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## ACCOUNTING, CORPORATE GOVERNANCE & BUSINESS ETHICS | RESEARCH ARTICLE

# Audit reports timeliness: Empirical evidence from Tunisia

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**Abstract:** Timeliness of corporate annual financial reports is considered to be a critical and important factor affecting the usefulness of information that is made available to external users. The purpose of this paper is to examine the relationship between corporate governance, external auditor's characteristics index, and timeliness in light of the recent amendments to the Financial Security Law (2005) in Tunisia. The paper uses panel data methodology of 28 Tunisian companies listed on the Tunisian Stock Exchange over the period 2006–2013. This study concludes that the good structures of corporate governance play a key role in improving the quality of timeliness of financial reports. As for the empirical tests, they appear to indicate that whenever the audit report publication date proves to be short, the external auditor's characteristics index is discovered to be high.

**Subjects:** Accounting; Business, Management and Accounting; Corporate Governance

**Keywords:** timeliness; corporate governance; external auditor's characteristics

### 1. Introduction

One of the important objectives of corporate reporting is to provide information that will assist external users in decision-making. This information, however, is required to be made available within a short period of time from the end of the reported period; otherwise, it loses some of its economic value (Al-Ajmi, 2008). Timeliness becomes one of the most important characteristics of financial accounting information for the accounting profession (Soltani, 2002). Timeliness can also be viewed as a way of reducing information asymmetry by improving pricing of securities, and by mitigating insider trading, leaks, and rumors in the market, and reducing the opportunity to spread rumors about the companies' financial health and performance. Audit report lag, which is the number of days from fiscal year end to audit report date, or inordinate audit lag, compromise the quality of financial

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### PUBLIC INTEREST STATEMENT

An efficient and effective capital market needs a transparent financial reporting system to boost investors' confidence in making investment decisions. Given that the audit reports become the only reliable source available to investors and other external users, in a developing country like Tunisia, it will be interesting to identify all the factors that may influence audit certification (such as corporate governance and earning management). This identification can help guide the reforms to improve the functioning of the financial market, especially after the promulgation of the Financial Security Law (2005).

reporting by not providing timely information to investors. It's for these reasons that timeliness has long been recognized as one of the qualitative attributes of general purpose financial reports. The importance of timeliness in investors' decisions are reported in a number of studies in various countries' contexts. These studies have revealed the persistence of certain divergences with respect to measures, methodology, applied variables, as well as reached conclusions. Noteworthy, however, the auditing mission is usually carried out in a multi-stakeholder characterized environment. As a matter of fact, the auditor shall simultaneously strive to satisfy the audited firm's needs, respect the pertinent laws and regulations, and protect the public as well to ensure a certain proper profitability within a highly competitive market.

This research aims at studying the determinants of the timeliness of Tunisian annual reports during the period 2006–2013. Specifically, it tests the relationship between audit quality and auditees' specific characteristics, including corporate governance, with respect to both the timeliness of annual reports and the audit delay.

Indeed, corporate governance is maintained through diverse structures and mechanisms likely to help reconcile the executives and shareholders' divergent interests as well as a firm value (Wirtz, 2004), ensure a better performance or output limit wealth transfer among shareholders and the manager thus reducing shareholders risk of being dispossessed. Hence, the more effective these mechanisms prove to be in achieving their monitoring and cooperation role with the external auditor, the higher the audit mission quality will be.

Given, auditor's quality adds a significant value to investors in capital markets because they often use audited financial statements by auditors as the main basis for investment decisions (Sudsomboon & Ussahawanitchakit, 2009). It, therefore, seems well appropriate to understand the effect of control as provided by certain governance structures, and the requirement for a distinct external auditor's characteristics on timeliness. Our paper extends previous research by proposing an index to measure external auditor and using three proxies to explain timeliness. Our results add to the growing body of literature analyzing the relationship between corporate governance mechanisms and timeliness. They also offer a better understanding of the determinants of timeliness in the Tunisian context.

This present work is organized according to the following structure: Section 2 is devoted to presenting a theoretical framework and hypothesis development. As for, Section 3, it is designed to describe the applied methodology, the empirical model along with the variables' definitions. Finally, Section 4 involves the reached statistical results, summaries, and concluding remarks.

## 2. Theoretical framework

### 2.1. Agency theory

The agency relationship is a contract under which one party (the principal) engages another party (the agent) to perform some service on their behalf (Jensen & Meckling, 1976). As part of this, the principal will delegate some decision-making authority to the agent. This theory points out the role of certain corporate governance mechanisms' to decrease agency problems. In this context, Fama and Jensen (1983) have explained that outside board of directors could strengthen the firm value by lending experienced and monitoring services and supposed to be guardians of the shareholders' interests via monitoring and control.

According to Jensen and Meckling (1976), a component of the agency costs is represented by the monitoring costs supported by shareholders for the monitoring of the managers actions.

Since it is not acceptable to publish financial statements unless a certified public accountant (external and internal auditor) first audits them, the external audit effort is an important component of

these costs, as long as auditors have to make sure that managers act according to the shareholders' interests, while also auditors have the required task to inspect the accounts of the company (Azubike & Aggreh, 2014). It may hence be supposed that auditors will spend more time inspecting the managers' activity and therefore increase timeliness if there are agency problems. In fact, the agency relationship between the managers and shareholders may cause the agency conflicts to occur, thus the corporate governance is assumed as the best monitoring and controlling mechanism to reduce such problems. In relation to financial reporting and audit timeliness, corporate governance mechanism may reduce the audit business risk of the company; hence reduce the audit work and hours taken by the auditor to complete their annual audit work.

## **2.2. External auditor's characteristics**

According to DeAngelo (1981), the quality of the audit is composed of the joint probability that the auditor can detect and report material errors in the client's accounting system. Detection of material errors is related to technical competence, while the disclosure of these errors refers to the auditor's independence.

In addition, it is found that most literatures have been contented to approximate or even equate audit quality with the quality of auditors. However, there are some exceptions. Manita and Elommal (2010) claim that audit quality should be in terms of audit process quality and the studies on audit process should put emphasis on examining different stages of the audit process. In fact, in analyzing the audit quality impact on timeliness, previously conducted researchers have undertaken to distinguish the audit quality on the basis of external auditor's characteristics (independence, competence, Big N, industry specialization, audit fees, audit tenure, etc.).

In this context, some studies highlighting that Big N audit firms are more reliable and far highly qualified to minimize timeliness (Afify, 2009; Ahmed & Hossain Md, 2010; Lee & Jahng, 2008; Modugu, Eragbhe, & Ikhatua, 2012; Mohamad-Nor, Shafie, & Wan-Hussin, 2010; Owusu-Ansah & Leventis, 2006). In addition, several elaborated empirical studies are discovered to emphasize the prevalence of a significant relationship between timeliness and longer auditor-client tenure (Habib & Bhuiyan, 2011; Pizzini, Lin, Vargus, & Ziegenfuss, 2011; Wan-Hussin & Bamahros, 2013), since an auditor can save time by the experiment that obtained over this period. Other studies illustrate that audit report lag is shorter for firms audited by industry specialist auditors given that they are able to develop industry-specific knowledge and expertise and to familiarize themselves quickly with the clients' business operations and, therefore, are likely to complete the audit sooner than their non-specialist counterparts (Habib & Bhuiyan, 2011). It is clear that previous studies are interested in studying the effect of the external auditor on the audit period by choosing each time a different proxy to the external auditor. We suppose that, external auditor with high quality are more capable to complete the auditing mission and minimize timely disclosure. Thus, the following hypothesis can be formulated:

H1: There is a negative relationship between external auditor's characteristics and timeliness.

## **2.3. Corporate governance and timeliness**

Corporate governance searches for more accuracy of disclosed information and organizes the relationship between the shareholders, board of directors, and management (Ezat & El-Masry, 2008). The variables, which will be used in this research work study, are directors' boards and ownership structure

### **2.3.1. Directors' boards and timeliness**

The board constitutes a major control mechanism, exhaustively discussed on corporate governance-related research (Kachouri Ben Saad & Jarboui, 2015). In fact, the effectiveness of Directors' boards, as a control mechanism, is not very often guaranteed as it highly depends on the following main characteristics.

The number of directors on the company's board should play a critical role in monitoring of the board and in taking strategic decisions. One of the disadvantages associated with a large board is a communication/ coordination problem, which makes a large board a less efficient monitor than a small board. Some studies argue that a large board assists in performing more monitoring, providing companies with the diversity that help them in providing critical resources and eliminate environmental uncertainties, alleviating the dominance of the CEO, and increasing the pool of expertise that yields from the diversity of the board (Singh, Mathur, & Gleason, 2004; Yermack, 1996). Other studies find that a large board is likely to increase relevant experience, can assist with providing a greater deal of submitting greater deal of control, submitting greater critical resources, help greatly in avoiding uncertainties, and securing a promotional ground for enhancing skills and competences (Singh et al., 2004). In this respect, Ezat and El-Masry (2008) have indicated that listed Egyptian companies, involving a large number of directors within the board prove to be more updated with respect to websites. They find that as a result of the diversity of the board's membership and their desire to disclose more information on their company's website to attract more investors and satisfy the shareholders' needs. Consequently, the larger the number of the board's directors, the greater the desire for online disclosure. Thus, the following hypotheses sound worth reformulating:

H2: There is a negative relationship between board size and timeliness.

The board independence measured based on the proportion of non-executive directors to the total directors (Abdelsalam & Street, 2007). According to Jensen and Meckling (1976), external members' integration within the board helps increase the effectiveness of the board in the management and monitoring activities' effectiveness in order to prevent financial statement-related frauds. Stand as they are effective factors, should they represent more than 50% (Johari, Saleh, Jaffer, & Hassan, 2008). The results of previous studies which have examined the relationship between board composition and disclosure are mixed. Some studies show a significant relationship which is either positive (such as Abdelsalam & Street, 2007; Afify, 2009; Azubike & Aggreh, 2014), or negative (such as Eng & Mak, 2003). Nevertheless, Haniffa and Cooke (2002) did not find any significant relationship. Thus, the following hypotheses sound worth reformulating:

H3: There is a negative relationship between the board independence and timeliness.

Within the same context, the agency theory suggests that duality constitutes a major reason for the board's inefficiency (Jensen, 1993). Agency theory supports the separation of the two roles to provide for checks and balances over management's performance (Haniffa & Cooke, 2002). Combining both Chairmen and the CEO functions designates well the combination of two roles resulting in a high concentration of power likely to compromise the board's independence with a negative impact being engendered on shareholder's wealth. As a matter of fact, a structural unit helps prevent an effective disclosure of information (Gul & Leung, 2004; Haniffa & Cooke, 2002) from taking place, thus standing as a quality control endangering threat, a means of restraining unfavorable information to outsiders, and as a factor which increases timeliness (Afify, 2009). Consequently, the below may well be posed:

H4: There is a positive relationship between CEO duality and timeliness.

### 2.3.2. *Ownership structure and timeliness*

Ownership structure, as an internal control mechanism, has been discovered to be a crucial determinant of highly effective better governance practices, whose concentration and composition could strongly influence the power authority relationship between shareholders and managers and would influence the shareholders to invest in firm management control.

Concentration of ownership refers to the group who has the most influence among the equity owners, while dispersion of ownership looks only at the separation of ownership between managers

and equity owners as a group (Haniffa & Cooke, 2002). When the property proves to be concentrated, a greater pressure is being placed on auditors to achieve elaborating the report within a very short time, for obtaining timely information. This finding is confirmed by the results reached by Al-Ajmi (2008) showing that the more concentrated the ownership structure is, the shorter the audit delay will be. In this context, two major studies elaborated by Ezat and El-Masry (2008), as well as Marston and Polei (2004) have stressed that the dispersion of the company ownership structure helps entice companies to disclose information and have more updated websites to reduce owners' information cost and help them monitor their manager's behavior. Consequently, this study investigates the relationship between ownership structure and timeliness. We suppose that companies whose ownership structure is concentrate tend to disclose less information. Thus, the following hypothesis seems worth testing:

H5: There is a negative relationship between ownership concentration and timeliness.

Given the considerable weight that have institutional investors enjoy within the company, they are liable to play an active role in monitoring and disciplining of manager discretionary powers as well as financial "reporting" process (Zureigat, 2011), this which might well help in minimizing financial statement-related fraud (Lajmi & Gana, 2011; Sharma, 2004). Previously conducted empirical studies dealing with the relationship between institutional ownership and audit reporting quality are not numerous. Indeed, Abdelsalam and Street (2007) along with Al-Ajmi (2008) have found that the increased institutional investors' ownership right help well in minimizing the audit achievement allocated time and reduce the likelihood of fraud (Lajmi & Gana, 2011). Consequently, institutional investors contribute to more efficient monitoring of management and that the benefits of better monitoring are shared by all stakeholders. Thus, the following hypotheses sound worth reformulating:

H6: There is a negative relationship between institutional ownership and timeliness.

### 3. Research design

#### 3.1. Sample selection and data

The sample subject of study is composed of 28 Tunisian companies listed in the Tunisian Stock Exchange (TSE), over in eight-year period from the 2006 to 2013. It excludes companies from the finance-related sector as they operate under highly regulated regime. The listed companies' relevant data are collected from published financial statements as well as from official bulletins available from the prospectus found at the Financial Market Council of Tunis and on the BVMT websites. Our ultimate sample turns out to involve some 28 companies ensure achieving 224 observations (Table 1).

It is worth noting that we have considered opting for the balanced panel approach to ensure achieving consistent results.

#### 3.2. Measures of external auditor's characteristics

People view external auditor's characteristics differently and sometimes they only focus on one or a bit more of the quite many attributes. Hence, a variety of audit quality proxies mushroomed

**Table 1. Sample selection**

<b>Initial sample</b>	<b>77</b>
Financial firms	(34)
Firms with insufficient data	(15)
Final sample	28
Study duration	8
Total observations	224

during the last years to help people assess the level of quality. Meanwhile, we have found that looking at single indicator alone would not provide a full image of audit quality. Relying on several previously conducted work studies, the present study attempts to devise a special EAI that rests on Bing, Xin Huang, Li, and Zhu's (2014) study, which includes different types of audit quality proxies (Table 2).

Five attributes are considered: auditor size, auditor industry specialization, independence, audit firm tenure et co-audit. EAI represents the index of external auditor's characteristics that takes the values 0, 1, 2, 3, 4, or 5.

For them, the index is calculated by simple summation of the notes obtained at the level of each single company (According, EAI = 5 denotes a higher quality external auditor). As a matter of fact, this particular type of additive and unweighted scoring approach has actually been applied and supported by several elaborated research studies.

### 3.3. Models and variables

The previously conducted studies have undertaken to apply calendar day timeliness starting from the fiscal year-end up until audit report achievement date. Noteworthy, however, according to Tunisian regulations highlights the distinction between two different dates namely a date corresponding to auditors' signature following achievement of the auditing mission, along with a date signifying publication at the CMF. For this reason three timeliness associated have been adopted measures (Al-Ajmi, 2008): They are: the intermediary period (INTERIM) the total period (TPERIOD) and the checking period (AUDITLAG). For our set research objective to be reached, the following regression is going to be estimated:

$$\text{Timeliness} = \beta_0 + \beta_1 \text{BSIZE}_{it} + \beta_2 \text{BIND}_{it} + \beta_3 \text{CEO}_{it} + \beta_4 \text{CONC}_{it} + \beta_5 \text{INVES}_{it} + \beta_6 \text{EAI}_{it} + \beta_7 \text{SIZE}_{it} + \beta_8 \text{LEV}_{it} + \varepsilon_{it}$$

where EAI = external auditor's characteristics index, BSIZE = the board size, BIND = the board independence, CEO = CEO duality, CONC = ownership concentration, INVES = institutional ownership, SIZE = firm size, LEV = debt level.<sup>1</sup>

**Table 2. External auditor's characteristics index**

Proxies	Sources	Measures
Auditor size/type	DeAngelo (1981), Francis (2004), Behn, Choi, and Kang (2008), Clinch, Stokes, and Zhu (2010), Kanagaretnam, Krishnan, Lobo, and Mathieu (2011), Chen, Chen, Lobo, and Wang (2011)	1: If a firm is audited by Big 4 audit firm 0: Otherwise
Auditor industry specialization/expertise	Carcello and Nagy (2004), Francis (2004), Watkins, Hillison, and Morecroft (2004), Mansouri, Pirayesh, and Salehi (2009), Li, Stokes, Taylor, and Wong (2009), Hakim and Omri (2010), Chen, Hsu, Huang, and Yang (2013)	1: If a firm is audited by industry specialist 0: Otherwise
Independence: The likelihood of issuing going concern report	Carey and Simnett (2006), Jackson, Moldrich, and Roebuck (2008), Francis and Yu (2009), DeFond and Lennox (2011), Gunny and Zhang (2013)	1: If the opinion is unqualified 0: Otherwise
Audit firm tenure	Hakim and Omri (2010)	1: For three years of audit tenure or more 0: Otherwise
Co-audit	Gana and Krichen (2013)	1: If company is audited by second auditor or more

**Table 3. Summary of variables definitions and measurements**

Variable names		Measures
<i>Dependent variable: Timeliness</i>		
Total period	TPERIOD	Number of days between the fiscal year-end and the publication date (log)
Interim period	INTERIM	Number of days from the external auditor's signature date on the audit report and publication date
Audit lag	AUDIT LAG	Number of days between the fiscal year-end and the external auditor's signature date (log)
<i>Independent variables</i>		
Board size	BSIZE	Number of directors on the board
Board independence	BIND	Number of outside directors to total of directors within the board
CEO duality	CEO	A dichotomous variable taking value "1" if there is duality function of the CEO, "0" otherwise
Ownership Concentration	CONC	A dichotomous variable taking value "1" if the proportions of shares held by the majority shareholder of the company >20%, "0" otherwise
Institutional Ownership	INVES	Proportions of equity held by institutional investors
External auditor's characteristics index	EAI	The summation of the notes obtained at the level of each single firm
<i>Controls variable</i>		
Firm size	SIZE	Log of firm's sales
Debt level	LEV	Total liabilities to total assets

The regression serves to determine the impact of internal governance mechanisms and external auditor's characteristics impact on timeliness. Table 3, below, depicts the entirety of the variables' pertaining measurements.

#### 4. Empirical results

##### 4.1. Descriptive analysis

Table 4 reports the descriptive statistics pertaining to the entirety of variables investigated in this study.

The descriptive statistics result indicates that the timeliness variable is an average rate of 155 days after closure of the fiscal year, ranging between 70 and 333 days. Actually this value highly exceeds greatly the regulatory ceiling (four months).<sup>2</sup> Still, delay witnessed audit report publication is highly dependent on the audit reporting signature by the external auditor which is equal to an average 129 days varying between 60 and 325 days. This finding might well have an explanation in the auditor's mal-conscience to respect the legal deadlines necessary for completing the auditing mission. As for the "INTERM" period, finding suggests that the mean period is 13 days, which may well extend up to 69 days at maximum. These findings suggest that the majority of Tunisian companies do not appear to respect the legal deadlines, despite the Tunisian legislator's efforts in this regard and adoption of the Financial Security Law (2005, Loi n° 2005-96 du 18 octobre 2005 relative au renforcement de la sécurité des relations financières).

The proportion tests of EAI variable highlights the following major results for the evolution of EAI, and shows that the average is of an order of 2.053, with a minimum rate (EAI = 0), and a maximum

**Table 4. Variables' descriptive statistics**

<b>Numeric variables' descriptive statistics</b>				
<b>Variables</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. deviation</b>
TPERIOD	70.00	333.00	154.54	40.17
INTERIM	1.00	69.00	12.72	11.42
AUDIT LAG	60.00	325.00	128.52	36.08
BSIZE	4	12	8.47	1.88
BIND	0	83	41.23	26.52
INVES	0	88.80	15.56	22.69
EAI	0	5	2.05	1.35
SIZE	13.70	20.12	17.39	1.31
LEV	8.00	97.00	47.43	19.98

  

<b>Dichotomous variables' descriptive statistics</b>				
<b>Variables</b>	<b>Frequency</b>		<b>Percentage (%)</b>	
	Variable = 0	Variable = 1	Variable = 0	Variable = 1
CEO	82	142	36.61	63.39
CONC	153	71	68.30	31.70

Notes: TPERIOD = Number of days between the financial year-end and the publication date (log); AUDIT LAG = Number of days between the financial year-end and opinion signature date (log); INTERIM = Number of days from the opinion signature date on the auditors' reports and the publication date; BSIZE = Number of directors on the board; BIND = Number of outsiders directors to total of directors on the board; CEO = "1" if there is duality function of the CEO, "0" otherwise; CONC = "1" if the proportions of shares held by the majority shareholder of the company > 20%, "0" otherwise; INVES = Proportions of equity held by institutional investors; EAI = The summation of the notes obtained at the level of each single firm; SIZE = log of firm's sales; LEV = total Liabilities to Total Assets.

rate (EAI = 5). Hence, it appears clear that the EAI, relevant to the TSE (Tunisian Stock Exchange)-listed companies, is marked by noticeable significant variations. These remarkable shifts are actually reflected in the firms' audit nature, size, and characteristics.

This table indicates well that most Tunisian companies (63.39%) tend to be characterized with a president and the CEO respective roles. It is actually this combination of roles which leads to a high concentration of power likely to threaten the board's independence.

#### 4.2. Correlation analysis

The correlation coefficients between independent variables are shown in Table 5. The Pearson correlation matrix demonstrates well that no correlation is discovered to be superior to "0.9," thus corroborating the reference work conducted by Tabachnick and Fidell (2007). Such a finding allows to accept the null hypothesis of no correlation between variables. In addition, the variance inflation factors (VIF) have computed the presence of collinearity phenomenon among the explanatory variables. Indeed, in all cases the VIF are discovered to be set at below two levels, a fact which confirms the absence of any multicollinearity problems.

The highest correlation is between the two variables, firm size and EAI at 0.5009, which suggests that multicollinearity is not a serious problem that would compromise the regression results.

#### 4.3. Regression analysis

Based on panel data framework, our econometric estimates will be undertaken according to a panel cylinder capacity. Certain tests<sup>3</sup> seem well applicable to testifying the model's estimation via generalized least squares approach, by means of STATA 12 software. Table 6 depicts the regression

**Table 5. Pearson correlations analysis**

	BSize	Bind	CEO	Conc	Inves	EAI	Size	Lev	VIF
BSize	1								1.33
Bind	0.1432*	1							1.13
CEO	0.0169	0.0462	1						1.08
Conc	-0.1289	0.2198*	-0.0400	1					1.20
Inves	0.0004	0.1089	-0.1339*	0.2409*	1				1.23
EAI	0.0956	0.1669*	-0.0798	-0.1053	0.2824	1			153
Size	0.4378*	0.0645	-0.1751*	-0.1548*	0.2182	0.5009*	1		1.80
Lev	0.0879	0.0147	0.1278	-0.0706	-0.0528	0.1908*	0.1646*	1	1.09

Notes: TPERIOD = Number of days between the financial year-end and the publication date (log); AUDIT LAG = Number of days between the financial year-end and opinion signature date (log); INTERIM = Number of days from the opinion signature date on the auditors' reports and the publication date; BSIZE = Number of directors on the board; BIND = Number of outsiders directors to total of directors on the board; CEO = "1" if there is duality function of the CEO, "0" otherwise; CONC = "1" if the proportions of shares held by the majority shareholder of the company > 20%, "0" otherwise; INVES = Proportions of equity held by institutional investors; EAI = The summation of the notes obtained at the level of each single firm; SIZE = log of firm's sales; LEV = total Liabilities to Total Assets.

\*Correlation is significant at the 0,05 level (2-tailed).

analysis relevant to this study. The three respective exhibit the figures of models 43.26, 14.13 and 48.60% which are actually highly significant.

The attained finding shows that corporate governance prove to have an important influence on timeliness. In fact, the attained results prove to reveal well the fact that the board size (BSIZE) sounds to exhibit a negative and significant effect (at 1% threshold) on timeliness as measured by TPERIOD and AUDIT LAG, along with a positive relationship and significant (at 10% level) with INTERIM. These results suggest well that a large board helps well implement greater more control, eliminate environmental uncertainties, and facilitate the external auditor's mission. This result proves to be highly consistent with that released by Ezat and El-Masry (2008). Nevertheless, this figures may well have a negative implication and could result in delaying the audit report release. Moreover, for the second variable, the obtained results are discovered to be inconclusive because the relationship between timeliness and the board independence is discovered to be non significant with TPERIOD, positive and significant within a 1% threshold with INTERIM, significantly negative at 10% with AUDIT LAG. It was thought that, the more independent the board is, the better the company in reducing their audit business risk because of less conflict between manager and shareholders; hence shorten the audit delay. This finding is inconsistent with agency theory and resource dependence theory, which suggests a non executive chair can play a more independent role in shaping disclosure due to influence and power.

Regarding CEO variable, a positive and significant relationship (at 1%) appears to prevail within the president's combined roles of president's board Chairman and CEO and timeliness as measured by total period (TPERIOD) and the audit review (AUDIT LAG) along with a negatively significant relationship with the interim period (INTERIM). This can be explained by the fact that when the personality is dominant, it is likely to render the taken decisions somewhat objective, which is likely to threaten the external auditor's mission, enticing the auditor to devote a greater deal of time to review the audit accounts. In fact, this result proves to be consistent with that present by Abdelsalam and Street (2007).

It is worth noting that our achieved results appear to be inconsistent with the studies conducted by Amari and Jarbou (2013), demonstrating that no significant relationship actually exist between the ownership structure and the interim period. Yet, this relationship proves to change with the two other remaining periods (TPERIOD and AUDIT LAG) by responding in a similar way. Indeed, ownership concentration (CONC) which is measured by a dummy variable tends to exhibit a

**Table 6. Regression results**

Variables	TPERIOD			INTERIM			AUDIT LAG		
	Coefficients	z-Statistic	P >  z	Coefficients	z-Statistic	P >  z	Coefficients	z-Statistic	P >  z
BSIZE	-0.029***	-5.68	0.000	0.602*	1.84	0.066	-0.028***	-6.11	0.000
BIND	-0.062	-1.63	0.103	0.024***	2.68	0.007	-0.062*	-1.81	0.070
CEO	0.145**	7.71	0.000	-2.738**	-2.37	0.018	0.105***	5.78	0.000
CONC	0.057**	2.25	0.025	-2.588*	-1.93	0.053	0.099***	5.10	0.000
INVES	-0.130**	-2.49	0.013	5.755**	1.97	0.048	-0.206***	-4.28	0.000
EAI	0.008	0.90	0.366	-2.015***	-3.69.	0.000	0.043***	5.17	0.000
SIZE	-0.049***	-4.93	0.000	0.002	0.00	0.996	-0.032***	3.35	0.001
LEV	0.223***	6.34	0.000	2.252*	1.92	0.055	0.177***	5.08	0.000
N	224			224			224		
R <sup>2</sup>	43.26%			14.13%			48.60%		
Prob. > Chi-2	0.0000			0.0001			0.0000		

Notes: TPERIOD = Number of days between the financial year-end and the publication date (log); AUDIT LAG = Number of days between the financial year-end and opinion signature date (log); INTERIM = Number of days from the opinion signature date on the auditors' reports and the publication date; BSIZE = Number of directors on the board; BIND = Number of outsiders directors to total of directors on the board; CEO = "1" if there is duality function of the CEO, "0" otherwise; CONC = "1" if the proportions of shares held by the majority shareholder of the company > 20%, "0" otherwise; INVES = Proportions of equity held by institutional investors; EAI = The summation of the notes obtained at the level of each single firm; SIZE = log of firm's sales; LEV = total Liabilities to Total Assets.

\*Correlations significant at the 10% level.

\*\*Correlations significant at the 5% level.

\*\*\*Correlations significant at the 1% level.

simultaneously positive and significant relationship (at 1% level) with the audit review period and the total period. This finding helps us maintain that concentrated ownership (the proportions of shares held by the majority shareholder of the company > 20%) might lead the external auditors to further intensify the check and assessment tests extended and extend the audit period deadline, an idea that seems highly consistent with that advanced by Apadore and Mohd Noor (2013).

As a matter of fact, our regression results appear to reveal that institutional ownership (INVES) does prove to have a negative and significant relationship between and both audit period and audit lag at threshold of 1% level. Nevertheless, the estimated coefficient is discovered to be positive with INTERIM. Institutional investors prove to own significant proportion of shares, they apt to become active investors in firm management control and in monitoring the financial "reporting" process, thus facilitating speeding up the accounts of certification task (Abdelsalam & Street, 2007). With respect to the empirical results, they show that the variable external auditor's characteristics index (EAI) sounds to have no significant effect on TPERIOD. In reality, this result seems to be inconsistent with previous studies released results, highlighting the prevalence of a significantly relationship between timeliness and certain characteristics of external auditor (Afify, 2009; Ahmed & Hossain Md, 2010; Habib & Bhuiyan, 2011; Lee & Jahng, 2008; Modugu et al., 2012; Mohamad-Nor et al., 2010; Owusu-Ansah & Leventis, 2006; Wan-Hussin & Bamahros, 2013, etc.). These studies illustrate that timeliness is shorter for firms audited by industry specialist auditors or by Big N audit firms given that they are able to develop industry-specific knowledge and expertise and to familiarize themselves quickly with the clients' business operations. In turn, these studies illustrate that audit report lag is shorter for firms audited by industry specialist auditors and Big N audit firms, given that they are able to develop industry-specific knowledge and expertise and to familiarize themselves quickly with the clients' business operations.

With regard to the control variables, the results indicate the prevalence of a significantly negative relationship between firm size and timeliness. These findings are consistent with our predicted expectation and the already elaborated preceding empirical studies (Wan-Hussin & Bamahros, 2013). As for the second control variable, a positive relationship has been attained between leverage and

timeliness, highlighting that the audit report delivery deadline of the mostly indebted companies discovered to be is higher than that of least indebted ones. This result proves to collaborate well with finding achieved by Cohen and Leventis (2013), Che-Ahmad and Abidin (2008) and Al-ghanem and Hegazy (2011). This implies that companies reporting more debt to equity in their capital structure are more likely to present their financial statements on time because of the need to provide the creditors with audited financial statements as at when due. Agency theory implies that the management would likely disclose the information on the Internet to voluntarily allow creditors to monitor the affairs of the firms as well as assessing the ability of firms to pay debts on time (Debrency et al., 2002).

From the above discussion, the findings suggest that timeliness can be shorten with board independence and high proportion of institutional investors. Those factors are able to mitigate the problem of long audit report lag, and thus able to improve the financial reporting quality.

### 5. Summary and conclusion

In this study, the relationship binding corporate governance, external auditor's characteristics and timeliness was examined with respect to a sample made up of 28 Tunisian companies observed over the period 2006–2013.

The results reached have revealed well that timely disclosure is on average some 155 days to be released highly exceeding regulatory ceiling limit. Moreover, the panel data regressions results have revealed that corporate governance significantly affects timeliness, turn out to be: The Board of Directors (board size and board composition, CEO duality) as well as ownership structure (capital concentration and institutional ownership), even though the significance signs prove to differ from one measure to another. The agency relationship between the managers and shareholders may cause agency conflicts, thus the corporate governance is assumed as the best monitoring and controlling mechanism to reduce such problems. This implies that corporate governance mechanism may reduce the audit business risk of the company; hence reduce the audit work and hours taken by the auditor to complete their annual audit work.

Besides, with respect to the relationship between timeliness and external auditor's characteristics, the reached results are discovered to be inconclusive. But a negative relationship turns out to match audit lag, which is the period between the financial year-end and opinion signature date, indicating that whenever the external auditor's characteristics proves to be high, the audit report publication date is discovered to be short.

Just like any other research work, the present study involves certain limitations. Firstly, the investigated sample size has been reduced to 28 companies owing to the unavailability of adequately necessary data relevant to the period under review (2006 and 2013). As for the second limitation, it relates to the neglect of certain items which may be included in calculating the external auditor's characteristics index (auditor change, auditor competence, audit fees, etc.). Hence, it would seem rather interesting to include, in a potential research work, the entirety of these factors for the sake of achieving results that would prove to be as realistic as possible.

Apart from contributing to the literature on corporate governance and audit timeliness, this study also falls under the strand of literature that examines the consequences of the regulatory changes introduced around the world to strengthen corporate governance and financial reporting transparency such as the Financial Security Law (2005) in Tunisia. Specifically, the study extend prior researches in emerging economies by providing important empirical evidence, on the role of corporate governance in financial reporting and auditing process.

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### Notes

1. Debt can be considered as a solution to the conflicts between managers and shareholders (Jensen & Meckling, 1976) thanks to its contractual obligations. The external auditor comes precisely to assert respect with the terms of the contract.
2. Article 3 CCC: "Companies launching public offerings must publish the audit report in the Financial Market Council official newsletter as well as in Tunis published daily newspaper within four months following the financial year-end".
3. Tests of the individual effects (fixed and random), Hausman tests, and tests of heteroscedasticity.

### References

- Abdelsalam, O. H., & Street, D. L. (2007). Corporate governance and the timeliness of corporate internet reporting by U.K. listed companies. *Journal of International Accounting, Auditing & Taxation*, 16, 111.
- Afify, H. A. E. (2009). Determinants of audit report lag. *Journal of Applied Accounting Research*, 10, 56–86. <http://dx.doi.org/10.1108/09675420910963397>
- Ahmed, A., & Hossain Md, S. (2010). Audit report lag: A study of the Bangladeshi listed companies. *ASA University Review*, 4.
- Al-Ajmi, J. (2008). Audit and reporting delays: Evidence from an emerging market. *Advances in Accounting, incorporating Advances in International Accounting*, 24, 217–226.
- Al-ghanem, W., & Hegazy, M. (2011). An empirical analysis of audit delays and timeliness of corporate financial reporting in Kuwait. *Eurasian Business Review*, 1, 73–90.
- Amari, M., & Jarbou, A. (2013). Financial reporting delay and investors behavior: Evidence from Tunisia. *International Journal Management Business Research*, 3, 57–67.
- Apadore, K., & Mohd Noor, N. (2013). Determinants of audit report lag and corporate governance in Malaysia. *International Journal of Business and Management*, 8, 1833–1819.
- Azubike, J., & Aggreh, M. (2014). Corporate governance and audit delay in Nigerian quoted companies. *European Journal of Accounting Auditing and Finance Research*, 2, 22–33.
- Behn, B. K., Choi, J., & Kang, T. (2008). Audit quality and properties of analyst earnings forecasts. *The Accounting Review*, 83, 327–349. <http://dx.doi.org/10.2308/accr.2008.83.2.327>
- Bing, J., Xin Huang, C., Li, A., & Zhu, X. (2014). Audit quality research report, Australian National Centre for Audit and Assurance Research, Canberra.
- Carcello, J. V., & Nagy, A. L. (2004). Client size, auditor specialization and fraudulent financial reporting. *Managerial Auditing Journal*, 19, 651–668. <http://dx.doi.org/10.1108/02686900410537775>
- Carey, P., & Simnett, R. (2006). Audit partner tenure and audit quality. *The Accounting Review*, 81, 653–676. <http://dx.doi.org/10.2308/accr.2006.81.3.653>
- Che-Ahmad, A., & Abidin, S. (2008). Audit delay of listed companies: A case of Malaysia. *International Business Research*, 1, 32–39.
- Chen, H., Chen, J. Z., Lobo, G. J., & Wang, Y. (2011). Effects of audit quality on earnings management and cost of equity capital: Evidence from China. *Contemporary Accounting Research*, 28, 892–925. <http://dx.doi.org/10.1111/care.2011.28.issue-3>
- Chen, Y., Hsu, Y., Huang, M., & Yang, P. (2013). Quality, size and performance of Audi firms. *The International Journal of Business and Finance Research*, 7, 89–105.
- Clinch, G., Stokes, D. J., & Zhu, T. (2010). Audit quality and information asymmetry between traders.
- Cohen, S., & Leventis, S. (2013). Effects of municipal, auditing and political factors on audit delay. *Accounting Forum*, 37, 40–53. <http://dx.doi.org/10.1016/j.accfor.2012.04.002>
- DeAngelo, L. E. (1981). Auditor size and audit quality. *Journal of Accounting and Economics*, 3, 183–199. [http://dx.doi.org/10.1016/0165-4101\(81\)90002-1](http://dx.doi.org/10.1016/0165-4101(81)90002-1)
- Debrency, R., Gray, G., & Rahman, A. (2002). The determinant of Internet financial reporting. *Journal of accounting and Public Policy*, 21, 371–394.
- DeFond, M. L., & Lennox, C. S. (2011). The effect of SOX on small auditor exits and audit quality. *Journal of Accounting and Economics*, 52, 21–40. <http://dx.doi.org/10.1016/j.jaccoco.2011.03.002>
- Eng, L. L., & Mak, Y. T. (2003). Corporate governance and voluntary disclosure. *Journal of Accounting and Public Policy*, 22, 325–345. [http://dx.doi.org/10.1016/S0278-4254\(03\)00037-1](http://dx.doi.org/10.1016/S0278-4254(03)00037-1)
- Ezat, A., & El-Masry, A. (2008). The impact of corporate governance on the timeliness of corporate internet reporting by Egyptian listed companies. *Managerial finance*, 34, 848–1667.
- Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics*, 26, 301–325.
- Francis, J. R. (2004). What do we know about audit quality? *The British Accounting Review*, 36, 345–368. <http://dx.doi.org/10.1016/j.bar.2004.09.003>
- Francis, J. R., & Yu, M. D. (2009). Big 4 office size and audit quality. *The Accounting Review*, 84, 1521–1552. <http://dx.doi.org/10.2308/accr.2009.84.5.1521>
- Gana, M. R., & Krichen, A. L. (2013). Board characteristics and external audit quality: Complementary or substitute mechanisms? The Belgium case. *International Journal of Management Sciences and Business Research*, 2, 68–74.
- Gul, F. A., & Leung, S. (2004). Board leadership, outside directors' expertise and voluntary corporate disclosures. *Journal of Accounting and Public Policy*, 23, 351–379. <http://dx.doi.org/10.1016/j.jaccpubpol.2004.07.001>
- Gunny, K. A., & Zhang, T. C. (2013). PCAOB inspection reports and audit quality. *Journal of Accounting and Public Policy*, 32, 136–160. <http://dx.doi.org/10.1016/j.jaccpubpol.2012.11.002>
- Habib, A., & Bhuiyan, B. (2011). Audit firm industry specialization and the audit report lag. *Journal of International Accounting, Auditing and Taxation*, 20, 32–44. <http://dx.doi.org/10.1016/j.intaccaudtax.2010.12.004>
- Hakim, F., & Omri, A. (2010). Quality of the external auditor, information asymmetry, and bid-ask spread. *International Journal of Accounting and Information Management*, 18, 5–18. <http://dx.doi.org/10.1108/18347641011023243>
- Haniffa, R. M., & Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations. *Abacus*, 38, 317–349. <http://dx.doi.org/10.1111/abac.2002.38.issue-3>
- Jackson, A. B., Moldrich, M., & Roebuck, P. (2008). Mandatory audit firm rotation and audit quality. *Managerial Auditing Journal*, 23, 420–437. <http://dx.doi.org/10.1108/02686900810875271>

- Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance*, 48, 831–880.  
<http://dx.doi.org/10.1111/j.1540-6261.1993.tb04022.x>
- Jensen, M. C., & Meckling, W. (1976). Theory of the firm: Managerial behavior. *Agency Costs and Ownership Structure*, *Journal of Financial Economics*, 3, 305–360.
- Johari, N., Saleh, N., Jaffer, R., & Hassan, M. (2008). The influence of board independence, competency and ownership on earnings management in Malaysia. *International Journal of Economics and Management*, 2, 281–306.
- Kachouri Ben Saad, M., & Jarboui, A. (2015). Does corporate governance affect financial communication transparency? Empirical evidence in the Tunisian context. *Cogent Economics and Finance*, 3, 132–142.
- Kanagaretnam, K., Krishnan, G. V., Lobo, G. J., & Mathieu, R. (2011). Audit quality and the market valuation of banks' allowance for loan losses\*. *Accounting Perspectives*, 10, 161–193. <http://dx.doi.org/10.1111/apr.2011.10.issue-3>
- Lajmi, A., & Gana, M. (2011). Director's board characteristics and audit quality: Evidence from Belgium. *Journal of Modern Accounting and Auditing*, 7, 668–679.
- Lee, H.-Y., & Jahng, G.-J. (2008). Determinants of audit report lag: Evidence from Korea—An examination of auditor-related factors. *The Journal of Applied Business Research*, 24, 27–44.
- Li, Y., Stokes, D. J., Taylor, S. L., & Wong, L. (2009). *Audit quality, accounting attributes and the cost of equity capital* (Working Paper). Monash University.
- Manita, R., & Elommal, N. (2010). The quality of audit process: An empirical study with audit committees. *International Journal of Business*, 15, 87–99.
- Mansouri, A., Pirayesh, R., & Salehi, M. (2009). Audit competence and audit quality: Case in emerging economy. *International Journal of Business and Management*, 4, 17–25.
- Marston, C., & Polei, A. (2004). Corporate reporting on the Internet by German companies. *International Journal of Accounting Information Systems*, 5, 285–311.  
<http://dx.doi.org/10.1016/j.accinf.2004.02.009>
- Modugu, P. K., Eragbhe, E., & Ikhatua, O. J. (2012). Determinants of audit delay in Nigerian companies: Empirical evidence. *Research Journal of Finance and Accounting*, 3, 46–54.
- Mohamad-Nor, M. N., Shafie, R., & Wan-Hussin, W. N. (2010). Corporate governance and audit report lag in Malaysia. *Asian Academy of Management Journal of Accounting and Finance*, 6, 57–84.
- Owusu-Ansah, S., & Leventis, S. (2006). Timeliness of corporate annual financial reporting in Greece. *European Accounting Review*, 15, 273–287.  
<http://dx.doi.org/10.1080/09638180500252078>
- Pizzini, M., Lin, S., Vargus, M. E., & Ziegenfuss, D. E. (2011). *The impact of internal audit function quality and contribution on audit delays*. Paper presented at the American Accounting Association Annual Meeting, Denver, CO.
- Sharma, V. D. (2004). Board of directors' characteristics, institutional ownership, and fraud: Evidence from Australia. *Auditing: A Journal of Practice & Theory*, 23, 105–117.
- Singh, M., Mathur, I., & Gleason, K. C. (2004). Governance and performance implications of diversification strategies: Evidence from large U.S. firms. *The Financial Review*, 39, 489–526.  
<http://dx.doi.org/10.1111/fire.2004.39.issue-4>
- Soltani, B. (2002). Timeliness of corporate and audit reports. *The International Journal of Accounting*, 37, 215–246.  
[http://dx.doi.org/10.1016/S0020-7063\(02\)00152-8](http://dx.doi.org/10.1016/S0020-7063(02)00152-8)
- Sudsomboon, S., & Ussahawanitchakit, P. (2009). Professional audit competencies P: The effect on THAI'S CPAs Audit quality, reputation, and success. *Review of Business Research*, 9, 66–85.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*. (5th ed.). Boston, MA: Allyn & Bacon.
- Wan-Hussin, W. N., & Bamahros, H. M. (2013). Do investment in and the sourcing arrangement of the internal audit function affect audit delay? *Journal of Contemporary Accounting and Economics*, 9, 19–32.  
<http://dx.doi.org/10.1016/j.jcae.2012.08.001>
- Watkins, A. L., Hillison, W., & Morecroft, S. E. (2004). Audit quality: A synthesis of theory and empirical evidence. *Journal of Accounting Literature*, 23, 153–193.
- Wirtz, P. (2004). Meilleures pratiques de gouvernance, théorie de la firme et modèle de création de valeur: une appréciation critique des code de bonne conduite [Governance best practices, the firm theory and value creation model: a critical appraisal of the code of conduct]. *Cahier du FARGO*, (1051201).
- Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics*, 40, 185–221.  
[http://dx.doi.org/10.1016/0304-405X\(95\)00844-5](http://dx.doi.org/10.1016/0304-405X(95)00844-5)
- Zureigat, Q. M. (2011). The effect of ownership structure on audit quality: Evidence from Jordan. *International Journal of Business and Social Science*, 2, 38–46.



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