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The effect of CEO characteristics on financial reporting timeliness in Saudi Arabia

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A B S T R A C T

The purpose of this paper is to examine the effect of some demographic characteristics of the Chief Executive Officer (CEO) on Financial Reporting Timeliness (FRT) in Saudi Arabia. More particularly, this study aims to test whether or not CEO characteristics, namely, tenure, accounting financial expertise, and sociability are associated with FRT. The sample of this study consists of 119 non-financial firms listed on Tadawul Stock Exchange for a period of four years (2014-2017). We use panel regressions and two proxies of FRT. Our findings report that a long-tenured CEO is associated with timely financial reports when the IFRS transition is simultaneously considered. This result implies that companies with a long-tenured CEO reduce the period taken to prepare and disclose their financial reports in the period of IFRS transition. Our findings show that CEO accounting financial expertise is significantly associated with timely financial reporting. This result implies that companies with a CEO who is an accounting financial expert reduce the period taken to prepare and disclose their financial reports on the capital market website. Our findings also report that CEO sociability is significantly associated with timely financial reporting in all instances. This result suggests that companies with a more sociable CEO reduce the period taken to prepare and disclose their financial reports on the capital market website. This result implies that when the CEO is more sociable via social media, firms tend to be more active in disclosing their annual reports timely. Overall, findings report that CEO characteristics do matter regarding the timeliness of financial reporting. Results are robust to an alternative measure of financial reporting timeliness. Our findings should be of interest to policymakers and regulators in Saudi Arabia in formulating new policies as they need to play a role in ensuring the shorter gap of financial report delay. The findings of this research have also a practical implication for shareholders and boards of directors in selecting a new CEO by taking into consideration their accounting financial expertise and their sociability on social media. Findings of this research contribute to the growing literature by examining the effect of CEO characteristics on timely reporting in Saudi Arabia, an understudied and unique context. The present study also complements the recent literature on the determinants of financial reporting timeliness by providing evidence that the sociability and accounting financial expertise of top leaders improve the financial reporting timeliness.

1. Introduction

According to the International Accounting Standards Board's (IASB) conceptual framework, the Financial Reporting Timeliness (FRT) of annual reports is considered as the conciliator between the reliability and relevance of annual reports (Mathuva et al., 2019; Pacter, 2016). Timeliness, a component of relevance, is a key qualitative characteristic of financial reports.

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Financial statements should be published on time due to the predictive and feedback value of the information in financial statements (Ocak & Özden, 2018). It is important for investors as it makes the information available to decision-makers before losing its ability to influence business decisions. The ideal situation is to get and use the annual report instantaneously at the end of the year. However, this is not possible due to the time required to collect and provide independent assurance on the financial statements and other information (Mathuva et al. 2019). Therefore, an Audit Report Lag (ARL) and the lag of financial reports occur due to various reasons, such as auditor-related, firm-specific, or governance-related factors (Habib et al., 2018; Durand, 2019). Prior literature on FRT (or ARL) focuses on either auditor-related factors (Abdillah et al., 2019; Meckfessel & Sellers, 2017; Habib et al., 2018; Hussin et al., 2018), or client-related factors (Abdillah et al., 2019; Jaggi & Tsui, 1999; Habib & Bhuiyan, 2011; Hassan, 2016; Rusmin & Evans, 2017; Swanson & Zhang, 2018), or corporate governance-related factors (Mathuva et al., 2019; Tauringana et al., 2008; Nehme et al., 2015; Sultana et al., 2015; Ghafran & Yasmin, 2017). These studies usually ignore the potential effect of CEO characteristics on FRT, except (Baatwah et al., 2015 in Oman & Salehi et al., 2018 in Iran). Furthermore, through a meta-analysis on the determinants of audit report lag (e.g., a proxy of financial reporting timeliness), Durand (2019) suggest that some results remain inconclusive and would benefit from further research, such as the relationship between CEO characteristics (mentioned as corporate governance mechanisms) and ARL. Expectation about the relationship between CEO characteristics and timely financial reports is based on the fact that financial reporting is the outcome of the interaction between the top managers and external auditors. Prior literature indicates that a CEO is more concerned with strategic and financing decisions (Bertrand & Schoar, 2003) and financial reporting decisions, such as managing earnings and disclosure (Bamber et al., 2010; Bergstresser & Philippon, 2006). While it is recognised that a CEO does not have considerable discretion over the date of the audit report, it is claimed that the overall annual audit process is affected by the CEO. Previous studies suggest that demographic CEOs' traits influence the financial reporting process and the outcomes, as they affect their cognitive bases and values (Baatwah et al., 2015; Jiang et al. 2013; Salehi et al., 2018). As the CEO is the last executive manager to check financial results (Vafeas, 2009), the process could take more time if a CEO lacks sufficient knowledge, experience and familiarity with company accounts and financial reporting processes which, in turn, may force the auditor to start the audit function late and thus delay publication of the audit report and so, the annual reports. However, regulations in KSA have not yet required either the level of education or any kind of expertise (e, g. accounting financial expertise or industry expertise) as an essential prerequisite for the CEO appointment. Indeed, it merely prohibits simultaneously the position of Chairman of the Board and any other executive position in the Company such as Managing Director, the Chief Executive Officer, or the General Manager, even if the Company's regulations provided for the contrary[1]. There is a substantial debate by the country's policymakers on shortening reporting deadlines (Munsif et al., 2012; Hussin et al., 2018; Baatwah et al., 2015) because this is one way to reduce financial reporting delay (Abbott et al., 2012). However, some country's policymakers disregard or delay this policy, claiming that reducing reporting deadlines would make it difficult for companies and their auditors to comply with the new reporting deadline requirement (Ettredge et al., 2006). The Kingdom of Saudi Arabia (KSA) is an understudied and unique context. It is viewed as one of the leading Islamic countries (Alebrahem 2018, Hussainey & Al-Nodel 2008). The Tadawul stock exchange, the solely authorized exchange in the KSA, is the largest and only MENA country in the G20. It is also the largest most liquid market in the Middle East and North Africa (Tadawul, 2019). KSA is a key member of OPEC that has around 25% of the world's oil reserves and it represents one of the largest oil producers in OPEC (Albassam, 2014; Ibrahim et al., 2019). Finally, the Saudi market suffers a clear paucity in FRT studies. This has motivated us to investigate FRT in a different context: the Arab and emerging market context. Regarding FRT, listed companies on the Tadawul stock exchange must disclose their annual financial statements to the public within a period not exceeding three months after the end of the annual financial period included in such financial statements.

Hence, the essential thrust of this paper is to investigate the association between CEO characteristics (e.g. tenure, accounting financial expertise, and sociability) on financial reporting timeliness. This research highlights the importance of controlling CEO characteristics in terms of country regulations as regulatory bodies and policymakers organize the characteristics of governance mechanisms instead of the characteristics of the CEO in most developed and developing countries. Using a final sample of 476 firm-year observations from the Tadawul Stock Exchange in Saudi Arabia, our findings report that a long-tenured CEO is associated with timely financial reports when the IFRS transition is simultaneously considered. This result implies that companies with a long-tenured CEO reduce the period taken to prepare and disclose their financial reports in the period of IFRS transition. This result suggests that CEO tenure seems to play an important role in the timely disclosure of the annual reports on the capital market website in the year of IFRS transition in Saudi Arabia. Our findings show that CEO accounting financial expertise is significantly associated with timely financial reporting. This result implies that companies with a CEO who is an accounting financial expert reduce the period taken to prepare and disclose their financial reports on the capital market website. This result suggests that the accounting financial expertise of CEOs is an important feature to reduce financial reporting delay. Our findings also report that CEO sociability is significantly associated with timely financial reporting in all instances. This result suggests that companies with a more sociable CEO reduce the period taken to prepare and disclose their financial reports

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[1] According to the Capital Market authority's corporate governance regulations (2019), It is forbidden to hold simultaneously the position of Chairman of the Board and any other executive position in the Company such as Managing Director, the Chief Executive Officer, or the General Manager, even if the Company's regulations provided for the contrary. https://cma.org.sa/en/RulesRegulations/Regulations/Documents/CGRegulations_en.pdf (last accessed, 12th April 2020).

on the capital market website. This result implies that when the CEO is more sociable via social media, firms tend to be more active in disclosing their annual reports timely. Overall, findings report that CEO characteristics do matter regarding the timeliness of financial reporting. Results are robust to an alternative measure of financial reporting timeliness.

The present study complements the recent literature on the determinants of financial reporting timeliness (Abernathy et al., 2014; Baatwah et al., 2015, 2016; 2019; Oussii & Taktak, 2018) by providing evidence that the sociability and accounting financial expertise of top leaders improve the financial reporting timeliness. To our knowledge, this is the first empirical evidence investigating how CEOs sociability impacts financial reporting timeliness. At a broader level, we also contribute to the literature that explores the effect of CEOs' sociability on accounting proxies: financial reporting timeliness. This research also contributes to the existing literature by examining the effect of CEO characteristics on timely reporting in KSA, an understudied and unique context. It may be useful for the regulators in Saudi Arabia in formulating new policies and for the boards of directors in selecting new CEOs and taking into consideration their accounting financial expertise and their sociability on social media.

The remainder of this study is as follows. Section 2 presents the literature review and hypotheses development. Section 3 describes the research design, including sample and data collection, and model specification. Section 4 reports the results and Section 5 presents the conclusion.

2. Literature review and hypothesis development

According to the Upper Echelon Theory (UET), CEOs' of top executives' experiences, values and characters highly affect their strategic decisions and, in turn, influence organisational outcomes (Hambrick and Mason, 1984; Hambrick, 2007). Hambrick and Mason (1984) argue that observable managerial characteristics of CEOs such as tenure, qualification and other group characteristics affect strategic decision-making, financial reporting process and outcomes rather than psychological characteristics (cognitive base values). Financial reporting quality literature asserts that CEO characteristics can be used to predict their potential effect on financial reporting as they play a key role in shaping the behaviour of CEOs (Bamber *et al.*, 2010). CEOs bring their experiences, qualifications, preferences and dispositions into their decision-making processes and leadership behaviours (Finkelstein & Hambrick 1996; Carpenter et al., 2004; Bamford et al., 2006). As such, CEOs exert a significant influence on firm outcomes. (Shen, 2021). Francis *et al.* (2008) provide evidence about some positive opposing characteristics driving the CEO to maintain high-quality financial reporting. Prior literature provides evidence that the CEOs influence the overall financial reporting process and care about disclosures as a financial reporting decision (Baatwah et al., 2015; Bamber et al., 2010). CEOs have varying background and demographic characteristics that may lead to differences in cognitive orientation and thus strategic decision-making (Hambrick and Mason, 1984; Rajagopalan and Datta, 1996). A CEO's characteristics may also provide information to investors, and other stakeholders such as underwriters and other financial intermediaries regarding a firm's value (Zimmerman, 2008). As resumed by Shen (2021), there are several advantages to using demographic factors, such as objectivity, parsimony and testability (Hambrick & Mason, 1984). Previous studies show the importance of CEO characteristics in averting misreporting in accounting. It is reported that when CFOs have higher equity incentives, they are motivated to commit earnings manipulation (Jiang et al., 2010; Feng et al., 2011; Wilson and Wang, 2010). If such manipulation is being carried out, persons who lack accounting expertise are unlikely to discover such behaviour. Cullinan and Roush (2011) report that US boards, after enacting the Sarbanes–Oxley Act, consider CEOs' traits before the appointment and they often look for CEOs with traits that can reduce the risks of misconduct in financial reporting. The CEO is the last executive manager to check financial results (Vafeas, 2009). This process could take more time if a CEO lacks sufficient knowledge, experience and familiarity with company accounts and financial reporting processes which, in turn, may enforce the auditor to start the audit function late and thus delay publication of the audit report and so, the annual reports. To investigate the association between CEO characteristics and FRT, we develop hypotheses derived from previous studies. Some CEO characteristics cannot be considered in the KSA because of the national regulation, such as the CEO duality[2] or because of the culture, such as the CEO gender. This study focuses on three other demographic attributes of CEOs namely, tenure, accounting financial expertise, and sociability.

2.1 CEO tenure

Prior literature shows that CEO tenure can have a key role in influencing the types of decisions taken by the CEO or the top management team (Hambrick and Mason, 1984). Michel and Hambrick (1992) and Smith et al. (1994) encourage organizations to have a long-tenured top management team, as it is associated with team cohesion and familiarity with the company's internal business. They argue that a long time in occupying the position of CEOs would contribute to the effectiveness and the efficiency of the task performed. Financial reporting literature documents the importance of the CEO tenure and suggests a reason besides long-tenured CEO concern for the reputation to provide high-quality financial reporting. Indeed, Francis et al. (2008) find a positive association between CEO tenure and financial reporting quality. They explain that by the fact that the CEO reputation

[2] According to the Capital Market authority's corporate governance regulations (2019), It is forbidden to hold simultaneously the position of Chairman of the Board and any other executive position in the Company such as Managing Director, the Chief Executive Officer, or the General Manager, even if the Company's regulations provided for the contrary. https://cma.org.sa/en/RulesRegulations/Regulations/Documents/CGRegulations_en.pdf (last accessed, 12th April 2020).

is built and increased with tenure and this reputation leads the CEO to maintain high-quality financial reporting. Zhang and Wiersema (2009) show that CEO tenure signals the quality of financial reporting to the users of financial statements because it is positively associated with CEO reputation. They suggest that a highly reputed CEO is less likely to disclose or certify fraudulent financial statements. If CEO tenure signals financial reporting quality to the external auditor, it is judicious to believe that audit scope or audit testing time will then be reduced which will lead to the audit report being issued more quickly.

Prior financial reporting timeliness literature acknowledges that checking and closing annual accounts affect the point in time that the external auditor can start the annual audit (Dyer & McHugh, 1975; Khlif & Samaha, 2014). As the CEO is the last executive manager to check financial results (Vafeas, 2009; Courtis, 1976; Davies & Whittred, 1980; Donaldson & Davis, 1991), this process could take more time if a CEO lacks sufficient familiarity with company accounts and financial reporting processes which, in turn, may enforce the auditor to start the audit function late and thus delay publication of the audit report and so, the annual reports. Therefore, tenure can increase the CEO's familiarity with company financial reporting processes and allow the external auditor to start early enough to finish the audit in a good time. Consistent with this argument, Baatwah et al. (2015) find that long-tenured CEOs reduce the audit report lag (a proxy of FRT) in Oman.

From the discussion above, we expect that a long tenure duration of CEOs can decrease the amount of time needed to sufficiently comprehend and evaluate accounting policies and company accounts with the auditor, therefore reducing the time necessary to complete the audit and improve financial reporting timeliness. Hence, the following hypothesis is developed:

H1: *The CEO tenure is associated with timely financial reporting.*

2.2. CEO accounting financial expertise

Prior accounting research recognizes the importance of CEO accounting financial expertise (Aier et al., 2005; Baatwah et al., 2015; Vafeas, 2009). More specifically, these studies suggest that such results reflect that CEOs with accounting financial expertise realize the importance of high-quality financial reporting in decreasing information asymmetry between companies and investors. Jiang et al. (2013) report that the accounting financial expertise of CEOs secure more precise earnings information and deliver financial reporting of higher quality. They suggest that CEOs with accounting financial experience who constantly pursue the accounting conservatism concept develop a steady work style. They also report that a CEO with accounting financial expertise could discipline other executives (e.g. CFO, controller and treasurer) to misreport or commit fraud. This skill is associated with audit testing time and short client preparation time as the time needed to either hide frauds or correct errors in financial reports is almost eliminated. This is consistent with the upper echelon theory, which suggests that the education and experience of managers are crucial in carrying out their responsibilities (Hambrick & Mason, 1984). Referring to this theory, prior literature investigates whether the CEO's reporting decisions are influenced by personal characteristics such as accounting financial expertise (Bamber et al., 2010; Dyreng et al., 2010; Chyz, 2013; Call et al., 2017). Alderfer (1986) asserts that CEO's with little expertise have limited effectiveness as it takes time to well understand the firm. Furthermore, accounting financial expertise may help the CEOs to easily convince or be convinced by an external auditor in the annual audit negotiation process. In this concern, previous research finds that there is a positive perception of auditors to CEOs with accounting financial expertise in the audit negotiation process (Salleh and Stewart, 2012). According to Salterio (2012), a more prompt ending of the negotiation processes is associated with a timely audit report. As management influences the audit function, it is expected that a CEO with accounting financial expertise will improve audit report timeliness because accounting financial expertise adds value to the work of CEOs and particularly to their role in financial reporting. In particular, such knowledge may increase the CEO's ability in dealing with complicated accounting issues and assist him in engaging in meaningful and purposeful discussions and negotiations with the external auditor about accounting issues in financial statements. These aspects have a significant influence on client preparation time and audit testing time and then the date of signing the audit report. Regarding the association between accounting financial expertise and financial reporting timeliness, recent accounting research has emerged to investigate how the accounting financial expertise of top managers impacts FRT (Baatwah et al., 2015). Their findings show that CEOs with accounting financial expertise reduce the period taken to prepare and sign the audit report in Oman, indicating that CEO accounting financial expertise is associated with timely audit reports. Hence, the following hypothesis is predicted:

H2: *A CEO with accounting financial expertise is associated with timely financial reporting.*

2.3. CEO sociability

Following Men and Tsai (2016), we consider that CEO sociability is defined as CEOs' social media presence. Even if face-to-face communication has been recognized as having the most social presence, recent studies have suggested the highly interactive features of social media communication that allow similar connection and social presence to face-to-face communication (Gooch and Watts, 2015; Yue et al. 2019). It has been argued that more and more CEOs are active on social media (Men et al., 2018; Yue et al., 2019). According to a 2016 study by CEO.com, there is a general understanding among many corporate leaders that the CEOs presence on social media can influence not only their thought leadership but also improve their companies' innovativeness and reputation (Shandwick, 2012). Timely financial reporting can increase the possibility of improving the firm's reputation as it is important for investors to reach timely information for decision-making. So, for the sake of their firms' reputation, CEOs may use social media to announce any timely information about the company that could reassure the users of financial statements, including the earnings announcement and announcement about publishing audited financial statements. Hence, CEOs presence on social media could be a determinant factor of financial reporting timeliness. Given the lack of prior research on this issue, we investigate the association between CEO sociability via their presence on social media and financial reporting timeliness based on the discussion above and we expect that CEO sociability improves financial reporting timeliness.

Hence, the following hypothesis is predicted:

H_3: *A CEO sociability is associated with timely financial reporting.*

3. Research design

3.1 Sample and data collection

This paper aims to study the association between CEO characteristics and FRT in Saudi listed firms. The research population comprises all listed firms on the Tadawul Stock Exchange during the four years 2014-2017. The initial sample consists of 756 firm-year observations. From this sample, we exclude financial firms as information disclosure and corporate governance systems are different from non-financial firms. Also, we exclude firms with missing and incomplete data. The final sample consists of 476 firm-year observations. Panel data regression model was employed in this study using the Stata software. Table 1 describes the sample derivation.

Table 1
Sample derivation

Criteria	Firm-year observations
Initial sample	756
Less: financial companies	(236)
Less: companies with missing data	(44)
Final sample	476

The data were hand-collected from several sources, and mainly from the annual reports published on the website of Tadawul stock exchange. Besides these sources of data, the reports of the board of directors published in the firm website, Google search and the firm website concurrently were used to ensure the reliability of data related to individuals included in this study.

3.2 Model specification

The regression analysis is based on panel data analysis. The dependent variable FRT is modelled as a function of explanatory variables (CEO characteristics and a set of control variables). Following Dellaportas et al. (2012) and Baatwah et al. (2016), we employed the lag of total financial reports as the accounting information may be considered as high information when it reaches the different decision-makers rather than only the management and board of directors. This measure captures the time taken by the auditor and management to issue the audited annual reports to the public. So, it is calculated by the number of days that occurs between the date of year-end and the date of disclosing the annual reports to the public on the capital market website.

$$\text{FRT} = f\ (CEO\ characteristics + control\ variables)$$

$$FRT_{jt} = \beta_0 + \beta_1\, CEOT_{jt} + \beta_2\, CEO\_AFE_{jt} + \beta_3\, CEO\_SM_{jt} + \beta_4\, AUD\_FEES_{jt} + \beta_5\, AUD\_OP_{jt} + \beta_6\, BIGF_{jt} + \beta_7\, FSIZE_{jt} + \beta_8\, FAGE_{jt} + \beta_9\, ROE_{jt} + \beta_{10}\, LEV_{jt} + \beta_{11}\, YEAR\_IFRS + \varepsilon_{jt}.$$

where:

FRT is the number of days that occurs between the date of year-end and the date of disclosing the annual reports to the public on the website of Tadawul stock exchange, *CEOT* is the number of years a current CEO holds the position, *CEO_AFE* is a dummy variable taking 1 if the CEO is an accounting financial expert and zero otherwise, *CEO_SM* is a dummy variable taking 1 if the CEO has an active[3] social media account (LinkedIn) and zero otherwise, *AUD_FEES* is measured by the total audit fees, *AUD_OP* is a dummy variable taking 1 if the audit report for the financial statements is qualified and zero otherwise, *BIGF* is the auditor type measured by a dummy variable coded 1 if the company is audited by one of the big four audit firms and zero otherwise, *FSIZE* is the firm size measured by the natural logarithm of total assets, *FAGE* is the total number of years the firm has been in existence, *ROE* is the profitability level measured by the ratio of net income to total shareholders' equity, *LEV* is

[3] A social media account is considered active when the CEO made some sort of actions such as liking, sharing, posting and reposting within the previous 60 days.

the leverage level measured by the ratio of total liabilities to total assets, *YEAR_IFRS* is a dummy variable taking 1 for the year 2017 when the Saudi listed firms mandatorily report their financial statements under the IFRS and zero for the other years, ε is the random error term.

Table 2 describes the dependent, independent and control variables.

Table 2
Description and measurement of the dependent and idependent variables

Variables' names	Expected sign	Definition and measurement
Dependent variable		
FRT		Is the financial reporting timeliness measured by the number of days between a firm's financial year-end and the date of disclosing the annual reports to the public (e.g, on Tadawul stock exchange).
Independent variables		
CEO characteristics		
CEOT	-	Is the CEO tenure measured by the number of years that a CEO continuously holds this position in a company.
CEO_AFE	-	Is the CEO who is an accounting financial expert. It is measured by a dummy variable taking 1 if the biography's CEO indicates that he has at least one of any accounting financial qualifications, such as certified public accountant, chartered accountant, auditor and zero otherwise.
CEO_SM	-	Is the CEO presence on social media. It is measured by a dummy variable taking one if the CEO has an active account on social media (LinkedIn).
Control variables		
AUD_FEES	-	Measured by the Total audit fees of firm i for period t
AUD_OP	-	Is a dummy variable equal to 1 if the audit report for the financial statements of firm i for period t is qualified; and zero otherwise
BIGF	-	Is a dummy variable scored 1 if the auditor of firm j in fiscal year t is a Big 4 audit firm; otherwise scored 0
ROE	-	the return on equity measured by the net income divided by the total equity of firm i in time period t;
LEV	+	Ratio of total debt of firm j for year t to total equity of firm j for year t
FSIZE	-	Natural logarithm of total assets of firm j for year t
FAGE	-	Total number of years the company has been in existence

4. Results

4.1. Descriptive results and correlations

Descriptive results are provided in table 3. It reports the minimum, maximum, mean and standard deviation of our variables (the dependent, the independent and the set of control ones). The mean of FRT is 65 days and is closer to and slightly higher than Baatwah et al. (2016) in Oman (60 days). This result is lower than Dellaportas et al. (2012) in Indonesia (98 days). From our sampled companies, 14 firms disclose their annual reports to the public on the website of Tadawul stock exchange beyond the regulatory deadline (90 days) as stipulated in Tadawul Stock Exchange rules. The mean of CEOT is 4.75 years and it varies from zero to 23 years which means that the average CEO tenure in Saudi Arabia is 4.75 years. The CEO_AFE is 0.31 which means that approximately 31 per cent of the CEO has accounting financial expertise. The mean of CEO_SM is 0.28 which means that approximately only 28 per cent of the CEO has an active account on social media.

Table 3
Descriptive results

Variable	Observations	Mean	Standard deviation	Minimum	Maximum
FRT	476	65.40	27.70	7	323
CEOT	476	4.75	4.59	0	23
CEO_AFE	476	0.31	0.46	0	1
CEO_SM	476	0.28	0.45	0	1
AUD_FEES	476	1836.36	139.76	182	31.27
AUD_OP	476	0.004	0.06	0	1
BIGF	476	0.51	0.50	0	1
FSIZE	476	14.74	1.55	9.85	19.91
FAGE	476	27.28	14.96	1	67
ROE	476	0.05	0.50	-10.09	0.60
LEV	476	0.39	0.20	0.01	0.89

We execute a test of multicollinearity to scrutinize for correlation among the independent variables. Maintaining the cut-off rate for the Variance Inflation Factor (VIF) at 3, we sense no multicollinearity. Table 4 presents the matrix of correlations and the VIF.

Table 4
Matrix of correlations and VIF

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	VIF
(1) CEOT	1.000										1.06
(2) CEO_AFE	-0.151***	1.000									1.09
(3) CEO_SM	0.082*	0.114*	1.000								1.07
(4) AUD_FEES	0.109*	0.011	-0.011	1.000							1.04
(5) AUD_OP	-0.018	-0.031	-0.029	-0.065	1.000						1.02
(6) BIGF	-0.001	-0.067	-0.180***	0.093	-0.047*	1.000					1.21
(7) FSIZE	0.066	0.074	-0.076	0.098	-0.001**	0.365***	1.000				1.43
(8) FAGE	-0.006	0.108***	-0.049	-0.097	0.072*	-0.107***	-0.189***	1.000			1.08
(9) ROE	0.062	-0.045*	-0.083*	-0.021	-0.019	0.090*	0.154***	0.014	1.000		1.06
(10) LEV	0.039	-0.052	0.005	0.048	0.042	0.173***	0.380***	-0.092*	-0.078	1.000	1.21

***, **, *represent significant at 1%, 5%, and 10% respectively.

4.2. Multivariate regression analyses

Following prior studies (Baatwah, et al., 2015; 2019; Sellami and Fendri, 2020), we perform the Hausman test to select the appropriate panel regression model (e.g., fixed or a random effect panel regression). The results suggest that fixed effect panel regressions are appropriate. We also verified the assumptions regarding the random component's autocorrelation and homoskedacity. As the results suggest a presence of the first-order autocorrelation of random errors and indicate that the homoskedacity assumption is not satisfied, we cluster standards errors in two dimensions between firms and years to correct the potential effect of heteroscedasticity and autocorrelation (Gow et al., 2010; Petersen, 2009). This method is also used by Sellami and Fendri (2020) and Baatwah et al. (2019). Table 5 presents the results of multiple regressions.

Table 5
Multivariate regressions

	Model 1		Model 2		Model 3		Model 4		Model 5	
	Coef.	T-value	Coef.	T-value	Coef.	T-value	Coef.	T-value	Coef.	T-value
CEOT	-.51	-1.41	-.44	-1.21					-.83	-2.74***
CEO_AFE	-5.53	-2.10**			-5.13	-1.88*			-6.09	-2.10**
CEO_SM	-4.39	-2.47**					-5.58	-2.70***	-3.74	-1.70*
AUD_FEES	-.008	-1.67*	-.008	-1.71*	-.01	-1.85*	-.010	-1.86*	-.006	-1.43
AUD_OP	133.39	1.70*	134.64	1.74*	133.32	1.70*	136.34	1.71*	128.8	1.35
BIGF	-.69	-0.20	.42	0.11	.23	0.06	-.33	-0.10	1.78	0.94
FSIZE	-2.30	-2.32**	-2.59	-2.82***	-2.37	-2.25**	-2.70	-2.86***	-2.63	-2.90***
FAGE	-.072	-0.64	-.089	-0.82	-.067	-0.58	-.10	-0.87	-.100	-1.00
ROE	-2.07	-1.22	-1.55	-0.90	-2.10	-1.18	-2.08	-1.16	.0002	0.01
LEV	21.54	2.22**	22.50	2.30**	20.99	2.12**	22.67	2.30**	21.52	2.15**
Year_IFRS									21.87	3.82***
cons	100.41	6.43***	100.72	6.96***	97.56	6.40***	102.94	7.13***	100.40	6.86***
Observations	476		476		476		476		476	
Firms	119		119		119		119		119	
R-squared	0.1701		0.1552		0.1575		0.1580		0.2801	
F-statistic	4.16***		3.59***		4.17***		3.89***		12.33***	

***, **, *represent significant at 1%, 5%, and 10% respectively.

Table 5 shows that the five empirical models are significant as the F statistics are significant at the level of 1%. For model (1), in which FRT is a function of the CEO tenure, accounting financial expertise and sociability and control variables without considering the Year_IFRS (the year of IFRS adoption in Saudi Arabia), we find that CEO tenure is not significant. The same result is found in model (2), in which FRT is a function of the CEO tenure, and control variables without considering the Year_IFRS. Hence, hypothesis 1 is not supported. This is not consistent with Baatwah et al. (2015) in Oman. However, CEO tenure is negative and statistically significant at the level of 1% in the model (5) in which FRT is a function of the CEO tenure, accounting financial expertise and sociability, and control variable when the year of IFRS transition is simultaneously considered. This result suggests that CEO tenure is associated with timely financial reports when the IFRS transition is simultaneously considered. Hence, companies with a long-tenured CEO reduce the period taken to prepare and disclose their financial reports in the period of IFRS transition. This result suggests that CEO tenure seems to play an important role in the timely disclosure of the annual reports on the capital market website in the year of IFRS transition in Saudi Arabia.

Our results provide evidence that CEO_AFE is negative and significant at the level of 5% in the model (1), 10 % in the model (3). Hence, hypothesis 2 is supported. This result is consistent with Upper Echelon Theory and is consistent with Baatwah et al. (2015) in Oman. We find the same result when the year of IFRS transition is simultaneously considered. The results suggest that CEO accounting financial expertise is significantly associated with timely financial reporting in all instances. This finding implies that companies with a CEO who is an accounting financial expert reduce the period taken to prepare and disclose their financial reports on the capital market website. These results support expectations and are in line with the increasing evidence, which suggests a significant association between the CEO accounting financial expertise and financial reporting quality (Jiang et al., 2013; Hazarika et al., 2012; Bamber et al., 2010).

We also find a significant negative association between CEO_SM and FRT in model (1) and model (4). Hence, hypothesis 3 is supported. This result is consistent with Upper Echelon Theory which suggests that CEOs' of top executives' experiences, values and characters highly affect their strategic decisions and, in turn, influence the financial reporting process and outcomes. We find the same result when the year of IFRS transition is simultaneously considered. The results suggest that CEO sociability is significantly associated with timely financial reporting in all instances. This finding implies that companies with a more sociable CEO reduce the period taken to prepare and disclose their financial reports on the capital market website. This result implies that when the CEO is more sociable via social media, firms tend to be more active in disclosing their annual reports timely.

Regarding control variables, the results do not change across models except for audit fees (AUD_FEES) and audit opinion (AUD_OP) that become non-significant when the year of IFRS transition is simultaneously considered. Our findings show that AUD_FEES is negatively associated with FRT. This is consistent with our expectations. It suggests that companies that are more likely to pay higher audit fees demand that the audit be conducted promptly. We find that AUD_OP is negatively associated with FRT in the first four models at the level of 10%. This result is consistent with Oussii and Taktak (2018) who suggest that qualified audit opinion that external auditors may need extra time before finishing their audit work for the companies that received qualified audit opinions, which may increase the audit report lag and so the financial reporting timeliness.

We find a negative and significant relationship between FSIZE and FRT at the level of 5% and 1%. This is consistent with the results of Baatwah et al. (2015) in Oman. This result implies that larger companies may complete the audit work earlier than smaller companies (Afify, 2009). Our results show that LEV is positively associated with FRT at the level of 5%. However, the variables BIGF, FAGE and ROE are not significant in all instances.

4.3 Robustness test

Our primary measure of financial reporting timeliness is the lag of total financial reports as the accounting information may be considered as high information when it reaches the different decision-makers rather than only the management and board of directors. This measure captures the time taken by the auditor and management to issue the audited annual reports to the public. Hence, it is calculated by the number of days that occurs between the date of year-end and the date of disclosing the annual reports to the public on the capital market website. We use an alternative measure of financial reporting timeliness to investigate the robustness of our results. Therefore, we use the audit report lag following Oussii and Taktak (2018) and Baatwah et al. (2019). It is measured by the number of days between the year-end date and the date of signing the audit report. This lag may include a delay in preparing pre-audited financial statements, a delay in audit work, and/or a delay in negotiating the accounting issues after the audit work (Dyer & Mchugh, 1975). We repeat all empirical tests, including the Hausman test and heteroskedasticity, autocorrelation and multiple regressions. The essential results of our analyses are unchanged. Further, we also rerun the regression where CEO sociability is measured as an indicator variable equal to one if the CEO has an active social media account on Twitter. The essential findings of our analysis are not changed.

5. Conclusion

This study examines the association between CEO characteristics and the financial reporting timeliness using a sample of 476 firm-year observations from the Tadawul Stock Exchange in Saudi Arabia. Results suggest that CEO characteristics play a key role in explaining financial report timeliness in the Saudi context. Three important CEO characteristics are included, namely, tenure, accounting financial expertise, and sociability among the factors possibly affecting financial reporting timeliness. This is because CEOs are viewed as influencers of the financial reporting quality and that these characteristics have an influence on the behaviour of the CEOs. Our findings report that a long-tenured CEO is associated with timely financial reports when the IFRS transition is simultaneously considered. This result implies that companies with a long-tenured CEO reduce the period taken to prepare and disclose their financial reports in the period of IFRS transition. This result suggests that CEO tenure seems to play an important role in the timely disclosure of the annual reports on the capital market website in the year of IFRS transition in Saudi Arabia. Our findings show that CEO accounting financial expertise is significantly associated with timely financial reporting. This result implies that companies with a CEO who is an accounting financial expert reduce the period taken to prepare and disclose their financial reports on the capital market website. This result suggests that the accounting financial expertise of CEOs is an important feature to reduce financial reporting delay. Our findings also report that CEO sociability is significantly associated with timely financial reporting in all instances. This result suggests that companies with a more sociable CEO reduce the period taken to prepare and disclose their financial reports on the capital market website. This result implies that when the CEO is more sociable via social media, firms tend to be more active in disclosing their annual reports timely. Overall, findings report that CEO characteristics do matter regarding the timeliness of financial reporting. Results are robust to an alternative measure of financial reporting timeliness (Leventis et al., 2005; Lee et al., 2008).

The findings of this research contribute to the growing literature by examining the effect of CEO characteristics on timely reporting in KSA, an understudied and unique context. The present study also complements the recent literature on the determinants of financial reporting timeliness (Abernathy et al., 2014; Baatwah et al., 2015; 2016; 2019; Oussii and Taktak, 2018) by providing evidence that the sociability and accounting financial expertise of top leaders improve the financial reporting timeliness. Our findings should be of interest to policymakers and regulators in Saudi Arabia in formulating new policies as they need to play a role in ensuring the shorter gap of financial report delay. The findings of this research have also a practical implication for shareholders and boards of directors in selecting a new CEO by taking into consideration their accounting financial expertise and their sociability on social media.

This research acknowledges some limitations that suggest caution in the interpretation of the results. First, it is recognised that the setting, Saudi Arabia, is a particular context as we cannot consider some other CEO characteristics. For example, we cannot investigate CEO duality because of the national regulation that prohibits holding simultaneously the position of Chairman of the Board and any other executive position in the Company. Also, we cannot consider the CEO gender as no woman holds this position at the time of conducting our empirical work in our sampled companies.

Further, our empirical results are based on a sample of non-financial listed firms from Saudi Arabia, thereby we cannot generalize our findings to other institutional settings and jurisdictions. Such limitations permit future research to examine this issue in other contexts that could report different results.

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