Firm-Level Characteristics and Audit Quality

خصائص الشركة وجودة المراجعة

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Abstract

The aim of this study is to theoretically and empirically provide evidence on the association between agency cost variables (firm size, leverage, firm performance and short-term accruals) and the auditor choice decision of 72 non-financial listed companies in the Qatari Stock Exchange during 2007-2010. This study identifies two audit firm types: (1) Big-4 and (2) Non-Big-4 auditors. Using pooled logit regression, this study finds that the likelihood that a name-brand auditor is chosen is associated with firm size and short-term accruals. The outcomes of this study have significant implications to the auditor independent issues in the setting of Qatar.

Keywords: Audit quality, Agency cost variables, Qatar.

الملخص

تهدف هذه الدراسة إلى إيجاد دليل نظري وتطبيقي فيما يتعلق بعلاقة محددات تكاليف الوكالة (حجم الشركة، وديون الشركة، وأداء الشركة، والمستحقات قصيرة الأجل) بقرار اختيار مراجع الحسابات الخارجي لعدد 72 شركة في سوق قطر للأوراق المالية في الفترة من 2007-2010. حددت هذه الدراسة نوعين من مراجعي الحسابات الخارجين: (1) أكبر أفضل أربعة مكاتب تدقيق حول العالم و (2) مكاتب المراجعة غير الأربعة الاكبر عالمياً. فمن خلال استخدام الانحدار الثنائي المجمَّع، أوضحت نتائج هذه الدراسة وجود علاقة طردية ذات دلالة إحصائية بين اختيار جودة المراجع الخارجي و حجم الشركة واستحقاقاتها قصيرة الاجل. توفر نتائج هذه الدراسة تطبيقات هامة فيما يتعلق بقضايا استقلالية المراجع الخارجي في دولة قطر.

كلمات البحث الدالة: جودة المراجعة الخارجية، ومحددات تكاليف الوكالة، وقطر

1. INTRODUCTION

The openness and integration of Qatari economy with the globe have created push-and-pull motivations that establish a change in the institutional framework, new regulated financial, accounting, auditing regulations, and corporate governance codes. In a like manner, external audit laws have been enacted in Qatar to regulate the auditing profession (e.g., Hawkamah and IFC, 2008; Harabi, 2007; Al-Basteki, 2000; Shuaib, 1999; Arnett and Danos, 1979). Subsequently, these quantum in leap developments have made Qatar as one of the attractive business environment for different types of investors (e.g., Gulf Base, 2009; Al-Shammari *et al.*, 2008; Al-Hussaini and Al-Sultan, 2008; Bley and Chen, 2006). There has been a surge of interest in Qatar about the issues of auditor choice and, consequently, there is an incremental demand for audit services resulting in in the cost and demand parameters of the audit market which may, in turn, lead to shifts in competitive and pressures. Simultaneously, the recently Qatari economic and regulatory booms and the increased demand for audit services go in the same line with some concerns. It is well noted that in the entire history of Qatar, three cases of auditor breach have been reported (e.g., Asiri, 2009; Al-Shammri *et al.*, 2008). Al-Shammari *et al.* (2008) observe that this situation does not reflect a good practice of audit function. These behavioral practices by market participants, undoubtedly, have an impact on the structure of the audit service market. Equally important, it is also argued that the relation between legal origin and financial arrangements in Qatar merely reflects the influence of the role of the state or the nature of the political system and its national governance. Furthermore, Qatar is still suffering from poor enforcement of regulation and competition policies, and a dominance of three groups of shareholders, namely; government and its agencies, family, and institutions in which these dominance groups are a result of the weakness of investor protection and the absence of well-developed markets for corporate control (e.g., Chahine and Tohme, 2009; Omran *et al.*, 2008; Hawkamah and IFC, 2008; Harabi, 2007). Under these circumstances, agency problems are more likely to arise between majority and minority shareholders.

The above concerns in Qatar raise questionable marks on the audit function, especially the process of auditor choice. One important issue about the process of auditor choice is that it varies among stakeholders and organizations (e.g., Knechel, 2001; Hermanson *et al*., 1994; Abdel-Khalik, 1993). And, to some extent, given the differences among regulatory frameworks and audit markets among countries, it can be argued that the variation in the regulatory framework and audit markets can explain a different process of auditor selection among countries. This implies that companies have different preferences in choosing their external auditors. These different preferences may be categorized into broad patterns (e.g., Francis, Maydew, and Sparks, 1999). Yet, little knowledge is available about the complexity beyond the reason in which an organization chooses a specific auditor over another (e.g., Knechel, 2001).

There is a substantial amount of early and recent prior research on auditor choice (e.g., Ahmad *et al*., 2006; Hudaib and Cooke, 2005; Woo and Koh, 2001; Beasley and Petroni, 2001; Abbott and Parker, 2000; Lennox, 2000; DeFond, 1992; Johnson and Lys, 1990; Francis and Wilson, 1988; Schwartz and Menon, 1985; Palmrose, 1984b). These studies have been described as follows: (1) They are heavily conducted on countries with an Anglo-Saxon legislation such as U.S and U.K, and they are heavily based on agency theory. This considerable attention has been devoted to those countries possibly due to the fact that they have similar audit environments and developed capital markets. (2) Contradictory and inconclusive results reported by the previous studies on auditor choice (e.g, Anderson, Stokes and Zimmer, 1993; Knapp and Elikai, 1988; Eichenseher and Shields, 1989; Schwartz and Menon, 1985). In the most broad sense, it is impossible to infer from the body of the previous studies, conducted on the auditor choice, the more important sources of change and/or a new auditor selection (e.g., Lindahl, 1996; Anderson, Stokes and Zimmer, 1993). Importantly, a single variable or a collection of variables at the organizational or environmental levels do not exist that form the optimal determinants of auditor choice (e.g., Ginsberg and Venkatraman, 1985). Wallace (1984) indicates that there is a difficulty to classify the potential variables influencing on the auditor choice based on the underlying theories. This is the case because of: (1) the incompleteness of the underlying theories related to the auditor choice, and (2) the overlapping of the theories with each other.

Therefore, the documented results by previous studies that are characterized as conflict and inconclusive ones, the paucity of auditor-choice research in Qatar, the ambiguity of the low-reported numbers of auditor scandals and qualified audit reports in Qatar, the recent incremental developments that have been implying to Qatari audit market, the increasing demand for audit services, the different country-setting of Qatar in terms of audit markets, institutional factors, different levels of investor protection, legal enforcement and ownership structure and culture (what differentiates Qatari market from the other world may, in turn, lead to a different underlying correlation and analyzing this issue with a different sample will provide one more piece of evidence in the debate) derive the motivation for investigating the auditor choice in the setting of Qatar. In particular, little is known and many questions remain unanswered about audit markets in Qatar. Specifically, little attention has been devoted to the auditor choice studies in the Middle East, in general, and in Qatari setting, in particular. Yet, research providing empirical evidence of auditor choice in Qatar does not exist. In the same line, Healy and Palepu (2001) report that little is known about the audit function in the GCC (e.g., Qatar) countries. Therefore, this study aims at providing empirical and theoretical evidence concerning the determinants influencing companies in making their decisions of auditor choice in Qatar. The rest of the paper is organized as follows. Section 2 exhibits the review of the literature and how hypotheses are developed. Research Methods is showed in Section 3. Sections 4 displays the results and the related discussions. Finally, conclusions and implications have been provided.

2. LITERATURE REVIEW AND RESEARCH HYPOTHESES

2.1 Audit market in Qatar

Little knowledge is known to public about accounting and auditing in Qatar. There is a great gap between the level of economic development and the accounting and auditing development (Al-Khater and Nasser, 2003). Up until 1974, there was not any type of accounting and auditing guidelines unless Law No. (7) was issued to provide external auditors with guidelines on operating audit in Qatar. Afterwards, a basic Company Act No. (11) was issued in 1981 to provide guidelines to the incorporating companies in Qatar. Later, in 1998 Company Act No. (9) was regulated as an amendment for the previous Act of 1981 (Naser, Al-Hussaini, Al-Kwari, and Nuseibeh, 2006).

On the whole, Qatar does not develop its own national accounting standards and it does not adopted the International Accounting Standards (IASs). A professional body to set national accounting and auditing standards and/or to adopt the

International Accounting Standards and develop them based on the country context does not exist on the Qatari ground. However, a scientific association of accountants has been recently established to form the accountants association. Consequently, Qatar Stock Exchange (QSE) requires listed companies (i.e. equity securities) to prepare their financial statements in accordance with the International Accounting Standards (IASs) and International Financial Reporting Standards (IFRs). Nevertheless, the Qatari Central Bank (QCB) makes it mandatory for national banks to comply with IASs and to have their financial statements audited by two independent auditors from the Big-4 that are currently dominating the audit market in Qatar (Alattar and Al-Khater, 2007). In short, national accounting and auditing standards do not exist except for banks in which all financial and reporting requirements and auditing procedures are placed in the commercial code and the company law. In addition, Qatari Central Bank (QCB) has regulated particular requirements that local and foreign banks must comply with besides the IASs.

In 1995, DSM was established based on Decree Law (14). The operation of DSM has been carried out in 1997 with 17 listed companies and 5 brokerage firms. In the time of the establishment, trading activities used to be conducted manually until 2002 when they have been conducted in a fully electronically basis with electronic central clearing and settlement. Qatari Exchange was established in June 2009 that replaced DSM based on Law No. 33 and its amendments in 2005. Qatari Exchange is a new formation of a long-term strategic vision of the Qatar Stock Exchange achievements and the leading position of NYSE Euronext in the global markets. This new formation has taken a phase of a strategic partnership between Qatari Holding and NYSE Euronext. QE and NYSE Euronext would work together to boost up liquidity, transparency, product range and participation in the market. In 2008, there are 43 listed companies in QE with a market capitalization of US$76.65bn. These listed companies have been categorized into banking and financial sector, insurance sector, industrial sector, and service sector (Qatari Exchange, 2009a). In fact, Qatar has recorded the highest GDP per capita income in the world that has been estimated at US$68467 in 2008 (Qatari Exchange, 2009b). On the subject of foreign ownership in shares, The Qatari government encourages overseas investment in Qatar. It is allowed for foreigners to invest in shares up to 49% with prior approval except for agriculture, industry, health, education, tourism, and projects involved in the development of natural resources where full or majority foreign ownership is allowed. As well as this, some sectors are limited 100% to Qatari investors or as a government monopoly. Local agent should be employed by foreign companies incorporating in Qatar, and investment projects are screened. Regarding foreign ownership, ownership for foreigners can rise up to 100% ownership of new specified sectors and/or establishment of representative offices or branches of foreign companies without local partners (Gulf Co-Operation Council Organization, 2009b). In terms of financial institutions, the foreign investment should be approved by the government of Qatar. It is worth mentioning that the Qatari government has shares in two prominent insurers (Heritage Foundation, 2009f). Indeed, income and profit taxes are the only taxes imposed on corporations. It rates from 5% to a maximum of 35% of net profit (Encyclopedia of the Nations, 2009b). In the meanwhile, Equity owners in Qatar dominating business market are government and its agencies, families and institutional investors. Representatives of these owners sitting on the board are common practice in Qatar. Therefore, these three dominant groups have better and timely access to internal information (Al-Shammari, Brown, and Tarca, 2008). In addition, Qatar is considered as one of the partial adopter of IASs countries. The compliance with IASs for banks and, finance and investment companies is mandatory made by the Central Bank in Qatar. As a consequence, the extensive requirements of either local or international investors may be met concerning making comparisons among financial reports and the receipt of depth information. Importantly, audit report and the provisions Company Act are of utmost important to QE in order to assess that "true and fair view' are reflected in the audited financial statement and there is a compliance with the Company Act. In addition to this, listed banks, finance and investment companies are subject to comply with IASs, Company Act, and the Central Bank requirements. In this regard, latter one works closely with the Ministry of Commerce to enforce the IASs compliance. One of these strict requirements is that listed banks must select at least two registered external auditors that are required to report incompliance violations with IASs and other regulations. To date, a violation report has not been made up until today against any listed company in QE (Al-Hussaini and Al-Sultan, 2008). Recently, Qatar is ranked as the 48 world country concerning economic freedom index (Heritage Foundation, 2009a). It is worth to highlight that the establishment of DSM and the intensive privatization program implemented by the government create the necessity to regulate Company Law No. (11) for the year 2002 (Al-Khater and Nasser, 2003).

2.2 Name-brand auditor

Market perceives audit quality as a different product using the brand-name classifications (e.g, Houqe *et al*., 2015; Chi & Weng, 2014; Chou, Zaiats & Zhang, 2014; Becker *et al*. 1998; Teoh and Wong 1993; Menon and Williams 1991; Beatty, 1989). Empirically, several studies find that audit firms with a well-recognized brand-names are considered a higher audit quality providers (e.g, Boon, McKinnon and Ross, 2007; Moizer, 1997; Copley, Gaver and Gaver, 1995; Palmrose, 1988; Simunic and Stein, 1987; Dopuch and Simunic, 1980 and 1982; Klein and Leffler, 1981; Shockley, 1981; Libby, 1979; and; Klein *et al*., 1978). Healy and Lys (e.g, 1986) document that brand-name auditor indicates of higher audit quality and it also refers a dissipating by the audit quality provider if there is a fail in supplying the contracted-for quality. Consequently, possible future losses may occur in terms of reputation, audit fees, and the number of clients (e.g, Chaney *et al*., 2004; Citron & Manalis, 2001; Woo & Koh, 2001; Bedard *et al*., 2000; Francis & Wilson, 1988; DeAngelo, 1981; Burton and Roberts, 1967). Further, Healy and Lys (1985) indicate that internationally operating companies choose Big Eight because of their quality and geographic dispersion. In DeAngelo's formulation, differential audit quality is a passive by-product of client-specific quasi-rents.

In addition, Palmrose (1988) indicates that non-Big Eight firms as a group had higher litigation occurrence rates than the Big Eight. The value of external audits derives from users' expectations auditors will detect and correct/reveal any material omissions or misstatements of financial information. Failure to do so, termed an audit failure, typically results in litigation when client/users incur losses in conjunction with materially false or misleading financial information. This suggests that (under ceteris paribus conditions) users can view auditors with relatively low (high) litigation activity as higher (lower) quality suppliers. There is also evidence that the Big Eight firms command price premiums (e.g, Rubin, 1988; Simon and Francis, 1988; Francis and Simon, 1987; Palmrose, 1986; Francis and Stokes, 1986; Francis, 1984). Simon and Francis (1988) report that Big Eight fees have been consistently estimated at 16 percent to 19 percent higher than non-Big Eight audit fees across several independent studies. Big Eight price premiums are consistent with Klein and Leffler's (1981) claim that price is an indicator of quality. Further, Francis and Simon (1987) report that the Big Eight price premium holds with respect to both other national firms and local-regional firms and that non-Big Eight national firms do not command a price premium over local-regional firms. Based on these studies, Francis and Wilson (1988) use a two-category representation of audit quality with Big Eight firms defined as brand name higher-quality supplier.

Linking auditor change with name-brand auditors, Lindahl (1996) finds that firms with non-Big Eight auditors are much more likely to switch. In a particular manner, using the name-brand of Big-8 and non-Big-8 as a dependent variable, Francis and Wilson (1988) find a positive association with company growth. Further, Woo and Koh (2001) report a significantly positive relationship with ownership structure. Furthermore, Palmrose (1984b) reports a significantly negative association with leverage and a significantly positive relation with firm size. Moreover, Eichenseher and Shields (1989) find a significantly positive association with management stock ownership, leverage and audit committee existence. Also, Fargher, Taylor and Simon (2001) document a significantly association with disclosure level. In addition, DeFond (1992) uses name brands of Big-8, second tier and local auditors. She documents a significantly positive association with leverage, issuing new securities, and growth. Carpenter and Strawser (1971) indicate that local and regional firms are often replaced by national CPA firms when a client "goes public." The reason beyond this change is most frequently appear to be the prestige, reputation and greater technical ability (particularly in SEC matters). Taking another course of classification. In terms of using name brand as an independent variable, Woo and Koh (2001) document that a significantly negative link between hiring Big-8 and non-Big-8 with auditor switch.

2.3 Firm size

Advocates of the agency theory argue that the variation in firm size explains a different demand of audit quality (e.g, Wallace, 1980, 1987; Fama and Jensen, 1983a,b; Jensen and Meckling, 1976). Firm size is one of the key determinants that influences the auditor selection process (e.g, Karim and Zijl, 2008; Copley and Douthett, 2002; Haskins and Williams, 1990; Johnson and Lys, 1990; Palmrose, 1984a). Despite the fact that the previous studies have produced conflicting and inconclusive results with regard to the company size and its association with the auditor choice, Woo and Koh (2001), Simunic and Stein (1987), Healy and Lys (1986), Palmrose (1984), for example, find a significant positive correlation between name-brand and client size.

Consistent with this, Citron and Manalis (2000) find that Greek firms select Big 6 auditors based on their sizes at 10% level of significance. Besides, larger clients may receive more attention from large audit firms *(e.g,* Berton, 1995). Beasley and Petroni (2001) report a significant relationship between industry-specialist auditor and firm size. In the same line, Lee *et al.* (2004) observes a significantly positive association between name-brand auditor and firm size. Further, Johnson and Lys (1990), using the model of auditor size, find a significant positive association before the switch and a significant negative association after the switch. This study relies on the assumptions of agency theory and expands the theoretical arguments and empirically findings of the prior studies discussed above by providing direct evidence on the association between name-brand auditor and firm. The testable hypothesis of name-brand auditor is stated in a direct form:

H_1: Ceteris paribus, there is a positive association between firm size and name-brand auditor.

2.4 Leverage

Agency theory suggests that companies vary in their demand for audit quality vis-à-vis the level of their leverage (e.g, Wallace, 1980, 1987; Fama and Jensen, 1983; Jensen and Meckling, 1976). As demonstrated by past research, Lennox (2000; 1999a,b) reports that leverage has significant effects on audit reporting in UK companies. By the same way of token, Chow (1982) suggests that the greater the proportion of debt in a company's capital structure, the greater the potential for wealth transfers (that is, agency costs) from bondholders to shareholders. Therefore, there is a need for auditors with higher indepdent levels in order to increase the reliability of financial information reported that is used to verify covenant compliance (e.g, Woo and Koh, 2001). Expanding on this, local banks and financial institutions will be first destination of corporations searching for external fund. Empirical evidence finds that there is a reduction in the effective interest rate for companies hiring a Big 6 auditor (e.g, Mansi *et al*., 2009).

The current research extends this body of knowledge by directly providing empirical evidence although the previous studies have produced conflicting and inconclusive results with regard to the leverage and its association with the auditor choice (as highlighted in detailed in the literature review). For instance, DeFond (1992) and Eichenseher and Shields (1989) evidence a significant positive association between auditor size and leverage. In the same line, ee *et al*. (2004), Woo and Koh (2001), and DeFond (1992) report that auditor choice is positively related to firm leverage. In consistent with this, DeFond (1992) report a significant positive relationship between auditor independence and leverage. With regard to auditor change model, Lee *et al*. (2004) and Woo and Koh (2001) report that auditor change is positively linked with the level of firm's leverage. In the same line, DeFond (1992) report a significant positive relationship between leverage and a combined audit quality model. This study accounts on the assumptions of agency theory and expands the theoretical arguments and empirically findings of the prior studies discussed above by providing direct evidence on the association between name-brand auditor and leverage. The testable hypotheses of name-brand auditor is stated in a direct form:

H_2: Ceteris paribus, there is a positive association between leverage and name-brand auditor.

2.5 Firm performance

Agency theory (e.g, Wallace, 1980, 1987; Fama and Jensen, 1983; Jensen and Meckling, 1976) and information suppression hypothesis (e.g, Grayson, 1999) conjuncture that there is a relationship between firm performance and the auditor choice. Although previous studies have produced conflicting and inconclusive results linking firm performance vis-à-vis the auditor choice (as highlighted in detailed in the literature review), Schwartz and Menon (1985) indicate that, consistent with the proposition of the agency theory and the information suppression hypothesis, the change in a company's financial condition may produce a change in the desired package of audit services. In the same line, Woo and Koh (2001) report that auditors who are working with higher perceived audit and business risks will increasingly apply more audit procedures and use more conservative accounting practices or if there is still a distressed situation, the incumbent auditor might resign. Moreover, it is evidenced that companies with unsound financial positions may select another auditor in the essence of receiving more favorable audit reports (e.g, Citron and Taffler, 1992; Haskins and Williams, 1990). Further, Lindahl (1996) and Johnson and Lys (1990) report that one indication of financial distress is a loss which may lead to auditor change. This study depends on the assumptions of agency theory and information suppression hypothesis, and expands the theoretical arguments and empirically findings of the prior studies discussed above by providing direct proposition on the association between name-brand auditor and firm performance. The testable hypothesis of name-brand auditor is stated in a direct form, respectively:

H_3: Ceteris paribus, there is a positive association between firm performance and name-brand auditor.

2.6 Short-term accruals

Agency theory conjunctures that the variation in the audit quality demand can be explained by different levels of accruals (e.g, Wallace, 1980, 1987; Fama and Jensen, 1983; Jensen and Meckling, 1976). Despite the fact that previous studies have produced contradictory and inconclusive results linking short-term accruals vis-à-vis the auditor choice (as highlighted in detailed in the literature review), DeFond (1992) and Healy (1985) report that, in the audit process, short-term accruals are income determinants that are subject to a great amount of manipulation which, in turn, will lead to an increasing demand for monitoring. In line with this, Ahmad *et al*. (2006) report a significantly positive association between auditor choice and short-term accruals. This study relies on the assumptions of agency theory and expands the theoretical arguments and empirically findings of the prior studies discussed above by providing direct proposition on the association between name-brand auditor and the short-term accruals. The testable hypothesis of name-brand auditor is stated in a direct form:

H_4: Ceteris paribus, there is a positive association between short-term accruals and name-brand auditor.

3. RESEARCH METHODOLOGY

3.1 Sample and data

Data are obtained from the World Scope Database for the periods 2007-2010. This period selection is taken place to assure the availability of recent data at the time the data have been collected. And, the boom of Qatar clearly emerged in early 2005 (Chahine and Tohme, 2009). In addition to economic solidity, after the 2005, Qatar has a high political stability. For the study, the population of interest comprises all non-financial companies listed on the Qatari stock exchange. Companies that engage in banking, insurance or diversified financial services are excluded. Samples selected for the four years from 2007 to 2010 are depicted in Table 1.

Table 1

Sample Selection

	Total Cases
Total listed companies	176

Banking, insurance, or diversified financial services	(64)
Incomplete data	(28)
Outliers	(12)
Total companies selected	72

3.2 Model specification

An agency cost framework is used to develop a model of auditor choice, that is, the likelihood a company uses a quality-differentiated auditor. The variables proposed for inclusion in the model capture differences in the costs of agency relationships. The dependent variable is a dichotomous, nonmetric scale, measurement (either companies hire Big 4 audit firms or non-Big 4 audit firms). To estimate this model, Multivariate Analysis is applied using pooled logistic regression model because the dependent variable is a binary nature. The functional equation of pooled logistic regression model is utilized to determine the extent of the association of each of the independent variables with the type of auditor chosen:

$$\text{Prob (Auditor choice)} = \beta_0 + \beta_1\,\text{LASSET} + \beta_2\,\text{LEV} + \beta_3\,\text{ROA} + \beta_4\,\text{ACRL} + e$$

Where the dependent variable is:

Prob (auditor choice)	= the estimated conditional probability of choosing Big 4 audit firm is a function of firm size, leverage, firm performance, and short-term accruals

Where the independent variables are:

LASSET	= $\log_{10}$ of the total assets,
LEV	= total debt to total assets,
ROA	= return on assets,
ACRL	= proportion of inventory and accounts receivable to total assets,
e	= error term.

4. RESULTS AND DISCUSSIONS

4.1 Descriptive and univariate analysis

Table 2

Descriptive statistics and univariate test results of continuous variables

Variables	Big-4 auditors (sample = 60)		Non-Big-4 auditors (sample = 12)		*t*-test (two-tailed)
	Mean	SD	Mean	SD	
LASSET	6.4030	.75101	5.5391	.19647	3.937***
LEV	22.7762	21.3083	4.4617	8.23713	2.920***
ROA	10.0173	8.1373	6.9342	5.3913	1.255
ACRL	.1272	.1058	.2111	.2008	-2.113**

Notes: *** Significant at 1 per cent level; ** significant at 5 per cent level; * significant at 10 per cent level.

Descriptive statistics and univariate test results have been exhibited in Table 2 categorizing independent variables based on the type of audit firms (Big-4/Non-Big-4). The average firm size for Qatari companies of Big-4 auditor is 1.16 times greater than firms audited by other audit firms. As for the leverage, the mean of companies audited by Big 4 audit firms is greater 5.11 times than those audited by Non-Big 4 auditors. With respect to the firm performance, the average firm performance of companies audited by Big 4 audit firms is 1.44 times greater than those audited by Non-Big-4 auditors. In terms of short-term accruals, the average short-term accruals of companies audited by Non-Big-4 auditors is greater 1.66 times than those audited by Big-4 auditors.

However, the *t*-test results comparing the means of independent variables for companies of Big-4 with those of Non-Big-4 auditors show that there is statistically significant differences in the agency cost variables of companies audited by the Big-4 auditors and those audited by the Non-Big-4 auditors in terms of firm size, firm leverage and short-term accruals. Hence, these preliminary results provide directional support for the association of firm size, leverage and accruals with differentiated-audit quality. As for firm performance, there is a statistically insignificant difference has been documented.

Table 3

Spearman Correlation Analysis

	LASSET	LEV	ROA	ACRL
LASSET	1.00			
LEV	.664**	1.00		
ROA	.263*	- .215	1.00	
ACRL	.057	- .194	.373**	1.00

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

The correlation coeffients among independent variables have been displayed in Table 3. As shown by the correlation matrix that multicollinearity does not exist between independent variables as there are not any relationship between two considered variables above 0.80 or 0.90. Specifically, the highest correlation reaches 0.664 (Myers, 1990).

4.2 Multivariate Analysis

The descriptive and univariate analysis support the conjecture that there are differences in the audit quality chosen between companies audited by Big-4 and those audited by Non-Big-4 audit firms. Nevertheless, limitations exist in the descriptive analysis as there are any interrelationship among the independent variables are reported.

Table 4

Results of logit regressions for auditor choice (Big-4/Non-Big-4)

Variables	Expected sign	Coef.	*z*	*P*> |z|
LASSET	+	2.4646	2.19	0.028
LEV	+	.0553	1.26	0.206
ROA	+	.0828	1.15	0.249
ACRL	+	-9.5198	-1.87	0.061
Constant		-12.6761	-2.15	0.032

Log Likelihood	-19.1325
Hosmer-Lemeshow	0.398
Chi^2 (4)	26.62
Prob > Chi^2	0.000
Nagelkerke R^2	0.518
Coxsnell R^2	0.308
Pseudo R^2	0.4102
Correctly Classified (%)	80.6

Table 4 shows the pooled logit regressions' results for auditor choice. The *p*-values associated the chi-square with 4 degrees of freedom are statistically significant at 1% level (p = 0.000), indicating a good fit. The Hosmer-Lemeshow test statistics are greater than .05, indicating that model fit is acceptable. The R^2_{LOGIT} value is 41.02, implying reasonably explanatory model. The results of the pooled logit regression show a significantly positive association between firm size and name-brand auditor (*p*-value = 0.014, one-tailed significance)[1]. This result is consistent with the prediction of agency theory and, empirically, with Gudhami *et al*. (2009) and Hope *et al*. (2008). Further, the results reveal that there is a weak significantly negative association between short-term accruals and name-brand auditor (*p*-value = 0.0305, one-tailed significance). This result is inconsistent with the agency theory prediction and, empirically, with DeFond (1992) and Woo and Koh (2001). This result indicates to an alarming signal regarding the possibility of manipulation in the Qatari listed companies. However, leverage and firm performance are not related to audit quality. This result is consistent with Palmrose (1984), Eichenseher and Shields (1989), Fargher *et al*. (2001), and Ahmad *et al*. (2006).

[1] The two-tailed values have been divided by 2 to generate one-tailed significant values.

5. CONCLUSIONS AND IMPLICATIONS

The main objective of this study is to examine the relations between agency cost variables (firm size, leverage, firm income and short-term accruals) and the auditor choice decision of 72 listed companies in the Qatari stock exchange during 2007-2010. This study identifies two audit firm types: (1) Big-4 auditors and (2) Non-Big-4 auditors. Using the pooled logit regression, this study finds that the likelihood that a name-brand auditor is chosen increases with firm size and decreases with short-term accruals. Contradictory, this study does not find a significant association between leverage and firm performance with audit quality.

Limitations of the study lie on the auditor choice model where the model is developed focusing on establishing a relationship between agency cost variables and auditor choice. This research implies an association and not a causality in designing the auditor choice model. It may happen that high levels of quality auditor accept large firms with higher financial performance as clients. Ahmad *et al*. (2006) indicate that there is a complex in the process of auditor engagement and it takes several stages than what auditor choice model has implied (e.g., audit risk assessment, etc.) before audit firms accept to go sign the audit engagement with the auditee.

Auditor independence in Qatar would be considered as one of the important implications of the findings of this study. The level to which regulations, laws, decrees, and resolutions are practiced by both auditees and auditors may be evaluated by Qatari government, stock market, and accounting and auditing regulators. The creditworthiness of corporations incorporating in Qatar can be assessed by banks using the results of this study. Further, creditors may make their decisions based on the content of information disclosed in the audited financial statements. Bonds, bond rating, interest rate, and all other decisions concerning investments taken by investors and financial analysts in Qatari setting may also depend on the type of audit opinion issued by the external auditor.

All types of audit firms would benefit from an increased understanding of the audit environment in the Qatari setting. This opportunity would help them assessing the propriety of continuing their current strategies and policies to attract new clients and, therefore, enhance the positive strategies and policies and correct the negative ones. For instance, the audit firm may take decisions to adjust its audit proposal, change the audit team or staff, and/or to make any other reasonable adjustment that would increase its chance to stay with the existing client and attract new ones.

Furthermore, researchers and the whole academic community may find this study as an interesting one because of the paucity of formal research body discussing issues concerning auditor choice in Qatar. And, thereupon, this study could be considered as premise data for future studies to be counted on as they address issues related to GCC markets.

Several future opportunities are available for researches to be conducted. First, introduce other agency cost variables that are empirically found to have an association with auditor choice such as firm growth, complexity and new financing. Second, introduce corporate governance mechanisms such as board of directors and audit committee characteristics and ownership types. The model of this study could be replicated in order for examining its validity in different GCC countries, different time periods, and with different sample sizes. These gap of knowledge may motivate more researches in the GCC market for audit services.

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