

AUDIT QUALITY ATTRIBUTES AND FIRM PROFITABILITY: EMPIRICAL EVIDENCE

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Abstract

This study aims at examining the impact of audit quality mechanisms, like auditor brand-name and audit report delay, on firm profitability. The final sample of this study consisted of 495 firm-year observations of companies, listed on Saudi Stock Exchange (Tadawul), for the period ranging from 2012 to 2019. The Ordinary-Least Square (OLS) regressions' results revealed a positive and significant association between auditor brand-name and firm profitability. Further, as companies hire a high quality auditor, their performance is increased. The study also found that audit report delay negatively impacted firm profitability. In other words, the delay in issuance of audit report signalled reduced firm profitability. In a wider context, the results of this study have implications to corporate governance mechanisms because such mechanisms may impact the degree of firm profitability. Moreover, the findings have meaningful implications for the Capital Market Authority (CMA) and Saudi listed companies' managements because they could be prompted to hire higher quality auditors and reduce the delay in the issuance of the audit report.

Keywords: Audit Quality Mechanisms, Profitability, Saudi Arabia.

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1. Introduction

Auditing aims at reducing the information asymmetry and protecting shareholders' interests. The opportunistic management

behaviors could be highly controlled as company's accounts are audited by a high quality auditor. As a consequence, the agency costs are reduced leading to the increase of the firm's performance. As companies hire higher quality

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auditors, it gives a signaling to the market that the information disclosed in the companies' annual reports are credible. This is the case because higher quality auditors use more resources and invest a substantial amount of money in their human capital and technology (Francis, 2011; Fama and Jensen, 1983; Jensen and Meckling, 1976; Grossman and Hart, 1982).

One of the contributing factors to the global financial crisis is poor corporate governance. The effectiveness of audits is a key corporate governance instrument, that has been linked to business value (Aljifiri & Moustafa, 2007). In this regard, higher audit quality is suggested as a means of controlling opportunistic management behaviors, reducing agency costs, and, therefore, enhancing the firm's value in the marketplace (Grayson, 1999). Additionally, it is well-known that audit reports disseminate audit information to the market (Dopuch et al., 1986; Lai et al., 2005), which could ultimately cause a market reaction (Chambers & Penman, 1984).

The timeliness of financial reports may indicate the level of financial information transparency and excellent corporate governance mechanisms, which, in turn, may affect the performance of the organization (Prickett, 2002; Kulzick, 2004; McGee & Yuan, 2008). Agyei-Mensah (2018) indicated that as companies have good news about their financial performance, they are discouraged to disclose their financial statements. In addition, Bagulaidah, Aljaaidi & Al-Moataz (2017) documented a negative relationship between audit report delay and firm performance among listed companies in Oman. Further, Agyei-Mensah (2018) found a negative relationship

between audit report delay and firm performance among Ghanaian listed companies.

Hiring a higher audit quality reveals the use of greater resources for auditing, a large investment in technology and human capital, and better audit quality. In turn, this raises the reliability of the information that has been revealed (Fama and Jensen, 1983; Jensen and Meckling, 1976). In line with this, some empirical studies reported a positive association between audit quality and firm performance (Aljifiri & Moustafa, 2007; Omer et al., 2020; Ado et al., 2020).

2. Review of Literature

It is well documented by the extant research that companies, hiring Big 4 audit firms, have higher firm performance due to the increase in the power of corporate governance (Afza and Nazir, 2014; Phan et al., 2020; Aledwan et al., 2015). Agyei-Mensah (2018) investigated the relationship between the timeliness of financial reporting and firm performance. They used 90 firm-year listed observations on Ghana Stock Exchange (GSE), for the period 2012-2014. This study reported a negative relationship between timeliness of financial reporting and firm performance among Ghanaian listed companies. In the Gulf Cooperation Council region (GCC), Bagulaidah, Aljaaidi & Al-Moataz (2017) conducted an empirical study among 71 Oman listed companies aimed at investigating the association of audit report delay, auditor competency, and audit committee size and audit committee meetings with financial performance in 2013. This study reported that audit report delay was negatively associated with firm performance. Aljifiri & Moustafa (2007) carried out an

empirical study to examine the effects of some internal and external corporate governance mechanisms on UAE listed companies' performance. The sample of this study consisted of 51 firms, using the accounting and market data available for 2004. This study documented that audit quality was related positively to UAE companies' performance. **Omer et al., (2020)** examined the relationship between board quality, audit quality and audit report lag and firm performance of 150 manufactured Saudi's listed observations for the period 2015-2017. They reported positive association between audit quality and firm performance. They also reported negative association between audit report lag and firm performance.

Angsoyiri (2021) examined the effect of ownership structure and audit quality on firm performance of 20 listed companies in Ghana, from all industries, that resulted in 160 firm-yearly empirical observations for the period 2013-2018. This study reported positive association of audit quality with firm performance. **Khan et al., (2021)** examined the effect of audit quality on firm performance among 150 listed companies in Pakistan in 2018. This study reported a positive effect of audit quality on firm performance. **Ado et al., (2020)** investigated the effect of audit quality on the financial performance among 756 listed companies in Nigeria Stock Exchange (NSE) for the period 2010-2018. They reported that audit quality exercised, positive effect on financial performance. **Abba & Sadah (2020)** examined the impact of audit quality on firm performance of 13 Nigerian banks for the period 2013-2018. This study reported that industry specialized auditor did have significant positive influence on firm value. On the other hand, audit size reported no significant influence on firm value of the banks.

3. Statement of the Problem

The extant research, examining the relationship between audit quality attributes, reported conflicting and inconclusive results. Moreover, the majority of these studies were conducted in developed and developing countries. This study investigates empirically the impact of audit quality characteristics, namely; brand-name auditor and audit report delay, on firm profitability among Saudi listed companies. This study was motivated by the lack of empirical studies in the region of Saudi Arabia using recent data. Therefore, this would contribute to fill part of the gap in the existing body of knowledge, linking external corporate governance mechanism, like audit quality attributes with firm profitability.

4. Need of the Study

The corporate scandals in the markets in the recent time led to financial crisis in all countries in general, and emerging markets, in particular. This condition impacts negatively the performance of companies. As a consequence, the country economy suffers as well as investors and third parties. A successful strategy leading to decreasing the corporate scandals is the strengthening of the controlling mechanism. There are several corporate governance mechanisms to assist in strengthening the corporate monitoring and controlling. To be specific, audit quality attributes are among the most important external corporate governance mechanisms, to bring about a strong controlling which, consequently, enhances the profitability of the companies. In the setting of Saudi Arabia, a study linking the audit quality attributes with firm performance is needed because there is a lack of empirical studies, using recent data to

examine the audit quality and its impact on profitability in one of the unique economies in the Middle East. The ignorance of profitability topic and how it is affected by the quality of audit may have negative consequences on the economic, political, and social issues of the country.

5. Objectives of the Study

In general, this study aims at investigating the impact of audit quality, measured as auditor brand-name and audit report delay, on firm profitability. In particular, the objectives of this study are:

- a. To identify the impact of auditor brand-name on firm profitability, among Saudi listed companies.
- b. To determine the impact of audit report delay on firm profitability, among Saudi listed companies.

6. Hypotheses of the Study

This study developed the following hypotheses, to be tested.

H1: Ceteris paribus, auditor brand-name is associated positively with firm profitability.

H2: Ceteris paribus, audit report delay is associated negatively with firm profitability.

7. Research Methodology

7.1 Sample selection

The population of the study consisted of 511 listed manufactured companies on Saudi Stock Exchange (Tadawul), for the period 2012-2019. The population covered the following sectors, namely; Materials, Energy, Food and Beverages, Commercial & Professional Services and Pharma Biotech & Life Sciences. The final sample covered 495 firm-year

observations. A number of 16 firm-year observations were excluded as outliers.

7.2 Source of the Data

Data were gathered by hand from the companies' annual reports. The data were related to corporate governance data such as auditor brand-name and audit report issuance, from which the delay date were calculated. The other financial information collected were related to net income, total assets, total equity, total liabilities, and the establishment date of the company.

7.3 Period of the Study

The period of study ranged from 2019 to 2021. This paper was a secondary data-based study in which all the data were collected from the companies' annual reports, listed on Saudi Stock Exchange (Tadawul), for the period 2012-2019.

7.4 Tools used in this Study

This study used descriptive statistics and Pooled Ordinary-Least Square (OLS) analysis to report the results of this study, with the help of Statistical Package for Social Sciences (SPSS).

8. Data Analysis

8.1 Descriptive Analysis

This study used the descriptive statistics to describe the corporate governance and financial data, which covered auditor brand-name, audit report delay, firm size, firm leverage, firm age, firm profitability measured as return on assets ROA and return on equity ROE. The descriptive statistics yielded mean, minimum, maximum, standard deviation, and frequency.

Table-1 depicts the descriptive statistics for the sample. Regarding the firm profitability *ROA*, the average was 0.0418, with a minimum of -0.22, a maximum of 0.27 and a standard deviation of 0.07488. With regard to the firm profitability *ROE*, the mean was 0.0454 with a minimum of -3.51, a maximum of 0.35 and a standard deviation of 0.20877. This indicated variation among Saudi companies in their profitability. Regarding the audit report delay *AUDLAG*, the mean was 52.22, with a minimum of 7, a maximum of 211 and a standard deviation of 22.077. In terms of firm size *FSIZE*, the average was 15599194428.2389 with a minimum of 74735430.00, a maximum of 34004100000.00

and a standard deviation of 44737894368.55321. Concerning the firm leverage *LEV*, the mean was 0.3814 with a minimum of 0.01, a maximum of 0.94 and a standard deviation of 0.22623. With regard to firm age *AGE*, the average was 26.7636 with a minimum of 1.00, a maximum of 64.00 and a standard deviation of 14.61859. Regarding the auditor brand-name *AUDBN*, 224 (45%) companies were audited by Big4 audit firms, and 271 (55%) were audited by non-Big4 audit firms. **Table-2** illustrates the result of correlation, test confirming that multicollinearity did not exist among the independent variables, as none of the variables correlates above 0.90. All the variables reported a correlation of equal to or less than 0.488.

8.2 Regression analysis

To estimate the regression model, this study used the following two OLS regressions:

$$FP (ROA) = \beta_0 + \beta_1 AUDBN + \beta_2 AUDLAG + \beta_3 FSIZE + \beta_4 LEV + \beta_5 AGE + e \dots (1)$$

$$FP (ROE) = \beta_0 + \beta_1 AUDBN + \beta_2 AUDLAG + \beta_3 FSIZE + \beta_4 LEV + \beta_5 AGE + e \dots (2)$$

Dependent variables

ROA = Return on assets.

ROE = Return on equity.

Test variables

AUDBN = "1" Big-4, "0" Non-Big_4

AUDLAG = A number of calendar days from fiscal year- end to the date of the auditor's report,

Control variables

FSIZE = $\log_{10}$ of total assets

LEV = Debt to total assets ratio

AGE = the number of years since the company is established.

e = error term.

This study controlled for the effect of several variables that were reported by previous research for their potential confounding effect on the economic value. The expected signs for the relationship of firm size and leverage with firm profitability were negative. The expected sign for the association between firm age and firm profitability was also negative.

Table-3 and **Table-4** depict the OLS regression results for the tested and control variables. The adjusted R^2 for the *ROA* and *ROE* models which were 0.268 and 0.443 respectively, that the *ROA* and *ROE* models indicated could explain 26.8% and 44.3%

respectively of the variance of the total variance in the firm profitability. Additionally, the F -values for the ROA and ROE models were statistically significant at 1% level. According to **Table-3** and **Table-4**, the auditor brand-name *AUDBN* was positively and significantly associated with firm profitability, measured as ROA and ROE ($\beta = 0.076$, $t = 4.102$, $P = 0.000$, one-tailed significance) and ($\beta = 0.038$, $t = 6.639$, $P = 0.000$, one-tailed significance), respectively. This result was consistent with the prediction agency theory and also in line with the previous empirical studies (Aljifiri and Moustafa, 2007; Angsoyiri, 2021; Nadeem Khan, Parksh, Shamim, & Ali, 2021; Omer, Aljaaidi & Habtoor, 2020; Ado et al., 2020; Ching et al., 2015; Abba & Sadah, 2020; Matoke and Omwenga, 2016; Pangestu et al., 2019; Bagulaidah, Aljaaidi & Al-Moataz, 2017; Al-Attar, 2017; Aledwan, Yaseen, and Alkubisi, 2015), indicating that hiring a big 4 audit firm strengthened the controlling and monitoring functions, part of a good practice of corporate governance. As a consequence, the company profits had increased. Therefore, hypothesis **H1** was accepted. Further, audit report delay *AUDLAG* was negatively and significantly related to firm profitability, measured as ROA and ROE ($\beta = -0.048$, $t = -5.593$, $P = 0.000$, one-tailed significance) and ($\beta = -0.022$, $t = -7.970$, $P = 0.000$, one-tailed significance), respectively. This result was consistent with the prediction of agency theory and concurred with the previous empirical studies such as Bagulaidah, Aljaaidi & Al-Moataz (2017), Agyei-Mensah (2018), and Mishra & Kapil (2017). The company, with no good news, may delay disclosing its

financial reports, which, consequently, influenced negatively its performance. Thus, this result prompted us to accept hypothesis **H2**.

9. Findings of the Study

- a. Multicollinearity did not exist among the independent variables of this study, indicating that the multicollinearity assumption has been met.
- b. Hiring a big 4 audit firm did impact positively the Saudi firms' profits. This external corporate governance mechanism refers to the high external degree of monitoring and controlling over the management of the company. This gives a good image about the company and it signals to the effectiveness of the company's management.
- c. This study also found negative association between audit report delay and firm performance. The delay in issuing the audit report signals to a possibility of hidden bad news and the early issuing indicates to a good news about the company. This result was consistent with the prediction of agency theory and signaling theory

10. Suggestions of the Study

This study examined empirically the impact of auditor brand-name and audit report delay on firm profitability among Saudi companies for the period ranging from 2012 to 2019. This study suggests the following:

- Saudi listed companies are advised to hire big4 audit firms because this practice would influence positively their profits, which, in turn, would increase their performance.

- Saudi firms' managements are advised to instructed their external auditors to decrease the number of delay days as they audit the companies' accounts. They should consider that the delay in the issuance of the audit report would influence negatively the companies' performance.

11. Conclusion

This study concludes that audit quality characteristics like auditor-brand name and audit report delay, are important corporate governance mechanisms that, consequently, impact on the level of firm's profitability. The ignorance of good corporate governance practices may have a negative impact the firm performance. In particular, this study draws the following conclusions:

- Audit quality attributes are considered good external corporate governance practices. They enhance the degree of monitoring and controlling functions inside the companies. Further, these mechanisms signal to a high effectiveness level of the board of directors and about good news of the company.
- Hiring Big four audit firms, as an external corporate governance mechanism, signals to an effective board of directors and it refers to high degree of monitoring and controlling inside the company. As a consequence, the level of firm performance is increased.
- Delaying the issuance of audit report indicates bad news which, consequently, signals to a possibility of low degree of board of directors' effectiveness and a weak

monitoring and controlling functions within the company. As a result, this affects negatively the profitability of the company.

12. Limitations of the Study

This study is subject to several limitations:

- The current study considered only two characteristics of audit quality which are auditor brand-name and audit report delay.
- This study did not consider the other corporate governance mechanisms such as board of directors and audit committee characteristics
- This study was confined to the context of Saudi Arabia.
- The period covered in this study was limited to the period from 2012 to 2019.

13. Scope for Further Research

Owning to the limitations, this study offers several opportunities for future research.

- Future studies may include other audit quality characteristics such as auditor specialization, auditor independence, and auditor size.
- Future studies still have an opportunity to include other corporate governance mechanisms such as board size, board meetings, board independence, audit committee size, audit committee meetings, and audit committee independence.
- Future line of research may consider replicating this study in other Gulf Cooperation Council Countries (GCC) like Oman, Bahrain, Qatar, Kuwait, and United Arab Emirates.

- Future line of research may expand the period of the study by including the years beyond 2019.

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Table-1: Sample Descriptive Analysis of Audit Quality Attributes and Financial Performance

Variables	Minimum	Maximum	Mean	Std. Deviation
Panel A: Continuous variables				
ROA	-0.22	0.27	0.0418	0.07488
ROE	-3.51	0.35	0.0454	0.20877
AUDLAG	7	211	52.22	22.077
FSIZE	74735430.00	340041000000.00	15599194428.2389	44737894368.55321
LEV	0.01	0.94	0.3814	0.22623
AGE	1.00	64.00	26.7636	14.61859
Panel B: Binary variable (AUDBN)				
	No.	Percent		
Big4	224	45%		
Non-Big4	271	55%		
	495	100%		

Source: Primary data computed using SPSS 21.0

Table-2: Correlation analysis of Audit Quality Attributes and Financial Performance

	AUDBN	AUDLAG	FSIZE	LEV	AGE
AUDBN	1				
AUDLAG	-0.111*	1			
FSIZE	0.475**	-0.090*	1		
LEV	0.228**	0.186**	0.488**	1	
AGE	-0.062	0.057	-0.182**	-0.350**	1

Source: Primary data computed using SPSS 21.0

Table-3: Multiple regression (ROA Model) of Audit Quality Attributes and Financial Performance

Model		B	t	Sig.	Collinearity Statistics	
					Tolerance	VIF
1	(Constant)	-0.518	-4.346	0.000		
	Test variable					
	AUDBN	0.076	4.102	0.000	0.766	1.305
	AUDLAG	-0.048	-5.593	0.000	0.899	1.113
	Control variables					
	FSIZE	0.066	4.927	0.000	0.638	1.566
	LEV	-0.340	-7.754	0.000	0.661	1.513
	AGE	0.001	1.839	0.004	0.858	1.165

Adjusted R^2 0.268; F -Value 37.000; P -Value 0.000

Source: Primary data computed using SPSS 21.0

Table-4: Multiple Regression (ROE Model) of Audit Quality Attributes and Financial Performance

Model		B	t	Sig.	Collinearity Statistics	
					Tolerance	VIF
1	(Constant)	-0.163	-4.362	0.000		
	Test variable					
	AUDBN	0.038	6.639	0.000	0.766	1.305
	AUDLAG	-0.022	-7.970	0.000	0.899	1.113
	Control variables					
	FSIZE	0.024	5.820	0.000	0.638	1.566
	LEV	-0.160	0.014	0.000	0.661	1.513
	AGE	0.001	2.924	0.004	0.858	1.165

Adjusted R^2 0.443; F -Value 79.230; P -Value 0.000

Source: Primary data computed using SPSS 21.0