always Related to Superior Audit Quality? Evidence from India's Unique Audit Market

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Abstract

In this study we examine the fee premiums earned by Big 4 auditors (B4As) in India. We then try to determine the primary cause of the fee premiums in an Indian context. The B4As charge fee premiums for two primary reasons. First they are considered to be a potential indemnifier of losses for the stakeholders of the company. Second they provide a better quality of audit which improves the quality of reported earnings. Since the legal regime in India is significantly less stringent and the risk of auditor litigations is relatively low, B4A premiums in India are most likely to be driven by the need for superior audit quality. The results of our analysis indicate that B4As earn significantly higher fees than Non-Big 4 auditors (NB4As) in India. However there is no difference in the quality of audit provided by the B4As and NB4As as evidenced by the quality of reported earnings. Our results also indicate that B4As earn significantly higher abnormal fees. However, unlike the results of prior research, such abnormal fees are not associated with reduction in the quality of audit and reported earnings. After eliminating the two primary causes of B4A fee premiums, we posit that the need for B4As in India is primarily driven by the need to “signal” a superior quality of reported information.

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Introduction

This study is one of the first to examine the magnitude of audit fee premiums earned by Big 4 audit firms² in India. The potential causes for earning of fee premiums by Big 4 audit firms in the Indian context are identified and the relationship between an important indicator of audit quality, Big 4 auditors (B4As from here on), and the quality of reported earnings is also investigated.

According to prior research, B4As are able to command a significant fee premium compared to Non-Big 4 auditors (NB4As from here on) (Craswell et al. 1995; Ashbaugh et al., 2003; Higgs & Skantz 2006; Asthana & Boone 2012; Basioudis & Francis, 2007). There are two primary reasons which explain why B4As are able to charge such fee premiums. First, research indicates that the B4As provide a superior quality of audit as evidenced by the magnitude of discretionary accruals reported on the financial statements (Becker et al. 1998; Francis et al. 1999; Kim et al. 2003) and hence they are able to command higher fees than NB4As (Francis et al. 1999; Kim et al. 2003; Francis & Wang 2008; Francis & Yu 2009; Rusmin 2010). The fee premium associated with the perceived audit quality of the B4As will be referred to as the “quality premium”.

Second, research suggests that investors view auditors as insurers of losses and that investors price securities such that the price reflects their right to recover potential losses through auditor litigation (Menon, 1994; Seetharaman, 2002; Choi et al., 2008). Moreover, since the B4As are significantly larger than NB4As, the investors' valuation of a B4A as an indemnifier of future potential losses would be higher than that of a NB4A. Therefore, B4As include a premium in the audit fees to act as potential indemnifiers of losses. We will refer to this fee premium as the “insurance premium”. Majority of the literature on fee premiums has been conducted in the US context and in that context it has been difficult to disentangle the potential causes associated with the charging of fee premiums. Knechel et al. (2012) indicate that the liability/insurance effect on the fee premium could be separated from the quality effect by examining the fee premiums in countries where the auditors' legal liability is different from the US context. Therefore we

² The reference to Big 4 auditors in this paper refers to all erstwhile Big 8, 6, and 5 auditors.

try and investigate this issue in an Indian context where the legal liability regime is significantly more lax than the US.

According to Choi et al. (2008) audit fee premiums are negatively correlated with the legal liability regime of a country. The Wingate litigation index also indicates that the risk of litigation in India is substantially lower than the US or UK (Wingate, 1997). In India instances of auditors being sued and prosecuted for negligence or lack of due diligence are extremely rare. Even in the cases where the auditors are found guilty of not performing their duties diligently, only the individual auditors in charge of that particular audit are punished. The overall audit firm on the other hand does not suffer significant adverse outcomes. Moreover the B4As in India provide audit services through their affiliates and in most instances the audit partners do not sign on behalf of the B4A, they sign on behalf of the affiliate firm. Therefore, even though all Big 4 clients get a higher quality of audit services, they do not get access to the “big pockets” of the actual Big 4 firm. This further limits the legal liability of B4As in India as well as reduces the B4As role as a potential insurer of losses. Hence, we can reasonably assume that, the demand for B4As in India is not likely to be driven by their ability to indemnify potential losses of the various stakeholders of a client company.

Additionally, according to Choi et al. (2010), abnormally high fees impair the quality of an audit as evidenced by the magnitude and direction of discretionary accruals. Choi et al. (2010) argue that such abnormal fees act as additional economic rents that the auditors try to extract from their client which impair the auditors’ objectivity and independence. Since the risk of litigation is relatively low in India, the B4As’ appetite for risk could be higher and there would be no additional deterrence for the B4As (compared to the NB4As) to not allow clients from managing earnings. For example, in the Satyam fraud case (which is one of the largest corporate frauds in India), the fees paid to PwC tripled during the period when the fraud was perpetrated. Additionally, the auditors of Satyam were paid almost twice as much as what was paid to auditors of Satyam’s peer companies³. Therefore, we also investigate the relationship between the magnitude of positive abnormal fees earned and the magnitude of both signed and unsigned accruals to examine if higher abnormal fees tend to decrease audit quality.

³ Prowess Database, Centre for Monitoring of Indian Economy

The results of our investigation indicate that the B4As earn significantly higher fees than NB4As. However such fee premiums are not associated with an increase in the quality of reported earnings as evidenced by the magnitude of the signed and absolute value of discretionary accruals. The results also indicate that the B4As earn significantly higher positive abnormal audit fees than NB4As. However such positive abnormal audit fees are not related to a significant increase in the magnitude of discretionary accruals.

Prior research indicates that clients of B4As enjoy several strategic business benefits (Mansi et al. 2004; Causholli & Knechel 2012; Khurana & Raman 2004; Balsam et al. 2003; Chang et al. 2008). Therefore, the B4As also charge a fee premium for their reputation which affects the perceived quality of the information provided to the various stakeholders. Hence it is possible that the fee premium paid by the clients to the B4As is merely a reflection of the signaling value associated with the audit conducted by a B4A firm.

Background and Hypotheses

1.1 Big 4 Audit Fee Premium

Prior research indicates that B4As earn a fee premium in many countries (Craswell et al., 1995; Francis et al., 1999; Kim et al., 2003; Francis & Wang, 2008; Francis & Yu, 2009; Rusmin, 2010). Some of the important reasons cited for earning of these fee premiums are need to prevent opportunistic earning (Kim et al., 2003; Francis et al., 1999; Francis & Yu, 2009); need to satisfy requirements of investor protection regimes (Francis & Wang, 2008); to cover costs associated with building a brand name and expertise (Craswell et al., 1995). Therefore we posit that the B4As in India will also earn significantly higher fees than NB4As. Formally stated:

H1: Big 4 auditors in India will earn a significant fee premium compared to the Non-Big 4 auditors.

1.2 Effect of B4As on Earnings Quality

The presence of a Big N auditor has a significant positive effect on the quality of reported earnings as evidenced by relatively low abnormal accruals (Francis et al., 1999; Becker et al., 1998; Kim et al., 2003; Krishnan, 2003b). Becker et al. (1998) indicate that the level of discretionary accruals is significantly lower for Big 6 clients than for Non-Big 6 clients after controlling for several firm-specific characteristics. Kim et al. (2003) extend the work of Becker et al. (1998) and indicate that only when managers have incentives to

prefer income-increasing accrual choices are Big 6 auditors more effective than non-Big 6 auditors in deterring opportunistic earnings management. Francis et al. (1999) indicate that companies that are more likely to be exposed to opportunistic earnings management use Big 6 auditors and also that such Big 6 auditors constrain aggressive and opportunistic reporting of accruals.

Prior research also indicates that Big N auditors earn a significant fee premium in several countries while simultaneously being associated with superior earnings quality (Basioudis & Francis, 2007; Francis et al., 1999; Kim et al., 2003; Francis & Wang, 2008; Francis & Yu, 2009; Rusmin, 2010; Knechel et al. 2012). Therefore, B4As which charge significantly higher audit fees than their NB4A counterparts in India should provide superior audit quality which, in turn should improve the quality of reported earnings as evidenced by the magnitude of discretionary accruals. Formally stated:

H2: The magnitude of discretionary accruals reported by Big 4 clients will be significantly lower than the magnitude of discretionary accruals reported by Non-Big 4 clients.

1.3 Adverse Impact of Abnormal Audit Fees on Audit and Earnings Quality

Prior research indicates that that abnormally high audit fees could be indicative of financial reporting problems within a firm (Hribar et al. 2014; Asthana & Boone, 2012). Research also indicates that abnormal audit fees are indicative of declines in performance of a company in the future (Stanley, 2011) and a significantly higher cost of capital (Hope et al., 2009). The results of Hackenbrack et al. (2014) suggest that abnormal increases in audit fees are positively related to an increased likelihood of a company experiencing negative stock price shock.

In an Indian context, the Satyam fraud case which was one of the largest cases of corporate fraud in India provided some anecdotal evidence in support of this notion. The auditors of Satyam were paid almost two times the fees that were paid to auditors of similar companies in India to potentially “ignore” the fraud. Additionally, the relative lax litigation regime in India would reduce the adverse impact of failing to detect earnings management and increase the risk taking appetite of the auditors. Again referring to the Satyam case, the PwC partners in charge of the Satyam audit were immediately stripped of their professional degrees and were even imprisoned. However, PwC India and its affiliates were not subject to any

immediate adverse outcomes and since Satyam was listed on the New York Stock Exchange some action was initiated by the SEC. However, PwC was eventually fined only \$7.5 million by the SEC and PCAOB (Norris, 2005). Therefore, in this paper we also investigate if audit fee premiums charged by B4As actually result in a reduction in the quality of reported earnings as evidenced by the magnitude of discretionary accruals.

RQ1: Are Big 4 fee premiums in India associated with a reduction in the quality of reported earnings?

2. Data and methodology

2.1 Data

Our sample comprises of 500 firms which are part of the 'S&P BSE 500' equity index, maintained by the Bombay Stock Exchange (BSE). They represent a large proportion of the total market capitalization in BSE (about 94% as of March 2013) and 49 different industries. The industry classification is based on the two-digit NIC codes as used in India. Our analysis of the audit quality is based on data taken from two different sources. The audit fee details and auditor information are taken from the Ace Equity Database. The firm-level financial data are taken from the CMIE-Prowess database. The Ace Equity audit data contains audit data of 495 firms out of 500 firms which constitute the BSE index.

The data represents 9,085 firm-years over the period from 1998 to 2013. From the initial set of firms represented in the Ace Equity audit data, five firms with no audit fee information had to be excluded from any further analysis. We classify the auditors into B4As and NB4As, based on publicly available information on the auditor affiliations in India. In all, there are 719 different auditors involved, out of which 18 are Big 4 auditing entities. Most of the B4As operate through affiliated Indian audit firms as discussed before. In the audit data, there are 254 firms audited by one of the B4As at least for a year (2,678 firm-years) and 364 firms audited by the NB4As at least for a year (6,407 firm-years). There are 268 instances in our data where firms switch from a NB4A to a B4A.

After removing firms without auditor information, audit fee data or value of total assets, we are left with a sample that represents 8,876 firm-years. The B4As practically started to audit the Indian firms only from the year 2000 hence; we limit the analysis during the period between January 2000 and March 2013. The

average assets across firm-years are about INR 428 billion and the average of sales across firm-years is about INR 76 billion.⁴ Firms report losses in about 5% instances (484 firm-years) at the aggregate level. We do not observe any significant difference in the proportion of firms reporting losses among the firms audited by the two groups of auditors.

While estimating the discretionary accruals, we exclude all the firms from the financial services industry (2,541 firm-years).⁵ We also exclude from our analysis, firms which have employed multiple auditors in any year (1,402 firm-years). Most of the firms which employed multiple auditors were banks and financial services firms and hence would have been excluded from our analysis irrespective of data availability. Further, in every cross-sectional regression employed to estimate the discretionary accruals, we include only industries where both B4As and NB4As are employed. In addition, we ensure that for each two-digit NIC code and year combination, a minimum of 10 observations is available. After all these exclusions, we are left with a final sample of 2453 firm-years (258 unique firms over the years) (Table 1).

⁴The firm-year average of the assets are much higher than the sales as there are many financial services firms in the sample.

⁵These firms correspond to the two-digit NIC codes - 64, 65 & 66.

Table 1 : Year-wise average assets and sales of the sample firms

Year	Big Four						Non Big Four					
	N	Avg. sales	Avg. assets	Market cap	Pat Margin	Exp/Sales	N	Avg. sales	Avg. assets	Market cap	Pat Margin	Exp/Sales
2000	42	968.6	854.7	2,605.20	0.06	7.9	82	730.8	1,049.10	2,733.70	0.07	7.3
2001	44	1,054.10	983.8	1,236.10	0.07	8.4	70	700.6	1,027.50	630.7	0.07	8.1
2002	50	1,044.50	992.7	1,153.80	0.07	8.6	80	892.6	1,254.40	1,280.70	0.06	8.6
2003	64	1,046.90	1,027.60	1,257.60	0.08	8.9	76	1,019.10	1,372.40	1,062.40	0.07	10.2
2004	72	1,124.60	1,093.00	1,849.10	0.09	9.3	86	1,110.70	1,385.00	1,737.20	0.07	5.6
2005	81	1,293.50	1,237.10	3,877.70	0.09	7.9	89	1,551.50	1,887.70	2,705.90	0.09	7.2
2006	86	1,704.00	1,601.80	6,388.80	0.1	10	82	1,931.20	2,490.10	4,352.40	0.1	8.3
2007	85	2,547.10	2,697.60	7,515.80	0.11	9.3	80	2,382.70	2,905.00	4,325.30	0.11	7.6
2008	100	2,841.90	3,539.00	8,422.60	0.12	9.1	83	2,794.80	3,803.20	6,961.80	0.12	10.4
2009	106	3,484.40	4,353.50	5,703.70	0.11	11.8	102	2,654.30	4,188.10	3,535.10	0.1	6.9
2010	110	3,730.20	4,993.70	12,801.70	0.13	8.5	112	3,092.40	4,562.40	7,658.50	0.1	6.8
2011	116	4,311.60	5,585.40	14,132.70	0.13	8.6	109	3,753.90	5,633.30	9,519.30	0.09	6.7
2012	119	4,766.20	6,200.00	11,459.50	0.09	9.1	114	4,282.10	6,185.10	7,978.20	0.08	6.2
2013	88	6,067.50	7,991.80	15,403.10	0.09	9.7	108	3,940.60	6,578.20	5,403.10	0.08	6.6
Average	83	2,570.40	3,082.30	6,700.50	0.1	9.1	91	2,202.70	3,165.80	4,277.40	0.09	7.6

N is the number of firms in the sample. The Avg. sales figures represent the cross-sectional average of the annual net sales reported by the firms with financial year ending within the respective calendar year.

2.2 Estimation of Discretionary Accruals

Our broad methodological approach involves the use of an earnings quality proxy to examine the relationship between audit quality and audit fee differences that might exist within the two groups of auditors. We measure the earnings quality through discretionary accruals estimated from both the Jones and the modified Jones model. Both the models as given below are employed in yearly cross-sectional regressions to estimate the discretionary accruals. Each of the cross-sectional regressions takes the following form for the Jones Model and the modified Jones Model respectively.

$$\text{Equation 1 } AT_{it} = \beta_0 + \beta_1 \frac{1}{TA_{it-1}} + \beta_2 \Delta REV_{it} + \beta_3 PPT_{it} + \varepsilon_{it}$$

$$\text{Equation 2 } AT_{it} = \beta_0 + \beta_1 \frac{1}{TA_{it-1}} + \beta_2 (\Delta REV_{it} - \Delta AR_{it}) + \beta_3 PPT_{it} + \varepsilon_{it}$$

AT_{it} is the total accruals of firm i during year t , TA_{it-1} is total assets at the beginning of the year, ΔREV_{it} is the change in net sales between year t and $t-1$, and PPT_{it} is the net property, plant and equipment and ΔAR_{it} is the change in the accounts receivables between year t and $t-1$. We control for the influence of industry characteristics through a dummy to represent each industry based on the NIC 2-digit code.

2.3 Estimation of Abnormal Audit Fees

Our decomposition of the audit fee, as given below, into normal and abnormal components follows the approach of Choi et al. (2010).

Equation 3

$$\begin{aligned} AFEE_{it} = & \alpha_0 + \alpha_1 LNTA_{it} + \alpha_2 NBS_{it} + \alpha_3 SINVREC_{it} + \alpha_4 D.Issue_{it} + \alpha_5 D.ExOrd_{it} \\ & + \alpha_6 SQRTNEMPL_{it} + \alpha_7 D.Loss_{it} + \alpha_8 D.Loss_{it-1} + \alpha_9 LEV_{it} + \alpha_{10} ROA_{it} \\ & + \alpha_{11} CURRATIO_{it} + \alpha_{12} D.BIG - 4_{it} + \alpha_{13} BM_{it} + \alpha_{14} SCHNGSALE_{it} \\ & + \alpha_{15} SHORT.TEN_{it} + \alpha_{16} D.Year_{it} + \alpha_{17} D.Ind_{it} + e_{it} \end{aligned}$$

$AFEE_{it}$ is the log of audit fee for firm i during year t . The explanatory variables are detailed in Table 2.

Due to the limited availability of data we could not include some of the variables used by Choi et al. (2010) in the estimation of the abnormal fee. However the presence of Indian firms on the dimensions captured by these variables is quite limited.⁶

Table 2 : Explanatory Variables in the Regressions

Variable	Explanation
AFEE	Log of actual audit fees paid to auditors
LNTA	Log of total assets
NBS	Log of one plus the number of business segments
SINVREC	Sum of inventories and receivables divided by total assets
D.Issue	1 if the sum of cash flow from issue of long-term debt and equity in the last 3-years > 5% of the total assets, 0 otherwise
D.ExOrd	1 if the firm reports any extraordinary gains or losses, and 0 otherwise
SQRTNEMPL	Square root of the total number of employees
D.Loss	1 if the firm reported a loss during the year, 0 otherwise
LEV	Leverage = Total liabilities/Total assets
ROA	Return on assets (Income before extraordinary items divided by average total assets)
CURRATIO	Current assets divided by current liabilities
D.BIG-4	1 if the auditor is one of the Big-4 firms, 0 otherwise
BM	Book-to-market ratio winsorized to 0 and 4
SHORT.TEN	1 if the auditor is in the first or second year of the audit engagement, 0 otherwise
SCHNGSALE	Change in net sales from the prior year divided by the prior year's beginning total assets
D.AUDCHG	1 if the firm's auditor is in the first year of an audit engagement, 0 otherwise
CFO	Cash flow from operations divided by lagged total assets
LAGACCR	one-year lagged total accruals (deflated by total assets at the end of the previous fiscal year)
STDV.CFO	standard deviation of CFO for years t to $t-3$
STDV.REV	standard deviation of cash-based revenues (sales + accounts receivable) deflated by lagged total assets for the years t to $t-3$
D.Year	Year dummy
D.Ind	Industry dummy

3 Results

3.1 B4A Fee Premiums

The characteristic of the audit fee charged by the B4As and NB4As are given in Table 3. There is striking difference in the extent of fee charged by B4As and NB4As. Whereas the B4As charge an average fee of around 1.94% of the sales (1.86% of assets), the corresponding number for the NB4As is only 0.93%

⁶These variables are (a) dummy foreign income tax payment (b) number of geographical segments (c) dummy for existence of pension or post-retirement (d) no. of days between fiscal year-end and annual earnings announcement dates (e) dummy for the restatement of financial statements due to reasons other than accounting method changes or adoption of new standards, and (f) dummy for existence of disagreement between the auditor and client.

(0.66% of assets). This result provides strong evidence of a significant fee premium being charged by the B4As in India. These results provide strong evidence in support of H1 and further justify our motivation to examine the audit quality provided by the two groups of auditors.

Table 3 : Average audit fee - Big-Four & Non Big-Four auditors

Year	Fee/Sales (basis points)		Fee/Assets (Basis points)		Accr./Assets (%)	
	Big-Four	Non Big-Four	Big-Four	Non Big-Four	Big-Four	Non Big-Four
2000	1.605	1.088	1.772	0.684	-4.09	-2.34
2001	1.815	1.278	1.986	0.849	-1.97	-2.45
2002	1.955	1.068	2.146	0.762	-4.67	-4.37
2003	2.13	1.052	2.25	0.737	-2.44	-4.88
2004	2.361	1.028	2.4	0.75	-3.16	-5.2
2005	2.676	0.936	2.699	0.714	-0.67	-2.38
2006	2.522	0.773	2.651	0.624	0.49	-2.42
2007	2.063	0.765	2.065	0.606	0.52	-1.79
2008	1.714	0.754	1.607	0.609	-0.1	-1.44
2009	1.71	0.888	1.402	0.595	-2.08	-0.32
2010	1.615	0.831	1.317	0.601	-1.96	-0.8
2011	1.781	0.864	1.31	0.576	1.19	1.27
2012	1.769	0.865	1.305	0.566	0.31	-0.48
2013	1.467	0.806	1.106	0.562	0.53	-0.56
Average	1.942	0.928	1.858	0.66	-1.29	-2.01

The Fee/Sales (Fee/Assets) represent the audit fee in basis points of sales (assets) at the beginning of the financial year. The sales correspond to the Net sales figure at the beginning of the financial year. The assets are the total assets at the beginning of the financial year. Accr./Assets represents the total accruals measured as a percentage of the assets at the beginning of the financial year. The total accruals are measured as net profit before extraordinary items minus cash flow from operations.

3.2 Relation between Earnings Quality and Audit Quality

The discretionary accruals, estimated by the Modified Jones Model and Jones model, for the firms audited by B4As and NB4As are presented in Table 4. We find that discretionary accruals, based on the modified Jones model, are negative on an average for the firms audited by the NB4As (-0.30) and positive for those audited by the B4As (0.35). This difference is not significantly different in any of the years (Table 5). We also examine whether there is any improvement in the earnings quality of the firms, where a firm switches from a NB4A to a B4A. The pattern of the discretionary accruals and audit fee two years before and after the hiring is examined. The data does not suggest any improvement in the discretionary accruals on appointment of the B4As. On the other hand, we find that the fee charged by the B4As' increases significantly over the event window (from 0.017 to 0.033 as a percentage of the lagged total assets). These

results suggest that in the Indian context the appointment of a B4A does not lead to improvement in the audit quality as experienced by the level of discretionary accruals. This lack of distinction in quality is despite the high fee premium charged by the B4As. These findings do not support H2.

These findings also prompt us to rigorously examine whether the B4As extract significant abnormal fees compared to NB4As and if such abnormal fees lead to a reduction in the quality of the audit as evidenced by the magnitude of discretionary accruals.

Table 4 : Yearly cross-sectional regressions

Year	Jones model				Modified Jones model			
	1/Assets	Δ Revenue	Fixed assets	Adj. R ²	1/Assets	Δ Revenue	Fixed assets	Adj. R ²
2000	-0.24	-0.08*	-0.10***	0.19	0.05	-0.07*	-0.10***	0.18
2001	0.52	-0.05**	-0.11***	0.23	0.46	-0.05.	-0.08**	0.19
2002	0.42	0	-0.09**	0.16	0.65	0.02	-0.09**	0.17
2003	1.97	0.04	-0.07*	0.12	2.38*	0.09**	-0.07*	0.17
2004	-1.07.	-0.01	-0.08***	0.11	-0.67	0.04	-0.07**	0.12
2005	1.06	-0.01*	-0.07**	0.1	1.05	-0.01	-0.07**	0.09
2006	1.37.	-0.04.	-0.10***	0.14	1.37.	-0.02	-0.10***	0.13
2007	-1.42	-0.02	-0.09***	0.12	-1.16	0.02	-0.09***	0.13
2008	5.79*	0	-0.07**	0.08	6.07*	0.02	-0.06**	0.08
2009	1.53	0.02	-0.14***	0.24	1.38	0.03	-0.14***	0.24
2010	6.52*	-0.01	-0.07***	0.13	7.03**	0.01	-0.07**	0.12
2011	1.92	-0.04	-0.09***	0.06	3.16	-0.01	-0.08***	0.05
2012	-1.58	-0.02	-0.11***	0.2	-0.88	0.01	-0.11***	0.2
2013	0.99	-0.01	-0.06*	0.08	1.87	0	-0.06*	0.08

‘.’, ‘*’, ‘**’ and ‘***’ represent the 10%, 5%, 1%, and the 0.1% levels of statistical significance.

Table 5 : Comparison of the discretionary accruals Big-Four and non Big-Four audited firms (figures in %) and the t-test for their difference

Year	Jones model			Modified Jones model		
	Big Four	Non Big Four	p value	Big Four	Non Big Four	p value
2000	-0.11	0.06	0.9	-0.02	0.01	0.98
2001	1.06	-0.68	0.2	1.01	-0.65	0.23
2002	0.24	-0.15	0.76	0.31	-0.2	0.69
2003	-0.06	0.05	0.93	-0.23	0.19	0.71
2004	0.79	-0.66	0.23	0.85	-0.71	0.2
2005	-0.06	0.06	0.91	-0.04	0.04	0.94
2006	0.64	-0.68	0.29	0.66	-0.7	0.28
2007	0.88	-0.95	0.13	0.83	-0.89	0.15
2008	-0.2	0.24	0.69	-0.19	0.23	0.7
2009	-0.58	0.6	0.25	-0.54	0.57	0.29
2010	0.75	-0.73	0.11	0.72	-0.71	0.12
2011	0.34	-0.36	0.52	0.36	-0.38	0.5
2012	0.32	-0.33	0.48	0.29	-0.3	0.52
2013	0.85	-0.69	0.13	0.91	-0.73	0.11

The table gives the year-wise discretionary accruals estimated with yearly cross-sectional regressions based on the Jones model Equation 1 and the modified Jones model Equation 2.

3.3 Relation between Abnormal Fees and Audit Quality

The results of the decomposition of the audit fee into an expected component (normal fee) and an unexpected component (abnormal fee) are given in Table 6. Firm level data to construct some of the variables used by Choi et al. (2010) was unavailable for many of our sample firms. Hence, to conduct this analysis, we had to drop a number of observations which were included in the final sample of the earlier analysis. The relationship between audit quality and abnormal fee is described below in Equation 4:

Equation 4

$$\begin{aligned}
 DA_{it} \text{ or } |DA|_{it} = & \beta_0 + \beta_1 D.POS.ABFEE_{it} + \beta_2 ABFEE_{it} + \beta_3 D.POS.ABFEE * ABFEE_{it} + \beta_4 LNNTA_{it} \\
 & + \beta_5 D.BIG - 4_{it} + \beta_6 BM_{it} + \beta_7 SCHNGSALE_{it} + \beta_8 D.Loss_{it} + \beta_9 LEV_{it} \\
 & + \beta_{10} D.Issue_{it} + \beta_{11} D.AUDCHG_{it} + \beta_{12} CFO_{it} + \beta_{13} LAGACCR_{it} + \beta_{14} STDV.CFO_{it} \\
 & + \beta_{15} STDV.REV_{it} + \beta_{16} D.Year_{it} + \beta_{17} D.Ind_{it} + \epsilon_{it}
 \end{aligned}$$

Where DA_{it} ($|DA_{it}|$) represent the signed (unsigned) discretionary accruals of firm i in year t . $D.POS.ABFEE_{it}$ is a dummy variable to represent existence of positive abnormal fee. The other variables are explained in Table 2. The estimation was carried out with the robust standard errors, corrected for heteroskedasticity and adjusted firm-level clustering. Our results indicate that among the firm characteristics only total assets ($LNTA$) positively influence the audit fee, indicating that auditors charge greater fee from their larger clients. Among the variables which reflect the complexity of a firm, we find that the extent of working capital ($SINVREC$) positively influences the audit fee. Choi et al. (2010) argue that auditors prefer to charge a higher fee for their riskier clients. However, we do not find any of the variables that were meant to reflect the firm-specific risk characteristics significantly influence the audit fee. On the other hand, we find that the B4A dummy variable ($D.BIG4$) is positive and significant indicating that the B4As are earning significantly higher abnormal fees compared to the NB4As in the Indian market. The abnormal fee ($ABFEE$) is estimated using the fitted values of the audit fee from Equation 3.

The relationship between audit quality and abnormal fee is examined by adopting the model proposed by Choi et al. (2010) and the results are provided in Table 7. Our results indicate that the abnormal fee is unrelated to the quality of reported earnings measured by the discretionary accruals. This is true whether we take the signed discretionary accruals or its absolute value. Similarly, a positive abnormal fee is also not a determinant of the earnings quality. These results suggest that while the B4As charge a significant fee premium and also earn significant higher abnormal fees, it does not lead to any apparent adverse outcomes on the audit quality and the quality of reported earnings. These results provide an answer to RQ1.

Table 6: Measurement of abnormal audit fees - Dependent variable: AFEE

Variable	Coefficient	
LNTA	0.383	***
NBS	0.016	
SINVREC	1.342	*
SQRTNEMPL	0.003	
D.Issue	0.204	
D.ExOrd	0.232	
D.Loss	0.177	
Lag.D.Loss	0.063	
LEV	-0.746	
ROA	-0.326	
CURRATIO	-0.016	
D.BIG-4	0.71	***
BM	0.003	
SCHNGSALE	-0.060	
SHORT.TEN	-0.091	
Constant	-5.801	***
Industry dummy	Yes	
Year dummy	Yes	
Observations	760	

Notes: The table presents the results of the regression in Equation 3. The t-statistics given are estimated using robust standard errors, corrected for heteroskedasticity and firm-level clustering. The variable definitions are provided in Table 2. *, ** and *** indicate statistical significance at the 10%, 5% and 1% level.

Table 7: Abnormal fee and audit quality

Variable	Dependent variable	
	abs(Discretionary accruals)	Discretionary accruals
D.POS.ABFEE	0.001	-0.012
ABFEE	-0.003	-0.014
D.POS.ABFEE * ABFEE	0.002	0.046
LNTA	-0.001	0.008
D.BIG-4	0.003	-0.003
BM	0.002	-0.010
SCHNGSALE	-0.022	-0.044
D.Loss	0.037	-0.099
LEV	0.032	-0.006
D.Issue	-0.005	-0.011
D.AUDCHG	-0.001	0.007
CFO	-0.063	-0.606***
LAGACCR	-0.064	0.092
STDV.CFO	0.03	-0.005
STDV.REV	0.031	0.063
Constant	0.048	0.013
Industry dummy	Yes	Yes
Year dummy	Yes	Yes

Notes: The table presents the results of the regression in Equation 4. The t-statistics given are estimated using robust standard errors, corrected for heteroskedasticity and firm-level clustering. The variable definitions are provided in Table 2. *, ** and *** indicate statistical significance at the 10%, 5% and 1% level.

Our results do not identify any particular cause for B4A fee premiums in India. However our results do help us eliminate two principle causes of such fee premiums: insurance needs and quality needs. Therefore, it is possible that B4As in India earn fee premiums because the market perceives information audited by B4As to be of a superior quality. For example, research indicates that the market reacts to discretionary accruals (Subramanyam, 1996) and views discretionary accruals more credibly when financial statements are audited by Big N auditors (Krishnan, 2003a). Evidence shows that the market rewards companies that employ better auditors and auditor reputation matters (Moizer, 1997; Skinner & Srinivasan, 2012). Clients of Big N or industry specialist auditors enjoy lower costs of debt financing (Mansi et al., 2004; Pittman & Fortin, 2004; Fortin & Pittman, 2007; Karjalainen, 2011; Causholli & Knechel, 2012), lower costs of equity capital (Khurana & Raman, 2004; Azizkhani et al., 2010), higher earnings response coefficients (Balsam et al., 2003; Ghosh & Moon, 2005), and lower levels of IPO underpricing (Chang et al., 2008). Based on the above discussion it can be assumed that the perceived quality of reported information is significantly

enhanced if it is audited by a B4A. This could lead to the B4As charging a fee premium for the perceived improvement in the quality of reported information (signaling premium). Based on our results and using a process of elimination we posit that this factor could be the only factor driving Big 4 fee premiums in India.

Conclusion

This study is one of the first to provide evidence of the fee premiums charged by B4As in India. This study also tries to isolate the potential causes of audit fee premiums charged by B4As in India. Since the legal liability regime in India is significantly less stringent than the US or some western European countries, this particular setting helps in eliminating one of the potential drivers of B4A fee premiums; namely the fee premiums associated with B4As' status as a potential indemnifier of losses.

The results of our analysis indicate that B4As charge significantly higher audit fees than NB4As. However, the audit fee premiums charged by B4As do not result in any difference in quality of reported earnings between B4A and NB4A clients as evidenced by the magnitude of discretionary accruals. We also bifurcate the audit fees into abnormal and normal as indicated by Choi et al., (2010) and find that B4As earn significantly higher abnormal fees than NB4As. According to prior literature such abnormal positive fees are associated with a reduction in the quality of audit and reported earnings and could also be indicative of poor firm performance. However, our results indicate that there is no adverse impact of abnormal audit fees earned by B4As on the earnings quality or audit quality as evidenced by the magnitude of discretionary accruals.

Based on our results we were not able to specifically identify the reason due to which B4As earn a fee premium in India. However we were able to eliminate two potential drivers of B4A fee premiums. The only other potential driver of B4A fee premium is the need to "signal" superior quality of reported information. Prior research suggests that markets perceive information audited by B4As to be of a higher quality and, B4As charge a fee premium for the perceived improvement in the quality of reported information (signaling premium). Prior research has indicated several strategic benefits accruing to companies employing B4As. Hence, future research should try and examine if the B4A fee premium in India is primarily related to the "signaling" benefits associated with the hiring of a B4A.

This study suffers from certain limitation related to the lack of sufficient data points. For example the audit fee data was publicly available only for the BSE top 500 companies and not all the companies listed on the various Indian stock exchanges. Therefore we could conduct an analysis on only these 500 companies. Maybe our results could have differed if some smaller companies could also have been included in the sample. However our sample is relatively homogenous in terms of size and governance mechanisms of the companies and so it allowed us to better control for extraneous variables that could be affecting our measures of discretionary accruals and audit fees.

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