

THE ROLE OF AUDITOR'S GENDER AND AUDIT FIRM SIZE ON THE AUDIT REPORT LAG AND THE ROLE OF KEY AUDIT MATTERS AS A MODERATING VARIABLE

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Abstract

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Due to its potential to impact the timeliness of accounting information used by both internal and external users in their decision-making, audit report lag (ARL) is a significant problem (Mardi et al., 2020). Thus, the study looked at how the size of the audit firm and the gender of the auditor affected the ARL as well as how key audit matters (KAMs) functioned as a moderating factor in Jordanian companies that were listed on the Amman Stock Exchange (ASE). A correlational research strategy was employed in the study. The information gathered between 2016 and 2020 from the 144 Jordanian enterprises mentioned in their published annual financial reports. The findings indicated a substantial inverse link between audit report delays and audit firm size. Furthermore, there exists a negligible but positive correlation between the gender of auditors and the latency of audit reports. This study also discovered that, in relation to audit report latency, KAMs may function as a moderator between audit company size and auditor gender. It is advised that scholars investigate new businesses and employ alternative approaches in the future. Future studies might examine components like the opinion of the auditors and the auditors' remuneration.

Keywords: Audit Report Lag, Audit Firm Size, Auditors' Gender, Key Audit Matters, Jordan

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1. INTRODUCTION

When financial information is released in a timely manner — that is, before an independent auditor submits the audited annual report in comparison to the end of the client's accounting year — all users of

the information are given more confidence (Muhammad, 2020). This allows shareholders to make informed decisions. According to Zhai et al. (2019), external auditors have to ensure that audit reports are submitted on time. Further empirical research is necessary in this regard to determine

which features of audit trails minimize audit lag. Generally speaking, shareholders are curious about how long an audit report takes to complete before being released. It has been discovered that there is a significant correlation between audit opinion, audit firm size, duration, and fees paid to audit firms. Therefore, audit functions are directly related to audit delay. In some way, Shukeri and Islam (2012) said that an auditor cannot release a report prior to the audit's completion.

Regarding the timing of financial reports and data disclosure and delivery to intended users, lag in the auditor's report, also known as audit report lag (ARL), is a characteristic of accounting information. ARL directly affects financial disclosure, and hence, disclosure openness (Lu et al., 2020). Generally speaking, the promptness of financial reporting disclosure determines the quality of accounting information. In fact, the Financial Accounting Standards Board (FASB)¹ identified timeliness as a critical qualitative component of the quality and use of financial information in its Statement of Financial Accounting Concepts No. 8. Timely information is critical for market participants, especially when making investment decisions. For this reason, attempts have been undertaken to increase the timeliness of financial reporting (Adebayo & Adebisi, 2016; Alqaraleh et al., 2020).

Due to the problems posed by the global financial crisis, developing markets have found it extremely important to have timely financial information. A timely audit report is crucial since investors are growing more apprehensive about the security of their investments (Muhammad, 2020). Therefore, the purpose of this study is to investigate the variables influencing Jordan's timely audit reports as a developing nation. Jordan has initiated a broad economic reform program at the national level in an effort to become a developed country. But obstacles have been standing in Jordan's way; one of them is the financial disclosure delays (Shehadeh, 2022; Al Tarawneh et al., 2023).

Many academics have examined the problem of ARL, and have emphasized a number of reasons. For example, Hidayatullah et al. (2020) noted that the timing of the auditor's report was impacted by certain audit process parameters. The size of the audit firm and the risk to the auditor are these specific criteria.

Moreover, key audit matters (KAMs) details could help with the auditing process. However, the demand for KAMs entails more reporting and analysis, which adds to the auditors' workload. Interestingly, the United States (US) Public Company Accounting Oversight Board (PCAOB) issued Standard AS 3101, which requires disclosures on critical audit matters (CAMs), in 2017. Similar to KAMs, CAMs are anticipated to improve the legitimacy and trustworthiness of financial reporting (Rautiainen et al., 2021). They do this by lessening information asymmetry between investors and auditors and by informing investors about the financial reporting conditions of companies (Rautiainen et al., 2021).

According to current research conducted in Jordan and other nations, an auditor's qualities can both lessen the detrimental effects of KAMs and boost investors' trust in the accuracy of financial reports (Al-Haddad & Whittington, 2019; Kharashgah

et al., 2019). Indeed, Awinbugri, and Prince (2019) proposed that the survival and performance of enterprises in knowledge-intensive sectors are significantly impacted by the attributes of auditors. Therefore, as indicated by Sarhan et al. (2019), making good use of an auditor's qualities could lower risks while maintaining the firm's survival and competitiveness, both of which are dependent on how quickly the audit report is produced.

Warrad (2018) noted that the timing and date of the auditor's report in the banking industry in Jordan are influenced by the qualities of the auditors. As a result, the author suggested looking into how an auditor's qualities affect the time and date of the auditor's report in other industries as well. This study will investigate the moderating influence of KAMs in the link between auditor qualities and audit report timeliness in Jordan in an effort to close the gap that has been noted in the literature. Thus, four research questions that are the subject of this study were developed as a result of the specifics of the literature evaluation and the problem statement. as shown below:

RQ1: How auditor's gender is related to audit report lag?

RQ2: How audit firm size is related to audit report lag?

RQ3: To what extent do key audit matters moderate the relationship between the auditor's gender and audit report lag?

RQ4: To what extent do key audit matters moderate the relationship between the audit firm size and audit report lag?

By having the research questions addressed, this study accomplishes four primary research objectives, as follows:

1) to examine the relationship between the auditor's gender and audit report lag;

2) to examine the relationship between audit firm size and audit report lag;

3) to investigate the moderating effects of key audit matters variables on the relationship between auditor's gender and audit report lag;

4) to investigate the moderating effects of key audit matters variables on the relationship between audit firm size and audit report lag.

This article is divided into five sections. Section 1 serves as the backdrop. Section 2 reviews of the relevant literature. Section 3 describes the research methodology. Section 4 presents the results and discusses them. Section 5 concludes the study.

2. LITERATURE REVIEW AND HYPOTHESES DESIGN

2.1. Theoretical background

A survey of the empirical literature on the subject of investigation is presented in this section. As a result, the main constructs covered in this study are audit report latency, auditor gender, audit firm size, and KAMs, as follows.

2.1.1. Audit report lag

According to Rusmin and Evans (2017), there is a definition for the term "delay in the issuance of auditor's report" or "audit report lag" (ARL). The time between the end of the fiscal year and the date on which the auditor's report is signed and

¹ <https://www.fasb.org/standards/concept-statements>

the disclosure made in the annual report to publish and link for users of financial data, including investors and management, was referred to as the “delay” in Durand (2019) and Oradi (2021). Additionally, when companies switch auditors toward the end of the fiscal year, audit delays happen (Defond et al., 2021). Firms typically switch auditors early in the fiscal year for advantageous reasons. On the other side, protracted auditor-client talks or opinion shopping are typically the reasons for switching auditors late in the fiscal year. The audit delay lengthens as a result. It has been discovered that audit-specific events that call for more audit work, as well as the auditor’s business risk associated with the client, have an impact on audit delays. Bhuiyan and D’Costa (2020) have identified net losses, extraordinary items, and qualified audit opinions as among the events. Furthermore, the authors discovered that because financial institutions are subject to strict regulations, audit delays seem to be shorter for large clients. According to a related study by Akhor and Oseghale (2017), financial institutions are releasing audit reports faster.

2.1.2. Auditor’s gender

Diversity in gender within the board and senior management have a significant impact on financial performance enhancement and prevention of manipulation, including innovative accounting techniques and earnings management (Ocak & Özden, 2018). In addition to being more moral and cautious when making financial decisions, women seem to be more risk-averse than males (Abdelfattah et al., 2021). Additionally, women typically take longer to complete audit tasks such as assessing whether financial statements comply with Generally Accepted Accounting Principles (GAAP) or whether they contain information about illicit activity that could lead to a clearly discernible misstatement. Women are more likely to reduce the possibility of financial statement fraud since they are more risk-averse. Social identity theory (SIT) and resource dependency theory can be used to explain gender character and diversity on boards. Ahern and Dittmar (2012) and Adams and Ferreira (2009) presented two studies that used SIT and found a negative correlation between board gender diversity and organizational effectiveness. However, resource dependence theory suggests that there is a positive correlation between organizational success and gender diversity on the board (Ahern & Dittmar, 2012).

2.1.3. Audit firm size

Larger audit firms were generally able to provide higher-quality audit services than their smaller counterparts (Rezaei & Shabani, 2014). This is because larger auditors are less likely to be reliant on the financial health of their clients, and as a result, larger organizations are less likely to give in to client pressure to report financial misstatements (Chen et al., 2018). Pham et al. (2017) also pointed out that large audit companies possess greater resources and technological know-how. Furthermore, compared to auditors employed by smaller audit companies, auditors from larger firms typically possess a higher level of experience, skill, and competency (Sawan &

Alsaqqa, 2013). Additionally, compared to their smaller counterparts, larger auditors are typically more driven to provide high-quality services since maintaining their brand name reputation is crucial (Rezaei & Shabani, 2014), and failures could have a more severe negative impact on that reputation (Lennox & Li, 2020). Nevertheless, rather than the outstanding work of auditors, a broad clientele may also be responsible for the high audit quality in larger audit companies (Abid et al., 2018; Alqaraleh & Nour, 2020).

2.1.4. Key audit matters

Key audit matters become mandatory for financial statement audits for periods ending on or after December 15, 2016, according to the Independent Auditor’s Report, starting in January 2015 (Gold & Heilmann, 2019). This standard contains the duties and recommendations for identifying and notifying KAMs. KAMs are provided in a different section of the auditor’s report, which is dedicated to the audits of full sets of listed entities’ general-purpose financial statements. The KAM section is called “Key audit matters” and, according to Grosu et al. (2020), each KAM is provided under a separate subheading. Examples of KAMs include the valuation of financial instruments, goodwill, and the impact of new accounting standards (Grosu et al., 2020; Abdullatif & Al-Rahahleh, 2020; Suttipun, 2022).

2.1.5. Study theories

Agency theory is related to specific types of agency relationships that exist between shareholders and firm management in the context of corporate governance procedures (Payne & Petrenko, 2019). Accordingly, the real proprietors of the business are the shareholders, who also designate executives to act and make decisions on their behalf (Kanakriyah, 2021). Therefore, in a perfect world, these executives would be owners’ representatives, and their actions would reflect their wishes (Alqaraleh & Nour, 2020). The agency theory of corporate governance mechanisms has been examined from a variety of angles in the dynamic business environment of today. According to Kharuddin and Basioudism (2022), auditors and KAMs are considered the best corporate governance mechanisms because they concentrate on firm management control on behalf of the investors. Given that the frameworks for KAM determination are launched with things communicated or conveyed to the governing parties, it is pertinent to note that the supervision functions of auditors have been demonstrated to affect KAMs (Rainsbury et al., 2023).

2.2. Hypotheses development

This study presents four main research hypotheses. The following are the specifics of their construction.

2.2.1. Auditor’s gender impacts audit report lag

According to reports, having a diverse mix of genders on the board and in upper management improves financial performance and prevents creative accounting techniques like earnings management (Al Azeez et al., 2019). Gul et al. (2011) discovered in

their research that women are more risk-averse, have higher ethical standards and comply with financial norms more than men. When it comes to finishing audit work and assessing whether financial statements are prepared in compliance with GAAP or include materially false statements, women take longer than males. Women tend to be risk-averse and wish to reduce the possibility of financial statement scams. Thus, the following hypothesis will be tested:

H1: There is a significant relationship between auditor's gender and audit report lag.

2.2.2. Audit firm size impacts the audit report lag

Big 4 audit firms are more productive and timelier in their audit work (Hassan, 2016) because they typically have more resources (Cahan & Sun, 2015), better-qualified and qualified people (Rusmin & Evans, 2017), and state-of-the-art audit technology (Tarek et al., 2017). According to their report, Big 4 audit firms' clients seem to be more punctual (Abernathy et al., 2017). Leventis et al. (2005) performed a study on 171 publicly listed companies on the Athens Stock Exchange and found that using reputable international accounting firms shortens the auditing process. Owusu-Ansah and Leventis (2006) discovered that, when comparing similar types of firms, those audited by Big 4 accounting firms had a shorter lead time for final reporting than those audited by local accounting firms. Thus, the following hypothesis is put forth:

H2: There is a significant relationship between audit firm size and audit report lag.

2.2.3. Key audit matters as a moderating variable

Key audit matters disclosure requirements are relatively new (Velte, 2020), hence there isn't much of an impact of KAMs on improving problem ARL. Nonetheless, a similar standard was established in the United Kingdom (UK) in 2013 by the Financial Reporting Council (FRC), which mandates that Big 4 auditors generate more entity-specific audit reports by providing transparent information, such as an account of the likely risks of material misstatement, the distribution of audit resources, and a summary of the audit's scope (Moroney et al., 2021).

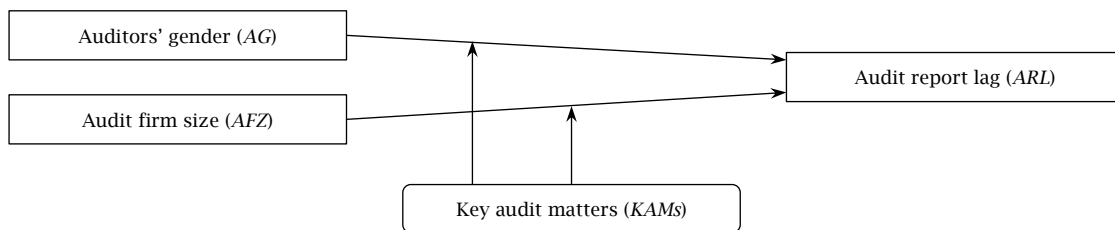
Auditors had both fulfilled and exceeded the new standard's standards, according to a 2015 study on the standard's practical effects published by FRC. According to FRC (2015), organizations had employed several approaches to the extended audit report, and auditors exhibited a high level of proficiency. Additionally, areas for improvement were identified, such as enhancing the level of depth in risk reporting, elucidating the relationship between risk deliberations and materiality, and describing how these risks affected the scope of the audit (Dogan Bozan & Arefaine, 2017). Thus, the following hypotheses as follows:

H3: Key audit matters moderate the relationship between the auditor's gender and audit report lag.

H4: Key audit matters moderate the relationship between audit firm size and audit report lag.

Using the theoretical framework shown in Figure 1, this study examines the moderating impact of KAMs on the gender of the auditor and the size of the audit firm with regard to ARL.

Figure 1. Theoretical framework



3. RESEARCH METHODOLOGY

3.1. Sample

For this investigation, a quantitative approach has been selected. This approach includes gathering data and conducting different analyses at different stages. This study has opted for a quantitative technique due to its suitability in answering the research questions. The study sample included all ASE-listed (Amman Stock Exchange) firms in Jordan, excluding banks because of their unique private law regulations. A total of 168 businesses were determined to meet the study's requirements; however, 24 of these businesses had to be disqualified since they were too young — listing in 2016, 2015, and 2020 — and lacked the necessary data, namely continuous data from 2016 to 2020. The final figure was, therefore, 144. Table 1 displays the details.

Table 1. Sampling frame

	No. of companies
Total companies listed on ASE as of December 31, 2020, except banks	168
Number of new companies listed in 2020	3
Number of new companies listed in 2019	7
Number of new companies listed in 2018	3
Number of new companies listed in 2017	5
Number of new companies listed in 2016	6
Sample	144

3.2. Measurement of the variables

The operational definitions of each study variable, including the independent, dependent, and moderating factors, are provided in this section as follows:

- Audit report lag (ARL): The number of days from December 31, to the release of the audit report served as the study's dependent variable (Abid & Wajar, 2020; Thuneibat et al., 2022).

- Audit firm size (*AFZ*): The dichotomy variable was used in this study in audit firm size measurement. Here, a score of 1 was assigned to companies audited by Big 4 audit firms, while a score of 0 was assigned if otherwise. Notably, past studies have employed audit firm size in forming corporate governance quality measures (Shan et al., 2019).

- Auditor gender (*AG*): A score of 1 was awarded if the signing auditor is female, and 0 if the signing auditor is male (Ocak & Özden, 2018).

- Key audit matters (*KAMs*): Due to the fact that the International Audit Standard No. 701 is a relatively new norm that went into force on December 15, 2016, the need for *KAMs* is still being studied. Therefore, in the framework of this study, *KAMs* were quantified using the independent auditor's report, with an emphasis on the quantity and nature of issues categorized as *KAMs* that may have an impact on investors' capital on the financial statements (Abu & Jaffar, 2020).

4. RESULTS AND DISCUSSION

4.1. Descriptive statistics

STATA 16's statistical analysis software was used to conduct the analysis. Table 2 presents descriptive statistics of continuous and dichotomous variables, including mean, standard deviation, minimum, maximum, and mean for the model sample. This is an attempt to explain and interpret the findings of the independent variables' descriptive statistics. Additionally, the dependent variable is displayed in the table. Multiple regression analysis was used to evaluate and talk about the findings from descriptive statistics. The table that follows displays the outcome of the descriptive statistics.

Table 2. Summary of descriptive statistics (N = 144)

Variable	Obs.	Mean	SD	Min	Max
<i>ARL</i>	720	60.75042	19.75848	12	223
<i>AFZ</i>	720	0.12777	0.33407	0	1
<i>AG</i>	720	0.02777	0.16444	0	1
<i>KAMs</i>	720	1.90972	1.09184	0	8

$$ARL_{it} = \beta_0 + \beta_1 AFZ_{it} + \beta_2 AG_{it} + \varepsilon_{it} \quad (1)$$

It is evident from Table 2 above that the variables included in the model were involved in the descriptive statistics result. The mean, standard deviation, minimum, and maximum of the descriptive statistics have been considered. Table 2 shows a limited variation in the *ARL* in the sample companies. The mean value of the *ARL* is 60.75042, with a minimum value of 12 and a maximum value of 223. Additionally, the descriptive result for *AFZ* showed that the mean value was 0.12777, with 0 serving as the minimum and 1 serving as the maximum. The mean descriptive value for *AG* is 0.27777, whereas the minimum and maximum values are 0.1, correspondingly. According to Table 2, the moderating variable for *KAMs* has a mean value of 1.09184, with matching minimum and maximum values of 0 and 8, respectively.

4.2. Linear regression analysis

This section discusses the *ARL* and the results of the linear regression analysis that was presented

to illustrate the link between the research variables. The dependent variables are *ARL*, *AFZ*, and *AG*. The detailed analysis result is displayed in Table 3 below. The R^2 (R-square) coefficient was used in this study as an indication to provide the linear regression analysis hypothesis model. Additionally, the R^2 showed how the dependent variable differs from the independent variables that characterize it. Additionally, if R^2 equals 1, it suggests that the dependent and independent variables in the study have a strong linear relationship. Furthermore, if R^2 is equal to 0, it indicates that the dependent and independent variables do not have a linear relationship. The level of difference in the dependent variable as it is stated in the research model is thus displayed by the value or unit under R^2 .

As can be seen from Table 3, the model's R^2 value is 0.4187. This indicates that 41.87% of the variation in the dependent variable is explained by the model. This is seen as a satisfactory outcome. According to Tabachnick and Fidell (2007), the R^2 value overstates the true population value when there is a limited sample size. R^2 indicates that the differences in the independent variables under investigation account for 41.87% of the variance in the dependent variable. This suggests that the regression equation statistically describes the deviation in the dependent variable. The result in Table 3 also shows that the model is significant ($p < 0.01$), supporting the model's applicability.

The standard beta was employed in the study to test the hypotheses. Standardization requires that, for the contrast of the highest beta value, the values of each distinct variable be transformed to the same scale (while discarding the negative signs). This allows for the comparison of standardized beta coefficients, where a greater coefficient indicates a strong influence of the independent factors on the dependent variable. The variables were shown to be predictors of the dependent variable in the model by the regression coefficient.

Table 3. Regression result of the model fixed effects (*ARL* as the dependent variable)

<i>ARL</i>	Coef.	Std. error	t	P > t
<i>AFZ</i>	15.69249	5.81038	2.70	0.007
<i>AG</i>	1.13221	5.61627	0.20	0.840
_cons	31.05234	15.74065	1.97	0.049
Number of obs. = 720				
Number of groups = 144				
$R^2 = 0.4187$				
Prob > F = 0.0000				

The first independent variable, *AFZ*, has a substantial negative connection with *ARL*, as illustrated by Table 3 above. That runs counter to the suggested *H3*. Overall, the statistical evidence from this study suggests that Big 4 auditors provide audit reports more effectively and on schedule than non-Big 4 auditors (Cohen & Leventis, 2013). However, the results of this study are not supported by certain other investigations (Leventis et al., 2005; Owusu-Ansah & Leventis, 2006). Big 4 accounting firms are thought to have a greater motivation to complete audit work faster in order to preserve their image or brand name.

AG is the study's last independent variable, and it showed a positive but not statistically significant link. This suggests that there probably won't be any delays in releasing the audit report, regardless of

how many women were involved in the audit committee. The results run counter to the suggested *H3*. As a result, it supports the notions of resource dependence and opposes agency. Women are a valuable organizational resource for organizations since they are more likely to finish audit work quickly and effectively. There is support for this study from (Campell & Mínez-Vera, 2008). Due to their tendency toward risk aversion, women auditors are thought to have spent more time than male auditors on audit work in order to reach a resolution.

KAMs is the moderator variable in this moderation analysis. This is being investigated to determine how much the *KAMs* have influenced the relationship between the research independent variables and the *ARL*, which is the primary dependent variable in the study's resected sample. Consequently, there are three primary phases of the multiple regression analysis used in this work (Baron & Kenny, 1986).

The variables under the independent variables of the study were tested in direct relation to the primary dependent variable of the study in order to accomplish the first stage of the study's main aim. In order to ascertain its impact on business audit latency, the *KAMs* moderator variable is then added to the model in the second stage. The *KAMs* moderator is added to the regression equation in the final stage. This regression equation is identical to the first model, but it is different because the intervening variable value was multiplied by the independent variables' beginning value to support the moderating interaction. The study's framework was created using two characteristics, known as the independent variables. Therefore, for determining the absolute values of the variables, an aggregate measure is employed. The moderation analysis uses three stages of hierarchical regression, in accordance with Baron and Kenny (1986). The *ARL* is regressed by the *AG* and *AFZ* in the first regression equation. As indicated in the accompanying table, the regression equations for the first and third steps Model 1 and Model 2 are utilized to compare them in a meaningful way.

Table 4. Regression result of the model fixed effects (*ARL* as the dependent variable with the moderating variable)

<i>ARL</i>	<i>Coef.</i>	<i>Std. error</i>	<i>t</i>	<i>P > t</i>
<i>AFZ</i>	21.865	4.46312	4.90	0.000
<i>AG</i>	22.902	8.44019	2.71	0.007
<i>KAMs</i>	-9.185	7.88687	-1.16	0.245
<i>MAFZ</i>	0.986	0.44901	2.20	0.028
<i>MAG</i>	8.104	3.18571	2.54	0.011
_cons	81.817	18.93256	4.32	0.000
Number of obs. = 720				
Number of groups = 144				
R ² = 0.3473				
Prob > F = 0.0000				

As can be seen from Table 4 above, there is a statistically significant positive correlation between *AFZ* and *ARL*. The regression's value had a strong influence over the audit report's latency. This result confirms that the positive correlation between *AFZ* and *ARL* is moderated by the *H3 KAMs*. As a result, the *H3* is validated. On the *ARL*, the *AG* regression result did, however, show a positive significant impact. The results corroborate

the hypothesis that the *KAMs* moderate the positive correlation between *AG* efficiency and *ARL*. Consequently, the *H4* is validated.

5. CONCLUSION

This study aims to determine how the size of the audit company and the gender of the auditor affect the *ARL*, as well as how *KAMs* function as a moderating factor. These inferences were made in light of the test findings for the two regression models: Examining the findings and implications from Jordanian firms registered on the ASE, which indicate that *AFZ* has a negative and noteworthy association with *ARL*. Additionally, the findings from the Jordanian businesses registered on the ASE showed that *AG* had a negligible but positive link with *ARL*. The study's findings support previous findings made by researchers (Rusmin & Evans, 2017) by demonstrating the positive impact of *AFZ* and *AG* on *ARL* in these organizations.

Our theory that *KAMs* could serve as a moderator between audit firm size and auditor's gender toward *ARL* is supported by the results. By analyzing the relationship between auditor gender, audit firm size, and *ARL* and using *KAMs* as a moderator in a particular Jordanian company listed on the ASE, this study adds to the growing body of literature on auditor gender and audit firm size. It also provides the foundational knowledge required to develop effective policies and support systems for *ARL*.

Further research is required to address the shortcomings of this study. It is advised that scholars investigate new businesses and employ alternative approaches in the future. Future studies might examine components like the opinion of the auditors and the auditors' remuneration. None of those are included in this study. One of the study's many shortcomings is that its conclusions do not apply to Jordan's public sector. The investigator found that there was a lack of information available regarding *KAMs*. The researcher found that there wasn't much research done in Jordan or the surrounding area.

The study's discoveries could emphasize the significance of transparently disclosing *KAMs* and their influence on audits. This could spark debates on the extent of detail in audit reports about *KAMs*, potentially affecting report timelines. Regulatory bodies might show interest in these findings, shaping regulations on audit report timing and *KAM* disclosure. For instance, regulators might contemplate imposing stricter *KAM* disclosure mandates in specific situations prompted by these insights.

It is critical to recognize the limitations of this study on the role of auditor's gender and audit firm size on the *ARL* and the role of *KAMs* as a moderating variable. To begin, the study was limited to a single geographic location and may not be reflective of global trends. Furthermore, the study relied heavily on self-reported namely continuous data from 2016 to 2020. Furthermore, the investigation did not take into consideration other elements that could influence *ARL*, such as the independence and opinion of the external auditor. Future research could go deeper into these elements to provide a more thorough knowledge of the complicated interaction between the characteristics of the external auditor and *ARL*.

REFERENCES

- Abdelfattah, T., Elmahgoub, M., & Elamer, A. A. (2021). Female audit partners and extended audit reporting: UK evidence. *Journal of Business Ethics*, 174, 177-197. <https://doi.org/10.1007/s10551-020-04607-0>
- Abdullatif, M., & Al-Rahahleh, A. S. (2020). Applying a new audit regulation: Reporting key audit matters in Jordan. *International Journal of Auditing*, 24(2), 268-291. <https://doi.org/10.1111/ijau.12192>
- Abed, S., Bataineh, H. T., & Suwaidan, M. S. (2020). Does implementing corporate governance and ownership structure have any impact on audit report lag and management report lag in Jordan. *International Journal of Innovation, Creativity and Change*, 13(10), 702-717. <https://www.researchgate.net/publication/343294772>
- Abernathy, J. L., Barnes, M., Stefaniak, C., & Weisbarth, A. (2017). An international perspective on audit report lag: A synthesis of the literature and opportunities for future research. *International Journal of Auditing*, 21(1), 100-127. <https://doi.org/10.1111/ijau.12083>
- Abid, A., Shaique, M., & Anwar ul Haq, M. (2018). Do Big Four auditors always provide higher audit quality? Evidence from Pakistan. *International Journal of Financial Studies*, 6(2), Article 58. <https://doi.org/10.3390/ijfs6020058>
- Abid, I. D., & Wajar, I. J. (2020). Insights on the components of smart governance for government units in Iraq. *International Journal of Innovation, Creativity and Change*, 13(12), 1238-1282. https://www.ijicc.net/images/vol_13/Iss_12/131219_Abid_2020_E_R.pdf
- Abu, N. A., & Jaffar, R. (2020). Audit committee effectiveness and key audit matters. *Asian Journal of Accounting & Governance*, 14, 67-78. <https://doi.org/10.17576/AJAG-2020-14-06>
- Adams, R. B., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 291-309. <https://doi.org/10.1016/j.jfineco.2008.10.007>
- Adebayo, P. A., & Adebisi, W. K. (2016). Effect of firm characteristics on the timeliness of corporate financial reporting: Evidence from Nigerian deposit money banks. *International Journal of Economics, Commerce and Management*, 4(3), 369-381. <https://ijecm.co.uk/wp-content/uploads/2016/03/4323.pdf>
- Ahern, K. R., & Dittmar, A. K. (2012). The changing of the boards: The impact on firm valuation of mandated female board representation. *The Quarterly Journal of Economics*, 127(1), 137-197. <https://doi.org/10.1093/qje/qjr049>
- Akhor, S. O., & Oseghale, E. O. (2017). An empirical investigation of audit committee attributes and financial reporting lag in Nigeria banking sector. *Journal of Accounting and Financial Management*, 3(2), 25-38. <https://www.iiardjournals.org/get/JAFM/VOL.%203%20NO.%202%202017/AN%20EMPIRICAL.pdf>
- Al Azeez, H. A. R., Sukoharsono, E. G., Roekhudin, & Andayani, W. (2019). The impact of board characteristics on earnings management in the international oil and gas corporations. *Academy of Accounting and Financial Studies Journal*, 23(1), 1-26. <https://www.abacademies.org/articles/the-impact-of-board-characteristics-on-earnings-management-in-the-international-oil-and-gas-corporations-7901.html>
- Al Tarawneh, E. M., Alqaraleh, M. H., Ali, B. J. A., & Bani Atta, A. A. (2023). The impact of the efficiency and effectiveness of electronic accounting information systems on the quality of accounting information. *Information Sciences Letters*, 12(3), 1685-1692. <http://doi.org/10.18576/isl/120352>
- Al-Haddad, L., & Whittington, M. (2019). The impact of corporate governance mechanisms on real and accrual earnings management practices: Evidence from Jordan. *Corporate Governance*, 19(6), 1167-1186. <https://doi.org/10.1108/CG-05-2018-0183>
- Alqaraleh, M. H. S., & Nour, A.-N. I. (2020). The impact of the audit committee on the timeliness of the annual financial reports in Jordanian companies listed in the Amman Stock Exchange. *International Journal of Critical Accounting*, 11(4), 287-298. <https://doi.org/10.1504/IJCA.2020.110320>
- Alqaraleh, M. H., Thuneibat, N. S. M., & Nour, A. I. (2020). The factors affecting the adherence of Islamic accounting standards AAOIFI in Jordan. *Journal of Governance & Regulation*, 9(4), 69-75. <https://doi.org/10.22495/jgrv9i4art6>
- Awinbugri, A. E., & Prince, G. (2019). The impact of audit committees' meetings and audit fees on the financial performance of listed banks in Ghana. *International Journal of Research and Innovation in Social Science*, 3(5), 341-346. <https://www.rsisinternational.org/journals/ijriss/Digital-Library/volume-3-issue-5/341-346.pdf>
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Bhuiyan, M. B. U., & D'Costa, M. (2020). Audit committee ownership and audit report lag: Evidence from Australia. *International Journal of Accounting & Information Management*, 28(1), 96-125. <https://doi.org/10.1108/IJAIM-09-2018-0107>
- Cahan, S. F., & Sun, J. (2015). The effect of audit experience on audit fees and audit quality. *Journal of Accounting, Auditing & Finance*, 30(1), 78-100. <https://doi.org/10.1177/0148558X14544503>
- Campbell, K., & Mínguez-Vera, A. (2008). Gender diversity in the boardroom and firm financial performance. *Journal of Business Ethics*, 83(3), 435-451. <https://doi.org/10.1007/s10551-007-9630-y>
- Chen, F., Du, X., Lai, S., & Ma, M. (2018). Does the use of honorific appellations in audit reports connote higher financial misstatement risk? Evidence from China. *Asian Review of Accounting*, 26(2), 154-181. <https://doi.org/10.1108/ARA-08-2017-0128>
- Cohen, S., & Leventis, S. (2013). Effects of municipal, auditing and political factors on audit delay. *Accounting Forum*, 37(1), 40-53. <https://doi.org/10.1016/j.accfor.2012.04.002>
- Defond, M. L., Zhang, F., & Zhang, J. (2021). Auditing research using Chinese data: What's next? *Accounting and Business Research*, 51(6-7), 622-635. <https://doi.org/10.1080/00014788.2020.1746626>
- Dogan Bozan, B., & Arefaine, B. (2017). *The implementation of ISA 701-key audit matters: Empirical evidence on auditors adjustments in the new audit report* [Master's thesis, Uppsala University]. Digitala Vetenskapliga Arkivet. <https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1134640&dsid=714>
- Durand, G. (2019). The determinants of audit report lag: A meta-analysis. *Managerial Auditing Journal*, 34(1), 44-75. <https://doi.org/10.1108/MAJ-06-2017-1572>
- Financial Reporting Council (FRC). (2015). *Extended auditor's reports: A review of experience in the first year*. Financial Reporting Council Limited. <http://www.cafr.ro/uploads/3.%20Extended-auditors-reports-0773.pdf>

- Gold, A., & Heilmann, M. (2019). The consequences of disclosing key audit matters (KAMs): A review of the academic literature. *Maandblad Voor Accountancy en Bedrijfseconomie*, 93(1-2), 5-14. <https://doi.org/10.5117/mab.93.29496>
- Grosu, M., Robu, I.-B., & Istrate, C. (2020). The quality of financial audit missions by reporting the key audit matters. *Audit Financiar*, 18(157), 182-195. http://revista.cafrr.ro/temp/Abstract_EN_9633.pdf
- Gul, F. A., Srinidhi, B., & Ng, A. C. (2011). Does board gender diversity improve the informativeness of stock prices? *Journal of Accounting and Economics*, 51(3), 314-338. <https://doi.org/10.1016/j.jacceco.2011.01.005>
- Hassan, Y. M. (2016). Determinants of audit report lag: Evidence from Palestine. *Journal of Accounting in Emerging Economies*, 6(1), 13-32. <https://doi.org/10.1108/JAEE-05-2013-0024>
- Hidayatullah, A., Andriyanto, W. A., & Julianto, W. (2020). Analysis of factors affecting audit report lag manufacturing company in Indonesia. *International Journal of Sciences: Basic and Applied Research*, 54(1), 85-109. <https://www.gssrr.org/index.php/JournalOfBasicAndApplied/article/view/11675>
- Kanakriyah, R. (2021). The impact of board of directors' characteristics on firm performance: A case study in Jordan. *The Journal of Asian Finance, Economics and Business*, 8(3), 341-350. <https://doi.org/10.13106/jafeb.2021.vol8.no3.0341>
- Kharashgah, K. A., Amran, N. A. B., & Ishak, R. B. (2019). The impact of audit committee characteristics on real earnings management: Evidence from Jordan. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 9(4), 84-97. <http://doi.org/10.6007/IJARAFMS/v9-i4/6699>
- Kharuddin, K. A. M., & Basioudis, I. G. (2022). On the interrelation between corporate governance, audit and earnings quality: A review of the underpinning theories. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 12(3), 626-640. <http://doi.org/10.6007/IJARAFMS/v12-i3/15235>
- Lennox, C., & Li, B. (2020). When are audit firms sued for financial reporting failures and what are the lawsuit outcomes? *Contemporary Accounting Research*, 37(3), 1370-1399. <https://doi.org/10.1111/1911-3846.12571>
- Leventis, S., Weetman, P., & Caramanis, C. (2005). Determinants of audit report lag: Some evidence from the Athens Stock Exchange. *International Journal of Auditing*, 9(1), 45-58. <https://doi.org/10.1111/j.1099-1123.2005.00101.x>
- Lu, S., Xuan, Y., & Zhang, L. (2020). Do abnormal audit report lags signal impending stock price crash? *China Accounting and Finance Review*, 22(4), 79-107. https://www.polyu.edu.hk/af/-/media/department/af/list-of-issues/2020_4_3.pdf?la=en&hash=D014958920B156F36012C421CDBDDEE90
- Mardi, M., Perdana, P. N., Suparno, S., & Munandar, I. A. (2020). Effect of accounting information systems, teamwork, and internal control on financial reporting timeliness. *The Journal of Asian Finance, Economics and Business*, 7(12), 809-818. <https://doi.org/10.13106/jafeb.2020.vol7.no12.809>
- Moroney, R., Phang, S.-Y., & Xiao, X. (2021). When do investors value key audit matters? *European Accounting Review*, 30(1), 63-82. <https://doi.org/10.1080/09638180.2020.1733040>
- Muhammad, M. I. (2020). Effects of auditor attributes on audit reporting lag: Empirical evidence from Nigerian service firms. *Asian Journal of Empirical Research*, 10(4), 127-136. <https://doi.org/10.18488/journal.1007/2020.10.4/1007.4.127.136>
- Ocak, M., & Özden, E. (2018). Signing auditor-specific characteristics and audit report lag: A research from Turkey. *Journal of Applied Business Research*, 34(2), 277-294. <https://doi.org/10.19030/jabr.v34i2.10129>
- Oradi, J. (2021). CEO succession origin, audit report lag, and audit fees: Evidence from Iran. *Journal of International Accounting, Auditing and Taxation*, 45, Article 100414. <https://doi.org/10.1016/j.intaccaudtax.2021.100414>
- Owusu-Ansah, S., & Leventis, S. (2006). Timeliness of corporate annual financial reporting in Greece. *European Accounting Review*, 15(2), 273-287. <https://doi.org/10.1080/09638180500252078>
- Payne, G. T., & Petrenko, O. V. (2019). Agency theory in business and management research. *Oxford Research Encyclopedia of Business and Management*. <https://doi.org/10.1093/acrefore/9780190224851.013.5>
- Pham, N. K., Duong, H. N., Pham, T. Q., & Ho, N. T. T. (2017). Audit firm size, audit fee, audit reputation and audit quality: The case of listed companies in Vietnam. *Asian Journal of Finance & Accounting*, 9(1), 429-447. <https://doi.org/10.5296/ajfa.v9i1.10074>
- Rainsbury, E., Bandara, S., & Perera, A. (2023). Auditors' response to regulators during COVID-19: Disclosures of key audit matters. *Asian Review of Accounting*, 31(1), 42-56. <https://doi.org/10.1108/ARA-04-2022-0106>
- Rautiainen, A., Saastamoinen, J., & Pajunen, K. (2021). Do key audit matters (KAMs) matter? Auditors' perceptions of KAMs and audit quality in Finland. *Managerial Auditing Journal*, 36(3), 386-404. <https://doi.org/10.1108/MAJ-11-2019-2462>
- Rezaei, F., & Shabani, S. (2014). The effect of audit firm size and age on the quality of audit work. *European Online Journal of Natural and Social Sciences*, 3(1), 56-64. <https://european-science.com/eojnss/article/view/317>
- Rusmin, R., & Evans, J. (2017). Audit quality and audit report lag: Case of Indonesian listed companies. *Asian Review of Accounting*, 25(2), 191-210. <https://doi.org/10.1108/ARA-06-2015-0062>
- Sarhan, A. A., Ntim, C. G., & Al-Najjar, B. (2019). Antecedents of audit quality in MENA countries: The effect of firm- and country-level governance quality. *Journal of International Accounting, Auditing and Taxation*, 35, 85-107. <https://doi.org/10.1016/j.intaccaudtax.2019.05.003>
- Sawan, N., & Alsaqqa, I. (2013). Audit firm size and quality: Does audit firm size influence audit quality in the Libyan oil industry? *African Journal of Business Management*, 7(3), 213-226. <https://researchonline.ljmu.ac.uk/id/eprint/5682/1/Sawan%20and%20Alsaqqa.pdf>
- Shan, Y. G., Troshani, I., & Tarca, A. (2019). Managerial ownership, audit firm size, and audit fees: Australian evidence. *Journal of International Accounting, Auditing and Taxation*, 35, 18-36. <https://doi.org/10.1016/j.intaccaudtax.2019.05.002>
- Shehadeh, E. (2022). A movement towards the accrual based IPSAS implementation in developing countries: Evidence from Jordan. *The Journal of Asian Finance, Economics and Business*, 9(3), 389-397. <https://doi.org/10.13106/jafeb.2022.vol9.no3.0389>
- Shukeri, S. N., & Islam, M. A. (2012). The determinants of audit timeliness: Evidence from Malaysia. *Journal of Applied Sciences Research*, 8(7), 3314-3322. <http://dspace.unimap.edu.my/bitstream/handle/123456789/31740/The%20determinants%20of%20audit%20timeliness-%20Evidence%20from%20Malaysia.pdf?sequence=1&isAllowed=y>

- Suttipun, M. (2022). External auditor and KAMs reporting in alternative capital market of Thailand. *Meditari Accountancy Research*, 30(1), 74-93. <https://doi.org/10.1108/MEDAR-04-2020-0850>
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Pearson. <https://www.pearsonhighered.com/assets/preface/0/1/3/4/0134790545.pdf>
- Tarek, M., Mohamed, E. K. A., Hussain, M. M., & Basuony, M. A. K. (2017). The implication of information technology on the audit profession in developing country: Extent of use and perceived importance. *International Journal of Accounting & Information Management*, 25(2), 237-255. <https://doi.org/10.1108/IJAIM-03-2016-0022>
- Thuneibat, N., Ali, B., Alqaraleh, M., & Thneibat, H. (2022). The mediating role of innovation on the relationship between information technologies and reducing tax evasion. *Information Sciences Letters*, 11(5), 1359-1370. <http://doi.org/10.18576/isl/110505>
- Velte, P. (2020). Associations between the financial and industry expertise of audit committee members and key audit matters within related audit reports. *Journal of Applied Accounting Research*, 21(1), 185-200. <https://doi.org/10.1108/JAAR-10-2018-0163>
- Warrad, L. H. (2018). The extent to which the corporate governance characteristics has affected the audit report lag in Jordanian banks. *International Journal of Business and Management*, 13(12), 81-92. <https://doi.org/10.5539/ijbm.v13n12p81>
- Zaman, R., Farooq, M. B., Khalid, F., & Mahmood, Z. (2021). Examining the extent of and determinants for sustainability assurance quality: The role of audit committees. *Business Strategy and the Environment*, 30(7), 2887-2906. <https://doi.org/10.1002/bse.2777>
- Zhai, Y., Chen, K., Zhou, J. X., Cao, J., Lyu, Z., Jin, X., Shen G. Q. P., Lu, W., & Huang, G. Q. (2019). An Internet of Things-enabled BIM platform for modular integrated construction: A case study in Hong Kong. *Advanced Engineering Informatics*, 42, Article 100997. <https://doi.org/10.1016/j.aei.2019.100997>