Article

Does Audit Committee Busyness Impact Audit Report Lag?

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Abstract: We investigate the effects of both the busyness of audit committee (AC) members and the busyness of audit committee chairs on audit report lag (ARL) among Saudi non-financial firms between 2018 and 2021. In this study, a sample comprising a total of 515 firm-year observations from 140 non-financial firms was used. Measures for the busyness of the AC members and AC chairs, as well as a measure for the ARL, were derived from the previous literature to examine these relationships in Saudi Arabia. Our findings, based on two regression models and random effect estimates, suggest that both the busyness of AC members and the busyness of the AC chairs have positive and significant effects on the ARL. In addition, robustness checks using a different measurement of ARL as well as tests for fixed effect and pooled ordinary least square (OLS) were conducted, and the results confirm our findings. Finally, our findings can help regulators, policymakers, and auditors improve the timeliness of financial information disclosure by Saudi non-financial firms, and they can be expanded to include Gulf Cooperation Council (GCC) nations.

1. Introduction

Delivering financial information to shareholders and investors is one of the main tasks that any company's management must execute effectively (Al-Ajmi 2008). This information is critical for shareholders and investors to assess the company's performance and make decisions accordingly (Abdillah et al. 2019). Yet, to effectively deliver this information, management must deliver high-quality information, both quantitatively and qualitatively, and one of the most important qualitative aspects of any company's financial information is its timeliness (Carslaw and Kaplan 1991; Ahmed 2003; Ahmad and Kamarudin 2003; Afify 2009; Dong et al. 2018). According to FASB, the timeliness of financial information is defined as "[making] information... available to decision-makers before it loses its capacity to influence decisions" (Abernathy et al. 2014, p. 285); hence, delivering financial information in a timely manner is essential to maintaining its relevance and usefulness (Ng and Tai 1994; Apadore and Noor 2013; Puasa et al. 2014; Chan et al. 2016; Dong et al. 2018; Abdillah et al. 2019), and it has become one of the priorities for investors and regulators, alike (Schmidt and Wilkins 2013; Aldoseri et al. 2021).

Consequently, several studies in the literature have highlighted the significance of timely financial information delivery from different stakeholders' perspectives. For investors, timely financial information helps in reducing any uncertainties about a company's performance (Ashton et al. 1987), obtaining earnings information (Seifzadeh et al. 2021), making better-informed investment decisions (Lee et al. 2008; Doyle and Magilke 2013), and increasing their confidence in capital markets (Mohamad-Nor et al. 2010). Furthermore, financial information timeliness is critical in reducing information asymmetry as valuable and quality information will be available to all investors from the most credible source (Jaggi and Tsui 1999; Mohamad-Nor et al. 2010). Companies that publish timely and accurate information have less information asymmetry (Shiri et al. 2016). This, in return, reduces the likelihood of leaks, rumors, and insider trading (Owusu-Ansah 2000; Lee et al.

2008) and allows for more efficient resource allocation (Ahmed 2003). In addition, for regulators and market authorities, timely financial information increases the efficiency of capital markets and investor confidence, which is why most regulators have provisions and deadlines to ensure that listed companies deliver this information to shareholders on time (Lee et al. 2008; Abdillah et al. 2019). Finally, the timely delivery of financial information benefits companies' stock returns (Al-Ghanem and Hegazy 2011).

Several researchers have attempted to determine the components of the financial information that impact their timeliness (Sultana et al. 2015) and have concluded that the issuance of the audit reports is the primary source that can contribute to the delay in delivering this information (Ahmad and Kamarudin 2003; Afify 2009; Abdillah et al. 2019). Accordingly, audit report lag (ARL) can be defined as the time between a company's fiscal year end date and the audit report's issuance date (Hassan 2016; Salleh et al. 2017; Habib et al. 2019; Ovbiebo 2021). As a result, understanding the factors that influence the ARL has become critical in the literature on financial information quality. These factors are divided into three categories: corporate-specific characteristics, corporate governance characteristics, and auditor and audit engagement characteristics (Habib et al. 2019).

According to earlier studies (e.g., Abernathy et al. 2014; Al-Qublani et al. 2020; Ogoun et al. 2020), audit committee's characteristics are crucial for enhancing audit report timeliness because it is their responsibility for monitoring the company's auditing and financial reporting procedures (Habib et al. 2019). The audit committee's role in monitoring became more important following the 2008 financial crisis (Nguyen 2021). However, the busyness of audit committee members and the AC chair may have an impact on their monitoring ability. The busyness of audit committee members, according to Sharma and Iselin (2012), has a positive effect on financial misstatements. Furthermore, Tanyi and Smith (2015) discovered that the AC chair's busyness has a negative effect on financial reporting quality. According to Elkinawy et al. (2021), the busyness of audit committee members does not cause problems with financial reporting monitoring unless there is a significant workload elsewhere. As a result of the preceding literature, this research study aims to shed light on some of the AC characteristics, specifically the busyness of AC members and the busyness of the AC chair, and how they affect the ARL for Saudi Arabia's non-financial companies. The selection of Saudi Arabia was based on the country's unique qualities. Firstly, in recent years, Saudi Arabia has witnessed the development of non-financial sectors and an increase in both domestic and foreign investment rates (Elneel and AlMulhim 2022), which has increased the demand for timely audit reports. Secondly, non-financial information in emerging markets, such as Saudi Arabia, is frequently limited, and the analysts' forecasts are insufficiently developed, which places a premium on the financial information provided by companies and its timeliness (Aljaaidi et al. 2019; Gamra et al. 2022). Thirdly, the updated Saudi Corporate Governance Code, published in 2017, emphasized the importance of the AC members' roles and provided more guidance on the selection of these members and the committee's chair (Naif and Ali 2019). Fourthly, many busy directors serve on the boards of non-financial firms in the GCC (Eulaiwi et al. 2016); thus, having a significant number of busy members on the audit committee, who also serve on boards of other firms, is more likely in Saudi firms. Finally, the Saudi market is regarded as one of the largest in the Middle East and North Africa (MENA) region (Zureigat 2014); thus, studying the factors influencing ARL in this country will aid in understanding the factors influencing ARL in the GCC region in general. Nevertheless, no prior research has investigated how the busyness of both the AC members and the AC chair can impact the ARL of Saudi non-financial companies. As a result, our research represents an original study that defines these relationships in a unique stock market.

In this study, a hand-collected sample of 515 publicly listed non-financial firm-year observations from Saudi Arabia from 2018 to 2021, representing 140 companies, was used. These data were used to assess whether the busyness of AC members and the busyness of AC chairs had an impact on the ARL of these companies or not. By using the most commonly used definitions of ARL found in the literature to capture the dependent variable

and by conducting a random effect association analysis, our results show that the busyness of AC members and the busyness of AC chairs are both positively and significantly related to the ARL of these companies. This study contributes to filling a gap in the literature by enhancing the understanding of the impact of the busyness of AC members and the busyness of AC chairs on audit report lag, which helps to mitigate agency problems and information asymmetry. This knowledge can be beneficial to stakeholders such as investors, regulators, policymakers, and auditors. In addition, although the models used in this study were primarily developed for Saudi Arabia, the study's findings can be applied to other GCC nations. Furthermore, the findings can be applied to other financial markets where the impacts of the busyness of AC members and the busyness of AC chairs may influence the effectiveness of firms' financial disclosures.

The remainder of the research is organized as follows. The following section presents prior literature on the topic under investigation, followed by the hypotheses' development. The research method is described in Section 3. Then, in Section 4, the findings of the study are reported and discussed. Finally, Section 5 provides the research's conclusions.

2. Prior Literature and Hypotheses Development

2.1. Audit Committee

One of the most significant aspects of corporate governance (CG) is the audit committee (Hundal 2016). This committee is a subcommittee of CG mechanism with a primary responsibility of monitoring the overall financial reporting process of a company along with ensuring its quality and timeliness (Mohamad-Nor et al. 2010; Ogoun et al. 2020). This objective is achieved by ensuring the relevant accounting standards are followed in the preparation of the financial statements (Hundal 2016), working cooperatively with both internal and external auditors to maintain corporate accountability (Akther and Xu 2020), facilitating the work of the external auditors (Aldoseri et al. 2021), mitigating any disagreements between management and the auditors (Hundal 2016), and improving public confidence in the financial reporting process (Aldoseri et al. 2021). In order to practice good corporate governance, companies must have ACs that implement accountability and responsibility principles (Dang and Nguyen 2022). The AC's effectiveness is critical for increasing a company's efficiency and stability (Nguyen 2022a, 2022b). As a result, various regulators around the world advocate for the formation of ACs and have established some guidelines regarding their responsibilities and composition (Bhuiyan and D'Costa 2020). Similarly, the Saudi capital market authority issued new corporate governance regulations in 2017, which include the mandatory formation of ACs (Naif and Ali 2019). According to the new regulations, the AC should be composed of three to five members, with at least one independent member and one specializing in accounting; the chair of the AC should be an independent director (Naif and Ali 2019). Furthermore, one of its primary responsibilities is to ensure the accuracy of the financial information and to report any irregularities in the preparation of the company's financial statements (Naif and Ali 2019). As a consequence, a number of studies have found that the presence of an AC improves the overall quality of the financial reporting process (Afify 2009; Hassan 2016).

2.2. AC Characteristics and ARL

Since the AC is a governance mechanism that is linked to a company's financial reporting process (Aldoseri et al. 2021), the relationship between the AC's characteristics and the ARL became one of the most researched areas in the literature concerned with the quality of companies' financial reporting processes (Bhuiyan and D'Costa 2020). These characteristics range from the composition of the AC, its actions, and the characteristics of its members. Regarding the former, several studies, such as those by Mohamad-Nor et al. (2010), Ika and Ghazali (2012), Puasa et al. (2014), Raweh et al. (2019), Al-Qublani et al. (2020), Ogoun et al. (2020), and Ovbiebo (2021), have studied the influence of the AC's size on the ARL in different countries around the world. Moreover, the impact of AC ownership has been assessed by Mohammed et al. (2018) and Bhuiyan and D'Costa (2020),

while Oussii and Taktak (2018) assessed the effect of the AC's authority. With regards to the characteristics related to the AC's activity, the frequency of AC meetings is the most researched characteristic in this area (Mohamad-Nor et al. 2010; Ika and Ghazali 2012; Puasa et al. 2014; Oussii and Taktak 2018; Raweh et al. 2019; Al-Qublani et al. 2020; Ogoun et al. 2020; Ovbiebo 2021), followed by AC diligence (Hashim and AbdulRahman 2011; Oussii and Taktak 2018).

Nonetheless, the characteristics related to the AC members have been the focus of several research studies as most researchers have hypothesized that this set of characteristics has the biggest influence on financial reporting timeliness. Therefore, in this stream of research studies, Mohamad-Nor et al. (2010), Hashim and AbdulRahman (2011), Nelson and Shukeri (2011), Apadore and Noor (2013), Puasa et al. (2014), Sultana et al. (2015), Salleh et al. (2017), Ogoun et al. (2020), and Ovbiebo (2021) have all analyzed the influence of the financial expertise of the AC members on ARL. Furthermore, Mohamad-Nor et al. (2010), Hashim and AbdulRahman (2011), Ika and Ghazali (2012), Sultana et al. (2015), Raweh et al. (2019), Al-Qublani et al. (2020), Ogoun et al. (2020), and Ovbiebo (2021) have explored the effects of independent members of AC on ARL, and Al-Qublani et al. (2020) examined whether an AC member overlap impacts the ARL of companies in Malaysia, finding that this characteristic had no significant effect on the ARL. Lastly, some studies have focused on the characteristics of the AC chair, such as Schmidt and Wilkins (2013), Ghafran and Yasmin (2018), and Al-Qublani et al. (2020), who have analyzed the influence of the AC chair's financial expertise on ARL, and Ghafran and Yasmin (2018) and Al-Qublani et al. (2020), who have assessed the impact of the AC chair's tenure on the ARL. Moreover, Ghafran and Yasmin (2018) demonstrated that an AC chair overlap improves the financial reporting timeliness in UK companies.

With regard to Saudi Arabia, few studies have attempted to test the impact of different AC characteristics on the ARL. According to Aljaaidi et al. (2019), audit committee independence and meetings have negative impacts on the ARL. These findings contradict the findings of Aldoseri et al. (2021), Ezat et al. (2021), and Gamra et al. (2022) who have discovered that the only characteristic that influences the ARL is financial expertise, while the AC size, independence, and meetings have no impact on the ARL. Moreover, Omer et al. (2020) discovered that merging the risk management and audit committee functions into a single committee had a positive influence on the ARL. Based on the above review, only two studies—conducted in Malaysia and the United Kingdom—attempted to assess the impact of either AC member overlap or AC chair overlap on the ARL (Al-Qublani et al. 2020; Ghafran and Yasmin 2018). However, no previous studies have attempted to assess the influence of the busyness of AC members and the busyness of AC chairs, who also serve on the boards of other companies, on the ARL. Hence, the current study attempts to fill this gap by analyzing the influence of the busyness of AC members and the busyness of AC chairs on the ARL of Saudi non-financial companies.

2.3. Hypotheses Development

2.3.1. Busyness of AC Members and ARL

In this research, agency theory and resource-dependence theory were utilized as the main theoretical frameworks to develop the hypotheses on the relationship between AC members' busyness and the ARL. According to agency theory, managers' and investors' interests are not always aligned (Bhatt and Bhattacharya 2017) because managers, known as agents, might not always act in the best interest of the investors (Ika and Ghazali 2012). Therefore, the agency theory suggests that the presence of strong monitoring mechanisms, such as audit committees, will protect shareholders' interests while also ensuring the quality of companies' financial reporting (Habbash et al. 2013; Al Nasser 2019). Accordingly, the majority of studies on ACs and their characteristics are based on agency theory (Ika and Ghazali 2012) as the effectiveness of these committees will ensure the timeliness of the financial information disclosures. As a result, in utilizing agency theory, it can be deduced that the AC members' busyness will hinder their effectiveness in performing their

monitoring tasks, resulting in longer ARLs (Hundal 2016). Liao and Hsu (2013) found, for example, that firms with AC members also serving on the compensation committees have lower earnings quality. Similarly, Rickling (2014) found that firms with AC members who also served on other committees performed worse in terms of producing high-quality financial statements. The busyness hypothesis (Ghafran et al. 2022) is another name for this argument.

On the contrary, resource-dependence theory proposes that the presence of certain resources for a company, such as audit committees, will help in maximizing the firm's performance by providing timely access to financial information (Frooman 1999). Hence, having multiple directorships will allow AC members and the chair to gain more knowledge and expertise, which, in turn, will help them perform their monitoring tasks more effectively (Hundal 2016; Ghafran et al. 2022). This notion is supported by the findings of Habib and Bhuiyan (2016) and Velte (2017), who found that the overlap of the AC and compensation committee members aided in the production of high-quality financial statements in Australia and Germany, respectively. This is also consistent with the findings of Al Lawati and Hussainey's (2022) study, which found a positive relationship between overlapping AC membership and key audit matters in the auditor's report due to expertise gained from participating in various committees within a company. This is commonly referred to as the reputation hypothesis (Ghafran et al. 2022). As a consequence of this theoretical framework, it is hypothesized that:

H₁. *The busyness of AC members has an impact on the ARL.*

2.3.2. Busyness of AC Chairs and ARL

Previous research has shown that, similar to the busyness of AC members, both agency theory and resource-dependence theory play a role in explaining the influence of AC chair busyness on the quality of the firm's financial reporting. In support of agency theory, Tanyi and Smith (2015) found that companies with busy AC chairs have lower earnings quality than those whose AC chairs do not hold multiple positions. Similarly, Fich and Shivdasani (2006) concluded that overburdened directors negatively impact both company performance and corporate governance. As a result, utilizing agency theory, it can be argued that the busyness of the AC chair will negatively impact the financial reporting quality, leading to longer ARLs (Hundal 2016).

On the other end of the spectrum, a number of research studies have found that AC chairs who hold multiple positions have more expertise and contribute higher earnings quality. Yang and Krishnan (2005) found that directors who serve on multiple committees have greater financial expertise, which translates to higher earnings quality. Moreover, Cook and Wang (2011) found that multiple directorships enhance the AC chair's performance; in other words, multi-firm directors outperform single-firm directors. As a result, based on this theoretical framework, it is hypothesized that:

H₂. *The busyness of the AC chairperson has an impact on the ARL.*

3. Research Method

3.1. Sample Selection

In this study, a sample of 140 non-financial companies listed in the Saudi stock market from 2018 to 2021 was used. Financial institutions were excluded since they are subject to regulations that impose entirely different disclosure practice frameworks (Beretta and Bozzolan 2004; Linsley and Shrives 2006). In addition, the period from 2018 to 2021 was chosen because the non-financial data for this period are available from the Saudi stock exchange. For this sample, both financial and non-financial data were collected. Financial data were collected from the websites of the Wall Street Journal, Argaam, and Yahoo Finance, while non-financial data were collected using the manual collection technique from corporate annual reports.

As shown in Table 1, our sample began with 568 firm-year observations from Saudi non-financial firms. After excluding 53 firm-year observations that did not publish a board report, we obtained a final sample size of 515 firm-year observations from 140 companies.

Table 1. The sample.

No. of Observations Available for Saudi Non-Financial Listed Firms	568
Less:	
Firms with a missing board report	(53)
Total firm-year observations	515

3.2. Dependent Variable

Because the aim of this study was to investigate the association between AC characteristics and the ARL of Saudi companies, we used the definition of the ARL found in the literature (Ashton et al. 1987; Al-Ajmi 2008; Habib 2015; Hassan 2016; Jha and Chen 2015; Shin et al. 2017) as our dependent variable.

3.3. Independent Variables

This study had two independent variables: the busyness of AC members and the busyness of AC chairs. Previous studies (Fich and Shivdasani 2006; Jiraporn et al. 2008) have measured the busyness of directors as a proportion of directors holding outside directorships on board size. In line with these prior studies, we defined AC membership busyness (BusyAC) as the number of AC members who held outside directorships scaled by the total number of AC members (Hundal 2016; Elkinawy et al. 2021). Moreover, our measure of the busyness of the AC chair (BusyACChr) was a dummy variable with a value of 1 if the AC chair had outside directorships, and 0 otherwise. This measurement is consistent with the previous research on the busyness of AC chairs (Tanyi and Smith 2015; Ghafran et al. 2022).

3.4. Control Variables

In this study, we employed ten distinct control variables based on the previous research. Several firm characteristic variables and corporate governance variables were included in this study as control variables because prior research has shown that these variables have an effect on the ARL. Concerning the former, the firm size (FSize), firm profitability (ROE), firm leverage (Lev), audit quality (Big4), and audit opinion (AuditOpin) were controlled (Bamber et al. 1993; Ng and Tai 1994; Owusu-Ansah 2000; Nelson and Shukeri 2011; Knechel and Sharma 2012; Apadore and Noor 2013; Schmidt and Wilkins 2013; Habib 2015; Chan et al. 2016; Hassan 2016; Rusmin and Evans 2017; Shin et al. 2017).

As for the corporate governance variables, we controlled for the board size (BrdSize), board meetings (BrdMeet), AC size (ACSize), AC meeting (ACMeet), and AC financial expert (ACFE) (Mohamad-Nor et al. 2010; Hashim and AbdulRahman 2011; Nelson and Shukeri 2011; Ika and Ghazali 2012; Schmidt and Wilkins 2013; Puasa et al. 2014; Chan et al. 2016; Hassan 2016; Al-Qublani et al. 2020; Ogoun et al. 2020). Table 2 explains the variables' measurements.

Table 2. Variable measurements.

Variable	Measurement
ARL	Number of days from the FYE to ARD
BusyAC	The total number of AC members held outside directorships, scaled by total number of AC members
BusyACChr	A dummy variable that takes a value of 1 if the AC chair has outside directorships and 0 otherwise
AuditOpin	A dummy variable that takes a value of 1 if firm had a qualified audit opinion including going-concern opinion and 0 otherwise
Big4	The dichotomous variable coded as 1 if firm is audited by one of big four audit firms and 0 otherwise
BrdSize	The number of board members
BrdMeet	The number of board meetings held per year
ACSize	The number of audit committee members
ACMeet	The number of AC meetings held per year
ACFE	The percentage of AC financial expert to total number of AC members.
FSize	The natural logarithm of total assets
ROE	Net income divided by total equity
Lev	Total debt to total assets

3.5. Statistical Model and Estimation Method

To examine the hypotheses concerning the impact of the AC members' busyness and the busyness of the AC chair on the ARL, the following regression models were used:

$$ARL_{it} = \beta_0 + \beta_1 BusyAC_{it} + \beta_2 AuditOpin_{it} + \beta_3 Big4_{it} + \beta_4 BrdSize_{it} + \beta_5 BrdMeet_{it} + \beta_6 ACSize_{it}$$
$$+ \beta_7 ACMeet_{it} + \beta_8 ACFE_{it} + \beta_9 FSize_{it} + \beta_{10} ROE_{it} + \beta_{11} Lev_{it} + IND_{it} + Year_{it} + \varepsilon_{it} \quad (1)$$

$$ARL_{it} = \beta_0 + \beta_1 BusyACChr_{it} + \beta_2 AuditOpin_{it} + \beta_3 Big4_{it} + \beta_4 BrdSize_{it}$$
$$+ \beta_5 BrdMeet_{it} + \beta_6 ACSize_{it} + \beta_7 ACMeet_{it} + \beta_8 ACFE_{it} + \beta_9 FSize_{it} + \beta_{10} ROE_{it} \quad (2)$$
$$+ \beta_{11} Lev_{it} + IND_{it} + Year_{it} + \varepsilon_{it}$$

In previous studies, panel data have frequently been estimated using the fixed effect and random effect methods (Nguyen 2021). The Hausman test distinguished between the fixed effect and random effect methods (Park 2010). According to the Hausman test, random effect was the best method for the study models.

4. Results

4.1. Descriptive Statistics

The summary statistics for the variables used in this study are shown in Table 3. The mean and standard deviation (SD) values for the ARL were 73.75 and 21.32 days, respectively, which infers that the companies in our sample published their audit reports after more than two months after their fiscal year-end date, on average. It is also worth noting that the minimum lag was 16 days and the maximum lag was 197 days, which exceeded the allowable limit set by the regulators. At the same time, the mean and SD values of the AC members' busyness were 0.64 and 0.27, respectively, and those for the busyness of the AC chair were 0.94 and 0.24, respectively; which suggests that the majority of the AC members and chairs of the companies in our sample had outside directorship. Moreover, the average size of the AC was 3.48 members, with a minimum of 2 members and a maximum of 5, and the frequency of their meetings ranged from 1 meeting per fiscal year to 31 meetings. Furthermore, the majority of the companies in our sample had AC members with financial expertise and almost half of them were audited by the big four audit firms. Consequently, the large dispersion among the sample companies in terms of the control variables demonstrates the diversity of the sample.

Table 3. Descriptive statistics.

Panel A:					
Variable	**N**	**Mean**	**S. D**	**Minimum**	**Maximum**
ARL	515	73.7495	21.3239	16	197
BusyAC	515	0.6398	0.2751	0	1
BusyACChr	515	0.9379	0.2416	0	1
Control variables					
AuditOpin	515	0.0913	0.2883	0	1
Big4	515	0.4311	0.4957	0	1
BrdSize	515	8.0194	1.5643	3	11
BrdMeet	515	5.4524	2.3587	1	25
ACSize	515	3.4816	0.7065	2	5
ACMeet	515	5.8233	2.4339	1	31
ACFE	515	0.7609	0.2510	0	1
FSize	515	9.3057	0.7602	7.3802	12.3350
ROE	515	0.02797	0.2750	−2.2446	0.7598
Lev	515	0.4960	0.5735	0.0053	6.9225
Panel B:					
Variable	**N**	**Number of 0 (%)**		**Number of 1 (%)**	
BusyACChr	515	32 (6.21%)		483 (93.79%)	
AuditOpin	515	468 (90.87%)		47 (9.13%)	
Big4	515	293 (56.89%)		222 (3.11)	

4.2. Correlation Analysis

Table 4 shows the Pearson correlation matrix. It is evident that there was a positive and significant correlation between the ARL and the busyness of the AC chair, while there was no correlation between the ARL and the busyness of the AC members. Furthermore, was found that the audit opinion, audit quality, board size, AC size, company size, profitability, and leverage all had significant correlations with the ARL. In contrast, board meetings, AC meetings, and AC financial expertise had no significant correlation with the ARL. The results of the audit opinion, audit quality, board size, AC size, company size, profitability, and leverage are consistent with those obtained from Chan et al. (2016), Hassan (2016), Mohamad-Nor et al. (2010), Ng and Tai (1994), Owusu-Ansah (2000), and Knechel and Sharma (2012). At the same time, the results of the board meetings and AC meetings agree with the previous research, including the studies by Gamra et al. (2022) and Aldoseri et al. (2021). However, the results of AC financial expertise are consistent with some studies in the literature, such as that by Nelson and Shukeri (2011), while they contradict the results obtained from other studies, such as those by Ovbiebo (2021) and Aldoseri et al. (2021). All of the variables' coefficients were less than 0.8, and thus, the results are assured to be free of a multicollinearity problem. Furthermore, the variance inflation factors (VIF) were used in the models of this study. According to Table 5, the variables in our models were less than the critical value of 10 proposed by Tabachnick and Fidell (2013). This means that our models were free of a multicollinearity issue.

Table 4. Pearson correlation matrix.

	ARL	BusyAC	BusyACChr	AuditOpin	Big4	BrdSize	BrdMeet	ACSize	ACMeet	ACFE	FSize	ROE	Lev
ARL	1												
BusyAC	0.0288	1											
BusyACChr	0.2243 ***	0.4128 ***	1										
AuditOpin	0.3924 ***	−0.0962**	−0.0022	1									
Big4	−0.2171 ***	0.1440 ***	0.0291	−0.2078 ***	1								
BrdSize	−0.1595 ***	0.1402 ***	0.0650	−0.0385	0.2275 ***	1							
BrdMeet	−0.0583	0.1394 ***	−0.0223	0.0822 *	0.0941 **	0.1305 ***	1						
ACSize	−0.1497 ***	0.0483	−0.0067	−0.0347	0.1616 ***	0.4087 ***	0.1644 ***	1					
ACMeet	−0.0158	0.0868 **	0.0011	0.0757 *	0.0874 **	0.1992 ***	0.2793 ***	0.0824 *	1				
ACFE	0.0138	0.1669 ***	0.0791 *	−0.0304	0.0270	0.1527 ***	−0.0140	0.1064 **	0.0844 *	1			
FSize	−0.3067 ***	0.1687 ***	−0.0431	−0.2052 ***	0.4932 ***	0.5133 ***	0.1756 ***	0.4430 ***	0.1466 ***	0.0533	1		
ROE	−0.3062 ***	−0.0757 *	−0.0587	−0.2850 ***	0.2476 ***	0.1191 ***	−0.0814 *	0.0603	−0.0206	0.0414	0.3706 ***	1	
Lev	0.0804 *	−0.0570	−0.0640	0.0220	−0.0301	−0.0078	0.0073	−0.0330	−0.0165	0.1014 **	−0.0725 *	−0.1053 **	1

Note: *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.10$.

Table 5. Variance inflation factors.

Variable	VIF Model 1	1/VIF Model 1	VIF Model 2	1/VIF Model 2
FSize	1.96	0.511	1.96	0.510
BrdSize	1.50	0.665	1.51	0.661
Big4	1.39	0.721	1.39	0.721
ACSize	1.35	0.740	1.35	0.743
ROE	1.20	0.835	1.18	0.850
AuditOpin	1.16	0.861	1.15	0.870
BrdMeet	1.15	0.866	1.14	0.876
ACMeet	1.13	0.882	1.13	0.882
BusyAC	1.12	0.892		
ACFE	1.08	0.925	1.06	0.947
BusyACChr			1.03	0.967
Lev	1.03	0.967	1.03	0.968
Mean VIF	1.28		1.27	

4.3. Regression Models (Random Effect)

To avoid the bias of omitted variables and erroneous conclusions, we utilized random effect to estimate the association between the busyness of the AC members and AC chairs and the ARL. Table 6 shows the regression findings. As shown in the table, our models can explain 28.25% and 31.42% of the variations in the ARL, respectively. Model 1 examines the impact of the AC members' busyness on the ARL, while Model 2 examines the impact of the AC chairs' busyness on the ARL. To test our hypotheses, we regressed the ARL onto the independent variables iteratively, and the coefficients and t-statistics are shown in the table below. According to the Model 1 regression result in Table 6, the AC members' busyness had a positive impact on the ARL at the 5% significance level. As a result, Hypothesis 1 is supported, which predicted that the busyness of AC members has an impact on the ARL. This finding is consistent with that of Rickling (2014), who discovered that firms with overlapping AC members were less effective at producing high-quality financial statements. Similarly, the results of the regression analysis (Model 2) support our second hypothesis, as the busyness of AC chairs had a positive impact on the ARL at the 5% significance level, which supports the busyness hypothesis. This finding is consistent with that of Tanyi and Smith (2015), who found that the AC chair's busyness had a negative impact on the financial reporting quality. According to the findings of this study, the busyness of AC members and AC chairs leads to longer delays in delivering financial information to companies. Holding outside board seats may reduce the effectiveness of the AC members' and AC chairs' monitoring tasks, resulting in a longer ARL. These findings suggest that the number of directorships held by the AC members and chairs should be limited in order to improve audit report timeliness. Nonetheless, unlike the Pearson correlation analysis, only the audit opinion, profitability, and leverage were discovered to have a significant impact on the ARL.

Table 6. Association between ARL and BusyAC and BusyACChr (random effect).

Dependent Variable (ARL) Model 1		Dependent Variable (ARL) Model 2	
BusyAC	8.2298 **	BusyACChr	11.9672 **
	2.01		2.06
AuditOpin	20.7723 ***	AuditOpin	20.6950 ***
	3.22		3.27
Big4	−2.6262	Big4	−2.8410
	−1.23		−1.34
BrdSize	−0.6776	BrdSize	−0.7646
	−0.80		−0.92
BrdMeet	−0.4377	BrdMeet	−0.4015
	−0.85		−0.80
ACSize	0.0245	ACSize	−0.1778
	0.01		−0.10

Table 6. *Cont.*

Dependent Variable (ARL) Model 1		Dependent Variable (ARL) Model 2	
ACMeet	−0.2847	ACMeet	−0.2516
	−0.77		−0.69
ACFE	−3.6329	ACFE	−3.6962
	−0.73		−0.73
FSize	−3.0084	FSize	−2.1674
	−1.27		−0.97
ROE	−12.0695 ***	ROE	−12.3395 ***
	−2.63		−2.74
Lev	2.2960 **	Lev	2.4662 ***
	2.24		2.65
Constant	99.8381 ***	Constant	87.7176 ***
	4.55		4.23
Industry	Yes	Industry	Yes
Years	Yes	Years	Yes
Wald chi2(22)	68.51	Wald chi2(22)	72.91
Prob > chi2	0.00	Prob > chi2	0.00
R-squared	%28.25	R-squared	%31.42
No. of Obs	515	No. of Obs	515

Note: ** and *** denote significance at 5% and 1%, respectively.

4.4. Additional Analysis

We ran several robustness tests to double-check our findings. First, we applied an alternative measure of audit report lag (ARL2) for Models 1 and 2. ARL2 is the number of log days elapsed between the end date of the fiscal year and the date the audit report was issued (Jaggi and Tsui 1999; Knechel and Sharma 2012). Second, we utilized fixed effects and pooled OLS estimators for Models 1 and 2. Table 7 shows the regression findings for the alternative measure of the dependent variable, and Table 8 shows that the fixed effects and pooled OLS estimators produced similar results. The findings shown in Table 7 are in line with the results obtained from our initial test, as the busyness of the AC members and the AC chairs had a significant impact on the ARL, confirming our two hypotheses and highlighting the robustness of our models. Moreover, the findings from the pooled OLS were more robust than those from the fixed effect, as the R-squared values were higher across all the models. Consequently, the primary conclusion of this research study remains the same when the fixed effects and pooled OLS models are utilized. In conclusion, all of the conducted tests confirm the hypotheses developed in this research study.

Table 7. Regression results (ALR2).

Dependent Variable (ARL2) Model 3		Dependent Variable (ARL2) Model 4	
BusyAC	0.0540 **	BusyACChr	0.1076 **
	2.22		2.06
AuditOpin	0.0834 ***	AuditOpin	0.0855 ***
	3.37		3.55
Big4	−0.0133	Big4	−0.0166
	−0.91		−1.13
BrdSize	−0.0021	BrdSize	−0.0032
	−0.41		−0.65
BrdMeet	−0.0007	BrdMeet	−0.0007
	−0.26		−0.23
ACSize	0.0021	ACSize	0.0007
	0.16		0.06
ACMeet	−0.0011	ACMeet	−0.0009
	−0.59		−0.47
ACFE	−0.0164	ACFE	−0.0217
	−0.54		−0.69
FSize	−0.0282	FSize	−0.0213
	−1.57		−1.31
ROE	−0.0563 **	ROE	−0.0580 **
	−2.34		−2.49

Table 7. Regression results (ALR2).

Dependent Variable (ARL2) Model 3		Dependent Variable (ARL2) Model 4	
Lev	0.0116	Lev	0.0146 **
	1.48		2.02
Constant	2.0599 ***	Constant	1.9478 ***
	11.96		12.07
Industry	Yes	Industry	Yes
Years	Yes	Years	Yes
Wald chi2(22)	65.58	Wald chi2(22)	70.17
Prob > chi2	0.00	Prob > chi2	0.00
R-squared	%22.1	R-squared	%29.5
No. of Obs	515	No. of Obs	515

Note: ** and *** denote significance at 5% and 1%, respectively.

Table 8. Association between ARL and BusyAC and BusyACChr.

Fixed Effect				Pooled OLS			
Dependent Variable (ARL) Model 1		Dependent Variable (ARL) Model 2		Dependent Variable (ARL) Model 1		Dependent Variable (ARL) Model 2	
BusyAC	11.9385 **	BusyACChr	7.2063	BusyAC	7.4977 **	BusyACChr	19.4476 ***
	2.41		1.22		2.14		4.20
AuditOpin	18.6854 ***	AuditOpin	18.1953 ***	AuditOpin	24.3100 ***	AuditOpin	23.8108 ***
	2.67		2.62		4.67		4.67
Big4	−0.5127	Big4	−0.5550	Big4	−2.7498	Big4	−3.0239 *
	−0.15		−0.16		−1.58		−1.75
BrdSize	−1.4421	BrdSize	−1.4814	BrdSize	−0.3262	BrdSize	−0.5587
	−0.72		−0.74		−0.53		−0.92
BrdMeet	0.2501	BrdMeet	0.3058	BrdMeet	−1.0672 **	BrdMeet	−0.9702 **
	0.57		0.71		−2.28		−2.25
ACSize	2.2546	ACSize	1.9321	ACSize	−1.4386	ACSize	−1.5451
	0.79		0.66		−1.06		−1.18
ACMeet	−0.2194	ACMeet	−0.2482	ACMeet	−0.2997	ACMeet	−0.2073
	−0.52		−0.57		−0.90		−0.64
ACFE	−10.0705 *	ACFE	−10.4328 *	ACFE	0.3659	ACFE	0.6758
	−1.72		−1.67		0.09		0.17
FSize	1.2453	FSize	0.2635	FSize	−2.2715	FSize	−1.2922
	0.12		0.03		−1.33		−0.77
ROE	−12.4968 **	ROE	−12.9319 **	ROE	−12.4183 ***	ROE	−12.2836 ***
	−2.19		−2.28		−3.62		−3.62
Lev	1.5961	Lev	1.3295	Lev	2.2622 ***	Lev	2.6454 ***
	0.27		0.21		2.87		2.94
Constant	60.9796	Constant	72.9003	Constant	95.0868 ***	Constant	74.0332 ***
	0.62		0.74		6.18		4.80
Industry	No	Industry	No	Industry	Yes	Industry	Yes
Years	Yes	Years	Yes	Years	Yes	Years	Yes
F (14,361)	4.24	F (14,361)	4.39	F (14,361)	9.24	F (22,492)	10.95
Prob > F	0.00	Prob > F	0.00	Prob > F	0.00	Prob > F	0.00
R-squared	%14.6	R-squared	%14.1	R-squared	%29.2	R-squared	%32.9
Adj R-squared	%−12.2	Adj R-squared	%−11.7	Adj R-squared	%26.1	Adj R-squared	%29.9
No. of Obs	515	No. of Obs	515	No. of Obs	515	No. of Obs	515

Note: *, **, and *** denote significance at 10%, 5%, and 1%, respectively.

5. Conclusions

Using two measures for the ARL, we tested the association between the ARL and the busyness of audit committee members and the busyness of audit committee chairs of Saudi non-financial listed companies during the period of 2018–2021. Our results show that both the busyness of AC members and the busyness of AC chairs have a positive and significant impact on the ARL. Hence, busyness members and busyness chairpersons of AC who also serve on the boards of other firms perform less effectively in their oversight function, resulting in longer ARLs. According to the findings, the busyness of the audit committee members and the busyness of the audit committee chair are important determinants of the ARL.

This research adds to the body of governance and corporate disclosure literature. To the best of our knowledge, this is the first study to look into the impact of AC members' and AC chairs' busyness on ARL. The results contribute to the body of knowledge on corporate disclosure and the timeliness of delivering financial information to stakeholders. The results of this study are beneficial to market regulators, as the results suggest that the busyness of the AC members and AC chairs causes longer delay times in delivering the companies' financial information to investors, which, in turn, impacts the quality and relevance of this information. Therefore, regulators have a further reason to impose limits on multiple directorships of both AC members and chairs of listed firms, not only in Saudi firms but also in GCC firms in general. Moreover, the results of this study may be of interest to policymakers with the authority to appoint audit committee members and chairs to select non-busy persons. Recognizing these relationships also allows auditors to use better strategies when assessing audit committee effectiveness, which improves audit report timeliness (Salehi and Shirazi 2016).

Nevertheless, despite its significant contributions, this study has some limitations. First, in this research, financial companies were excluded from the sample; thus, future studies might gain new insights by examining the factors that impact the ARL of these companies. Moreover, while the results from our models have been shown to be robust, the R^2 values are relatively low; thus, further improvement to our models might help generalize these results. Lastly, this study only examined one characteristic of the AC chair; therefore, future research exploring other characteristics of the AC chairs of non-financial Saudi companies may shed light on other factors that influence the ARLs of these companies.

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