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Article

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Nexus between audit committee characteristics and audit report lag in an emerging economy: an analysis using frequentist and Bayesian regression models

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Abstract

Purpose – The objective of this study is to investigate the association between audit committee characteristics and audit report lag in the context of listed manufacturing companies in Bangladesh.

Design/methodology/approach – Data from 240 firm-year observations for 2018–2022 are collected and analyzed using both the pooled-ordinary least squares (OLS) model with panel corrected standard errors (PCSE) and the Bayesian regression model. The results are explained in line with the agency theory and resource dependence theory.

Findings – The study reveals that audit committee size, gender diversity and expertise are negatively and significantly associated with audit report lag. The results remain consistent using the lag model, which indicates that the current year's audit committee can have an impact on the subsequent year's audit report lag.

Research limitations/implications – The study has been conducted in the context of Bangladesh and thus cannot be generalized for other countries.

Practical implications – The study implies that companies should form large audit committees and ensure higher participation of female members and expert members in forming such committees. Policymakers and regulators can also play roles in this regard to ensure the timely issue of audit reports.

Originality/value – This is one of the pioneer studies to investigate the link between audit committee characteristics and audit report lag in the context of an emerging economy like Bangladesh. This study advocates agency theory by linking audit committee characteristics to reduced information asymmetry and contributes to resource dependence theory by emphasizing their role in enhancing financial reporting timeliness.

Keywords Audit committee characteristics, Audit report lag, Emerging economy, Bangladesh

Paper type Research paper

1. Introduction

In the wake of recent accounting scandals involving several corporations, the issue of financial reporting quality has garnered significant attention. Notable incidents such as the Enron and WorldCom collapses have underscored the importance of ensuring the integrity and reliability of financial reporting. One such measure of integrity and reliability of financial reporting is timeliness (Al-Ajmi, 2008; Rusmin and Evans, 2017). Previous research



JEL Classification — G34, M40, M42

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indicates that delays in the prompt release of accounting information substantially diminish earnings quality, exacerbate information asymmetry, elevate the risk of investor fraud, allow informed investors to exploit their less informed counterparts and intensify uncertainty regarding investment evaluations and anticipated returns (Bushman and Smith, 2001). Consequently, there is increased pressure on external auditors to expedite the audit process and issue the audit report swiftly. Moreover, it is asserted that timely audit reports offer several benefits. For instance, they can enhance public trust in audited financial statements, reduce information asymmetry, improve the quality of audit reports and increase audit effectiveness in companies that issue their reports promptly (Mande and Son, 2011; Salehi *et al.*, 2018a, b).

Within the context of modern corporate governance, the audit committee stands as a cornerstone entity tasked with crucial duties that include monitoring financial reporting procedures, making sure regulations are followed and protecting the interests of stakeholders. The effectiveness of audit committees in carrying out their tasks has come under increased scrutiny as global markets get more integrated and regulatory oversight tightens. Of all the various aspects of an audit committee's performance, the timeliness of audit report issuance – also known as audit report lag – is of utmost importance because it has a direct impact on the caliber and dependability of the financial data that investors, regulators and other stakeholders can access.

A good number of studies have explored the determining factors of audit report lag in the past few decades. However, most of these studies considered client-specific factors (profitability, leverage, size, etc.) and auditor-specific factors (external auditor type, size, fees, etc.) as the determining factors of audit report lag. Although the effect of corporate governance on audit report lag has emerged recently, most of these studies have heavily emphasized board-specific factors like board size, board independence, gender diversity in the board, etc. The corporate governance framework of numerous companies worldwide has undergone substantial transformations over the past 20 years. While the board of directors (BoD) retains ultimate accountability for financial statements and disclosures, there is a persistent call from reformists, regulators, investors and scholars to entrust the central oversight, accountability and monitoring of the financial reporting process to an audit committee. Global corporate governance reforms, alongside new legislations and best practice guidelines introduced over recent decades, have fortified the role and duties of audit committees in the financial reporting process. The growing significance of audit committees is expected to directly impact the actions and engagements of external auditors, including the timeline for issuing audit reports. Only a handful of studies have explored the association between audit committee characteristics and audit report lag. Sultana *et al.* (2015) conducted such a study in the context of Australia, whereas Raweh *et al.* (2019) and Al-Qublani *et al.* (2020) conducted a similar study in the context of Oman and Malaysia, respectively. However, such studies in the South Asian region, particularly in emerging countries like Bangladesh, still remain unexplored. As emerging economies are predicted to be contributing to 50% of the world's gross domestic product (GDP) by 2050 (PwC, 2017), it is crucial to emphasize these markets as well.

The primary objective of the study is to investigate the relationship between audit report lag and audit committee characteristics. Five proxy variables, namely audit committee size, audit committee independence, gender diversity in the audit committee, the diligence of the audit committee and professional experts in the audit committee have been considered as the key characteristics of an audit committee. In addition, the study tries to explain the nature of the relationship between audit report lag and audit committee characteristics in the context of large firms and small firms.

The study has used 240 firm-year observations from manufacturing companies listed in the Dhaka Stock Exchange (DSE) of Bangladesh from 2018 to 2022. In addition to using

contemporaneous data regarding the audit committee, the study has used one-year-lagged data of the audit committee to investigate its impact on the audit report of the subsequent year. The findings of the study, consistent with expectations, show the existence of a negative and significant association between audit committee size, gender diversity and expertise with audit report lag. The study thus implies that the formation of larger audit committees and the inclusion of female members and professional experts on the board can significantly contribute to the reduction in time required to issue the audit report. This relationship holds not only for the current financial period but also for the subsequent financial period. A further analysis shows that this negative relationship is more prominent in large firms compared to small ones. However, the study has not found any relationship between audit committee independence and diligence with audit report lag.

There are a number of strong arguments in favor of Bangladesh being the focus of this study. Bangladesh, which recently left the United Nations' (UN) list of least developed countries (LDCs), is an example of a developing economy that is growing quickly. Furthermore, there have been major regulatory changes to Bangladesh's capital market in the last few years. Despite these advancements, the country grapples with challenges such as deficiencies in the legal framework, limited engagement of institutional investors and prevalent family-controlled ownership structures (Khan *et al.*, 2016). The BOD often facilitates "rent extraction" by dominant owners rather than safeguarding the interests of minority shareholders (Bepari *et al.*, 2023). These factors collectively contribute to a governance environment in Bangladesh that is perceived as relatively weak. However, considering the importance of audit committee in addressing such issues, the Corporate Governance Code (2018) of Bangladesh has mandated the formation of the audit committee as a subcommittee of the board in the listed companies of Bangladesh. According to the code, an audit committee should be formed with at least three members, with an independent director being the chairman of the committee. Besides, the committee will hold at least four meetings a year. All the committee members will be financially literate, and at least one member will have a background in accounting or financial management along with ten years of experience in such fields. Some of the major responsibilities of the audit committee include monitoring financial reporting, overseeing the appointment and activities of external auditors, reviewing the efficiency of internal controls, etc. Efficient accomplishment of all these activities can facilitate the audit process of external auditors and lead to quick submission of audit reports. Considering the background, the study tries to address the research question: How can audit committee characteristics affect audit report lag in listed manufacturing companies of Bangladesh?

The study makes numerous contributions both theoretically and practically. First, the study fills the existing gap in the field of research by addressing the association between audit committee characteristics and audit report lag in the context of Bangladesh. To the best of the authors' knowledge, this is the first study to analyze the importance of an effective audit committee in reducing audit report lag in an emerging economy like Bangladesh. This is crucial, especially as reformers and regulatory authorities continue to push for the expansion of the audit committee's responsibilities in order to improve the quality of financial reporting, including its timeliness.

Second, the study demonstrates empirically that certain characteristics of the audit committee – size, gender diversity and financial knowledge, in particular – are essential for minimizing audit report lag. This result closes a significant gap in earlier studies, which frequently did not address these specific traits in connection to audit timeliness. By emphasizing these qualities, the study offers a new viewpoint that goes beyond the conventional focus on general committee effectiveness and offers an understanding of how the structure and competence of audit committees affect audit efficiency.

Third, to establish a comprehensive theoretical framework, the study incorporates ideas from resource dependency theory and agency theory. Agency theory is leveraged to explain how effective audit committees can mitigate agency problems by enhancing oversight and aligning the interests of management with those of shareholders. The results of the study lend credence to the idea that strong audit committees improve the timeliness of financial reporting by reducing information asymmetry and managerial opportunism. Simultaneously, resource dependence theory is employed to demonstrate the essential role audit committees play in facilitating seamless audit processes by bringing in a variety of expert perspectives and external linkages. This dual-theoretical approach illustrates the various functions that audit committees perform in corporate governance, adding value to the scholarly discourse.

Finally, the findings of the study provide valuable implications to policymakers, regulators and practitioners regarding the current scenario of audit report lag in Bangladesh and how the composition of an effective audit committee can minimize the lag, enhance the timeliness of audit reports and enhance the quality of financial reporting. It recommends organizations think about expanding their audit committees in order to improve their oversight capacities and encourage gender diversity in order to gain access to a greater variety of viewpoints and methods of problem-solving. Furthermore, it is advised to give top priority to include people who possess significant financial knowledge in order to guarantee efficient audit supervision. The study facilitates the creation of policies and recommendations that promote the best possible audit committee configurations by providing evidence of the advantages of particular audit committee features. By ensuring that more businesses can attain the increased financial reporting timeliness associated with well-composed audit committees, this can help standardize best practices across industries.

The rest of the study is organized as follows: [Section 2](#) describes the theoretical framework based on which the hypotheses have been developed. [Section 3](#) explores the findings of prior research and develops hypotheses for the study. [Section 4](#) demonstrates the sample size, data collection method and research model used in the study. [Section 5](#) discusses the findings of the study by using descriptive statistics, bivariate analysis and multivariate analysis. [Section 6](#) provides additional analysis by using robustness test and subsample analysis. Finally, [Section 7](#) draws the conclusion of the study and discusses the theoretical and practical implications offered by the study.

2. Theoretical lenses

The hypotheses of the study (discussed in [Section 3](#)) are developed based on the perspective of two theories: agency theory and resource dependence theory. According to the proponents of agency theory and resource dependence theory, “human-actor-dependent” corporate governance mechanisms, like the audit committee and BODs, must be meticulously designed, balanced and structured in order to achieve group cohesion ([Sultana *et al.*, 2015](#)). According to agency theory, principals grant agents authority so they can carry out tasks on the principals’ behalf in return for payment ([Jensen and Meckling, 1976](#)). According to this theory, there is a conflicting connection between the manager and the owner since each side seeks to maximize their own interests ([Saleh *et al.*, 2022](#); [Wahab *et al.*, 2023](#)). This argument goes on to say that when agents put their own interests ahead of the principals’, agency costs may result. Proponents of agency theory argue that implementation of human-actor-dependent corporate governance mechanisms can restrict the divergent behavior of agents and minimize agency cost. Therefore, it is considered sufficient for the BoDs to have an audit committee in order to ensure the accuracy of financial accounts. The audit committee is regarded as a regulating tool to lessen the knowledge asymmetry between the internal and external board members since its primary responsibilities are to evaluate financial

information and regulate managerial behavior in current affairs (Qu *et al.*, 2015; Salehi *et al.*, 2018a, b). An independent audit committee is typically regarded as beneficial for a company, as it can enhance the committee's ability to offer objective and impartial evaluations of financial statements (Saleh and Mansour, 2024). This can ultimately improve financial reporting quality and reduce audit report lag (Bhuiyan and D'Costa, 2020). However, earlier research has confirmed that an audit committee's effectiveness in performing oversight responsibilities is dependent on certain critical attributes being met beforehand (Beasley *et al.*, 2000; Carcello and Neal, 2000; Raghunandan *et al.*, 2001; Salehi and Shirazi, 2016). Therefore, the study focuses on some key characteristics of audit committee including audit committee size, independence, gender diversity, diligence and expertise.

On the other hand, resource dependence theory explains how external resources influence organizational behavior, especially when it comes to acquiring resources and ensuring their survival (Pfeffer and Salancik, 1978). The proponents of the theory assert that an organization conforms to and depends upon entities or organizations in its surroundings that have power over essential resources that are necessary for its operations and over which it occasionally has shaky control (Hillman and Dalziel, 2003). As a result, the purpose and operation of human-actor-dependent corporate governance systems are focused on maximizing the company's resource power – i.e. its ability to guarantee consistent resource provisioning while maintaining others' reliance on them (Sultana *et al.*, 2015). In this context, an audit committee is crucial for identifying and preventing financial fraud and mismanagement. Members with financial skills are especially essential, as the committee is entrusted with examining risk management and internal controls (Saleh and Mansour, 2024). This simplifies the works of the external auditors and facilitates the timely publication of audit reports.

3. Literature review and hypothesis development

3.1 Audit committee size

The total number of individuals that make up the audit committee is referred to as the size of the audit committee. Although the minimum number of members to constitute an audit committee in Bangladesh is three, there is no maximum threshold. Contrasting views exist regarding the relationship between audit committee size and audit report lag. Proponents of agency theory suggest that the monitoring and supervision capabilities of audit committees are hampered if the size of the committee increases (Hillman and Dalziel, 2003). According to Bédard and Gendron (2010), a smaller audit committee can provide the necessary oversight and has a more diverse range of experience. Mintzberg (1983) stated that expanding the audit committee is likely to increase the probability of opportunistic conduct since the subcommittee is considered “bloated,” which makes it difficult to build a unified decision-making attitude. In a meta-analysis exploring the relationship between group cohesion and performance conducted by Evans and Dion (1991), there is a considerable probability of encountering the “free rider” dilemma in large committees, with members frequently gravitating toward the phenomenon known as “groupthink.” Raweh *et al.* (2019) also found a positive association between audit committee size and audit report lag, which is consistent with the agency theory.

However, the advocates of resource dependence theory suggest that larger boards are more effective than smaller boards. Larger boards can be the melting pot of different types of people with unique knowledge, experiences, skills and networks. This mixture makes the board more efficient in conducting its activities. An expanded committee will provide a wider range of viewpoints, which will improve the audit committee's capacity to assess the external auditor's position, responsibilities and actions in depth. As a result, a larger audit committee makes it easier for the subcommittee to use a wider variety of expertise to improve mediation

efforts when resolving disagreements, like those involving the audit report. Studies conducted by [Sultana et al. \(2015\)](#), [Al-Qublan et al. \(2020\)](#) and [Afenya et al. \(2022\)](#) also found a negative and significant association between audit committee size and audit report lag. Thus, the following hypothesis can be drawn:

- H1.* Ceteris paribus, there is a significant relationship between audit committee size and audit report lag.

3.2 Audit committee independence

Audit committee independence denotes the number of independent directors in the committee. Both the agency theory and resource dependence theory are congruent regarding the role of independent audit committee members in reducing audit report lag. When carrying out the duties of the subcommittee, an audit committee with a larger proportion of external directors is less likely to compromise ([Abbott et al., 2000](#)). According to agency theory, the independence and competence of audit committee directors are essential to maintaining the accuracy of financial reporting and improving the caliber of oversight. In their capacity as shareholders' representatives, these directors prioritize protecting the interests of minority shareholders ([Watts and Zimmerman, 1978](#)). In order to safeguard the interests of shareholders and the accuracy of financial information, independent directors are better positioned to prevent fraud, opportunistic behavior and deception in financial statements ([Bédard et al., 2004](#); [Baatwah et al., 2015](#); [Al-Rassas and Kamardin, 2016](#)). Moreover, existing scholarly works propose that audit committees with a majority of independent directors are more likely to improve the caliber of financial reporting on behalf of their companies. This improvement is ascribed to their propensity to choose auditors with experience in the business, create an internal audit department within the company and embrace high levels of accounting conservatism ([Goodwin, 2003](#)). Using samples from the Tehran Stock Exchange, [Salehi and Shirazi \(2016\)](#) found that an independent audit committee is likely to carry out its supervisory duties more proficiently within a company's corporate governance structure, leading to improved financial reporting quality. This ultimately leads to the timely issue of audit reports. Studies conducted by [Wan-Hussin and Bamahros \(2013\)](#) and [Sultana et al. \(2015\)](#) found a negative association between audit committee independence and audit report lag. Thus, the following hypothesis can be drawn:

- H2.* Ceteris paribus, there is a negative and significant relationship between audit committee independence and audit report lag.

3.3 Audit committee gender diversity

Gender diversity in the audit committee refers to the number of female members in the audit committee. Historically, the inclusion of females in BoDs and audit committees has been very low in Bangladesh. Like audit committee size, there remains a contrasting view regarding the impact of female members in reducing audit report lag. According to the proponents of agency theory, cohesiveness among the group is a prerequisite for the audit committee's efficacy. Studies conducted by [Levin et al. \(1994\)](#) and [Powell and Ansic \(1997\)](#) on gender diversity indicate that women are more risk-averse, ethically constrained and financially conservative than men. Different perspectives on core business concepts – like risk and money – can have a significant impact on financial accounting and auditing. This effect is more noticeable in smaller groups, such as the audit committee, where cohesiveness and group dynamics may be weakened, leading to less successful and efficient corporate governance and decision-making procedures. Using samples of Swedish firms, [Mnif and Cherif \(2023\)](#) found that the presence of female members in the audit committee can lead to

greater audit report lag, particularly in the existence of female audit partners. Gender differences may also play a role in the disintegration of small group dynamics and the emergence of majority and minority subgroups. This can ultimately reduce audit committee effectiveness and result in greater audit report lag.

On the other hand, the advocates of resource dependency theory suggest that companies with a diverse workforce, particularly in terms of gender diversity, are more likely to benefit from a wider array of knowledge, perspectives and skills, thereby fostering more innovative solutions and enhanced decision-making (Saleh, 2023). This reduces the possibility of dishonest and fraudulent accounting practices by enabling important corporate governance bodies, such as the audit committee, to consider a wider variety of financial accounting issues (Gul *et al.*, 2011). Injection of a different mindset in the committees can prevent the possibility of a “groupthink” mentality among the members. According to Dennis and Kunkel (2004), female audit committee members are more competent, proactive, effective, emotionally stable, independent, discreet and transparent than their male counterparts. An audit committee predominately made up of women might show increased awareness of a company’s propensity for filing fraudulent financial reports. Kuang and Chen (2011) found that there is a higher desire for improved audit quality in China when there are more female representatives on the corporate board. According to this study, the female committee members’ diligence facilitates the tasks of external auditors by enhancing the effectiveness of the internal audit function. Studies conducted by Bernardi and Threadgill (2010), Nielsen and Huse (2010) and Afenya *et al.* (2022) also found a negative association between gender diversity in audit committees and audit report lag. Due to the existence of contrasting views, the following hypothesis can be drawn:

- H3. *Ceteris paribus*, there is a significant relationship between audit committee gender diversity and audit report lag.

3.4 Audit committee diligence

Most of the prior studies have used the number of audit committee meetings held in a year as the measurement of audit committee diligence (Ika and Mohd Ghazali, 2012; Sultana *et al.*, 2015; Raweh *et al.*, 2019). According to the Blue Ribbon Committee (1999), audit committees should hold at least four meetings per year. The Corporate Governance Code (2018) of Bangladesh also mandates audit committees hold four meetings per year. The audit committee will be better equipped to respond proactively to the complex and ever-changing challenges posed by the unstable business and financial environment by meeting at regular intervals (Bédard *et al.*, 2004; Stewart and Munro, 2007). The audit committee’s watchfulness can extend to a variety of precautionary and remedial actions, promptly attending to issues pertaining to shortcomings in internal control. As a result, this monitoring plays a crucial role in identifying and preventing opportunistic managerial activity, protecting reported information quality and earnings integrity (Vafeas, 1999; Bédard *et al.*, 2004). According to Goh (2009), timely correction of material shortcomings is positively correlated with an audit committee that meets frequently. Krishnan and Visvanathan (2007) found that a diligent audit committee is more inclined to identify and report internal control deficiencies rather than issuing false and misleading statements or employing discretionary accruals to manipulate earnings. Using a sample of Palestinian listed companies, Saleh and Mansour (2024) found that the necessary levels of supervision and advice may not be given by busy audit committee members, which indicates the importance of diligent audit committees in ensuring better monitoring. However, Sultana *et al.* (2015) did not find any significant association between audit committee diligence and audit report lag. Based on prior studies, the following hypothesis can be drawn:

H4. *Ceteris paribus*, there is a negative and significant relationship between audit committee diligence and audit report lag.

3.5 Audit committee expertise

Audit committee expertise refers to the number of members with sound knowledge and experience in accounting or financial matters and has drawn the attention of most of the recent studies (Beasley and Salterio, 2001; Dezoort, 1998). Although the Corporate Governance Code (2018) of Bangladesh mandates the audit committees to have at least one member with financial literacy, it does not require that member to have professional qualifications. Both the agency theory and resource dependence theory support the need for including expert members in the audit committee to increase its efficiency. Agency theory proponents argue that having people with financial expertise augments the audit committee's ability to competently supervise the work of the external auditor. This entails understanding audit decisions and assisting in the clarification and negotiation of auditor-business relations, which ultimately reduces audit report lag (Sultana *et al.*, 2015). Resource dependency proponents contend that by adding financial professionals to the audit committee, the subcommittee will have more authority over financial accounting data and audit judgments (Defond *et al.*, 2005). The greater the degree of financial specialization, the greater the likelihood that the audit committee may discover earnings management (Salehi *et al.*, 2018a, b). In the absence of a financial expert, the audit committee is mostly dependent on the external auditor to guarantee that crucial financial accounting data, such as earnings, are accurate and relevant to external decision-makers (Sultana and Mitchell Van der Zahn, 2013). According to Bédard *et al.* (2004), the audit committee's primary role is to supervise the financial reporting process, which calls for directors with extensive financial knowledge and expertise. Such efficient monitoring and supervision can lead to timely issue of audit reports. Salehi and Soorestani (2019) found a positive association between audit committee's financial expertise and audit fees, which denotes that the existence of a financial expert in audit committee can encourage appointment of high-quality auditors which can ultimately reduce audit report lag. Studies conducted by Sultana *et al.* (2015) and Afenya *et al.* (2022) also found a negative and significant association between audit committee expertise and audit report lag. Thus, the following hypothesis can be drawn:

H5. *Ceteris paribus*, there is a negative and significant relationship between audit committee expertise and audit report lag.

4. Research method

4.1 Sample size and data collection

For the purpose of the study, the top 50 manufacturing companies listed in the DSE have been selected. The selection has been made based on market capitalization of the companies. The study has been conducted for the years 2018–2022 consisting of 250 firm-years. However, due to the unavailability of 10 annual reports, the final sample size has been limited to 240 firm-years. All of the data has been collected from secondary sources (annual reports). Table 1 shows the construction of samples from different industries. It can be seen that the engineering industry has the highest number of firms in the sample followed by the pharmaceuticals and chemicals industry.

4.2 Research model specification

Audit report lag, the dependent variable of the study, has been measured using the difference between the closing date of the financial statements and the date when the audit report is

Table 1.
Sample design by
industry

Industry	Sample firms	% of total
Cement	1	2.00
Ceramic	2	4.00
Engineering	13	26.00
Food and allied	6	12.00
Fuel and power	5	10.00
Jute	1	2.00
Paper and printing	4	8.00
Pharmaceuticals and chemicals	11	22.00
Textile	7	14.00
Total	50	100.00

Source(s): Authors' own creation

signed by the auditor. To represent audit committee characteristics, five proxy variables, namely, audit committee size, audit committee independence, audit committee gender diversity, audit committee diligence and audit committee expertise have been used. Besides Big 4 audit firms, audit report type, firm size, leverage and profitability has been used as the control variables. According to [Wright and Ashton \(1989\)](#) and [Alkhatib and Marji \(2012\)](#), the acknowledged Big 4 audit firms have more sophisticated resources, superior technology and high competence to complete the audit assignment with high quality and in a shorter amount of time compared to non-Big 4 firms. Regarding audit report type, [Carslaw and Kaplan \(1991\)](#) found that it may take auditors longer to do the audit if they have to resolve conflicting issues through talks or negotiations in response to an unfavorable audit opinion. Large firms tend to implement sophisticated accounting and auditing frameworks to alleviate monitoring and agency expenses stemming from conflicts between top management and lower-level management, which ultimately results in quick issuance of audit reports ([Hassan, 2016](#)). A high amount of leverage can be an indication of potential financial distress ([Carslaw and Kaplan, 1991](#)). This may make the auditors more skeptical about the reliability of financial statements and require more time to issue audit reports ([Habib et al., 2019](#); [Shin et al., 2017](#)). Finally, audit report lags in profitable firms tend to be shorter, as the clients will want to disperse the good news among the stakeholders and pressurize the auditors to issue reports timely ([Sultana et al., 2015](#); [Habib et al., 2019](#)).

4.2.1 Frequentist regression. In order to investigate the impact of audit committee characteristics on audit report lag, multiple regression analysis has been conducted using the pooled-ordinary least squares (OLS) with panel corrected standard errors (PCSE) model. The justification for employing the PCSE model lies in its capacity to handle heteroskedasticity, autocorrelation and contemporaneous correlation problems that arise during panel estimation of a particular panel database. Conventional panel estimators, such as the pooled-OLS regression model, fixed-effect regression model and random-effect regression model, do not sufficiently account for these problems. Both the independent autocorrelation structure and the first-order autocorrelation structure will be included in the PCSE model. The PCSE model will yield OLS estimates for the parameters when it makes use of the independent autocorrelation structure. In contrast, when employing the first-order autocorrelation structure, the PCSE model will yield Prais–Winsten estimates for the parameters. Sometimes the audit committee may not have any immediate effect, and its effect can be observed in the subsequent period. To address such an issue, the study has also used a lag model. Thus, to empirically measure the impact of audit committee characteristics on audit report lag, Model 1 (PCSE) and Model 2 (Lag) have been developed:

$$\begin{aligned} \text{ARL}_{it} = & \beta_0 + \beta_1 \text{ACSIZE}_{it} + \beta_2 \text{ACIND}_{it} + \beta_3 \text{ACGD}_{it} + \beta_4 \text{ACD}_{it} + \beta_5 \text{ACGE}_{it} + \beta_6 \text{BIG4}_{it} \\ & + \beta_7 \text{ART}_{it} + \beta_8 \text{FSIZE}_{it} + \beta_9 \text{LEV}_{it} + \beta_{10} \text{ROA}_{it} + \varepsilon_{it}. \end{aligned} \tag{1}$$

$$\begin{aligned} \text{ARL}_{it} = & \beta_0 + \beta_1 \text{ACSIZE}_{it-1} + \beta_2 \text{ACIND}_{it-1} + \beta_3 \text{ACGD}_{it-1} + \beta_4 \text{ACD}_{it-1} + \beta_5 \text{ACGE}_{it-1} \\ & + \beta_6 \text{BIG4}_{it} + \beta_7 \text{ART}_{it} + \beta_8 \text{FSIZE}_{it} + \beta_9 \text{LEV}_{it} + \beta_{10} \text{ROA}_{it} + \varepsilon_{it}. \end{aligned} \tag{2}$$

4.2.2 Bayesian regression. Statisticians have criticized frequentist approaches that rely on *p*-values, like panel data regression, for their failure to yield credible outcomes (Nguyen *et al.*, 2018; Thach *et al.*, 2022; Briggs, 2023). To address this issue, the study enhances the pooled-OLS with PCSE regression results with Bayesian linear regression. The purpose of Bayesian regression is to estimate the relationship between variables by combining prior beliefs with observed data, resulting in a posterior distribution that accounts for uncertainty in the model parameters. Utilizing Bayes’ theorem of probability, the study establishes *a priori* beliefs concerning the effect of audit committee characteristics on audit report lag (Bayes, 1763). These prior beliefs are integrated with assumptions about the likelihood of the observed data, producing a posterior distribution. In social science research, Bayesian analysis has gained traction by providing a more nuanced viewpoint (Jiang and Liu, 2020; Kalia, 2024a, b; Segnon *et al.*, 2018). However, there are drawbacks to Bayesian analysis, especially when choosing previous distributions. This study adopts the more cautious option of non-informative prior distributions, acknowledging the subjectivity inherent with informative priors (Jiang and Liu, 2020). Each independent variable is given a prior value of zero with a variance of 100 (Normal(0,100)), signifying the absence of prior information. Furthermore, Markov Chain Monte Carlo (MCMC) simulation is used in the study to investigate the posterior distribution of parameters. A total of 12,500 samples are drawn, with the first 2,500 being discarded to guarantee convergence and dependability in the analysis. Furthermore, the Gelman–Rubin diagnostic test has been performed to ensure the convergence of the MCMC chain.

Table 2 represents the definition of variables used in the study along with expected relationships:

5. Findings and discussion

5.1 Descriptive statistics

Table 3 presents the results of the descriptive statistics of the variables used in the study. The average time it takes from the ending date of a company’s fiscal year to the preparation of the audit report is around 117 days or almost 4 months. The fastest report provided during the sample firm-years was within 42 days, whereas the longest delay that an audit firm made to prepare its report was 215 days or almost 7 months. Among the independent variables, the average size of the audit committees of the sample firms is 3.12, which is more than the mandatory requirement of 3 members. The maximum size of the committee is 5 and the minimum size is 3, which indicates that all the companies have followed the rules. The average proportion of independent directors in the audit committees is 44%, with a minimum value of 20% and a maximum value of 75%. The average proportion of female directors in the committee is only 11%, with many companies having no female directors in the committee at all. This shows the lack of gender diversity in the audit committees of Bangladesh. In terms of audit committee diligence, the average number of meetings held

Variables	Description	Notation	Expected relationship	Reference
<i>Dependent variable (audit report lag)</i>				
Audit report lag	Natural logarithm of difference between end of the financial year and the day external auditor signs the audit report	ARL		
<i>Explanatory variables (audit committee characteristics)</i>				
Audit committee size	Number of members in the audit committee	ACSIZE	+/-	Sultana <i>et al.</i> (2015) and Raweh <i>et al.</i> (2019)
Audit committee independence	Proportion of independent directors in the audit committee	ACIND	-	Sultana <i>et al.</i> (2015) and Raweh <i>et al.</i> (2019)
Audit committee gender diversity	Proportion of female directors in the audit committee	ACGD	+/-	Sultana <i>et al.</i> (2015)
Audit committee diligence	Number of audit committee meetings held in a financial year	ACD	-	Sultana <i>et al.</i> (2015) and Raweh <i>et al.</i> (2019)
Audit committee expertise	Number of audit committee members with professional expertise (professional affiliations like CA, CMA, CFA, etc.)	ACE	-	Sultana <i>et al.</i> (2015) and Raweh <i>et al.</i> (2019)
<i>Control variables</i>				
Big 4 audit firm	Dummy variable with an assigned value of 1 if the client is audited by a Big 4 audit firm, otherwise 0	BIG4	-	Sultana <i>et al.</i> (2015) and Habib <i>et al.</i> (2019)
Audit report type	Dummy variable with an assigned value of 1 if the auditor issues a qualified report, otherwise 0	ART	-	Habib <i>et al.</i> (2019)
Firm size	Natural logarithm of total book value of asset	FSIZE	-	Habib <i>et al.</i> (2019)
Leverage	Ratio of total book value of debt to total book value of asset	LEV	+	Habib <i>et al.</i> (2019)
Profitability	Ratio of profit before tax to total asset	ROA	-	Habib <i>et al.</i> (2019)

Source(s): Authors' own creation

Table 2.
Definition of variables

during the sample years was around 4, with a minimum value of 4 and a maximum value of 6. Finally, the average proportion of professional experts in the committees is only 11%, with a minimum value of 0% and a maximum value of 75%. This implies the absence of a sufficient number of professional experts in the committees of the sample firms of Bangladesh. Among the control variables, the mean value of audits conducted by Big 4-affiliated audit firms is only 4%, which indicates the apathy of sample companies in appointing such firms. In terms of audit report type, around 89% of the reports had qualified audit opinion. The average firm size is BDT 13,632 million, whereas the average values of leverage and return of assets (ROA) are 45% and 6%, respectively.

Table 3.
Descriptive statistics

Variables	Obs.	Mean	Std. dev.	Min	Max
arl	240	116.64	17.49	42.00	215.00
acsize	240	3.12	0.36	3.00	5.00
acind	240	0.44	0.15	0.20	0.75
acgd	240	0.11	0.18	0.00	0.67
acd	240	4.16	0.57	4.00	6.00
ace	240	0.11	0.17	0.00	0.75
big4	240	0.04	0.19	0.00	1.00
art	240	0.89	0.31	0.00	1.00
fsize (in millions)	240	13,632	25,011	10	140,013
lev	240	0.45	0.28	−1.01	0.99
roa	240	0.06	0.07	−0.14	0.28

Note(s): For definition of variables, refer to [Table 2](#)
Source(s): Authors' own creation

5.2 Bivariate analysis

[Table 4](#) represents the results of the pairwise correlation matrix and variance inflation factor (VIF). The matrix shows that audit report lag has a negative and significant correlation with audit committee size, gender diversity and expertise at 1, 5 and 5% significance levels, respectively. However, the correlation of audit report lag with audit committee independence and diligence are found to be insignificant. In terms of control variables, audit report lag has a negative and significant correlation with Big 4 auditors and ROA and a positive and significant correlation with audit report type. The highest level of correlation has been observed between leverage and ROA (−0.36). As the value is lower than the minimum level (0.7), as suggested by [Gujarati \(2003\)](#), it can be said that there is no presence of multicollinearity in the study.

To provide further assurance regarding the absence of multicollinearity, the study has conducted a VIF test as well. According to [Wooldridge \(2016\)](#), multicollinearity problems may arise in the regression model if the average VIF is more than 10. On the other hand, as noted by [Bowerman and O'connell \(1990\)](#), a mean VIF less than 1 indicates the possibility of bias in the regression analysis. The findings of the VIF analysis (last column of [Table 4](#)) show that the mean VIF value is 1.25. This further strengthens our assertion that there is no multicollinearity problem in the study.

5.3 Multivariate analysis

5.3.1 *Frequentist regression analysis.* [Table 5](#) shows the results of the regression model used in the study to assess the relationship between audit committee characteristics and audit report lag. Model 1(a) represents the results of the PCSE model using the independent autocorrelation structure, and Model 1(b) represents the results of the PCSE model using the first-order correlation structure.

The findings show a negative association between audit committee size and audit report lag, and the relationship is at a 1% significance level. This implies that audit report lag decreases or the timeliness of audit reports increases in the existence of larger audit committees. Although this is in contrast with the agency theory, it is in line with the resource dependence theory. A larger committee can accommodate members with a wider and different set of skills, knowledge and experience, which can ultimately raise the effectiveness of the committee. Besides, larger audit committees, due to more manpower, can create subcommittees to oversee activities like financial reporting and internal control, which ultimately aid the external auditors to prepare reports more quickly. This is consistent with the studies conducted by [Sultana et al. \(2015\)](#), [Al-Qublani et al. \(2020\)](#) and [Afenya et al. \(2022\)](#). Thus, [Hypothesis 1](#) can be accepted.

	arl	acsize	acind	acgd	acd	ace	big4	art	fsize	lev	roa	VIF
arl	1.00											
acsize	−0.05**	1.00										1.27
acind	−0.16	0.00	1.00									1.17
acgd	−0.10*	0.13	0.27**	1.00								1.32
acd	0.04	0.04	0.08	−0.02	1.00							1.07
ace	−0.13*	0.17*	0.10	0.04	−0.10	1.00						1.18
big4	−0.18*	−0.07	0.11	0.12	−0.11	−0.02	1.00					1.09
art	0.15*	0.12	−0.10	0.06	0.10	−0.04	−0.02	1.00				1.16
fsize	−0.23**	0.11	0.22**	0.33**	−0.04	0.28**	0.10	0.19**	1.00			1.39
lev	0.11	0.04	−0.03	−0.01	0.05	0.19**	−0.04	−0.12	0.09	1.00		1.28
roa	−0.11	0.30**	−0.13	0.14	−0.11	−0.05	0.15*	0.23**	0.08	−0.36**	1.00	1.56
										<i>Mean VIF</i>		1.25

Note(s): ** and * indicate level of significance at 1% and 5%, respectively. For definition of variables, refer to [Table 2](#)

Source(s): Authors' own creation

Table 5.
Regression results
using PCSE model and
lag model

Variables	Model 1(a)		Model 1(b)		Model 2	
	Coef.	Std. err.	Coef.	Std. err.	Coef.	Std. err.
ACSIZE	-7.22***	0.65	-1.95***	2.72	-8.83**	2.08
ACIND	-3.13	2.31	-5.38	1.71	-7.50	4.63
ACGD	-9.75***	1.35	-9.34***	2.34	-9.54**	5.22
ACD	0.37	0.45	-1.21	1.49	8.28	7.13
ACE	-6.05***	2.26	-9.04***	3.26	-9.35**	2.16
BIG4	-7.66**	8.17	-8.51	15.73	1.73	5.17
ART	8.45***	2.15	9.09***	4.31	3.65***	9.05
FSIZE	-2.90***	0.27	-2.87***	0.38	-7.56**	8.28
LEV	6.28***	1.44	7.24***	2.74	4.34	9.25
ROA	-9.20***	6.78	-9.49***	19.44	-9.27**	5.96
Constant	-196.48***	20.98	-165.54***	10.50	174.50	23.70
Year dummy	Yes		Yes		Yes	
Observations	240		240		190	
R-squared	0.30		0.37		0.32	
Wald χ^2	30.18***		16.31***		2.78	

Note(s): This table represents the result of the relationship between audit committee characteristics and audit report lag using Equation (1) and (2). Model 1(a) is estimated by using PCSE model with independent autocorrelation structure, whereas the Model 1(b) is estimated by using PCSE model with first-order autocorrelation structure. Model 2 is estimated by using lag model where the proxies of audit committee characteristics are lagged by one year. Standard errors are in parentheses. ***, **, and * indicate level of significance at 1, 5 and 10%, respectively. For definition of variables, refer to Table 2

Source(s): Authors' own creation

The regression results also show a negative and significant relationship between gender diversity in the audit committee and audit report lag at a 1% significance level. This indicates that the presence of female members in the audit committee can reduce audit report lag. This supports the resource dependence theory, which suggests that diversity in the board can overcome the lapses of “group thinking” by offering broader perceptions. Besides, the high morality and activism of the female members can reduce the possibility of misstatements in the financial reports and thus improve the timeliness of audit reports. It is consistent with the studies conducted by Bernardi and Threadgill (2010), Nielsen and Huse (2010) and Afenya *et al.* (2022). Thus, Hypothesis 3 can be accepted.

Consistent with the expectation, audit committee expertise shows a positive and significant association with the audit report lag at a 1% significance level. The results show that inclusion of an expert in the audit committee can decrease the audit report lag by 6 days (−6.05). It supports both the agency theory and resource dependence theory. A member with financial expertise can help the audit committee oversee the activities of the external auditors more efficiently and mediate the incongruities arising between the management and the auditor during the audit process. Besides, an expert member can enhance the audit process by responding to auditors’ inquiries and facilitating their coordination with management. The findings are consistent with the studies conducted by Bédard *et al.* (2004), Sultana *et al.* (2015) and Afenya *et al.* (2022). Thus, Hypothesis 5 can be accepted.

Model 2 of Table 5 presents the regression results of the variables using the lag model. Some researchers argue that corporate governance mechanisms like audit committees cannot have an instant impact on organizations but can influence the different organizational dimensions in subsequent years (Dalton *et al.*, 1999). Considering the possibility of such cases, the study has considered the effect of audit committee characteristics in one year on audit report lag of the subsequent year in Model 2. It can be seen that the results of Model 2 are consistent with those of Model 1. Audit committee size, gender diversity and expertise

have negative and significant associations with audit report lag. This indicates that larger committees and inclusion of female members and expert members not only reduce the audit report lag in the contemporary year but also in the subsequent year. However, the association of audit committee independence and diligence with audit report lag is found to be insignificant.

Among the control variables, a negative and significant association can be found between audits performed by Big 4 audit firms and audit report lag in Model 1(a). Due to more resources and efficient manpower, Big 4 audit firms can perform the audit faster. A positive and significant association between audit report type and lag indicates that it takes more time to prepare an audit report if the auditor needs to provide a qualified opinion. Firm size is found to negatively affect audit report lag, as larger firms can put more pressure on auditors to prepare the reports timely. Leverage is found to have a positive association with lag, as a high proportion of leverage increases the risks of the client, which causes the auditors to conduct audits more extensively, ultimately leading to delays in the completion of the audit process. Finally, a negative and significant association can be found between ROA and audit report lag. Profitability is considered as positive or good news, and thus, the management tries to communicate the good news as early as possible, which leads to the timely publication of audited financial statements.

5.3.2 *Bayesian regression analysis.* Panel A of Table 6 shows the regression results using the Bayesian model. The findings align with the frequentist regression analysis (pooled-OLS with PCSE model), confirming the robustness of the findings. Audit committee size,

Panel A: Bayesian regression results			
Variables	Posterior mean	95% C.I	MCSE
ACSIZE	-7.43	[-14.05, -0.96]	0.0031
ACIND	-1.53	[-18.39, 14.09]	0.0085
ACGD	-8.32	[-22.58, 6.57]	0.0044
ACD	0.11	[-3.87, 4.28]	0.0165
ACE	-7.60	[-20.23, 6.32]	0.0062
BIG4	-18.87	[-28.17, -7.36]	0.0082
ART	10.89	[3.01, 18.82]	0.0068
FSIZE	-2.99	[-4.18, -1.81]	0.0110
LEV	16.79	[8.14, 25.72]	0.0068
ROA	71.90	[41.54, 106.76]	0.0196
CONSTANT	187.18	[164.96, 210.02]	1.0064

Panel B: MCMC diagnostic results	
Independent variables	Rc statistics
ACSIZE	1.000
ACIND	1.021
ACGD	1.071
ACD	1.032
ACE	1.038
CONSTANT	1.053
VAR	1.000

Note(s): This table represents the result of the relationship between audit committee characteristics and audit report lag using Bayesian regression with Markov Chain Monte Carlo (MCMC) simulation. Total number of draws was 12,500 of which 2,500 were discarded. For definition of variables, refer to Table 2. Panel B shows the MCMC convergence results using Gelman–Rubin diagnostic test

Source(s): Authors' own creation

Table 6.
Regression results
using Bayesian model

independence, gender diversity and expertise are found to inversely affect audit report lag. The association of audit report lag with the control variables also remains the same, except for ROA. In the Bayesian model, ROA is found to positively affect audit report lag, which is in contrast with the findings of the frequentist approach. This discrepancy likely arises from the methodological differences of the models, and thus, the relationship between these two variables cannot be generalized. Panel B of Table 6 shows the results of the MCMC convergence test. According to Gelman and Rubin (1992), if the value of R_c for any coefficient is less than 1.1, it indicates convergence. The results of Panel B show that all the R_c values of the independent variables are less than 1.1, and thus, it can be assumed that the convergence criteria are fulfilled by the MCMC chain.

6. Additional analysis

6.1 Robustness test

To check the robustness of the regression results presented in Table 5 of the study, the regression model is changed from the PCSE model to the pooled-OLS model and the fixed-effects model, which are shown in Table 7. Model 3 shows the regression results using the pooled-OLS model with Driscoll–Kraay standard errors, whereas Model 4 shows the regression results using the fixed-effects model. The selection of the fixed-effects model was done using the Hausman test. The rejection of null hypothesis in the Hausman test indicated the selection of fixed-effect model as a better panel estimator for the panel data of the study. The results show that audit committee size, gender diversity and expertise have negative and significant associations with audit report lag. Larger boards, female members and expert members can increase the efficiency of the audit committee and reduce the delay in preparing audit reports. Thus, the findings of both models are consistent with the findings of the frequentist model (Table 5). Besides, the findings regarding the control variables are also similar to those of the main models.

Variables	Model 3		Model 4	
	Coef.	Std. err.	Coef.	Std. err.
ACSIZE	−7.22**	3.11	−2.22*	12.31
ACIND	−3.13	8.73	1.82	12.47
ACGD	−9.75*	6.97	−8.84***	10.98
ACD	0.37	1.57	−2.62*	1.28
ACE	−6.05**	7.07	−5.51**	14.57
BIG4	−7.66**	7.88	−7.89**	2.92
ART	8.45***	3.74	7.81**	11.72
FSIZE	−2.90**	1.21	−9.72*	10.67
LEV	6.28***	4.01	2.92	12.19
ROA	−9.20***	6.60	−10.12*	26.01
CONSTANT	−196.48	167.69	−222.79	145.37
Year dummy	Yes		Yes	
Observations	240		240	
R-squared	0.20		0.23	
F-stat (<i>p</i> -value)	2.73***		2.83***	

Note(s): This table represents the result of the relationship between audit committee characteristics and audit report lag using Equation (1). Model 3 is estimated by using pooled-OLS model with Driscoll–Kraay standard errors, whereas Model 4 is estimated by using fixed-effects model. Standard errors are in parentheses. ***, ** and * indicate level of significance at 1, 5 and 10%, respectively. For definition of variables, refer to Table 2

Source(s): Authors' own creation

Table 7.
Regression results
using pooled-OLS
model and fixed-
effects model

6.2 Subsample analysis

Table 8 represents a subsample analysis by categorizing the sample into large firms and small firms. Model 5 shows the results of regression analysis using large firms, whereas Model 6 shows the results of regression analysis using small firms. The regression results show that audit committee size, gender diversity and expertise are negatively and significantly associated with audit report lag. This is consistent with the findings of Table 5 and implies that larger boards, participation of female members and expert members can improve the timeliness of audit reports in large firms. However, among the audit committee characteristics, only gender diversity is found to be negatively and significantly related to audit report lag in small firms. It implies that the inclusion of female members in audit reports reduces the delay in preparing audit reports, irrespective of the firm size. Large firms tend to have larger boards, which enables the firms to form large subcommittees like audit committees for better supervision. Besides, large firms have more resources, which facilitate the audit committee members to effectively perform their responsibilities like maintaining audit quality, selecting and overseeing external auditors and managing conflicts between auditors and management. This ultimately reduces the audit report lag.

7. Conclusion and recommendations

The study investigates the association between audit committee characteristics and audit report lag using a sample of 50 DSE-listed manufacturing companies in Bangladesh. Audit report lag has been measured using the difference between the balance date and the audit report signing date by the auditor. To measure audit committee characteristics, five proxy variables, namely audit committee size, independence, gender diversity, diligence and expertise, have been used. Hypotheses have been developed through the lenses of agency theory and resource dependence theory. Big 4 audit firms, audit report type, firm size, leverage and profitability have been used as control variables.

Variables	Model 5 (large firms)		Model 6 (small firms)	
	Coef.	Std. err.	Coef.	Std. err.
ACSIZE	-5.10***	7.95	-2.22	12.31
ACIND	-6.42	11.23	-1.82	12.47
ACGD	-3.85**	9.57	-4.84*	10.98
ACD	0.02	2.57	2.62	1.28
ACE	-5.36***	13.63	-5.51	14.57
BIG4	-4.92**	5.25	-7.89	2.92
ART	6.98***	4.90	7.81	11.72
FSIZE	-3.75*	2.30	-8.72*	10.67
LEV	2.23	4.93	9.92***	14.19
ROA	-9.80**	12.11	-11.12*	36.01
CONSTANT	-131.09	38.00	-122.79	45.37
Year dummy	Yes		Yes	
Observations	121		119	
R-squared	0.37		0.24	
F-stat (p-value)	3.65***		4.22***	

Note(s): This table represents the result of the relationship between audit committee characteristics and audit report lag using Equation (1). Models 5 and 6 is estimated by using PCSE model with first-order autocorrelation structure for large firms and small firms, respectively. Standard errors are in parentheses. ***, ** and * indicate level of significance at 1, 5 and 10%, respectively. For definition of variables, refer to Table 2

Source(s): Authors' own creation

Table 8.
Regression results of
large vs small firms

Using 240 firm-year observations, the study has found that the average audit report lag of the sample firms is 117 days. The regression results show evidence of a negative and significant relationship between audit committee size, gender diversity and expertise with audit report lag. Besides, these three proxies of audit committee characteristics are also found to reduce audit report lag in the subsequent financial year. However, no significant relationship has been found between audit committee independence and diligence with audit report lag. The results remain consistent while using alternative regression models. A subsample analysis shows that the contribution of audit committees in reducing audit report lag is more pronounced in large firms, as they can benefit more from ample resources and manpower. However, female members are found to facilitate reducing audit report lag regardless of the size of the company.

The study provides several practical implications for policymakers, regulators and practitioners. The study illustrates the current scenario of audit report lag in Bangladesh and how effective an audit committee can enhance the timeliness of accounting information by reducing audit report lag. Organizations should consider expanding their audit committees in order to take advantage of the broader perspectives and more equitable workloads that come with larger groups. They should also actively encourage gender diversity in order to gain access to a variety of ideas and methods for problem-solving. For the purpose of efficiently handling intricate financial matters and enabling more seamless audits, it is imperative to give priority to the recruitment of members with significant financial competence. In addition to improving financial reporting efficiency, these approaches also improve company governance, boost stakeholder confidence and offer useful direction to regulatory bodies that want to standardize best practices across industries. Legislators and oversight bodies should encourage the creation of larger audit committees and push for the appointment of female members and subject matter experts in such committees. This strategy is essential for maintaining the timely delivery of audit reports and reducing the possibility of information asymmetry and earnings manipulation. The study focuses specifically on Bangladesh, and the generalizability of the findings to other developing countries is an important consideration. While the unique institutional, regulatory and cultural contexts of Bangladesh may influence the relationship between audit committee characteristics and audit report lag, the results provide insights that could be applicable to other developing economies with similar characteristics.

The findings of this study provide valuable theoretical contributions to the literature on audit committee characteristics and audit report lag, particularly through the lenses of agency theory and resource dependency theory. The study emphasizes the critical role that audit committee features have in reducing problems between stakeholders and management from the standpoint of agency theory. According to the findings, audit report lag is considerably decreased by certain audit committee characteristics, including size, gender diversity and financial skill. The idea that an effective audit committee can improve oversight and monitoring, reducing managerial opportunism and encouraging timely financial reporting, is supported by this. These results support the agency theory's contention that minimizing information asymmetry and defending shareholder interests require robust governance frameworks, particularly powerful audit committees. Furthermore, the study contributes to resource dependency theory by highlighting how audit committee characteristics provide valuable resources and capabilities that improve audit efficiency. The results of the study show that audit committee members who have financial expertise and add diversity to the board are more likely to promote more efficient audit procedures, which in turn reduces the delay between audit reports. This supports the resource dependency theory by showing how audit committees, as an essential resource, improve organizational performance and effectiveness through their expertise, contacts outside the company and knowledge.

The study is subject to some limitations. First, only the manufacturing companies were considered in the study. Due to the small sample size, the results cannot be completely generalized. Second, the study did not consider some other characteristics of audit committees like the experience of the members, their involvement in other companies, etc., which could have provided more comprehensive results. Finally, although prior archival research has confirmed the control variables included in the regression models, it is plausible that other variables that could affect audit report latency are not included in the analysis.

This study will pave the way for future research. Further studies can be done on financial companies to investigate the consistency of the results. The impact of factors like board characteristics and internal control on audit report lag can be examined. Finally, the role of audit quality and earnings quality in reducing audit report lag can also be assessed.

References

- Abbott, L.J., Park, Y. and Parker, S. (2000), "The effects of audit committee activity and independence on corporate fraud", *Managerial Finance*, Vol. 26 No. 11, pp. 55-67, doi: [10.1108/03074350010766990/FULL/XML](https://doi.org/10.1108/03074350010766990/FULL/XML).
- Afenya, M.S., Arthur, B., Kwarteng, W. and Kyeremeh, G. (2022), "The impact of audit committee characteristics on audit report time lag: evidence from Ghana", *Research Journal of Finance and Accounting*, Vol. 13 No. 4, pp. 1-11, doi: [10.7176/RJFA/13-4-01](https://doi.org/10.7176/RJFA/13-4-01).
- Al-Ajmi, J. (2008), "Audit and reporting delays: evidence from an emerging market", *Advances in Accounting*, Vol. 24 No. 2, pp. 217-226, doi: [10.1016/J.ADIAC.2008.08.002](https://doi.org/10.1016/J.ADIAC.2008.08.002).
- Al-Qublan, A.A.M., Kamardin, H. and Shafie, R. (2020), "Audit committee chair attributes and audit report lag in an emerging market", *International Journal of Financial Research*, Vol. 11 No. 4, pp. 475-492, doi: [10.5430/IJFR.V11N4P475](https://doi.org/10.5430/IJFR.V11N4P475).
- Al-Rassas, A.H. and Kamardin, H. (2016), "Earnings quality and audit attributes in high concentrated ownership market", *Corporate Governance (Bingley)*, Vol. 16 No. 2, pp. 377-399, doi: [10.1108/CG-08-2015-0110/FULL/PDF](https://doi.org/10.1108/CG-08-2015-0110/FULL/PDF).
- Alkhatib, K. and Marji, Q. (2012), "Audit reports timeliness: empirical evidence from Jordan", *Procedia - Social and Behavioral Sciences*, Vol. 62, pp. 1342-1349, doi: [10.1016/J.SBSPRO.2012.09.229](https://doi.org/10.1016/J.SBSPRO.2012.09.229).
- Baatwah, S.R., Salleh, Z. and Ahmad, N. (2015), "CEO characteristics and audit report timeliness: do CEO tenure and financial expertise matter?", *Managerial Auditing Journal*, Vol. 30 Nos 8-9, pp. 998-1022, doi: [10.1108/MAJ-09-2014-1097/FULL/PDF](https://doi.org/10.1108/MAJ-09-2014-1097/FULL/PDF).
- Bayes, T. (1763), *An Essay towards Solving a Problem in the Doctrine of Chances*, Philosophical Transaction of the Royal Society of London, London, Vol. 53, pp. 370-418.
- Beasley, M.S. and Salterio, S.E. (2001), "The relationship between board characteristics and voluntary improvements in audit committee composition and experience", *Contemporary Accounting Research*, Vol. 18 No. 4, pp. 539-570, doi: [10.1506/RM1J-A0YM-3VMV-TAMV](https://doi.org/10.1506/RM1J-A0YM-3VMV-TAMV).
- Beasley, M.S., Carcello, J.V., Hermanson, D.R. and Lapides, P.D. (2000), "Fraudulent financial reporting: consideration of industry traits and corporate governance mechanisms", *Accounting Horizons*, Vol. 14 No. 4, pp. 441-454, doi: [10.2308/ACCH.2000.14.4.441](https://doi.org/10.2308/ACCH.2000.14.4.441).
- Bédard, J. and Gendron, Y. (2010), "Strengthening the financial reporting system: can audit committees deliver?", *International Journal of Auditing*, Vol. 14 No. 2, pp. 174-210, doi: [10.1111/J.1099-1123.2009.00413.X](https://doi.org/10.1111/J.1099-1123.2009.00413.X).
- Bédard, J., Chtourou, S.M. and Courteau, L. (2004), "The effect of audit committee expertise, independence, and activity on aggressive earnings management", *Auditing: A Journal of Practice & Theory*, Vol. 23 No. 2, pp. 13-35, doi: [10.2308/AUD.2004.23.2.13](https://doi.org/10.2308/AUD.2004.23.2.13).
- Bepari, M.K., Nahar, S., Mollik, A.T. and Azim, M.I. (2023), "Content characteristics of key audit matters reported by auditors in Bangladesh and their implications for audit quality", *Journal of Accounting in Emerging Economies*, Vol. 14 No. 4, pp. 855-885, doi: [10.1108/JAEE-12-2022-0344/FULL/XML](https://doi.org/10.1108/JAEE-12-2022-0344/FULL/XML).

- Bernardi, R.A. and Threadgill, V.H. (2010), "Women directors and corporate social responsibility", *Electronic Journal of Business Ethics and Organization Studies*, Vol. 15 No. 2, pp. 15-21.
- Bhuiyan, M.B.U. and D'Costa, M. (2020), "Audit committee ownership and audit report lag: evidence from Australia", *International Journal of Accounting and Information Management*, Vol. 28 No. 1, pp. 96-125, doi: [10.1108/IJAIM-09-2018-0107/FULL/PDF](https://doi.org/10.1108/IJAIM-09-2018-0107/FULL/PDF).
- Bowerman, B.L. and O'connell, R.T. (1990), *Linear Statistical Models: An Applied Approach*, PWS-Kent Pub., Boston.
- Briggs, W.M. (2023), "A partial solution for the replication crisis in economics", *Asian Journal of Economics and Banking*, Vol. 7 No. 2, pp. 180-190, doi: [10.1108/AJEB-03-2023-0027](https://doi.org/10.1108/AJEB-03-2023-0027).
- BSEC (2018), "Corporate governance code".
- Bushman, R.M. and Smith, A.J. (2001), "Financial accounting information and corporate governance", *Journal of Accounting and Economics*, Vol. 32 Nos 1-3, pp. 237-333, doi: [10.1016/S0165-4101\(01\)00027-1](https://doi.org/10.1016/S0165-4101(01)00027-1).
- Carcello, J.V. and Neal, T.L. (2000), "Audit committee composition and auditor reporting", *The Accounting Review*, Vol. 75 No. 4, pp. 453-467, doi: [10.2308/ACCR.2000.75.4.453](https://doi.org/10.2308/ACCR.2000.75.4.453).
- Carslaw, C.A.P.N. and Kaplan, S.E. (1991), "An examination of audit delay: further evidence from New Zealand", *Accounting and Business Research*, Vol. 22 No. 85, pp. 21-32, doi: [10.1080/00014788.1991.9729414](https://doi.org/10.1080/00014788.1991.9729414).
- Committee, B.R. (1999), "The Report and Recommendations of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees", New York.
- Dalton, D.R., Daily, C.M., Johnson, J.L. and Ellstrand, A.E. (1999), "Number of directors and financial performance: a meta-analysis", *Academy of Management Review*, Vol. 42 No. 6, pp. 674-686, doi: [10.2307/256988](https://doi.org/10.2307/256988).
- Defond, M.L., Hann, R.N., Xuesong, H.U. and Engel, E. (2005), "Does the market value financial expertise on audit committees of boards of directors?", *Journal of Accounting Research*, Vol. 43 No. 2, pp. 153-193, doi: [10.1111/J.1475-679X.2005.00166.X](https://doi.org/10.1111/J.1475-679X.2005.00166.X).
- Dennis, M.R. and Kunkel, A.D. (2004), "Perceptions of men, women, and CEOs: the effects of gender identity", *Social Behavior and Personality*, Vol. 32 No. 2, pp. 155-172, doi: [10.2224/SBP.2004.32.2.155](https://doi.org/10.2224/SBP.2004.32.2.155).
- Dezort, F.T. (1998), "An analysis of experience effects on audit committee members' oversight judgments", *Accounting, Organizations and Society*, Vol. 23 No. 1, pp. 1-21, doi: [10.1016/S0361-3682\(97\)00029-9](https://doi.org/10.1016/S0361-3682(97)00029-9).
- Evans, C.R. and Dion, K.L. (1991), "Group cohesion and performance", *Small Group Research*, Vol. 43 No. 6, pp. 690-701, doi: [10.1177/1046496412468074](https://doi.org/10.1177/1046496412468074).
- Gelman, A. and Rubin, D.B. (1992), "Inference from iterative simulation using multiple sequences", *Statistical Science*, Vol. 7 No. 4, pp. 457-472, doi: [10.1214/ss/1177011136](https://doi.org/10.1214/ss/1177011136).
- Goh, B.W. (2009), "Audit committees, boards of directors, and remediation of material weaknesses in internal control", *Contemporary Accounting Research*, Vol. 26 No. 2, pp. 549-579, doi: [10.1506/CAR.26.2.9](https://doi.org/10.1506/CAR.26.2.9).
- Goodwin, J. (2003), "The relationship between the audit committee and the internal audit function: evidence from Australia and New Zealand", *International Journal of Auditing*, Vol. 7 No. 3, pp. 263-278, doi: [10.1046/j.1099-1123.2003.00074.X](https://doi.org/10.1046/j.1099-1123.2003.00074.X).
- Gujarati, D. (2003), *Basic Econometrics*, McGraw-Hill Education, New York.
- Gul, F.A., Srinidhi, B. and Ng, A.C. (2011), "Does board gender diversity improve the informativeness of stock prices?", *Journal of Accounting and Economics*, Vol. 51 No. 3, pp. 314-338, doi: [10.1016/J.JACCECO.2011.01.005](https://doi.org/10.1016/J.JACCECO.2011.01.005).
- Habib, A., Bhuiyan, M.B.U., Huang, H.J. and Miah, M.S. (2019), "Determinants of audit report lag: a meta-analysis", *International Journal of Auditing*, Vol. 23 No. 1, pp. 20-44, doi: [10.1111/IJAU.12136](https://doi.org/10.1111/IJAU.12136).

- Hassan, Y.M. (2016), "Determinants of audit report lag: evidence from Palestine", *Journal of Accounting in Emerging Economies*, Vol. 6 No. 1, pp. 13-32, doi: [10.1108/JAEE-05-2013-0024/FULL/XML](https://doi.org/10.1108/JAEE-05-2013-0024/FULL/XML).
- Hillman, A.J. and Dalziel, T. (2003), "Boards of directors and firm performance: integrating agency and resource dependence perspectives", *Academy of Management Review*, Vol. 28 No. 3, pp. 383-396, doi: [10.5465/Amr.2003.10196729](https://doi.org/10.5465/Amr.2003.10196729).
- Ika, S.R. and Mohd Ghazali, N.A. (2012), "Audit committee effectiveness and timeliness of reporting: Indonesian evidence", *Managerial Auditing Journal*, Vol. 27 No. 4, pp. 403-424, doi: [10.1108/02686901211217996/FULL/XML](https://doi.org/10.1108/02686901211217996/FULL/XML).
- Jensen, M.C. and Meckling, W.H. (1976), "Theory of the firm: managerial behavior, agency costs and ownership structure", *Journal of Financial Economics*, Vol. 3 No. 4, pp. 305-360, doi: [10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X).
- Jiang, H. and Liu, C. (2020), "Economic policy uncertainty, CEO characteristics and firm R&D expenditure: a Bayesian analysis", *Applied Economics*, Vol. 52 No. 34, pp. 3709-3731, doi: [10.1080/00036846.2020.1721422](https://doi.org/10.1080/00036846.2020.1721422).
- Kalia, A. (2024a), "Promoter share pledging and dividend payouts in India: does family involvement matters?", *Asian Journal of Economics and Banking*, Vol. ahead-of-print No. ahead-of-print, doi: [10.1108/AJEB-01-2024-0009](https://doi.org/10.1108/AJEB-01-2024-0009).
- Kalia, A. (2024b), "CEO power and stock price crash risk in India: the moderating effect of insider trades", *Asian Journal of Economics and Banking*, Vol. 8 No. 2, pp. 169-198, doi: [10.1108/AJEB-10-2023-0095](https://doi.org/10.1108/AJEB-10-2023-0095).
- Khan, A., Mihret, D.G. and Muttakin, M.B. (2016), "Corporate political connections, agency costs and audit quality", *International Journal of Accounting and Information Management*, Vol. 24 No. 4, pp. 357-374, doi: [10.1108/IJAIM-05-2016-0061/FULL/PDF](https://doi.org/10.1108/IJAIM-05-2016-0061/FULL/PDF).
- Krishnan, G.V. and Visvanathan, G. (2007), "Reporting internal control deficiencies in the post-sarbanes-oxley era: the role of auditors and corporate governance", *International Journal of Auditing*, Vol. 11 No. 2, pp. 73-90, doi: [10.1111/J.1099-1123.2007.00358.X](https://doi.org/10.1111/J.1099-1123.2007.00358.X).
- Kuang, X.W. and Chen, J. (2011), "Gender diversity, management control, and auditing demands", *Nankai Business Review*, Vol. 14 No. 6, pp. 48-56.
- Levin, J.S., Taylor, R.J. and Chatters, L.M. (1994), "Race and gender differences in religiosity among older adults: findings from four national surveys", *Journal of Gerontology*, Vol. 49 No. 3, pp. S137-S145, doi: [10.1093/GERONJ/49.3.S137](https://doi.org/10.1093/GERONJ/49.3.S137).
- Mande, V. and Son, M. (2011), "Do audit delays affect client retention?", *Managerial Auditing Journal*, Vol. 26 No. 1, pp. 32-50, doi: [10.1108/02686901111090826/FULL/PDF](https://doi.org/10.1108/02686901111090826/FULL/PDF).
- Mintzberg, H. (1983), "The case for corporate social responsibility", *Journal of Business Strategy*, Vol. 4 No. 2, pp. 3-15, doi: [10.1108/EB039015/FULL/PDF](https://doi.org/10.1108/EB039015/FULL/PDF).
- Mnif, Y. and Cherif, I. (2023), "The simultaneously representation of women at the audit demand and supply sides and audit quality", *Asian Review of Accounting*, Vol. 31 No. 5, pp. 754-804, doi: [10.1108/ARA-09-2022-0214/FULL/PDF](https://doi.org/10.1108/ARA-09-2022-0214/FULL/PDF).
- Nguyen, H.T., Trung, N.D. and Thach, N.N. (2018), "Beyond traditional probabilistic methods in econometrics", *International Econometric Conference of Vietnam*, Cham, Springer, pp. 3-21, doi: [10.1007/978-3-030-04200-4_1](https://doi.org/10.1007/978-3-030-04200-4_1).
- Nielsen, S. and Huse, M. (2010), "The contribution of women on boards of directors: going beyond the surface", *Corporate Governance: An International Review*, Vol. 18 No. 2, pp. 136-148, doi: [10.1111/J.1467-8683.2010.00784.X](https://doi.org/10.1111/J.1467-8683.2010.00784.X).
- Pfeffer, J. and Salancik, G. (1978), *The External Control of Organizations: A Resource Dependence Perspective*, Harper & Row, New York.
- Powell, M. and Ansic, D. (1997), "Gender differences in risk behaviour in financial decision-making: an experimental analysis", *Journal of Economic Psychology*, Vol. 18 No. 6, pp. 605-628, doi: [10.1016/S0167-4870\(97\)00026-3](https://doi.org/10.1016/S0167-4870(97)00026-3).

- PwC (2017), "The long view how will the global economic order change by 2050?".
- Qu, W., Ee, M.S., Liu, L., Wise, V. and Carey, P. (2015), "Corporate governance and quality of forward-looking information Evidence from the Chinese stock market", *Asian Review of Accounting*, Vol. 23 No. 1, pp. 39-67, doi: [10.1108/ARA-03-2014-0029/FULL/XML](https://doi.org/10.1108/ARA-03-2014-0029/FULL/XML).
- Raghunandan, K., Read, W.J. and Rama, D.V. (2001), "Audit committee composition, 'gray directors,' and interaction with internal auditing", *Accounting Horizons*, Vol. 15 No. 2, pp. 105-118, doi: [10.2308/ACCH.2001.15.2.105](https://doi.org/10.2308/ACCH.2001.15.2.105).
- Raweh, N.A.M., Kamardin, H. and Malik, M. (2019), "Audit committee characteristics and audit report lag: evidence from OmanNo title", *International Journal of Accounting and Financial Reporting*, Vol. 9 No. 1, pp. 475-492, doi: [10.5296/ijafr.v9i1.14170](https://doi.org/10.5296/ijafr.v9i1.14170).
- Rusmin, R. and Evans, J. (2017), "Audit quality and audit report lag: case of Indonesian listed companies", *Asian Review of Accounting*, Vol. 25 No. 2, pp. 191-210, doi: [10.1108/ARA-06-2015-0062/FULL/PDF](https://doi.org/10.1108/ARA-06-2015-0062/FULL/PDF).
- Saleh, W.A.M. (2023), "The nexus of ESG and environmental sustainability: does gender diversity make a difference in Asian companies?", doi: [10.21203/rs.3.rs-2927618/v1](https://doi.org/10.21203/rs.3.rs-2927618/v1).
- Saleh, M.W.A. and Mansour, M. (2024), "Is audit committee busyness associated with earnings management? The moderating role of foreign ownership", *Accounting Research Journal*, Vol. 37 No. 1, pp. 80-97, doi: [10.1108/ARJ-04-2023-0106/FULL/XML](https://doi.org/10.1108/ARJ-04-2023-0106/FULL/XML).
- Saleh, M.W.A., Eleyan, D. and Maigoshi, Z.S. (2022), "Moderating effect of CEO power on institutional ownership and performance", *EuroMed Journal of Business*, Vol. 19 No. 3, pp. 442-461, doi: [10.1108/EMJB-12-2021-0193/FULL/PDF](https://doi.org/10.1108/EMJB-12-2021-0193/FULL/PDF).
- Salehi, M. and Shirazi, M. (2016), "Audit committee impact on the quality of financial reporting and disclosure: evidence from the Tehran Stock Exchange", *Management Research Review*, Vol. 39 No. 12, pp. 1639-1662, doi: [10.1108/MRR-09-2015-0198/FULL/PDF](https://doi.org/10.1108/MRR-09-2015-0198/FULL/PDF).
- Salehi, M. and Soorestani, N.R. (2019), "The effect of audit committee and board of directors characteristics' on audit fees and internal control quality in Iran", *Revista de Métodos Cuantitativos Para La Economía y La Empresa*, Vol. 28, pp. 23-42, doi: [10.46661/revmetodoscuanteconempresa.2952](https://doi.org/10.46661/revmetodoscuanteconempresa.2952).
- Salehi, M., Lari Dasht Bayaz, M. and Naemi, M. (2018a), "The effect of CEO tenure and specialization on timely audit reports of Iranian listed companies", *Management Decision*, Vol. 56 No. 2, pp. 311-328, doi: [10.1108/MD-10-2017-1018/FULL/PDF](https://doi.org/10.1108/MD-10-2017-1018/FULL/PDF).
- Salehi, M., Tahervafaei, M. and Tarighi, H. (2018b), "The effect of characteristics of audit committee and board on corporate profitability in Iran", *Journal of Economic and Administrative Sciences*, Vol. 34 No. 1, pp. 71-88, doi: [10.1108/JEAS-04-2017-0017](https://doi.org/10.1108/JEAS-04-2017-0017).
- Segnon, M., Gupta, R., Bekiros, S. and Wohar, M.E. (2018), "Forecasting US GNP growth: the role of uncertainty", *Journal of Forecasting*, Vol. 37 No. 5, pp. 541-559, doi: [10.1002/for.2517](https://doi.org/10.1002/for.2517).
- Shin, I.H., Lee, H.Y., Lee, H.A. and Son, M. (2017), "How does human resource investment in internal control affect audit reporting lag?", *Asia-Pacific Journal of Accounting and Economics*, Vol. 24 Nos 1-2, pp. 195-215, doi: [10.1080/16081625.2015.1135751](https://doi.org/10.1080/16081625.2015.1135751).
- Stewart, J. and Munro, L. (2007), "The impact of audit committee existence and audit committee meeting frequency on the external audit: perceptions of Australian auditors", *International Journal of Auditing*, Vol. 11 No. 1, pp. 51-69, doi: [10.1111/J.1099-1123.2007.00356.X](https://doi.org/10.1111/J.1099-1123.2007.00356.X).
- Sultana, N. and Mitchell Van der Zahn, J.L.W. (2013), "Earnings conservatism and audit committee financial expertise", *Accounting and Finance*, Vol. 55 No. 1, pp. 279-310, doi: [10.1111/ACFI.12042](https://doi.org/10.1111/ACFI.12042).
- Sultana, N., Singh, H. and Van der Zahn, J.L.W.M. (2015), "Audit committee characteristics and audit report lag", *International Journal of Auditing*, Vol. 19 No. 2, pp. 72-87, doi: [10.1111/IJAU.12033](https://doi.org/10.1111/IJAU.12033).
- Thach, N.N., Kreinovich, V., Ha, D.T. and Trung, N.D. (2022), "Financial econometrics: bayesian analysis, quantum uncertainty, and related topics", *ECONVN: International Econometric Conference of Vietnam*, Springer Cham, doi: [10.1007/978-3-030-98689-6](https://doi.org/10.1007/978-3-030-98689-6).

- Vafeas, N. (1999), "Board meeting frequency and firm performance", *Journal of Financial Economics*, Vol. 53 No. 1, pp. 113-142, doi: [10.1016/S0304-405X\(99\)00018-5](https://doi.org/10.1016/S0304-405X(99)00018-5).
- Wahab, Y.A.A.K., Velashani, M.A.B. and Salehi, M. (2023), "A comparative study of the relationship between audit quality and earnings management in the markets of Iraq and Oman", *Journal of Infrastructure, Policy and Development*, Vol. 7 No. 3, p. 2813, doi: [10.24294/JIPD.V7I3.2813](https://doi.org/10.24294/JIPD.V7I3.2813).
- Wan-Hussin, W.N. and Bamahros, H.M. (2013), "Do investment in and the sourcing arrangement of the internal audit function affect audit delay?", *Journal of Contemporary Accounting and Economics*, Vol. 9 No. 1, pp. 19-32, doi: [10.1016/JJCAE.2012.08.001](https://doi.org/10.1016/JJCAE.2012.08.001).
- Watts, R.L. and Zimmerman, J.L. (1978), "Towards a positive theory of the determination of accounting standards", *The Accounting Review*, Vol. 53 No. 1, pp. 112-134.
- Wooldridge, J.M. (2016), *Introductory Econometrics*, 6th ed., Cengage Learning, Boston.
- Wright, A. and Ashton, R.H. (1989), "Identifying audit adjustments with attention-directing procedures", *The Accounting Review*, Vol. 64 No. 4, pp. 410-428.

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