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The Effect of Managerial Ability on the Timeliness of Financial Reporting: The Role of Audit Firm and Company Size

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Abstract: Effective decision-making relies on access to timely and accurate information, which is widely regarded as a valuable asset in the capital market. Accounting information is no exception, and it is critical for managers to provide such information promptly to advance their firms' economic activities. This study investigates the relationship between managers' ability and the timeliness of financial reporting, testing three research hypotheses through linear regression analysis. The statistical population comprises 115 firms listed on the Tehran Stock Exchange between 2012 and 2021, with 1150 firm-year observations. The delay in the auditor's report serves as a proxy for financial reporting timeliness. Managers' abilities are measured using Demerjian et al.'s model [1]. The findings reveal a significant, positive relationship between managerial ability and the timeliness of financial reporting, indicating that higher managerial ability is associated with lower financial reporting delay. Additionally, the results suggest that the relationship between managerial ability and financial reporting timeliness is moderated by the size of the auditing firm and the firm itself.

Keywords: Managerial ability; Timeliness; Financial reporting

1 Introduction

The objective of this study is to investigate whether managers' ability impacts the timeliness of financial reporting. The timeliness of financial reports is a topic that has been receiving increasing attention from regulators, standard setters, and academics [1, 2]. The US Securities and Exchange Commission (SEC) has set deadlines for various corporate filings, including periodic accounting reports [3]. The Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) also emphasize the importance of timely financial reporting, considering it a primary characteristic of relevant financial information. Additionally, empirical study has long emphasized the significance of timely financial reporting.

While previous study has studied various economic and auditor characteristics related to the timeliness of financial reporting [4–6], the influence of management characteristics, such as human capital, has not been thoroughly examined. This lack of evidence regarding managers' impact on financial reporting and auditing has been highlighted since the implementation of laws such as the Sarbanes-Oxley Act. Therefore, this study uses a management ability measure introduced by Demerjian et al. [1] to investigate the relationship between managers' ability and the timeliness of financial reporting. We hypothesize that managers' abilities affect the timeliness of financial reporting. The audit report lag (ARL) measures how efficiently management facilitates the audit process and negotiates with auditors. Abernathy et al. [7] suggest that ARL is shorter when managers are more capable.

Given the significance of timely financial reporting for investors, regulators, and researchers, this study can have a substantial impact. Managers' ability to disclose confirmed financial information to the market earlier plays a crucial role in reducing information asymmetry. As emphasized by Abernathy et al. [4], capital markets in emerging economies must provide audited financial statements. Our findings suggest that managerial ability is related to timely financial information, which is beneficial for auditors, boards, investors, and regulators.

The results of this study contribute to the literature on management ability by highlighting that managers' ability to report timely financial information about companies is a crucial aspect of decision usefulness. Demerjian et al. [1]

quantify managers' ability empirically with a metric that has generated an emerging field of research examining how managers' ability influences accounting and disclosure practices. Improving financial reporting timeliness can help reduce information asymmetry and benefit shareholders.

2 Literature and Hypothesis Development

2.1 Managers' Ability and Timeliness of Financial Reporting

According to Kor [8], managerial ability is derived from a manager's knowledge, experiences, and skills, including their understanding of markets, corporate strategies, and technology. The power of managers and their effect on financial and non-financial indicators has become a popular research area in recent years. Timely information is critical in making economic decisions and financial forecasts, and it is considered one of the main components of an efficient capital market. Financial reports indicate that the time value of information significantly influences users' financial and economic decisions. Therefore, managers who can manage resources effectively are more likely to achieve their goals, including the timely release of financial statements [1].

Timely information must be available to decision-makers before it loses its ability to influence decisions. Accounting research suggests that financial information should be available at the right time as the availability of timely information is a significant factor in influencing decision-makers' decisions and expected returns. Delayed earnings announcements have been found to have a positive association with lower abnormal returns [9–11]. Timely financial information improves financial statements by reducing asymmetric releases of financial information [12].

Abernathy et al. [13] point out that accounting information disclosure is done in several steps. Many companies publish their earnings before the audit report date, and the audit report confirms the management profit's publication [14]. Managers' abilities are expected to play a significant role at each stage; executives with a more extraordinary capability of handling resources efficiently are more likely to achieve their goals, including financial reporting timeliness.

While previous research has identified audit reporting lag (ARL) as the significant financial reporting timeliness determinant, the relationship between managerial ability and ARL in the capital market has not been investigated [6]. An auditing and financial reporting process is facilitated by management. Managers with high managerial ability are expected to have a shorter ARL since they are more knowledgeable about the firm and the industry. Consequently, a shorter ARL can be achieved because the information can be verified more quickly, enabling better financial reporting and auditing due to more capable managers. The audit process is facilitated by facilitating communication between the auditor and management. By reducing ARL, the managerial ability is believed to minimize time spent discussing, understanding, and evaluating effective accounting procedures with the auditor [15]. According to Krishnan and Wang [16], audit engagement risk is lower for clients with higher managerial abilities than those with lower managerial abilities.

Therefore, the role of business unit managers in management ability and financial reporting is significant [17]. It is important to measure the accuracy and efficiency of an organization's audited financial statements using the ARL since it is an objective and publicly available metric.

H1: There is a positive and significant relationship between managerial ability and financial reporting timeliness (according to the audit report delay criterion).

2.2 Managers' Ability and Timeliness of Financial Reporting

According to Uygur [18], larger companies face various political costs and must perform properly due to their attractiveness to investors. However, larger companies have lower disclosure quality than small companies, despite their highly competitive power. The CEO of a company knows that the market evaluates their capabilities through the company's characteristics, such as performance, investment success, or decisions related to research and development policies. Numerous studies have shown a significant relationship between the ability of company managers and their company's performance [19–21]. Executives with high ability are expected to bring better company performance to their shareholders.

Ting et al. [22] argue that the ability of managers to create, develop, and achieve company success is important, measured by efficiency, investment decisions, compensation, and overall performance. Therefore, companies seek to hire managers with high ability. Firm size significantly affects managers' perceptions of production flexibility and market requirements [23]. Capable managers can simplify the financial reporting and auditing process effectively. Hence, the company's size is expected to affect the relationship between managers' ability and their timely financial reporting. Large companies are more likely to hire higher-ability managers than small ones.

Therefore, it is hypothesized that company size affects the relationship between managers' ability and financial reporting timeliness.

H2: Company size affects the relationship between managers' ability and financial reporting timeliness.

2.3 Audit Firm Size and Managers' Ability on Timely Financial Reporting

It has been shown that delaying the audit report can have a negative impact on capital market transactions and the company's value, as it reduces the quality and timely availability of financial information [24, 25]. Timely financial reporting is considered critical in reducing the misuse of a company's information by insiders in developing countries' capital markets [26]. Providing timely information enables investors to analyze it correctly and make logical and predictable investments, leading to improved decision-making and reduced uncertainty, ultimately positively affecting the company's value and the market.

The timeliness of the audit process is essential in ensuring timely financial reporting [26]. Companies must pay attention to the audit process for their financial statements to be timely. The annual audit duration is the most crucial factor determining companies' timely presentation of financial reports [27]. Audit report delay refers to the number of days between the end of the company's financial year and the date of presentation of the independent auditor's report [28].

Significant and reliable audit institutions are equipped to complete the audit process with higher efficiency, effectiveness, and speed, due to their ability to employ and hire expert staff [29–31]. These auditing institutions can perform audits effectively and efficiently using superior and advanced auditing technologies and have more flexibility in implementing their audit program. Large audit institutions usually use professional and highly experienced audit staff, who spend less time identifying their clients' financial systems and the complexity of information processing systems, which will not lead to a delay in submitting the audit report. Therefore, the negative relationship between the size of the audit firm and the delay in the audit report is considered a symbol of the timeliness of financial reporting.

However, some argue that large audit institutions act more cautiously and carefully to maintain their credibility and reputation and use more extensive audit procedures, which can increase the audit work time and, as a result, increase the delay of the audit report. Thus, there may be a positive relationship between the size and credibility of the auditing firm and audit delay [32–34].

In light of the above, it can be concluded that managers with high ability seek timely financial reporting and may choose to engage large auditing firms to achieve this goal by utilizing the professional team of such firms. Hence, the following hypothesis is proposed:

H3: The size of the audit firm affects the relationship between managers' ability and the timeliness of financial reporting.

3 Methodology

3.1 Population

For a period of 10 years (2012-2021), the statistical sample for this study includes companies listed on the Tehran Stock Exchange that meet the following criteria:

- Have maintained consistency in their financial year leading up to 29/12 to increase comparability.
- Have not changed their activity or financial year during the study period.
- Engage in production activities, with financial institutions, investments, and banks excluded from the sample.

Overall, there are 115 companies that meet these criteria, providing a sample size of 1150 observations for the study.

3.2 Research Models

To test the first hypothesis, the following model is used:

$$TIMELINESS = \beta_0 + \beta_1 MABILITY_{\text{it}} + \beta CONTROLS\text{it} + \varepsilon_{\text{it}} \tag{1}$$

Based on the results of the first hypothesis, the second hypothesis is tested using the following model:

$$TIMELINESS_{\text{it}} = \beta_0 + \beta_1 MABILITY_{\text{it}} + \beta_2 CSIZE_{\text{it}} + \beta_3 MABILITY^{*} CSIZE_{\text{it}} + \beta_j CONTROLS_{\text{it}} + \varepsilon_{\text{it}} \tag{2}$$

To test the third hypothesis, the following model is used:

$$TIMELINESS_{\text{it}} = \beta_0 + \beta_1 MABILITY_{\text{it}} + \beta_2 AFSIZE_{\text{it}} + \beta_3 MABILITY^{*} AFSIZE_{\text{it}} + \beta_j CONTROLS_{\text{it}} + \varepsilon_{\text{it}} \tag{3}$$

In current models

3.2.1 Dependent variable

Timeliness of financial reporting (Timeliness): The ARL (audit report lag) criterion is used as a measure of this variable. ARL is calculated as the number of days between the end of the company's financial year and the date of the independent auditor's report. The lower the ARL, the more timely the financial reporting.

3.2.2 Independent variable

Imeni et al. [35].

3.2.3 Moderator variable

Company size (CSIZE): This variable is measured as the natural logarithm of the company's sales value. To control for industry and year effects, a dummy variable is created for each year-industry combination, taking a value of 1 if the company's sales value is above the median for that year-industry and 0 otherwise.

3.2.4 Control variables

Profitability (ROA): This variable measures the company's ability to generate profits from its assets and is calculated as the ratio of net income to total assets.

Company loss (LOSS): This is a binary variable that takes a value of 1 if the company has a loss in a financial year, and 0 otherwise. It is used to control for the effect of loss-making companies on the relationship between managerial ability and the timeliness of financial reporting.

Leverage (LEV): This variable is measured as the ratio of total liabilities to total assets and provides an indication of the company's financial leverage and risk [36].

Inherent risk (Inherent): This variable measures the company's risk exposure due to its current assets and is calculated as the ratio of total accounts receivable and inventory to total assets.

Audit Fee (AUFEE): This variable measures the audit fee charged by the independent auditor as a percentage of the company's total assets.

Internal controls weakness (IC WEAKNESS): This variable is a binary variable that takes a value of 1 if the company discloses weaknesses in its internal controls, and 0 otherwise.

Restatement of Financial Statements (MISTATE): This variable is a binary variable that takes a value of 1 if the company has restated its financial statements, and 0 otherwise. It is used to control for the effect of financial reporting errors on the relationship between managerial ability and the timeliness of financial reporting [14].

4 Findings

4.1 Descriptive Statistics of Data

In descriptive statistics, the status of data is often summarized using central tendency measures. Table 1 provides the following summary statistics for the data:

Table 1. Descriptive statistics results

Variable name	Symbols	Mean	Median	Max	Min
Managers ability	MA	0.012	0.007	0.211	-0.081
Timeliness of financial reporting	Timeliness	75.61	74.5	151	30
profitability					
Inherent risk	ROA	0.105	0.090	0.63	-0.79
Leverage	AFEE	0.082	0.028	2.124	0.000

Results of the frequency of dummy variables									
LOSS		IC		MISTATE		BIG		SIZE	
0	1	0	1	0	1	0	1	0	1
885	265	954	196	644	506	437	713	564	586
0.77	0.23	0.83	0.17	0.56	0.44	0.38	0.62	0.49	0.51

Based on the results of Table 1, it can be concluded that:

(1): The average delay in financial reporting is 74 days, indicating that, on average, companies take 74 days to prepare their financial statements and have them audited.

(2): The average leverage ratio is 65%, suggesting that companies tend to rely heavily on debt financing to fund their operations. The highest leverage ratio is observed for Farabi Petrochemical Company in 2017.

(3): The average sales growth rate for companies is approximately 14%, indicating that, on average, companies are experiencing moderate growth in their sales.

(4): The average operating cash flow ratio to the company's total assets is around 11%, indicating that companies have a moderate level of operating cash flow in relation to their total assets.

(5): The average growth rate of companies' assets is approximately 30%, suggesting that companies are experiencing relatively high growth in their assets.

(6): Approximately 13% of the companies had weak internal controls, indicating that there is room for improvement in the companies' internal control systems.

(7): Approximately 23% of the companies had an average loss for the financial year, suggesting that a significant portion of the companies are not generating profits from their operations.

4.2 The Results of the First Hypothesis Test

Linear regression was used to test the first hypothesis of the research. The results are presented in Table 2:

Table 2. Results of the first hypothesis test based on panel data with fixed effects

Symbols	Coeff.	Std.	T-stat.
MA	0.4588	0.2063	2.2239
ROA	-0.3151	1.0341	-0.3047
LOSS	0.2185	0.1372	1.5925
Inherent	0.5416	0.2132	2.5403
AUFEE	0.4420	0.1241	3.5616
ICW	0.0548	0.1954	0.2804
MISTATE	0.1247	0.2145	0.5813
LEV	-0.2587	0.1254	2.0629
C	0.4514	0.1697	2.6599
F stat.	501050		
Prob.	0.000		
Adi. R-squ.	0.395		

Based on the results presented in Table 2, the F statistic value is 50.05, and its significance level is 0.000, indicating that the research model is statistically significant and has a good fit for the data. This means that the independent variables in the model collectively have a significant effect on the dependent variable, which is the timeliness of financial reporting.

Furthermore, the test results at a significance level of 5% revealed a significant negative relationship between managerial ability and timeliness of financial reporting, which supports the first hypothesis of the research. This suggests that companies with higher managerial ability tend to report their financial information more quickly than those with lower managerial ability.

4.3 The Results of the Second Hypothesis Test

Table 3 shows that the research model is overall statistically significant, with an F statistic value of 48.1119 and a significance level of 0.000. The results of the model test at a significance level of 5% indicate a significant and meaningful relationship between managerial ability, company size, and the interaction effect between these two variables with the timeliness of financial reporting. Specifically, the results suggest that companies with higher managerial ability tend to report their financial information more quickly, but this relationship is weaker for larger companies. Additionally, the results indicate that larger companies tend to report their financial information more slowly.

4.4 The Results of the Third Hypothesis Test

According to the results shown in Table 4, the F statistic value is 53.1515, and its significance level is 0.000, indicating that the research model is overall statistically significant.

The results of the model test at a significance level of 5%, as presented in Table 4, reveal a significant and positive relationship between managerial ability, the size of the auditing firm, and the interactive effect between these two variables with the timeliness of financial reporting.

5 Discussion and Conclusion

Effective resource management by capable executive managers can help achieve timely financial reporting. When managers have confidence in their financial reporting system and possess knowledge about their business environment and industry, they are more motivated to publish financial statements quickly. Additionally, capable managers can handle complex issues efficiently, which can speed up the financial reporting and auditing process. Therefore, the

Table 3. Results of the third hypothesis test based on panel data with fixed effects

Symbols	Coeff.	Std.	T-stat.
MA	0.5771	0.2477	2.3298
CSIZE	4.5588	0.0544	0.2480
MA*CSIZE	0.4040	0.1667	2.4235
ROA	0.1188	0.2569	0.4624
LOSS	0.2622	0.4976	0.5265
Inherent	0.4875	0.2079	2.3448
AUFEE	0.3781	0.1734	2.1805
ICW	0.2279	0.4628	0.4924
MISTATE	0.1717	0.2939	0.5842
LEV	0.6287	0.3077	2.0432
C	0.4004	0.1803	2.2207
F stat.	$48/11$		
Prob.	0.000		
Adi. R-sgu.	0.54		

Table 4. Results of the third hypothesis test based on panel data with fixed effects

Symbols	Coeff.	Std.	T-stat.
MA	0.4547	0.1454	3.1272
AFSIZE	0.3571	0.1546	2.3098
MA*AFSIZE	0.4378	0.1671	2.6199
ROA	-0.1548	0.2411	-0.6420
LOSS	0.3614	0.4554	0.7935
Inherent	0.5488	0.2114	2.5960
AUFEE	0.4773	0.2217	2.1529
ICW	0.3674	0.4978	0.7380
MISTATE	0.2198	0.4006	0.5486
LEV	0.6937	0.3298	2.1033
C	0.6601	0.2941	2.2444
F stat.	53.15		
Prob.	0.000		
Adj. R-sgu.	0.51		

relationship between managerial ability and financial reporting timeliness was examined for 115 listed companies in the Tehran Stock Exchange between 2012 and 2021.

Audit efficiency, which measures management's ability to facilitate audit processes and negotiate with auditors, is positively associated with higher managerial ability. According to Abernathy et al. [7], higher managerial ability is associated with shorter ARL, and management ability is positively and significantly related to the timeliness of financial reporting. Moreover, Mehrani et al. [9] found that qualified managers delay audits and profit announcements passively, leading to more timely disclosure of financial information.

The research by Abernathy et al. [7] and Mehrani et al. [9] also suggests a positive and significant relationship between the size of the audit firm and the timeliness of financial reporting. Larger audit firms, with greater expertise and experience, tend to have shorter delays in reporting, and capable managers use larger, more experienced, and well-known audit firms to reduce audit time.

Furthermore, the research model results show a positive and meaningful relationship between managerial ability, company size, and their interaction effect with the timeliness of financial reporting. According to Mehrani et al. [9], there is a positive and significant relationship between the size of the company and the timeliness of financial reporting based on the delay index in the auditor's report. This suggests that companies with larger size tend to hire more capable managers to handle complex issues, which can lead to improved financial reporting timeliness.

Based on these findings, it is recommended that legislators in the capital market provide a suitable information base for economic decision-making and changing the shareholding status by rating and disclosing companies' timeliness of financial reporting. This can help reduce information asymmetry, secret exchanges, rumors, and information leakage in the market, leading to efficient pricing of securities, attracting capital, and maintaining investors' confidence in the capital markets. Companies should pay attention to their reputation and rating when hiring auditing firms, and great attention should be paid to their abilities in hiring managers.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

References

[1] P. Demerjian, B. Lev, and S. McVay, "Quantifying managerial ability: A new measure and validity tests," *Manag. Sci.*, vol. 58, no. 7, pp. 1229–1248, 2012. https://doi.org/10.1287/mnsc.1110.1487

[2] J. Schmidt and M. S. Wilkins, "Bringing darkness to light: The influence of auditor quality and audit committee expertise on the timeliness of financial statement restatement disclosures," *Auditing: A Journal of Practice & Theory*, vol. 32, no. 1, pp. 221–244, 2013.

[3] B. K. Behn, D. L. Searcy, and J. B. Woodroof, "A within firm analysis of current and expected future audit lag determinants," *J. Inf. Syst.*, vol. 20, no. 1, pp. 65–86, 2006. https://doi.org/10.2308/JIS.2006.20.1.65

[4] J. L. Abernathy, M. Barnes, C. Stefaniak, and A. Weisbarth, "An international perspective on audit report lag: A synthesis of the literature and opportunities for future research," *Int. J. Audit.*, vol. 21, no. 1, pp. 100–127, 2017. https://doi.org/10.1111/IJAU.12083

[5] P. R. Demerjian, B. I. Lev, and M. S. E, "Disclosure timing: Determinants of quarterly earnings release dates," *J. Acc. Public Policy*, vol. 23, no. 6, pp. 457–482, 2004. https://doi.org/10.1016/J.JACCPUBPOL.2004.10.001

[6] W. R. Knechel and J. L. Payne, "Additional evidence on audit report lag," *Auditing: A Journal of Practice & Theory*, vol. 20, no. 1, pp. 137–146, 2001. https://doi.org/10.2308/AUD.2001.20.1.137

[7] J. L. Abernathy, T. R. Kubick, and A. Masli, "Evidence on the relation between managerial ability and financial reporting timeliness," *Int. J. Audit.*, vol. 22, no. 2, pp. 185–196, 2018. https://doi.org/10.1111/IJAU.12112

[8] Y. Y. Kor, "Experience-based top management team competence and sustained growth," *Organ. Sci.*, vol. 14, no. 6, pp. 707–719, 2003. https://doi.org/10.1287/ORSC.14.6.707.24867

[9] D. Givoly and D. Palmon, "Timeliness of annual earnings announcements: Some empirical evidence," *Acc. Rev.*, pp. 486–508, 1982.

[10] W. Kross and D. A. Schroeder, "An empirical investigation of the effect of quarterly earnings announcement timing on stock returns," *J. Acc. Res.*, pp. 153–176, 1984. https://doi.org/10.2307/2490706

[11] K. B. Schwartz and B. S. Soo, "The association between auditor changes and reporting lags," *Contemp. Acc. Res.*, vol. 13, no. 1, pp. 353–370, 1996. https://doi.org/10.1111/J.1911-3846.1996.TB00505.X

[12] B. Jaggi and J. Tsui, "Determinants of audit report lag: Further evidence from hong kong," *Acc. Bus. Res.*, vol. 30, no. 1, pp. 17–28, 1999. https://doi.org/10.1080/00014788.1999.9728921

[13] J. L. Abernathy, B. Beyer, A. Masli, and C. Stefaniak, "The association between characteristics of audit committee accounting experts, audit committee chairs, and financial reporting timeliness," *Adv. Acc.*, vol. 30, no. 2, pp. 283–297, 2014. https://doi.org/10.1016/j.adiac.2014.09.001

[14] M. Imeni, H. Arad, and F. Amiriyan, "Inventory and audit fees: A puzzle," *Financial Accounting Knowledge*, vol. 7, no. 4, pp. 179–210, 2020.

[15] S. Salterio, "Fifteen years in the trenches: Auditor-client negotiations exposed and explored," *Available at SSRN 1966804*, 2011. https://doi.org/10.2139/SSRN.1966804

[16] G. V. Krishnan and C. Wang, "The relation between managerial ability and audit fees and going concern opinions," *Auditing: A Journal of Practice & Theory*, vol. 34, no. 3, pp. 139–160, 2015. https://doi.org/10.2308/AJPT-50985

[17] K. Mehrani, H. Nazari, and M. R. Ghasemi Fard, "Managerial ability and financial reporting timeliness," *Journal of Accounting Advances*, vol. 12, no. 1, pp. 323–351, 2020. https://doi.org/10.22099/JAA.2020.34280.1894

[18] O. Uygur, "Ceo ability and corporate opacity," *Glob. Fin. J.*, vol. 35, pp. 72–81, 2018. https://doi.org/10.1016/J.GFJ.2017.05.002

[19] M. Narayanan, "Managerial incentives for short-term results," *J. Finance*, vol. 40, no. 5, pp. 1469–1484, 1985. https://doi.org/10.2307/2328125

[20] S. Leung, L. Parker, and J. Courtis, "Impression management through minimal narrative disclosure in annual reports," *Br. Acc. Rev.*, vol. 47, no. 3, pp. 275–289, 2015. https://doi.org/10.1016/J.BAR.2015.04.002

[21] A. Falato, D. Li, and T. Milbourn, "Inside the ceo labor market: The role of ceo talent in pay and turnover decisions," 2009. https://doi.org/10.2139/SSRN.1364648

[22] I. W. K. Ting, I. Tebourbi, W.-M. Lu, and Q. L. Kweh, "The effects of managerial ability on firm performance and the mediating role of capital structure: evidence from taiwan," *Financ. Innov.*, vol. 7, no. 1, 2021. https://doi.org/10.1186/S40854-021-00320-7

[23] B. Timilsina, P. Haapalainen, and J. Takala, "Effect of company size on manager's perception," *Manage. Prod. Eng. Rev.*, vol. 5, no. 1, pp. 65–73, 2014. https://doi.org/10.2478/MPER-2014-0008

[24] M. J. Zare Bahnamiri and F. Hasankhani, "Auditor characteristics and audit report lag: A meta-analysis," *Acc. Audit. Rev.*, vol. 28, no. 4, pp. 664–690, 2021. https://doi.org/10.22059/ACCTGREV.2021.317284.1008500

[25] J. Al-Ajmi, "Audit and reporting delays: Evidence from an emerging market," *Adv. Acc.*, vol. 24, no. 2, pp. 217–226, 2008. https://doi.org/10.1016/J.ADIAC.2008.08.002

[26] S. Owusu-Ansah, "Timeliness of corporate financial reporting in emerging capital markets: Empirical evidence from the zimbabwe stock exchange," *SSRN Electronic Journal*, 2000. https://doi.org/10.2139/SSRN.215929

[27] W. R. Knechel and D. S. Sharma, "Auditor-provided nonaudit services and audit effectiveness and efficiency: Evidence from pre-and post-sox audit report lags," *Auditing: A Journal of Practice & Theory*, vol. 31, no. 4, pp. 85–114, 2012. https://doi.org/10.2308/AJPT-10298

[28] R. H. Ashton, J. J. Willingham, and R. K. Elliott, "An empirical analysis of audit delay," *J. Acc. Res.*, pp. 275–292, 1987. https://doi.org/10.2307/2491018

[29] S. Leventis, P. Weetman, and C. Caramanis, "Determinants of audit report lag: Some evidence from the athens stock exchange," *Int. J. Audit.*, vol. 9, no. 1, pp. 45–58, 2005. https://doi.org/10.1111/J.1099-1123.2005.00101.X

[30] R. A. R. Ahmad and K. A. Kamarudin, "Audit delay and the timeliness of corporate reporting: Malaysian evidence," in *Communication Hawaii International Conference on Business. June, University of Hawaii-West Oahu*, 2003.

[31] J. H. Kim, "The impact of asymmetric cost behavior on the audit report lag," *Acad. Acc. Financ. Stud. J.*, vol. 23, no. 4, pp. 1–13, 2019.

[32] D. M. Gilling, "Timeliness in corporate reporting: some further comment," *Accounting and Business Research*, vol. 8, no. 29, pp. 34–36, 1977. https://doi.org/10.1080/00014788.1977.9729106

[33] Y. M. Hassan, "Determinants of audit report lag: evidence from palestine," *J. Acc. Emerg. Econ.*, vol. 6, no. 1, pp. 13–32, 2016. https://doi.org/10.1108/JAEE-05-2013-0024

[34] l. Shin, H. Lee, H. Lee, and M. Son, "How does human resource investment in internal control affect audit reporting lag?" *Asia Pac. J. Acc. Econ.*, vol. 24, no. 1-2, pp. 195–215, 2017. https://doi.org/10.1080/16081625.2015.1135751

[35] M. Imeni, M. Fallah, and S. A. Edalatpanah, "The effect of managerial ability on earnings classification shifting and agency cost of iranian listed companies," *Discrete Dynamics in Nature and Society*, vol. 2021, pp. 1–10, 2021. https://doi.org/10.1155/2021/5565605

[36] M. Imeni and A. A. Daryaei, "Audit fees: A further evidence of the role of financial and operating liability leverage," *Acc. Audit. Rev.*, vol. 27, no. 4, pp. 495–522, 2021. https://doi.org/10.22059/ACCTGREV.2021.80471