

Characteristics of corporate governance, audit committee, and audit report lag: A meta-analysis

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Abstract

The primary purpose of conducting the above research is to use the meta-analysis approach to prove whether past researches provide a consistent picture of the drivers of audit report delays or not. These variables include; The independence of the board of directors, the size of the board of directors, the size of the audit committee, the independence of the audit committee, the financial expertise of the audit committee, the number of meetings of the audit committee, and the duality of the CEO. To achieve the goal of the above research, the approach of Lipsey and Wilson (2001) was used and also, and the implementation of Cochran and Egeer's Q tests including 9 domestic articles and 19 foreign studies during the years 2010 to 2023 was investigated. The results showed that there is no significant relationship between the size of the board of directors and the size of the audit committee, the independence of the audit committee, the number of meetings of the audit committee, and the duality of the CEO with the ARL. However, there is a significant negative relationship between the board of director's independence and the audit committee's financial expertise. The activity of expert auditors in the audit committee can speed up the audit process of companies and ensure that financial statements reach users on time. In addition, shareholders can take the main step toward timely financial statements by electing an independent board of directors.

Keywords: Independence of the board of directors , audit report lag, size of the audit committee, size of the board of directors, meta-analysis

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1 Introduction

The prerequisites of accounting information quality represent the fundamental criteria for ensuring a superior level of accounting information, and they embody the fundamental attributes of accounting information that cater to the decision-making utility of information consumers. A corporation must authenticate, quantify, and present accounting information punctually. Knowledge regarding transactions or occurrences that have taken place and may not be advancing or hindered must be reported. It is crucial to ensure that the information is reported promptly and efficiently to provide accurate and reliable data to shareholders, stakeholders, and management for effective decision making. Numerous empirical investigations have consistently underscored the significance of prompt financial reporting disclosures, as evidenced by the scholarly works of Givoli and Palmon [20], Cross and Schroeder [25], and Abernathy et al.[3] .

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According to the theoretical framework of the information economy, the prompt dissemination of annual report data has the potential to furnish crucial information to both internal and external users of a company, thus mitigating the problem of information asymmetry, the risk of opportunistic behavior on the part of managers, and the associated transactional expenses.

The expeditious disclosure of a company's information has a proportional effect on the speed of the market's response and the more content the information. At present, all countries have established regulations for the dissemination of annual reports by companies, and those companies that do not release their annual reports before the deadline are subjected to fines and penalties. In the United States, the disclosure period is classified into three intervals, which are 00, 57, and 90 days, based on the worth of shares that are issued by companies [19]. Thus, the efficient and timely dissemination of information is a crucial factor in the efficient functioning of the stock market. As per the legal requirement mandated by the Stock Exchange and Securities Organization, companies are obligated to furnish reports four months after the approval of financial statements. Despite this, there is a delay in the dissemination of information to users in Iran. The study on audit report lag has been extensively researched in foreign countries and Iran, but due to differences in sampling, statistical populations, and data analysis methods, the outcomes have been varied and contradictory. Researchers investigating the correlation between the independence of the audit committee and the audit report lag have discovered a significant and adverse relationship between these two variables in the work of Ahmed, Ogan, Bayaz, and Salehi. Meanwhile, contrary to their findings, Soha Ben and Lajmi have not observed any significant connection between audit committee size and audit report lag.

Through an analysis of previous studies, it can be inferred that a comprehensive and exhaustive guide for researchers to obtain a universal outcome is nonexistent, and furthermore, conducting research for upcoming projects necessitates that researchers possess a profound understanding of the constraints, prior works, and obstacles. The present meta-analytical research was performed by examining 9 Iranian studies and 29 foreign studies conducted between 1020 and 1012, utilizing the Lipsey and Wilson [26] approach to identify the attributes of the company's governance and audit committee as well as the ARL. The composition of the steering and audit committees of an organization constitutes a contributing factor to the emergence of ARL.

These governance characteristics of companies and the audit committee include the independence of the board of directors, the size of the board of directors and the size of the audit committee, the independence and financial expertise of the audit committee, the number of audit committee meetings, and the duality of the CEO.

This research, using the meta-analysis approach, can provide a basis for solving the audit report delay crisis through guidance for future researchers in order to provide the best possible information for the factors that cause delay and create a basis for the legislator. Constraints to prevent delay are an incentive for managers, accountants, and auditors to identify factors related to delay and influence it, and transparency for investors and creditors to obtain reliable, quality, and timely information about audited financial statements.

Therefore, according to the above contents, the current research seeks to find answers to the following questions through meta-analysis. What are the characteristics of the governance and audit committee on the audit report lag? What effect does each have on the audit report lag?

2 Theoretical basics and research hypotheses

One fundamental aspect of corporate financial reporting is the prompt dissemination of financial statements, which holds significant importance in the capital market and investors' judgments. Neglecting to furnish timely information to key stakeholders potentially endangers the accuracy and reliability of data, as highlighted by Givoli and Palmon [20]. Hence, companies must ensure the timeliness of their financial reporting to uphold transparency and investor confidence. According to the signaling theory, the length of time required by auditors to complete financial statement audits is a key determinant of the value of the information produced. Specifically, it is posited that the longer the time required to complete the audit, the lower the value of the information provided, while the shorter the time required to complete the audit, the greater the value of the information provided. This suggests that auditors must strike a delicate balance between thoroughness and efficiency when conducting financial statement audits, in order to maximize the value of the information produced for stakeholders. Prior research has indicated that delays in the financial statement auditing process can have an adverse effect on the value of a firm [20]. As such, the communication of potential negative consequences resulting from an audit is now more pronounced within the market. This signifies a heightened emphasis on transparency and disclosure practices in the financial sector.

Companies that exhibit strong performance can utilize their financial statements as the primary resource for decision-making among their stakeholders immediately following the conclusion of the fiscal year. The importance

of presenting these statements in a timely fashion cannot be overstated, as any delays can result in the information contained within becoming obsolete and no longer relevant for effective decision-making. The usefulness and overall quality of the financial report will undoubtedly be negatively impacted by any such delays, ultimately resulting in a less-than-optimal outcome for the company [9]. The presence of lag can potentially mislead stakeholders into making investment decisions without thoroughly verifying the accuracy of the information presented to them. Reliance on information from unofficial sources increases the likelihood of incorrect information being disseminated, leading to erroneous decision-making processes [9].

Auditor report lag is the time at the end of the financial year and the date of the auditor's report [3]. According to recent research, the typical lag time observed in Tunisia during the year 1011 was approximately 99 days, as reported by Givoli and Palmon [20]. Similarly, Buckley et al. [12] noted an average delay of 91 days in Iran. The present research examines the influencing factors from the perspective of the characteristics of corporate governance, the audit committee; the independence of the board of directors, the size of the board of directors, the size of the audit committee, the independence of the audit committee, the financial expertise of the audit committee, the number of meetings of the audit committee and the duality of the CEO are discussed with a meta-analysis approach.

2.1 Background and Research Hypotheses

2.1.1 The independence of the board of directors and the ARL

Independent nonexecutive directors who possess the necessary expertise and lack business and other affiliations that could potentially hinder their ability to exercise independent judgment or act in the shareholders' best interests are deemed to be better positioned to oversee the CEO. It is believed that their significant level of objectivity enables them to confront the CEO and safeguard the interests of all stakeholders. According to Duchin et al. [16], these directors are more likely to prioritize the stakeholders' well-being than the CEO's interests. Fama and Jensen [18] contend that external managers are motivated to carry out their duties and abstain from conspiring with managers to harm shareholders due to the significant depreciation of human capital when internal controls are compromised. The empirical evidence collected in the United States, United Kingdom, Greece, Italy, China, Hong Kong, Korea, and Singapore generally supports their positive regulatory function. With respect to the independence of the board of directors, Apadore and noor's [8] findings indicate that the autonomy of the board of directors does not have a decisive impact on the ARL. These conclusions highlight the need for effective internal controls in enhance the performance of external managers and safeguard the interests of shareholders.

Nouraldeen et al. [31] discovered a noteworthy correlation between the autonomy of the board of directors and (ARL). Meanwhile, Affy [5] discerned that board independence has a detrimental impact on ARL. These findings suggest that the level of the independence of the board of directors plays a pivotal role in the ARL of a company. The results of these studies further underscore the importance of board independence in achieving optimal financial performance and stability for firms.

Hypothesis 1: The independence of the board of directors has a negative effect on ARL.

2.1.2 The size of the board of directors and the ARL

Chalu [13] discovered a noteworthy adverse impact of board size on the delay of audit reports. Pucheta-Mart 'mez and De Fuentes [34], through their research, ascertained that a greater board size, comprising individuals with assorted backgrounds and intellectual resources, curbs the delay in audit report submission. Jensen's [24] regression analysis indicated a correlation between modifications in the lag of audit reports filed by public enterprises and board size. Warrad [37] ascertained that board size constitutes a crucial variable in explicating audit report lag and is meaningfully associated with audit report lag. Furthermore, Farooq et al. [19] and Fama and Jensen [18] conducted studies and did not detect any noteworthy correlation connecting the magnitude of the board of directors and the ARL.

Hypothesis 2: There is a significant relationship between the size of the board of directors and the ARL

2.1.3 The size of the audit committee and the ARL

Previous studies have yielded varying outcomes regarding the influence of the audit committee size on the quality of audit reporting. Findings that have examined the adverse consequences have posited that an extensive audit committee is comparatively less effective. This is due to the substantial number of individuals contributing to a lack of coherence in decision-making and a reduced participation rate, which consequently may compromise decision-making efficiency

[23]. Conversely, studies that have examined the positive effect of audit committee size on financial reporting quality have concluded that a large audit committee has sufficient resources to appoint members with multiple qualities that improve the evaluation of the role, responsibilities, and work of the external auditor. [15, 34] has more of a mediation role to resolve conflicts arising in financial statements and ultimately reduce the ARL [14]. On the contrary, Bard and Gendron [10] have underscored this assertion, that the expenditure incurred in maintaining larger committees surpasses the resultant advantages. Conversely, Mohamad Naimi [29] have deduced that the magnitude of the audit committee bears a markedly unfavorable impact on ARL.

In this manner, it is probable that corporations possessing a more sizable audit committee possess the capability to appropriately allocate a sufficient amount of time and exertion toward guaranteeing the precision and promptness of the data disclosed within the financial statements, thus culminating in an enhancement of the quality of financial reporting [29]. Contrary to these results, Nehme et al. [30] and Chalu [13] concluded that there is a positive and significant relationship between the size of the audit committee and the ARL. A larger audit committee size leads to poorer communication, coordination, participation, and decision-making, which hinders the audit process and leads to more audit lags.

Hypothesis 3: the size of the audit committee has a negative effect on the ARL

2.1.4 The independence of the audit committee and ARL

Raweh et al. [35] study in Oman showed that the independence of the audit committee may reduce the ARL. Apadore and Noor [8] showed that audit committee independence does not play a significant role in ARL.

Also, Nehme et al. [30] and Abdillah et al. [2] showed that the independence of the audit committee has a significant negative effect on the ARL. The more independent directors are on the audit committee, the shorter the ARL will be. Independence means the absence of conflict of interest and increases the transparency and disclosure of information, which facilitates the audit and thus reduces the ARL.

Hypothesis 4: the independence of the audit committee has a negative effect on the ARL

2.1.5 The financial expertise of the audit committee and the ARL

Mohamad Naimi [29] showed that expertize has the expected negative relationship with audit lag and also suggested more emphasis on strengthening audit committee expertize. Raweh et al. [35] found that an audit committee with financial expertize improves the timeliness of reports by shortening the time it takes to submit audit reports. In addition, in the research of Jensen and Tang [23], the presence of a financial expert who is a member of the audit committee reduces the ARL. In addition, Hashim and Abdul Rahman [21] show that the expertize of the audit committee plays an important role in ARL. In their study in Nigeria, Ogoun et al. [32] showed that financial experts in audit committees have a positive and significant effect on the timeliness of audit reports. The above results show that increasing the number of financial experts on the committee will have a significant effect on improving the timeliness of the annual financial reports approved by the auditors and will always reduce the ARL.

Hypothesis 5: financial expertize of the audit committee has a negative effect on the ARL

2.1.6 The number of meetings of the audit committee and the ARL

In most studies, more than four meetings per year indicate lengthy discussions between the auditor and the client on unresolved audit issues, which can prolong audit delays. Past studies show that the more audit committee meetings the ARL also increases [3]. Ogoun [32] and Nehme [30] conducted a study that revealed a negative correlation between the quantity of audit committee meetings and the Audit Report Lag (ARL). Specifically, their findings indicate that an increase in the number of audit committee meetings decreases ARL. Also, in the research of Ahmed and Che-Ahmad [6], it was shown that there is a significant positive relationship between the number of meetings of the auditor committee and the ARL. In this way, the number of meetings leads to longer ARL.

Hypothesis 6: the number of meetings of the audit committee has a positive effect on the ARL

2.1.7 The duality of the CEO and the ARL

CEO duality exists when one person holds two top leadership positions [13] in the same company. According to agency theory, CEO duality may significantly weaken the effectiveness of the board of directors in protecting the interests of different shareholders and reducing monitoring costs. In this regard, Jensen and Tang [23] argued that companies should separate the positions of CEO and chairman of the board to avoid possible conflicts of interest. Afify

[5] and Amari and Jarbouli [7] found that CEO duality has a positive and significant effect on the lag of the financial reporting period among Egyptian and Tunisian companies, respectively. Mohamad Naimi [29] discovered a negative correlation between CEO duality and auditor report delay in Malaysia. As a result, it is rational to assume that the presence of CEO duality undermines the caliber of corporate disclosures, consequently elevating the ARL.

Hypothesis 7: There is a positive relationship between the duality of the CEO and the ARL

3 Data and research methodology

3.1 Data and variables

The research method of this research is meta-analysis. In this method, the researcher creates a suitable combination of the results of previous contradictory and noncontradictory quantitative studies to be able to explain the contradictions and identify the modifying structural variables in past studies. A meta-analysis serves as a powerful tool for researchers by circumventing the need for reviewing individual studies and instead provides a systematic approach for aggregating and unifying data, as noted by Homan [22] in their work. It is important to acknowledge that the entirety of the conducted research is of quantitative nature. The process of creating meta-analytic datasets entails the computation of effect sizes for every empirical study employed, along with the discernment of potential moderating variables [12]. The effect size metric serves as an indicator used to represent and standardize research findings, as noted by Lipsey and Wilson [26]. It provides valuable insight into the extent of the relationship between the descriptive and dependent variables of each variable under investigation. The effect size measures the influence of the independent variable on the dependent variable. The effect size is divided into two categories: effect size d and effect size r [1]. In the research carried out in the meta-analysis method, effect size correlation indices have been used [28] to achieve the main goal of the research and perform a meta-analysis, the effect size correlation index r is considered the primary tool of meta-analysis, which is calculated and evaluated to investigate the relationships between variables [1].

3.2 Empirical models and methodology

This study was conducted over 21 months ending March 19, 2011, and during a systematic search in scientific study databases including ProQuest, Science Direct, Scopus, Emerald, and Springer for studies published from 1970 to 2012. The search strategy was based on two keywords: lag in independent auditor's report and timely reporting in Persian and English. The independent variable of all studies was the ARL. The Pearson linear correlation coefficient between the ARL and each of the independent variables investigated in them or any other statistic that can be converted into the Pearson linear correlation coefficient is significant [10].

Therefore the number of research conducted included 19 studies, including 9 internal and 29 external studies.

Table 1: Research done in Iran and abroad

Description	Internal studies	Description	Foreign studies
The total number of domestic studies	12	The total number of foreign studies	122
Invalid journal articles will be deducted	20	Invalid journal articles will be deducted	292
Articles unrelated to the characteristics of corporate governance and audit committee are deducted	5	Articles unrelated to the characteristics of corporate governance and audit committee are deducted	22
The total number of articles	9	The total number of articles	29

3.3 Descriptive variables

In this study, the ARL is known as a dependent variable.

The characteristics of corporate governance and the audit committee include the independence of the board of directors, the size of the board of directors, the size of the audit committee, the independence of the audit committee, the financial expertise of the audit committee, the number of audit committee meetings, and the duality of the CEO as independent variables.

3.4 Data analysis method

In general, in this research, to achieve the common scale of the effect size, X^2 , t , f , and p -value statistics (corresponding to each of the independent variables). It has been collected using a library method from articles domestic and foreign [29].

$$r = \frac{t}{\sqrt{t^2 + df}} \quad (3.1)$$

$$r = \frac{\sqrt{x^2}}{n} \quad (3.2)$$

$$r = \frac{\sqrt{f}}{\sqrt{f + n_1 + n_2 - 2}} \quad (3.3)$$

$$ES_{zr} = \log \left[\frac{1 + r}{1 - r} \right] \quad (3.4)$$

The sample size of each datum is indicated by N . The average effect size of each step is calculated. This is possible only if the correlation coefficient distribution is normal. But usually, due to the non-normality of the effect size, these numbers should be converted to Fisher's z according to the following formula.

Consistency or homogeneity of the size of the works is then tested, if the sizes of the works are homogeneous, they are combined. Otherwise, it is divided into subgroups based on the key variables that are likely to cause the variance of population effects. This method continues until the studies within the strata are consistent and there is no unexplained variance in the effect size [10]. To perform the present meta-analysis and perform the necessary calculations, including calculating the effect size, after collecting the desired variables from the relevant research, comprehensive meta-analysis software CMA1 has been used.

4 Research findings

The description of the conducted research is based on the year of publication of the mentioned year, categorized and based on frequency and percentage of frequencies. As can be seen, the internal researchers that have investigated the characteristics of corporate governance and the audit committee and the ARL,

Related the years 1012 to a frequency of 223 and the research of the years 1010 to 1025 with 223 has the lowest frequency.

Table 2: Domestic and foreign research based on the year of publication

Foreign studies			Internal studies		
Year of publication	Abundance	Frequency%	Year of publication	Abundance	Frequency%
2022	3	15	2022	2	22
2021	4	21	2021	3	33
2020	1	5	2020	1	11
2019	1	5	2019	1	11
2018	2	5	2018	1	11
2017	1	5	2017	1	11
2016	1	5	2016		
2015	1	5	2015		
2014	1	5	2014		
2013	1	5	2013		
2012	1	5	2012		
2011	1	5	2011		
2010	1	5	2010		
total	19	100	total	19	100

4.1 The description of the frequency of independent variables

In Table No. 3, the frequency of each of the independent variables related to the characteristics of corporate governance and the audit committee, whose effect on the dependent variable of the delay of the independent auditor's report, has been examined and analyzed. According to the scope of research used in the meta-analysis, it has been stated.

Table 3: Frequency of independent research variables

Variable name	territory	Number	Variable name	territory	Number
Independence of the board	Total	19	Board size	Total	11
	Internal studies	7		Internal studies	1
	Foreign studies	12		Foreign studies	10
Audit committee size	Total	11	Independence of the committee	Total	7
	Internal studies	2		Internal studies	2
	Foreign studies	9		Foreign studies	5
Financial expertise of the audit committee	Total	8	The number of audit committee meetings	Total	6
	Internal studies	2		Internal studies	0
	Foreign studies	6		Foreign studies	6
Duality of the CEO	Total	6			
	Internal studies	4			
	Foreign studies	2			

The findings in Table No. 3 show that among the characteristics of corporate governance and audit committees, the highest frequency is related to the independence variable of the board of directors with 29 and the lowest frequency value is related to the duality of the CEO with the number of audit committee meetings with 0 items.

4.2 The description of the frequency of omitted variables

In Table 4, the frequency of each of the independent variables related to the characteristics of corporate governance and the audit committee, whose effect on the dependent variable of the delay of the independent auditor's report has been examined and analyzed, but due to the qualitative measurement different from the quantitative variables of this research, such as women and ethnic minorities are excluded.

Table 4: Frequency of independent variables excluded from the research

Variable name	territory	Number	Variable name	territory	Number
History of the formation of the audit committee	Total	1	The Experience of audit committee members	Total	2
	Internal studies	1		Internal studies	2
	Foreign studies	0		Foreign studies	0
Gender of the audit committee	Total	2	Existence or absence of an auditor committee	Total	4
	Internal studies	1		Internal studies	1
	Foreign studies	1		Foreign studies	3
Accuracy of the audit committee	Total	2	Effectiveness of the audit committee	Total	2
	Internal studies	0		Internal studies	0
	Foreign studies	2		Foreign studies	2
Non-commissioned directors of the audit committee	Total	1	CEO influence board financial expertise	Total	2
	Internal studies	0		Internal studies	1
	Foreign studies	1		Foreign studies	1
Ownership structure	Total	1	Management change, the number of board meetings	Total	2
	Internal studies	1		Internal studies	1
	Foreign studies	0		Foreign studies	1
CEO tenure	Total	2	CEO's family relationship	Total	2
	Internal studies	1		Internal studies	0
	Foreign studies	1		Foreign studies	2
A percentage of Shares belonging to the board of directors	Total	1	Female board of directors, institutional model	Total	7

	Internal studies	0		Internal studies	1
	Foreign studies	1		Foreign studies	6
	Total	3	Family ownership, director ownership percentage,	Total	4
CEO dominance, board effectiveness, manager turnover	Internal studies	0	non-executive director of board of the directors	Internal studies	0
	Foreign studies	3		Foreign studies	4

5 Analysing the results

5.1 The results of the first research hypothesis test

The results of Table 5 from the meta-analysis show the total number of studies that have used the independence variable of the board of directors as an independent variable affecting the ARL.

Table 5: The meta-analysis results of the independence variable of the board of directors

Row	Model	Weighted mean effect size	confidence interval 95%		Null hypothesis test		Heterogeneity test		
			Upper line	Lower limit	Z statistic	Significance level	Q statistic	Statistics I1	Significance level
Total	Fixed effects	-0.038	-0.022	-0.054	-4.595	0.0000	76.102	79.102	0.0000
	Random effects	-0.084	-0.035	-0.132	-3.354	0.0000			
Foreign studies	Fixed effects	-0.077	-0.022	-0.133	-2.720	0.0000	86.947	86.647	0.0000
	Random effects	-0.0152	0.018	-0.313	-1.750	0.0000			
Internal studies	Fixed effects	-0.042	-0.021	-0.063	-3.975	0.0000	69.129	69.129	0.001
	Random effects	-0.042	0.031	-0.114	-1.123	0.261			

According to the data in the table above, the value of the confidence level in the heterogeneity test in this hypothesis is less than 0307. Therefore, information related to random effects is used to draw conclusions in the first hypothesis. The weighted average effect size is -03091. The confidence interval of the effect of the independence of the board of directors on the delay of the auditor's report is in the area of (-03027 and -03221). Considering that the significance level of testing this hypothesis using random effects is less than 0307, this hypothesis is accepted. In other words at the 973 confidence level, it can be said that the independence of the board of directors has a negative effect on the ARL. This hypothesis shows the negative influence of the independence of the board of directors on the ARL at the 973 confidence level in domestic and foreign research.

5.2 The results of the second hypothesis test of the research

The results of Table 6 from the meta-analysis show the total number of studies that have used the board size variable as an independent variable affecting ARL.

Table 6: The meta-analysis results of the board size variable

Row	Model	Weighted mean effect size	confidence interval 95%		Null hypothesis test		Heterogeneity test		
			Upper line	Lower limit	Z statistic	Significance level	Q statistic	Statistics I2	Significance level
Total	Fixed effects	0.013	0.030	-0.005	1.434	0.152	32.656	66.315	0.001
	Random effects	0.039	0.086	-0.008	1.623	0.105			
Foreign studies	Fixed effects	0.136	0.369	-0.008	1.067	0.286	0.000	0.000	0.001
	Random effects	0.136	0.369	-0.114	1.067	0.286			
Internal studies	Fixed effects	0.012	0.030	-0.005	1.363	0.183	31.717	68.471	0.000
	Random effects	0.084	0.084	-0.012	1.476	0.140			

According to the data in the table above, the value of the confidence level in the heterogeneity test in this hypothesis is less than 0307. Therefore, information related to random effects is used to draw conclusions in the second hypothesis. The weighted average effect size is 03029. The confidence interval of the size of the effect of the size of the board of directors on the delay of the auditor's report is in the area of (03090 and -03009). Considering that the significance level of testing this hypothesis using random effects is greater than 0307, this hypothesis is rejected. In other words at the 973 confidence level, it can be said that the size of the board of directors does not affect the ARL. This hypothesis shows the effect of the size of the board of directors on the ARL at the 973 confidence level in internal and external research.

5.3 The results of the third hypothesis test of the research

The results of Table 7 from the meta-analysis show the total number of studies that have used the audit committee size variable as an independent variable affecting the ARL.

Table 7: The meta-analysis results of the audit committee size variable

Row	Model	Weighted mean effect size	confidence interval 95%		Null hypothesis test		Heterogeneity test		
			Upper line	Lower limit	Z statistic	Significance level	Q statistic	Statistics I2	Significance level
Total	Fixed effects	-0.045	-0.025	-0.066	-4.332	0.0000	33.020	66.686	0.001
	Random effects	-0.056	0.009	-0.120	-1.699	0.089			
Foreign studies	Fixed effects	-0.122	-0.116	-0.226	-2.260	0.024	1.746	42.741	0.186
	Random effects	-0.117	0.025	-0.254	-1.617	0.106			
Internal studies	Fixed effects	-0.042	-0.021	-0.063	-3.972	0.000	29.154	69.129	0.001
	Random effects	-0.042	0.031	-0.114	-1.123	0.261			

According to the data in the table above, the value of the confidence level in the heterogeneity test in this hypothesis is less than 0307. Therefore, information related to random effects is used to draw conclusions in the third hypothesis. The weighted mean effect size is -03070. The confidence interval of the size of the effect of the size of the audit committee on the ARL is in the area of (03009 and - 03210). Considering that the significance level of testing this hypothesis using random effects is greater than 0307, this hypothesis is rejected. In other words at; the 973 confidence level, it can be said that the size of the audit committee has no negative effect on the ARL. This hypothesis shows the impact of audit committee size on audit report delay at a 973 confidence level in internal and external research.

5.4 The results of the fourth research hypothesis test

The results of Table 8 from the meta-analysis show the total number of studies that have used the independence variable of the audit committee as an independent variable affecting the ARL.

Table 8: The meta-analysis results of the independence variable of the audit committee

Row	Model	Weighted mean effect size	confidence interval 95%		Null hypothesis test		Heterogeneity test		
			Upper line	Lower limit	Z statistic	Significance level	Q statistic	Statistics I2	Significance level
Total	Fixed effects	0.032	0.053	0.012	3.106	0.002	72.882	86.279	0.000
	Random effects	0.028	0.119	-0.063	0.608	0.543			
Foreign studies	Fixed effects	0.129	0.232	0.023	2.389	0.017	0.000	0.000	0.000
	Random effects	0.129	0.232	0.023	2.389	0.017			
Internal studies	Fixed effects	0.029	0.050	0.008	2.698	0.007	88.407	88.407	0.000
	Random effects	0.007	0.113	-0.100	0.125	0.900			

According to the data in the table above, the value of the confidence level in the heterogeneity test in this hypothesis is less than 0307. Therefore, information related to random effects is used to draw conclusions in the fourth hypothesis. The weighted mean effect size is 03019. The confidence interval of the effect of the independence of the audit committee on the ARL is in the area of (03229 and -0.002). Considering that the significance level of testing this hypothesis using random effects is greater than 0307, this hypothesis is rejected. In other words, at; the 973 confidence level, it can be said that the independence of the audit committee does not have a negative effect on the ARL. This hypothesis shows the effect of the independence of the audit committee on the ARL at the 973 confidence level in domestic and foreign research.

5.5 The results of the fifth research hypothesis test

The results of Table 9 from the meta-analysis show the total number of studies that have used the variable of financial expertize of the audit committee as an independent variable affecting ARL.

According to the data in the table above, the value of the confidence level in the heterogeneity test in this hypothesis is less than 0307. Therefore, information related to random effects is used to conclude the fifth hypothesis. The weighted average effect size is -03221. The confidence interval of the effect of the financial expertise of the audit committee on the ARL is in the area of (-03025 and -03290). Considering that the significance level of testing this hypothesis using random effects is less than 0307, this hypothesis is accepted. in other words, at; the 973 confidence

Table 9: The meta-analysis results of the financial expertise variable of the audit committee

Row	Model	Weighted mean effect size	confidence interval 95%		Null hypothesis test		Heterogeneity test		
			Upper line	Lower limit	Z statistic	Significance level	Q statistic	Statistics I2	Significance level
Total	Fixed effects	-0.032	-0.012	-0.051	-3.111	0.002	86.594	83.833	0.000
	Random effects	-0.114	-0.037	-0.190	-2.890	0.004			
Foreign studies	Fixed effects	-0.342	-0.257	-0.422	-7.486	0.000	9.212	78.288	0.010
	Random effects	-0.327	-0.135	-0.496	-3.259	0.001			
Internal studies	Fixed effects	0.016	0.004	-0.036	-1.553	0.120	28.607	61.548	0.003
	Random effects	-0.054	0.004	-0.111	-1.826	0.068			

level, it can be said that the financial expertise of the audit committee has a negative effect on the ARL. This hypothesis shows the effect of the financial expertise of the audit committee on the ARL at the 973 confidence level, according to the territory, in domestic and foreign research.

5.6 The results of the sixth research hypothesis test

The results of Table 10 from the meta-analysis show the total number of studies that have used the variable of the number of meetings of the audit committee as an independent variable affecting ARL.

Table 10: The meta-analysis results of the variable number of audit committee meetings

Row	Model	Weighted mean effect size	confidence interval 95%		Null hypothesis test		Heterogeneity test		
			Upper line	Lower limit	Z statistic	Significance level	Q statistic	Statistics I2	Significance level
Total	Fixed effects	-0.011	0.046	-0.068	-0.375	0.708	20.695	75.480	0.001
	Random effects	0.020	0.156	-0.117	0.286	0.775			
Foreign studies	Fixed effects	0	0	0	0	0	0	0	0
	Random effects	0	0	0	0	0			
Internal studies	Fixed effects	-0.011	0.046	-0.068	-0.375	0.708	20.695	75.480	0.001
	Random effects	0.020	0.156	-0.117	0.286	0.775			

According to the data in the table above, the value of the confidence level in the heterogeneity test in this hypothesis is less than 0307. Therefore, information related to random effects is used to draw conclusions in the sixth hypothesis. The weighted mean effect size was 03010. The confidence interval of the effect size of the number of audit committee meetings on the ARL is in the area of (03270 and -03225). Considering that the significance level of testing this hypothesis using random effects is greater than 0307, this hypothesis is rejected. In other words, at the 973 confidence level, it can be said that the number of audit committee meetings does not have a positive effect on the ARL. This hypothesis shows the effect of the number of audit committee meetings on the ARL at the 973 confidence level, according to the territory, in domestic and foreign research.

5.7 The results of the seventh research hypothesis test

The results of Table 11 from the meta-analysis show the total number of studies that have used the CEO duality variable as an independent variable affecting the ARL.

Table 11: The meta-analysis results of the dichotomy variable of the CEO

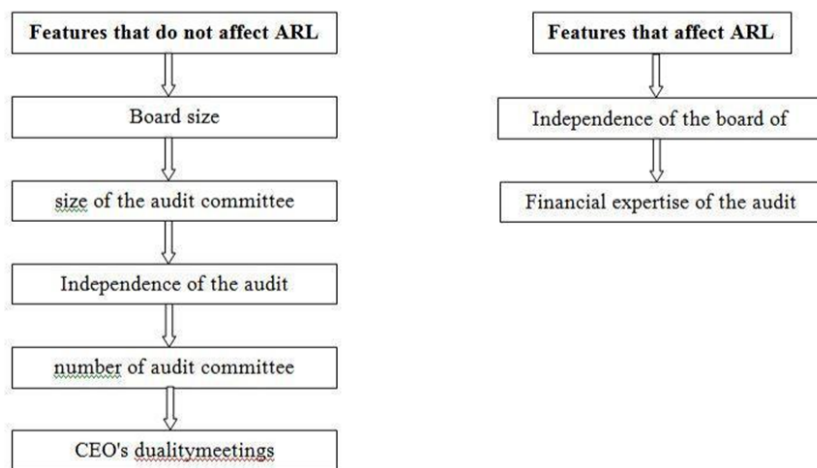
Row	Model	Weighted mean effect size	confidence interval 95%		Null hypothesis test		Heterogeneity test		
			Upper line	Lower limit	Z statistic	Significance level	Q statistic	Statistics I2	Significance level
Total	Fixed effects	0.163	0.239	0.086	4.102	0.000	4.730	87.724	0.000
	Random effects	0.111	0.329	-0.119	0.946	0.344			
Foreign studies	Fixed effects	0.196	0.281	0.109	4.352	0.000	36.653	91.815	0.000
	Random effects	0.119	0.412	-0.196	0.737	0.461			
Internal studies	Fixed effects	0.049	0.211	-0.116	0.576	0.565	1.635	38.743	0.201
	Random effects	0.066	0.281	-0.155	0.582	0.561			

According to the data in the table above, the value of the confidence level in the heterogeneity test in this hypothesis is less than 0307. Therefore, information related to random effects is used to conclude the seventh hypothesis. The

weighted mean effect size is 0.3222. The confidence interval of the effect of the duality of the CEO on the ARL is in the area of (0.3219 and -0.3229). Considering that the significance level of testing this hypothesis using random effects is greater than 0.307, this hypothesis should be rejected. In other words, at the 97.3% confidence level, it can be said that the duality of the CEO has no positive effect on the ARL. This hypothesis shows the effect of the duality of the CEO on the ARL at the 97.3% confidence level in domestic and foreign research.

5.8 Conceptual model

Based on the results of the meta-analysis of all the studies that have examined the characteristics of corporate governance, audit committee, and the delay of the auditor’s report, the characteristics of corporate governance, the audit committee that has effect on the delay of the report, and the characteristics that have no effect on the delay have been identified. The investigation was conducted and it is described in the form of the following conceptual model:



6 Investigation of publication bias

One of the problems that can question the validity of meta-analysis studies is publication bias. Publication bias means that studies on the subject have been investigated, but in the meta-analysis, it is because some subjects have not been published for various reasons and that they have not been published in different authoritative journals for various reasons. When there is publication bias, the final results of the meta-analysis will be affected and the resulting final analyzes will have bias and error [27]. One of the methods that examines the distribution bias is the linear regression method, in which the H0 assumption is the symmetry of the graph and the lack of diffusion bias [19]. The results of this method are described in the twelfth table to check the publication bias.

Table 12: Investigating the publication bias of the variables

Variable	Cut (B)	standard error	t-value	Significance level	
				A domain	Two domains
Independence of the board of directors	-0.31897	0.72728	1.81357	0.4490	0.089980
Board size	1.33452	0.59866	0.33916	0.02496	0.06991
Size of the audit committee	0.01362	0.69247	0.01967	0.49235	0.98469
Independence of the audit committee	-0.30018	0.16947	0.25668	0.40160	0.80320
Financial expertise of the audit committee	-1.59068	0.79692	1.99604	0.03366	0.06732
The number of audit committee meetings	0.68651	1.97954	0.34680	0.37311	0.74622
CEO duality	-0.84390	4.83351	0.17316	0.43371	0.86743

According to the results obtained from the linear regression method, since the significance level of two domains for each group of studies related to the mentioned variables is more than (0.307), the null hypothesis of no publication bias for all variables is confirmed.

7 Conclusion

The quality of financial reporting increases when the information has the necessary efficiency. The efficiency of financial reporting refers to the information that reaches the users on time. The faster the information reaches the users, the more efficient it is. As the lag increases, the information that is disclosed has a lower informational value, [17].

Based on the meta-analysis results of the first hypothesis, a significant negative relationship was found between the independence of the board of directors and the ARL. Therefore, the first hypothesis is confirmed. He explained that the more independent the company's board of directors is, the more timely the company's financial statements are. This result is consistent with the results of research [31].

Based on the meta-analysis results of the second hypothesis, no significant relationship was found between the size of the board of directors and the ARL. Therefore, the second hypothesis is rejected. In fact, he explained that if the size of the company's board of directors is large or small, it has no significant effect on the ARL. This result is consistent with the results of research conducted by [38] and [18].

Based on the meta-analysis results of the third hypothesis, no significant relationship was found between the size of the company's audit committee and the delay of the independent auditor's report. In fact, he explained that if the size of the company's audit committee is large or small, it has no significant effect on the ARL. This result is consistent with the results of the conducted research [23].

Based on the meta-analysis results of the fourth hypothesis, no significant relationship was found between the independence of the audit committee and the ARL. In fact, he explained that if the company's audit committee is independent, it has no significant effect on the ARL. This result is consistent with the results of the conducted research [31].

The fifth hypothesis, a significant negative relationship was found between the financial expertise of the audit committee and the ARL. In fact, he explained that if the company's audit committee has financial experts, the auditor's report will be more timely. This result is consistent with the results of [29, 35].

Sixth hypothesis, no significant negative relationship was found between the number of audit committee meetings and the ARL. explained that if the audit committee has more or less several meetings, it does not affect the holding of the auditor. This result is consistent with the results of [6].

In the seventh hypothesis, no significant relationship was found between the duality of CEO and auditor report lag. He explained that if the director is also a member of the board of directors, it does not affect the ARL. This result is consistent with the results of [5] and [7].

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