

Determinants of audit fees in Bahrain: An empirical study

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ABSTRACT

This study focus on the significance of the five factors in determining audit fees such as number of transactions, the sum of account receivable and inventory, information technology, number of subsidiaries and regulations using data that was collected from 20 auditing firms and 30 non-audit firms in Bahrain through a survey questionnaire. The significance was tested using t-test for means and observed that all five factors are significant in determining audit fee. The study also found that volume of transactions that originates across subsidiaries with international presence using sophisticated Information Technology systems significantly contributes to higher audit fees. In addition to that enhancing financial and audit regulations as a response to frequent corporate financial scandals contributes to higher audit fee that corporations has to bear.

Keywords: Audit fee, transactions, account receivable and inventory, Information technology, subsidiaries and regulations.

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INTRODUCTION

Audit fee is a fee that company is expected to pay to an external auditor for performing audit and assurance services. This type of fees is of interest to both auditors and their clients as it represent cost to companies as much as reputation of quality of audit services. Companies are required by law to have their accounts audited at reasonable fee without compromising on quality of audit. On the other side, auditors expect to receive adequate fees for their services to maintain their services at a satisfactory level.

Al-Ajmi and Saudagaran (2011) stated that “audit market in Bahrain is governed by the Amiri Decree (no. 26) of 1996. Although this Act does not deal with the auditing standards, audit firms are expected to comply with International Standard on Accounting (ISA)”. “The Bahrain Commercial Companies Law of 1975” emphasizes that companies with limited liability status must get their financial statement audited by external auditors but does not specify any accounting standard guidelines. Joshi and Al-Bastaki (2000) stated that companies listed in the Bahrain Bourse follow ISA standards. The Central Bank of Bahrain (CBB) is mandated with legislative powers in effecting its requirements on auditing guidelines. This research is to determine the implication of the factors such as i) Number of transactions ii) The sum of account receivable and inventory, iii) Information technology iv) Number of subsidiaries and v) Regulations that influence the audit fees in Bahrain.

LITERATURE REVIEW AND HYPOTHESIS

Number of transactions during the fiscal year

Joshi et al., (2000) and McLelland and Giroux (2008) stated that the auditors are concerned about volume of transactions that has to be validated and subsequent time spent clients’ operations in large sized organizations. Larger organizations require more audit effort because they have more transactions and documents. Prior research conducted by Joshi, (1999); Al-Shammari et al, (2008), and Xu (2011) provided conclusive evidence that “the size of the client is the most important variable in determining audit fees”. Al-Ajmi (2008) states that “the size of client is reasonable to expect that the larger the company, the higher the demand for quality audit. Size has been associated with higher agency costs, which are mitigated by high audit quality. As a company grows larger, delegation of duties becomes necessary; otherwise it will lead to moral hazard risk and opportunistic behaviour”.

Xu (2011) stated that “audit workload and audit unit price cannot be easily observed, audit workload is a function of the size of the audited entity”. This study assumes that the number of transactions and audit fee has a positive relation.

H1: Number of transactions audited has significant impact on Audit fee.

Number of subsidiaries

Joshi et al., (2000) argued that complex, diversified business with foreign operations leads to complex audit process. If organizations have more subsidiaries then it requires more complex audit work leading to firms charging higher audit fees. Sandra et al., (1996) stated that “auditors of group companies, with a number of subsidiaries/branches, often incur high costs in examining the individual financial statements and in assessing the accuracy of consolidated financial statements as these

statements have to comply with a variety of statutory and professional requirements for disclosure and thus this entails additional audit testing”. This implies that the companies have to bear additional charges for audit work. Complexity of company operations is directly proportional to rigorous audit work hence higher audit fee (Cameran, 2005; Firth, 1985). However, Firth (1985) found that the number of subsidiaries and the scope of operations were insignificant. So; the study used the number of subsidiary as a measurement to determine the audit fees.

H2. Number of subsidiaries of a firm has significant impact on Audit fee.

The sum of accounts receivable and inventory to the asset

Audit tasks become more difficult with larger accounts receivable and inventories than the number of subsidiaries across the globe with large foreign operations. According to Arens and Loebbecke, (1994) “Auditors tend to take special care with these aspects of audit, as they are derived from a host of transactions, are difficult to evaluate, and are areas that are most susceptible to fraud”. In Prior research Al-Shammari et al., (2008); Peel and Clatworthy, (2001); Sandra et al., (1996); Cameran, 2005) suggested “number of subsidiaries, proportion of foreign subsidiaries, receivables to total assets, inventories to total assets” as significant variables in deciding audit fee.

H3. Sum of Accounts receivable and inventory to total assets has significant impact on Audit fee.

Information technology system

SAS No. 94 imposed that to help auditors for auditing IT system, the auditors requires specialized skills as the software complexity and security controls are increased. Also, professionals are expected to possess skills and valid professional certifications to be on the audit team. Moreover, increasing number of businesses were using complex computer systems as a cost-effective way to process accounting data increased (Yang and Guan, 2004). As result, the audit firm will spend a lot of money for staff training to get specialized skill in IT system and spend too much time and effort to audit the complexity computer system and for that the audit company will increase the audit fees for auditing the IT system. Using of computer facilities has brought different ways of processing, recording and controlling information and has combined many previously separated functions. The potential for material systems error has thereby been greatly increased causing great costs to the Organisation. This makes it imperative for the auditor to test the invisible processes, and to identify the vulnerabilities in a computer information system as the costs involved, because of errors and irregularities, can be high and then the auditor imposed high audit fees for this situation because the auditor invested time and effort to detect the errors. On another hand, when the company have small data volume and adequate printed information is available to carry out a meaningful clerical audit, there is no need to employ computer techniques, which are costly and time consuming and then the company can have low audit fees (Abu-Musa, 2006).

H4: Complexity of information technology system used has significant impact on Audit fee.

Regulations

Regulations are one of the most important variables which have impact on audit fees. The reason of the increase is due to the adoption the regulations because the auditors of audit firm will spend more time and efforts to audit and analysis the transactions and documents of company and the auditors' expected legal liability. Furthermore, the complexity of regulation can increase the audit fees. Marden and Brackney (2009) said that "when organizations apply the International Financial Reporting Standards on audit fees that auditors must spend more time and efforts on analysing business transactions under IFRS in order to make the most appropriate judgments and to ensure adequate compliance". Audit firms must invest in imparting new skills to the auditors that are needed to comply to new auditing standards and these costs thus will be reflected in audit fees. Also, Ghosh and Pawlewicz (2009) stated that the adoption of the Sarbanes-Oxley Act (SOX) provisions affect audit fees due to the increase in the audit workload, it is expected to lead to higher audit fees.

H5: Accounting regulations has significant impact on Audit fee.

SAMPLE DATA AND VARIABLES

This study uses a questionnaire involving five factors having 22 items to find audit fee determinants. The respondents to the survey are twenty audit firms and thirty non-audit firms from the major companies of the Kingdom of Bahrain and collected valid 61 completed questionnaires. The questionnaire contained the questions related to general and organizational demographical information and five factors which is expected to have an impact on determinants of audit fees rated using five -point Likert-type scale (1 for strongly disagree, 5 for strongly agree). Factors i)Number of transaction are measured using four items, ii)Number of subsidiaries measured using four items, iii)Sum of total of inventory and account receivable to total asset measured by five items, iv)Complexity of IT system measured by five items and v)Regulations are measured by four items. Table 1 shows the reliability of 22 items as 0.835 and items in each construct is 0.7 and above in the questionnaire measured by Cranach's alpha and considered reliable. Cronbach's alpha is a good measure of internal consistency of the latent variable, and acceptable values are normally above 0.70. However, we can accept values near of 0.60 (Hair, et al., 2006), especially if the factor have only few items. While a value above 0.6 is sufficient, while a value above 0.7 is considered ideal (George and Mallery 2003)

Methodology, Data Analysis, and Hypotheses Results

The demographic profile of the firms who successfully completed the survey is presented in the Table 2. There is an equal response rate from Audit and Auditee firms. 63.9 % respondents are auditors. Majority of respondents 47.5% belongs to 25 and 35 years age group. 72.1% of the population are bachelor's degree holders, 14 respondents (23%) are MBA holders. 44.3% of respondents hold professional certifications such as CPA, ACCA and CIA and they are expected to contribute high quality of audit in Bahrain thus affecting audit fees in Bahrain. 45.9% of the population have less than 5 years of experience, 36.1% have 5 to 15 years of experience while 16.4% have 15 to 25 years ,indicating auditors in Bahrain have required experience thus helping them to perform the job professionally. Regarding number of clients handling 4.9% of the surveyed firms handled between 1 to 5 clients, 8.2% handled 5 to 10 clients, 13.1% handled 10 to 20

clients while the rest 24.6% have handled above 20 clients. The results show Audit firms are very strong in providing quality Audit to Bahraini firms. All respondent audit firms have considerable numbers of certified auditors: 77.0% of the respondents say they have between 1 to 20 auditors, 11.5% have between 20 to 40 certified auditors 6.6% have between 40 to 80 certified auditors while 4.9% have more than 80 certified auditors .The audit firms in Bahrain have done much in the area of forming partnership with other developed countries, especially U.K, U.S.A and South East Asia. The results show that 11.5% of the audit firms form partnership with the Middle east, 8.2% of the audit firms form partnership with the UK, 9 respondents representing 14.8% of the audit firms form partnership with the US, while 8.2% of the audit firms form partnership South East Asia 57.4% form partnership with other countries. Proposed hypotheses statements are tested using T-test for means at 5% level of significance. Table 4,5,6,7and 8 shows arithmetic mean, standard deviation, t statistic and p values of the items related to the factors. Most of the mean values of all items are 3.50 and above and p values are less than 0.05 confirms that all hypotheses are supported at 5% significance level.

Therefore this research concludes that all the five factors i)number of transactions ii)the sum of account receivable and inventory, iii)information technology iv) number of subsidiaries and v) regulations have a significant influence in determining audit fees in Bahrain.

CONCLUSIONS

From the result, the researcher concludes Volume of number of transactions, number of subsidiaries, ratio of the sum of account receivable and inventory, information technology, and regulations are all predictors of audit fees since they are all statistically significant to the chargeable audit fees. However it is not possible to review audit fees without critically looking at other economic factors.

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Table 1 Reliability Statistics

Constructs	Cronbach's Alpha	Number of Items
Number of transactions	0.801	4
Number of subsidiaries	0.681	4
Sum of total inventory and account receivable to total asset	0.737	5
IT system	0.698	5
Regulations	0.745	4
All the items	0.835	22

Table 2 - Demographic characteristics

	Variable	Frequency	Percentage
Firm Type	Audit firms	31	50.8%
	Auditee firms	30	49.2
	Total	61	100
Job Type	Manager	12	19.7
	Associates	10	16.4
	Auditors	39	63.9
Age	Total	61	100.0
	Less than 25years	17	27.9
	Between 25&35years	29	47.5
	Between 36&45years	12	19.7
	More than 45years	3	4.9
Academic Qualifications	Total	61	100.0
	Diploma	1	1.6
	Bachelors	44	72.1
	MBA	14	23.0
	PhD	2	3.3
	Total	61	100.0

Professional Qualifications	CPA	14	23.0
	ACCA	8	13.1
	CIA	5	8.2
	Other	34	55.7
	Total	61	100.0
Experience	Less than 5years	28	45.9
	Between 5&15years	22	36.1
	Between 15&25years	10	16.4
	More 25years	1	1.6
	Total	61	100.0
No.of clients/year	1-5 clients	3	4.9
	5-10 clients	5	8.2
	10-20 clients	8	13.1
	More 20 clients	15	24.6
	Total	31	50.8
No. of Certified Auditors	1-20 auditors	47	77.0
	20-40 auditors	7	11.5
	40-80 auditors	4	6.6
	More 80 auditors	3	4.9
	Total	61	100.0
Country of foreign partner	Middle East	7	11.5
	UK	5	8.2
	US	9	14.8
	South East Asia	5	8.2
	Other	35	57.4
	Total	61	100.0

Table 3

Hypothesises	Result
H1: Number of transactions audited has significant impact on Audit fee.	Supported
H2. Number of subsidiaries of a firm has significant impact on Audit fee.	Supported
H3. Sum of Accounts receivable and inventory to total assets has significant impact on Audit fee.	Supported
H4: Complexity of information technology system used has significant impact on Audit fee.	Supported
H5: Accounting regulations has significant impact on Audit fee.	Supported

Table 4

Number of Transactions					
Item No.	Item details	Mean	SD	t-value	P-value
1	There is a relationship between audit fees and number of transactions	4.66	.57	63.35	0.00
2	Large number of foreign transactions from foreign subsidiaries of company will effect on audit fees	4.25	.91	36.58	0.00
3	Reviewing of the transactions daily by internal auditors reduces the audit fees	3.43	1.38	19.34	0.00
4	Complexity of transactions process effect the audit fees	4.36	1.03	32.96	0.00

	All grouped items	4.43	.97	38.06	0.00
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Table 5

Number of Subsidiaries					
Item No.	Item details	Mean	SD	t-value	p-value
1	There is a relationship between audit fees and number of principle subsidiaries	4.33	1.06	31.88	0.00
2	Effectiveness of communication between the subsidiaries and main office of company can be effected on audit fees	3.43	1.36	19.68	0.00
3	Lack of controlling in the Subsidiaries will increased audit fees	4.02	1.22	25.76	0.00
4	A lot of foreign subsidiaries of the client effect the audit fees	3.02	1.41	16.73	0.00
	All grouped items	3.70	1.26	23.51	0.00



Table 6

Sum of total of inventory and account receivable to total asset					
Item No.	Item details	Mean	SD	t-value	P-value
1	There is a relationship between audit fees and Sum of total of inventory and account receivable to total asset	4.20	1.01	32.34	0.00
2	Transaction risk in accounts receivable and inventory financing is effected on audit fees	3.41	1.42	18.77	0.00
3	Mentoring of account receivable inventory daily, it detects the fraud and then reduce the audit fees	3.41	1.25	21.19	0.00
4	Develop the scope of the accounts receivable and inventory financing examination reduce the audit fees	3.17	1.37	17.94	0.00
5	When determine for each file contains documentation supporting guarantees of account receivable and inventory, the audit fees reduce	3.02	1.47	16.07	0.00
	All grouped items	3.44	1.30	21.28	0.00

Table 7

IT systems					
Item No.	Item details	Mean	SD	t-value	P-value
1	There is a relationship between audit fees and using the It system for reviewing the accounting and financial transactions of client	4.16	1.07	30.47	0.00
2	Using high quality of programs, professional and training staff for IT auditing system imposed high audit fees.	3.93	1.28	24.08	0.00
3	Using of computer facilities likes processing, recording and controlling information and others are caused for high audit fees.	3.62	1.28	22.10	0.00
4	The complexity of the client's computer operations imposes extra charges which it leads for high audit fees	3.93	1.15	26.66	0.00
5	The availability of data in a computer-readable form effects on the audit fees.	3.72	1.29	22.48	0.00
	All grouped items	3.87	1.21	25.16	0.00

Table 8

Regulations					
Item No.	Item details	Mean	SD	t-value	P-value
1	There is a relationship between audit fees and regulations	4.11	.98	32.63	0.00
2	Increasing in audit fees is a result from adopt outside regulation from some standards like SOX and IFRS.	3.90	1.23	24.69	0.00
3	Regulation and litigation risk are expected to lead to higher audit fees	3.84	.98	30.38	0.00
4	High legal liability cost leads to high audit fees	3.60	1.34	20.94	0.00
	All grouped items	3.86	1.13	27.16	0.00