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THE INFLUENCE OF AUDI FEES IN THE NEXUS BETWEEN CORPORATE SUSTAINABILITY ENGAGEMENT AND EARNINGS MANAGEMENT

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ABSTRACT

Purpose: This study aims to examine the relationship between corporate sustainability engagement and earnings management and the function of audit fees in that relationship.

Theoretical framework: Sustainability reporting and earnings management may not be applicable or generate the same outcomes due to differences in societal values, culture, and development levels between developed and developing countries, which emphasises the need for this study to focus on Bangladesh, an emerging market.

Design/methodology/approach: This research employs content analysis to determine the magnitude of the sustainability activities for 2010 to 2020 of the banking sectors of Bangladesh. Additionally, this study uses discretionary accruals as a proxy for earnings management.

Findings: According to the results, there is a significant positive relationship between corporate sustainability engagement and earnings management, with audit fees serving as a moderator in the negative direction. According to these findings, high audit costs are likely to compel bank executives to submit high-quality financial reports and restrict their use of sustainability activities to management opportunism.

Research, practical and social implication: The study's findings should concern researchers and corporate authorities interested about managers' earnings management aspirations. The findings will immediately impact academics and decision-makers in countries with similar financial and governmental systems.

Originality/value: According to sustainability reporting studies, disclosures have been driven by the need to calm concerns about a company's authenticity. This paper acknowledges the need for increased audit fees for quality auditors, but it argues that rigorous audit procedures are more important for raising financial disclosure standards.

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A INFLUÊNCIA DAS TAXAS DE AUDIÊNCIA NO NEXO ENTRE O COMPROMISSO DE SUSTENTABILIDADE CORPORATIVA E A GESTÃO DE LUCROS

RESUMO
Objetivo: Este estudo visa examinar a relação entre o compromisso de sustentabilidade corporativa e a gestão de lucros e a função dos honorários de auditoria nessa relação.
Estrutura teórica: Os relatórios de sustentabilidade e a gestão de lucros podem não ser aplicáveis ou gerar os mesmos resultados devido às diferenças nos valores sociais, cultura e níveis de desenvolvimento entre países

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desenvolvidos e em desenvolvimento, o que enfatiza a necessidade deste estudo focar em Bangladesh, um mercado emergente.
Design/metodologia/abordagem: Esta pesquisa emprega a análise de conteúdo para determinar a magnitude das atividades de sustentabilidade para 2010 a 2020 dos setores bancários de Bangladesh. Além disso, este estudo utiliza os acréscimos discricionários como uma proxy para a gestão de ganhos.
Conclusões: De acordo com os resultados, existe uma relação positiva significativa entre o compromisso de sustentabilidade corporativa e a gestão de lucros, com taxas de auditoria servindo como moderador na direção negativa. De acordo com estes resultados, os altos custos de auditoria provavelmente obrigam os executivos dos bancos a apresentar relatórios financeiros de alta qualidade e restringem seu uso de atividades de sustentabilidade ao oportunismo gerencial.
Pesquisa, implicação prática e social: As conclusões do estudo devem preocupar pesquisadores e autoridades corporativas interessadas nas aspirações de gestão de lucros dos gerentes. As conclusões terão impacto imediato sobre os acadêmicos e tomadores de decisão em países com sistemas financeiros e governamentais similares.
Originalidade/valor: De acordo com estudos de relatórios de sustentabilidade, as revelações foram motivadas pela necessidade de acalmar as preocupações sobre a autenticidade de uma empresa. Este documento reconhece a necessidade de aumentar as taxas de auditoria para auditores de qualidade, mas argumenta que procedimentos rigorosos de auditoria são mais importantes para elevar os padrões de divulgação financeira.

Palavras-chave: Honorários de Auditoria, Gestão de Ganhos, Compromisso de Sustentabilidade.

LA INFLUENCIA DE LAS COMISIONES DE AUDITORÍA EN EL NEXO ENTRE EL COMPROMISO DE LAS EMPRESAS CON LA SOSTENIBILIDAD Y LA GESTIÓN DE BENEFICIOS

RESUMEN
Objetivo: Este estudio pretende examinar la relación entre el compromiso de las empresas con la sostenibilidad y la gestión de beneficios, así como la función de los honorarios de auditoría en dicha relación.
Marco teórico: Los informes de sostenibilidad y la gestión de beneficios pueden no ser aplicables o generar los mismos resultados debido a las diferencias en los valores sociales, la cultura y los niveles de desarrollo entre los países desarrollados y los países en desarrollo, lo que subraya la necesidad de que este estudio se centre en Bangladesh, un mercado emergente.
Diseño/metodología/enfoque: Esta investigación emplea el análisis de contenido para determinar la magnitud de las actividades de sostenibilidad de 2010 a 2020 de los sectores bancarios de Bangladesh. Además, este estudio utiliza los devengos discrecionales como variable sustitutiva de la gestión de beneficios.
Resultados: Según los resultados, existe una relación positiva significativa entre el compromiso de las empresas con la sostenibilidad y la gestión de beneficios, y los honorarios de auditoría actúan como moderadores en sentido negativo. Según estos resultados, es probable que los elevados costes de auditoría obliguen a los directivos de los bancos a presentar informes financieros de alta calidad y restrinjan el uso de las actividades de sostenibilidad al oportunismo de gestión.
Implicaciones sociales, prácticas y de investigación: Las conclusiones del estudio deberían preocupar a los investigadores y a las autoridades empresariales interesados en las aspiraciones de gestión de beneficios de los directivos. Las conclusiones tendrán un impacto inmediato en los académicos y los responsables de la toma de decisiones de países con sistemas financieros y gubernamentales similares.
Originalidad/valor: Según los estudios sobre informes de sostenibilidad, la divulgación de información se ha visto impulsada por la necesidad de calmar las inquietudes sobre la autenticidad de una empresa. Este artículo reconoce la necesidad de aumentar los honorarios de los auditores de calidad, pero sostiene que los procedimientos rigurosos de auditoría son más importantes para elevar las normas de divulgación financiera.

Palabras clave: Honorarios de Auditoría, Gestión de Beneficios, Compromiso de Sostenibilidad.

INTRODUCTION

Globally, the increasing importance of sustainability challenges has refocused emphasis on corporate sustainability engagement (hereafter CSE). This is evidenced by a survey report of KPMG (2015) in which it is revealed that more than 93 percent of the world's top 250 companies produce separate sustainability/CSE reports to ensure accountability and transparency to the stakeholders. Additionally, transparency regarding financial earnings is critical for sustainability endeavours since it provides external users with a foundation of faith and certainty regarding an organization's rights and actions. sustainability is related with moral and ethical concerns about corporate behaviour and policymaking that extend beyond the legally required. As a result, corporations that engage in sustainability activities are obligated to provide clear and credible economic reports.

A company's ability to distinguish between profitable operations and those that are losing money is enhanced when financial information is made publicly available. Nonetheless, executives have some discretion when calculating earnings in accordance with GAAP (generally accepted accounting principles), which results in declared revenues appearing to be greater than the actual case (Amar & Chakroun, 2018). Indeed, Lassoued, Ben, Attia, & Sassi. (2018) defined Earnings Management (EM) as executives exercising discretion over financial reporting data. Accounting information and disclosure techniques may also be manipulated to drive legal results dependent on reported accounting statistics or deceive stakeholders about a company's genuine commercial success. Similarly, prior research on EM has identified three distinct motivations for this practise: contractual obligations, capital markets, and regulatory incentives (Bryan & Mason, 2016; Habbash & Haddad, 2019).

However, because of the uncertainty surrounding individual repayment, sensible managers should avoid EM. According to financial disclosure perceptions and corporate sustainability engagement reporting, incentives might be opportunistic or long-term. Now a day, companies consider social concerns in a time of determining their corporate strategies. It is evident from the prior research that socially committed firms are less likely involved in unethical practices through earnings management (Rahman, Rasid & Rohaida, 2020b, Hickman, Iyer & Jadiyappa, 2021). However, agency problem motivates managers to take part in extensive CSE activities and deceive stakeholders from the true picture of the business (Rezaee, Dou & Zhang, 2020; Kuo, Lin & Chien 2021). Previous studies remain inconclusive regarding the clear direction between the association of the Sustainability reporting and earnings management and it becomes an empirical issue.

Subsequently, organizational financial statements should be analysed by autonomous professionals (i.e., Chartered accountants) to affirm that financial statements are free from material errors (Bryan et al., 2016). Clients of review reports expect that financial reports inspected by a qualified accountant are trustworthy. Many organizations have ‘failed’ as a result of corporate disappointments attribute to auditor failure, such as the accounting violations by

Enron and WorldCom (Ibrahim, Darus, Yusoff & Muhamad, 2015). Accounting fraud is done by the administration, which included professional accountants (Alhadab, 2017). Additionally, a large amount of research has been done on the relationship between earnings management and audit quality (proxied by audit fees), and a solid and positive relationship discovered between them (Bryan et al., 2016; Chen, Krishnan & Yu, 2018). It has been evident that higher audit fees stimulate auditors to perform extensive audit procedures to detect financial misstatements, enhancing financial report quality (Muttakin, Khan & Mihret, 2017). Therefore, Sustainability reporting studies have prescribed that the need to ease worries over corporate legitimacy has acted as a powerful motivating force for such disclosures. Thus, in this study, while the demand for higher audit fees of quality auditor is recognised, that ensure rigorous audit procedure are argued to be the more important mechanisms by which to promote a higher quality of financial disclosure.

The decision to focus on the banking industry was influenced by a number of different factors. In the first place, it's undeniable that banks consistently uphold their socially responsible business practises (Belal, Cooper & Khan, 2015, Rahman, Rasid & Rohaida, 2020c). Financial enterprises (such as banks or other non-banking financial nstitutions) are more likely to falsify their earnings than other organisations, according to some writers (Rahman, Rasid & Rohaida, 2020a). As a result, it is critical to look into the bank executives' self-serving motivations. From these perspectives, this study examines whether engagement to sustainability initiatives has any link to the quality of financial disclosure using a sample of 30 listed banking institutions over a eleven-year span (2010–2020).

Even though EM and CSE undertakings have independently settled themselves as well-investigated research zones, generally less consideration has been paid to constructing an association between the two, specifically from the perspectives of the developing countries. Moreover, a cross-national study distinguished the establishment of law and order as forerunner to corporate governance legitimacy (Rahman & Rasid, 2021). This is similar to the observation of a preceding study that the conventional social order in developing nations, described by family predominance, corruption, and political obstruction (Muttakin et al., 2017), makes earning manipulation more likely in developing countries than in developed countries (Kumala et al., 2021). While evidence of excellent financial disclosure and high-quality financial audits may be found in industrialized regions, in countries where corporate governance and sustainability standards are still being developed, inadequate evaluations have been conducted (Islam et al., 2017; Hossain & Neogy, 2019, Rahman et al., 2020b, Bangladesh Bank, 2021). Thus, due to differences in societal values, culture, developmental between developed and developing countries, the association between Sustainability reporting and earnings management might not be relevant or may not provide the same results, which confirms the need for this study to investigate an emerging market, Bangladesh.

Moreover, we investigate the association between sustainability engagement and earnings management in Bangladeshi context and also examine the moderating impact of audit fees on the same relationship during the period from 2010 to 2020. From the study findings, it is clear that the banking sector of Bangladesh uses discretionary accruals as an opportunistic tool. Findings of this study also show that audit fees significantly and negatively affect the association between CSE-EM. This finding implies that firms which provide high audit fees to the external auditors, for ensuring transparent financial disclosure, do not use social initiatives as an opportunistic motive.

An important contribution to the present body of knowledge on sustainability initiatives and earnings management is provided by this study. According to Rahman et al. (2020b), inconsistent findings on the relationship between sustainability practices and EM is a result of several factors. Among the factors, there is a lack of consideration of moderating or mediating influence in these relationships. In previous studies, researchers demonstrated a strong association between Sustainability reporting and audit fees as well as EM and audit fees. However, inadequate studies have examined the stimulus of audit fees on this inconsistent relationship over time, and require further examination. According to the author's understanding, there is a lack of study on the relationship between Sustainability reporting and earnings management, using audit fees as a moderator, in the literature. This study provides a model that accommodates an endogenous factor, audit fees (AF). The result implies that the audit fees negatively moderate this relationship. Furthermore, since this study reveals that managers may use their opportunistic motive to deceive stakeholders, so audit quality should ensure through comprehensive auditing tools and techniques by providing high audit fees that eventually minimize earnings management.

The rest of the paper is as follows. theoretical frameworks followed by research hypotheses based on literature review regarding Sustainability engagement and EM. Later, this study describes research methods, presents data and empirical models. Then report the results and discuss the analysis. Finally, we present the conclusions of the study.

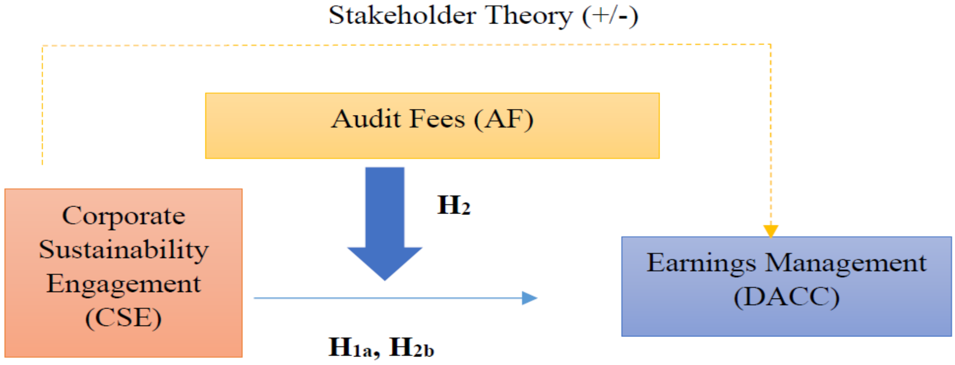
THEORETICAL FRAMEWORK

Stakeholder theory

To achieve a long-term return on investment and sustained commercial success, corporations partake in ethical practices by highlighting the value of this awareness into their strategic planning (Abdelsalam, Dimitropoulos, Elnahass & Leventis, 2016). A manager who desires the long-term sustainability of their business must pay close attention to the requirements of the many shareholders, who control the wealth that is essential for the business's survival (Moratis et al., 2018). Because of this, and then in responding to the needs of various stakeholders, delivering quality earnings is closely tied to sustainability initiatives (Ehsan, Tariq, Nazir, Shabbir, Shabbir, Lopez, & Ullah 2021). As a result of this understanding, prior research confirms that organizations more engaged in CSE activities and disclosure are more concern regarding authenticity of the financial reporting (Gerged et al., 2021).

On the other hand, the stakeholder structure also sheds light on the relationship between CSE–EM because the Stakeholder theory is focused on how a business handles its influential stakeholders (Rahman et al., 2020a). According to this theory, sustainability practices are viewed as an indicator of the discourse between the organisation and its stakeholders and the most effective means of mediating these associations (Habbash et al., 2019). Moreover, challenging stakeholder welfare generates pressures which are certainly reflected in the company's financial disclosure (Prior, Surroca & Tribó, 2008: Liu & Lee, 2019). Executives also employ problematic accounting approaches to stimulate stakeholder insights concerning business performance within a set of different stakeholder forces (Moratis & van Egmond, 2018). Then the possibility of information asymmetry will be high when executives' attempt to oblige several stakeholder purposes (Islam & Kokubu, 2017). Sequentially, this information asymmetry stretches intensification to adopt EM practices (Khan & Akter, 2017). Therefore, stakeholder theory delivers understandings into management drives and activities to convey varied interested party’s wellbeing by advising that executives who are involved in CSE undertakings are also engaged in EM performance (Kuo et al., 2021). The following research frameworks were employed in the current study:

Figure 1: The nexus between corporate sustainability engagement and earnings management



Source: Prepared by Authors (2022)

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Sustainability can be used to oversee a corporation's relationship with its donors or to elicit a favorable response from financial market participants the stock's worth (Rahman et al., 2020c). The external pressure on organizations to be more socially responsible is decreased due to their participation and disclosure in CSE activities (Roger, Chen & Hung, 2021; Rahman et al., 2021). There are claims that managers may participate in sustainability activities to fulfill their purposes or hide the effects of misconduct in a company's operations (Amar et al., 2018, Liu et al., 2019). According to others, sustainability undertakings can be used as a window dressing by managers to help them achieve their professional goals (Muttakin et al., 2017; Khan et al., 2017).

Numerous studies have been conducted on the relationship between corporate sustainability engagement (sustainability), financial performance, and Sustainability engagement and earnings management (EM). Researchers have looked at the relationship between financial disclosure and corporate sustainability engagement in the context of the agency problem (Abdelsalam et al., 2016; Rahman et al., 2020b; Rezaee et al., 2020). They suggest that managers utilize sustainability actions as an entrenchment strategy to conceal their opportunistic behaviour (Kumala & Siregar, 2021). Some scholars support a negative association between sustainability reporting and EM, whereas others rely on the opportunistic usage of sustainability and anticipate a positive relationship between CSE and EM (Khan et al., 2017). Specifically, involvement in sustainability activities may only for the accomplishment of individual interests rather than the interest of the business or its shareholders (Habbash et al., 2019). Previous studies advocate that when ethical codes are relevant to the detection of self-absorption or financial self-centredness of the business, these codes can become window-dressing (Amar et al., 2018, Rahman et al., 2021, Alsmady, 2022). This stimulus specifies providing shareholders a positive attitude of business comprehensibility through social and environmental undertakings, when, in reality, the organizations disguise the clarity by means of adopting problematic discretionary choices. This purpose is somewhat relevant to the suggestion in Prior et al. (2008).

Moreover, Kuo et al. (2021) noted that investors are excessively positive in their assessment of the earnings of firms with high sustainability performance, which encourages managers of these firms to inflate accruals. Also, Moratis et al. (2018) noticed that firms might report more sustainability undertakings for opportunistic motives, for instance, management's egotism and a higher possibility to participate in EM and account lousy news in a less appropriate approach using a sample of 258 organisations in ten advanced nations. Similarly, Liu et al. (2019) stated a positive relationship of CSE and EM, particularly in the food industry, and point out the stimulus of political contemplations along with good thoughts. Roger et al., (2021) investigated how managers in emerging economies manage earnings when they engage greater sustainability actions, which indicates a positive relationship between sustainability actions and its disclosure with EM, whereas the presence of influential sponsors restrains EM practices. Together, these studies would notice a positive relation between sustainability and EM as executives of these companies are more likely to deceive sponsors as to the financial performance and value of the firm through opportunistic enticements originating from reputation indemnity and self-absorption.

Conversely, two additional studies that investigate the link between CSE and EM provide insignificant outcomes. Ibrahim et al. (2015) show an adverse coefficient between sustainability stipulations and EM, but find an insignificant relationship in terms of net sustainability disclosure score measurement and earnings manipulation. Moreover, Khan et al. (2017) investigates sustainability performance with EM and deliver unpredictable consequences through diverse EM proxies. They also demonstrate that sustainability-oriented organizations are less likely to participate in earnings loss evasion and earnings smoothing, but more aggressive in the management of discretionary accruals. On the other hand, transparent financial disclosure enables investors to make more informed judgments based on the information available (Lassoued et al., 2018; Hossain et al., 2019). As a result, corporate sustainability initiatives are linked to higher profits, and the fundamental goal of the company is to satisfy the many stakeholders' needs (Gerged, Albitar & Al-Haddad, 2021; Relaiza, Nunez, Temple, Miranda & Bellido, 2023). Enterprises less interested in earnings management appear to be more committed to CSE and its transparency.

As we have seen, sustainability engagement and EM have an inconclusive relationship. As a result, there is no apparent correlation between sustainability engagement and EM. Furthermore, past research has been conducted in industrialized countries. This study did not come across any other research that studied the association between Sustainability reporting and earnings management in the banking industry. This research will look at the relationship between Bangladesh's banking sector's sustainability reporting and EM (conventional and Islamic banks) to close this gap. Based on these two opposing viewpoints on financial transparency and opportunism, the following hypotheses have been formulated:

H_{1a}: There is a positive relationship between Sustainability engagement and EM.

H_{1b}: There is a negative relationship between Sustainability engagement and EM.

The prior studies have found that there is a significant relationship between audit fees (AF) and sustainability disclosure. Most of the researchers found a negative relationship, but some researchers also found a strong positive relationship between CSE and AF because of mandatory auditing of the sustainability reports (Alhadab et al., 2017). However, in most countries, Sustainability reporting is still voluntary (Belal et al., 2015, Rahman et al., 2020). On the other hand, in terms of the relationship between EM and audit fees, most researchers found a significant negative relationship between AF and EM (Chen et al., 2018; Bryan et al., 2016; Muttakin et al., 2017). The reason is that high audit fees ensure extensive audit procedure that enhance financial disclosure quality. However, prior studies also showed that the relationship between CSE and AF is inconclusive. By reason of this indecisive connection between CSE and AF, AF was employed as a moderator rather than mediator to rationalise the association between CSE and EM. Therefore, it is clear from the previous studies that there are significant relationships between Sustainability engagement with audit fees as well as earnings management with audit fees. Thus, this study would like to use audit fees as a moderator to justify the inconclusive relationship between CSE and EM. There is a shortage of research to strengthen the relationship between Sustainability reporting and earnings management by using audit fees as a moderator, because most of the prior studies used stakeholders' and investor protections are influential factors and outcomes are also indecisive. To fill the gaps, this study will look at the association between sustainability activities and EM considering audit fees as a moderator factor. In this regard, the following hypothesis is proposed in this study:

H_2: Audit fees moderate the relationship between corporate sustainability engagement and earnings management.

DATA AND METHODOLOGY

Data collection procedure and period of the study

The dataset comprised 30 commercial and nationalised banks listed on Bangladesh's Dhaka Stock Exchange (DSE) from 2010 to 2020. The study sample consists of 330 firm-year observations. Because annual reports are a collective and extensive form of communicating with stakeholders, they are used to source secondary data. To find out the magnitude of the Sustainability initiatives we employed content analysis techniques. Table 1 represents the complete size of the sample for this industry, which was chosen as the source of evidence for the study.

Table 1. Sample Size

No. of Bangladeshi listed banks	30
Less: Insufficient information	0
Total Number of listed Banks	30
Overall firm-year observations (30× 11)	**330**

Source: Prepared by Authors (2022)

To put our hypotheses to the test, we employ the following models:

$$EM = \beta_0 + \beta_1\, CSE\ it + \beta_2\, FSIZE + \beta_3\, MB + \beta_4\, LEV + \varepsilon_{it} \quad \textbf{(1)}$$

$$EM = \beta_0 + \beta_1\, CSE_{it} + \beta_2\, AF + \beta_3\, CSE \times AF + \beta_4\, FSIZE + \beta_5\, MB + \beta_6\, LEV + \varepsilon_{it} \quad \textbf{(2)}$$

Variables are defined in Table 2.

Table 2. Variables Definition

Earnings Management (EM)	=	EM (Proxied by discretionary accruals)
Corporate Sustainability engagement (CSE)	=	CSE reported over the fiscal year
Control Variables:		
Market to Book Value of Equity (MB)	=	The difference between the market value of a company's stock and its book value
Audit Fees	=	The total amount paid to the auditor for auditing services
Firm Size (SIZE)	=	The entire assets' natural logarithm
CSE× Audit Fees	=	The interaction effect between CSE and Audit Fees
Leverage (LEV)	=	The ratio of total debt to total assets
ε_{it}	=	An error term.

Source: Prepared by Authors (2022)

Measurement of moderating variable (audit fees)

A moderating variable is a variable that has a dependent effect on the regressors variable association (Creswell, 2003). Audit fees are recognised as a moderator variable in this section. Table 3 defines the variable operationally.

Table 3. Operational Definition and Measurement of the Variable Audit Fees

Variable	Definition and Measurement	Sources
Audit Fees (AF)	The Audit fees (AF) are the payments paid by the auditee to the public accountants that charged for providing audit services on financial statements	Chen et al., 2018; Alhadab et al., 2018
	Where, AF = natural log of AF	Salehi, Shiri & Hossini (2020)

Source: Prepared by Authors (2022)

Measurement of the independent variable: sustainability reporting index

Following Rahman et al. (2020a) and Rahman et al. (2021), the corporate sustainability engagement index score is calculated in equation (2) as follows:

$$\mathbf{CSEI} = \sum_{\mathbf{i=1}}^{\mathbf{n}} \mathbf{di}$$

Where,
d_i = 1 if the firm discloses the item;
d_i = 0 if the firm not discloses the item; and
n = number of items.

Cronbach's alpha coefficient is used in this study to analyse the reliability of the corporate sustainability engagement index (Cronbach, 1951). The result of the coefficient of the Cronbach's alpha shows 0.701 that indicates the index is internally consistent and reliable (Rahman et al., 2021). Appendix A demonstrates Sustainability reporting index.

Measurement of the dependent variable: earnings management

In this study, earnings management is measured using discretionary accrual, based on the Jones (1991) model developed for banking organizations by Yasuda, Okuda & Konishi (2004). The following model will be used to assess the discretionary component of the bank's total accruals in this study:

$$\mathbf{ACCR_t = \beta_1 (1 / (TA_{t-1}) + \beta_2 (\Delta OI_t / TA_{t-1}) + \beta_3 (BRE_t / TA_{t-1}) + \varepsilon_t}$$

where, $ACCR_t$	=	The difference between net income and operating cash flow is considered total accruals.
TA_{t-1}	=	One year Lag of Total Assets
ΔOI_t	=	Difference between t-1 and t in the bank's operating income
BRE_t	=	Bank's premises and equipment
ε_t	=	An error term.

RESULTS AND DISCUSSIONS

To summarise, Table 4 shows the mean (DACC), standard deviation (SD), median, kurtosis, and skewness (SK) values for DACC, CSE, and other pertinent control variables. Here are some numbers to help explain the situation. The average CSE score was 0.465. (median 0.450). Since there were 26 items in total in the disclosure index, the descriptive statistics show that the CSE had a mean value of 46.50%. This finding is consistent with Rahman et al. (2020), who discovered a mean CSE value of 0.4597 in Bangladesh using panel data from banking companies. DACC's mean value was 0.002. (0.000). Similarly, based on the Bangladeshi sample, Rahman et al. (2020b) specified that non-financial sectors are also involved in earnings management practices to disguise their true scenario. The mean (median) value of AF (natural logarithm of audit fees) was 12.491 (13.311) with a standard deviation of 0.681. Similarly, Salehi et al., (2020) reported a mean (median) AF (natural logarithm of audit fees) of 14.92 (14.87) in a study on the relationship between audit fees and real/accrual-based EM from 2009-2016 with 190 listed companies on the Tehran Stock Exchange. Table 4 presents the skewness and kurtosis outcomes for this study. Consistent with Ibrahim et al., 2015, data is normal if standard kurtosis values are within (+/–) 2.00 and standard skewness values are within (+/–) 1.96. Table 4 also shows that all variables were normally distributed.

Table 4. Descriptive statistics (N=330)

Variables	Mean	Median	Standard Deviation	Skewness (SK)	Kurtosis	Minimum	Maximum
CSE	0.465	0.450	0.127	-0.139	0.515	0.258	0.618
DACC	0.003	0.001	0.033	0.622	0.223	-0.030	0.092
AF	12.491	13.311	0.681	0.100	0.281	11.761	15.485
MB	2.064	2.266	2.309	0.471	0.146	0.172	16.184
LEV	0.770	0.913	0.163	1.714	1.770	0.460	1.727
FSIZE	22.592	22.335	0.609	0.091	0.182	20.549	24.109

Note: Variables are defined in Table 2.

Source: Prepared by Authors (2022)

Table 5 shows the correlation coefficients between the regressors. The correlation matrix shows that earnings management (DACC) was moderately correlated with all variables

(Corporate sustainability engagement Disclosure, FSIZE, Market to Book value (MB), Leverage (LEV) and Audit Fees (AF). CSE was significantly and positively correlated with Discretionary Accruals (DACC) with a correlation coefficient of 0.039. A positive correlation between earnings management methods and sustainability initiatives in a situation of eventual entrenchment is supported by this result. It relates to hypothesis H_{1a}. The interaction variables CSE*AF was significantly and negatively correlated with EM practices (DACC) with correlation coefficients of (-0.598) for EM (DACC). This indicates that sustainability-oriented firms that provide high audit fees to ensure audit excellence do not manipulate earnings through discretionary choices to deceive stakeholders. Hair et al. (2010) advocates a cut-off value of 10 for Variance Inflation Factors for all linked variables. Furthermore, no correlations between independent variables beyond the limit of 0.80 were found in this investigation, indicating the lack of multicollinearity issues.

Table 5. Pairwise correlation matrix for Models (1-2) (N=330)

		1	2	3	4	5	6	7	8
1	**DAAC**	1	.478	.039	-.226	.205	-.272	-.218	-.598
2	**DAAC $_{t-1}$**		1	.054	-.137	.240	-.326	-.002	-.001
3	**CSE**			1	.182	-.011	.134	.201	.187
4	**FSIZE**				1	-.043	.234	.173	.204
5	**LEV**					1	-.057	-.064	-.411
6	**MB**						1	.077	.117
7	**AF**							1	.594
8	**CSE*AF**								1

Note: Variables are defined in Table 2.

Source: Prepared by Authors (2022)

For Model 1, a positive relationship between CSE and EM (proxied by DACC) indicates there is an opportunistic intention of the management that shed the manipulation of earnings through excessive CSE activities. Table 6 shows the findings of the regression results where DACC is a dependent variable and CSE along with other control variables are independent variables. The outcome between the association of CSE and DACC shows positive and the estimated coefficient of CSE (0.790) is significant at 1% level ($p < 0.006$). This result indicates managers use CSE as an opportunistic motive and deceive stakeholders by involving EM practice in term of discretionary accruals. This result complies with the hypothesis H_{1a}. This result suggests that managers of the Bangladeshi banking sector that actively engaged in sustainability initiatives are also involved in earnings manipulation using accruals. This outcome is as per the findings of Prior et al. (2008) and Rahman et al. (2020b) who also show evidence a significant positive association between CSE initiatives or disclosure and EM and stated that socially responsible actions shed the probability of being inspected by the organisation's stakeholders.

For control variables, the outcomes are significant in the expected trends invariably for all models. The coefficient FSIZE is significant and negative. Besides, the coefficients (t-statistics) for MB, is – 1.829 (–0.000), indicating that firms' growth opportunities, is significantly and negatively associated with EM. Moreover, leverage (LEV) measures the possibility to fall in financial distress or bankruptcy. This study reports that the coefficient of LEV is positive and significant with EM.

For Model 2, the coefficient for Audit fees was negatively associated with EM at a 5% significance level (p-value <0.05), indicating that high audit fees result in high-quality audits that reduce earnings manipulation and ensure transparent financial disclosure. To minimize litigation risk, auditors need to increase the work and hours they do, requiring higher audit fees (Bryan et al., 2016). In this study, Model 2 examined the moderating effect of audit fees on the relationship between CSE and EM. The coefficient of the interaction term, CSE*AF (−2.634), was negative and statistically significant at a 5% significance level (p-value = 0.030), indicating that sustainability disclosures with quality audits produced by high audit fees reduce earnings manipulation. These outcomes support for Hypothesis (H_2) in that audit fees negatively moderated the relationship between CSE and EM.

In Model 2, this study also examined the impact of Sustainability engagement on EM and found a statistically significant positive association (coefficient = 0.760, p-value = 0.004). This outcome supports Hypothesis (H_{1a}) in that managers of communally responsible companies are more likely to use EM practice to shed opportunistic motives. This finding is consistent with earlier research (Prior et al. 2008; Liu et al. 2019; Kuo et al. 2021). Regarding the control variables, FSIZE and MB have a negative impact on EM in model 2 with a confidence level of 95% and 99%, respectively. However, LEV had a positive effect on EM at 5% level of significance. The results were summarized in Table 6. Testing for skewness and kurtosis and the Kolmogorov-Smirnov and Shapiro-Wilk methods reveals that this study found that data was normal. When the p-value of this test shows that there was not enough evidence spread out evenly, null hypotheses are rejected. Thus, using a fixed effect estimator in conjunction with the Hausman test indicates a viable estimator (Hausman, 1978). As a result, in the following part, the fixed effect estimator was checked to the panel pooled OLS estimator to confirm their dependability.

Table 6. The results of multivariate regressions for models (1-2)

Fixed Effect Estimation		
	Dependent Variable DACC	
Variables	**MODEL 1**	**MODEL 2**
Intercept	5.91 (0.041)**	6.211 (0.032)**
CSE	0.677 (0.006)***	0.760 (0.004)***
MB	-1.860 (0.002)***	-1.157 (0.003)***
AF		-2.163 (0.025)**
CSE*AF		-2.634 (0.030)**
LEV	0.311 (0.021)**	0.273 (0.046)**
FSIZE	-3.0618 (0.013)**	-4.011 (0.015)**
Adj. R^2	0.797	0.753
F-statistics	4.762 (0.001)	4.719 (0.001)
Observations	330	330
Mean VIF	2.419	2.433

Note: Table 2 contains detailed definitions for all variables. The numbers in parenthesis represent t-values. The symbols *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Source: Prepared by Authors (2022)

Several studies have indicated a causal association between EM and CSE, giving rise the issue of endogeneity (Hickman et al., 2021). The endogeneity test was used in this work to identify endogeneity problems in the research model. The two-step dynamic panel data technique used in this research is similar to that used by Arellano & Bond (1991). GMM estimations can also be used to deal with heteroskedasticity, serial correlation, and endogeneity issues in variables (Rahman, et al. 2021). The results of diagnostic testing using the dynamic panel GMM approach are consistent with the models' assumptions. AR (1) and AR (2) were used to calculate a first-order and second-order serial correlation in the residuals. AR (1) indicates that first-order serial correlation exists in the residuals, but AR (2) indicates that second-order serial correlation does not exist in the residuals. The Sargan test for over-identifying limitations yielded a non-significant result, indicating that the instruments were exogenous. For all models, (1-2) the number of instruments ranged from 17 to 18. When year dummies are included, the number of instruments increases to 27. Nonetheless, it remains less than the overall number of financial institutions (30). This revealed that the study's outcomes have not been distorted as a result of the abundance of instruments. The LM and White tests are incorporated to handle serial correlation and heteroscedasticity, which confirmed these issues in the model. To further support their findings, the researchers conducted a Hausman fixed/random effect test, which they found to be successful in rejecting the null hypothesis. The fixed effect estimator's consistency was tested using the GMM estimator. The fixed effect estimator was consistent with these estimators. The results were shown in Table 7.

Table 7. The results of GMM estimation for models (1-2)

	Dependent Variable EM (DACC)	
Variables	**Model 1**	**Model 2**
EM $_{t-1}$	-1.397 (0.001) ***	-0.011 (0.001)***
CSE	0.392 (0.029) **	0.250 (0.010)**
MB	-2.704 (0.009)***	-8.559 (0.001)***
FSIZE	-4.651 (0.007) ***	-5.371 (0.001)***
AF		-0.089 (0.030)**
LEV	0.411 (0.000) ***	0.299 (0.000)***
CSE*AF		-0.003 (0.019)**
Year-dummies	Yes	Yes
Adjusted R^2	0.477	0.535
Diagnostic tests		
Sargan test (p-value)/Hansen test	0.153	0.135
AR(1)	-3.44 (0.002)	-3.49 (0.001)
AR(2)	0.19 (0.923)	0.36 (0.622)
No. of instruments	25	27
Econometric tests		
Endogeneity test (p-value)	0.020	0.027
White test (p-value)	0.000	0.000
Hausman F/R test (p-value)	0.000	0.000
LM serial auto correlation test (p-value)	0.000	0.000
Number of Observation (Banks)	330 (30)	330 (30)

Note: Dependent variable is EM (DACC). The null hypothesis of the Sargan test is that instruments used are not correlated with residuals (over-identifying restrictions). Arellano–Bond order 1 (2) are tests for first (second) order correlation, asymptotically N (0, 1). These tests the first-differenced residuals in the system GMM estimation. CSE is treated as an endogenous variable. The null hypothesis of the endogeneity, serial correlation, and heteroscedasticity tests is that there is no such exist in the model and this study rejects the null hypothesis in all models. The null hypothesis of the fixed/random test is that there is a fixed effect among the variables in the model and this study rejects the null hypothesis. Detailed definitions of all variables are given in Table 2 *, ** and*** indicate significance at the 10%, 5% and 1% levels, respectively.

Source: Prepared by Authors (2022)

SENSITIVITY ANALYSIS

An extra round of tests was run to make sure the findings were as solid as possible. Checking for robustness involves employing a variety of strategies, such as adjusting a dependent variable, changing the regression analysis method, or adding alternative control variables, to verify basic study conclusions. Fixed effects estimation techniques were replaced by panel data techniques such pooled OLS regression in this study. The results of this alternate estimate were nearly identical to those of the original investigation. To all research hypotheses, other panel estimators like Fixed-effect or GMM had no difference on the core study's outcomes. The results are shown in Table 8.

Table 8. Pooled Panel OLS instead of Fixed Effect Estimator for models (1-2)

	Dependent Variable DACC	
Variables	**MODEL 1**	**MODEL 2**
Intercept	7.346 (0.011)**	8.502 (0.024)**
CSE	0.460 (0.016)**	0.486 (0.001)***
FSIZE	-0.202 (0.000)***	-0.349 (0.001)***
MB	-0.130 (0.001)***	-0.101 (0.000)***
LEV	3.322 (0.000)***	3.211 (0.000)***
AF		-0.127 (0.010)**
CSE*AF		-7.774 (0.032)**
Adj. R2	0.589	0.760
F-statistics	5.550 (0.000)	5.099 (0.000)
No. of Banks	30	30
Observations	330	330
Mean VIF	3.300	3.986

Note: t-values are the numbers in parenthesis. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Source: Prepared by Authors (2022)

Although this study selected control variables based on previous research, Ramsey's (1969) Specification Error Test (RESET) was used in this study to confirm omitted variable bias in the study models. Table 9 presents the results of the Ramsey Specification Error Test, which accepted the null hypothesis. These results suggesting that no omission of major variables in this study.

Table 9. Ramsey (1969) Specification Error Test (RESET) for models (1-2)

MODELS	Hypothesis	F-statistics	p-value > F
Model 1	Ramsey RESET test using the fitted values of DACC	1.72	0.1534
Model 2	Null Hypothesis: H_0: model has no omitted variables	1.36	0.1765

Source: Prepared by Authors (2022)

CONCLUSIONS

Issues relating to CSE and earnings management have been the focus of many scholarly and regulatory debates all around the world. The board of directors, audit committee and audit quality have been recognised as the mechanisms which, have the ability to monitor opportunistic earnings and thereby directly linked with financial disclosure quality, consistent with the stakeholder theory. There were two key goals for this investigation. We sought to explore out how corporate sustainability engagement disclosures affect earnings management in the first place. It was hypothesised that the CSE would have an impact on EM. Opportunism says that managers exploit their discretionary judgments to mislead stakeholders and maintain their undue profit, and that these immoral actions are discarded through substantial sustainability efforts. These findings suggested that Bangladeshi bank executives may employ discretionary accruals to defraud stakeholders and increase their image and reputation through earnings management tactics. We aimed to see if audit fees (AF) had any influence on the relationship between Sustainability reportingand earnings management. Audit costs were hypothesized to have an adverse impact on the relationship between Sustainability reportingand earnings management based on previous research (H2). Findings of this study show that the interaction term (CSE*AF) significantly and negatively affects the association between CSE-EM. This finding implies that firms which provide high audit fees to the external auditors, for ensuring transparent financial disclosure, do not use social initiatives as an opportunistic motive. From the previous literature it is evident that audit fees are a strong determinant of audit quality that help to ensure transparent financial disclosure (Bryan et al., 2016; Chen et al., 2018). The current study's findings also confirm the significance of audit fees and its role in reducing earnings management practices through managerial opportunistic viewpoint in Bangladeshi banking sector.

This study has a number of policy implications. Initially, the findings of this study will be of particular relevance to the shareholders of a company who wish to exert influence over the efficiency of their managers. Also, the findings of this study are important for the academics and corporate regulators who are concerned regarding the intentions of managers towards EM practices. The conclusions drawn are of impending significance to researchers and policy-makers in countries with the same financial structures and governing regimes. They could then redesign current sustainability incentive schemes and link them to bank manager compensation and reward structures. Besides, EM practices not only damage the reputation of the firm but also shrink the financial growth and social development and weak audit system may not be able to detect the opportunistic motives of the managers. Therefore, cautiousness is essential before evaluating the reliability of the sustainability strategies of such organizations.

The research has some limitations that could be examined as possible research topics in the future. The effects of distinct cultural, institutional, and judicial norms might be sufficiently controlled when employing cross-country data. Likewise, an international investigation of this relationship may yield motivating insight into differences among countries in this gradually globalized business world. Second, this study only measures the effect of AF rather than non-audit services fees (NAF) to justify the link between CSE and EM as a moderating factor. From the prior studies it is evident that there is a significant positive association between NAF and

EM. This finding also suggested that NAF may reduce the power of auditor independence. Thus, the future research could extend the current study by incorporating NAF as a moderator in the association between CSE and EM.

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CONTRIBUTION OF AUTHORS

Every author should account for at least one component of the work. Paper approved for publication need to specify the contribution of every single author.

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APPENDIX A

Corporate sustainability engagement index (Total = 26)

Items	Economic Dimension
1	State of domestic economy and global economy
2	Infrastructural and institutional development
3	Contribution to national exchequer other economic disclosure
	Environmental Dimension
4	Energy saving policies regarding climate change
5	Investing in renewable energy, green projects and waste recycling/treatment plant
6	Information concerning energy consumption
7	Procedures for screening environmental and social risks in business lines
8	Development regarding online banking
	Social Dimension
9	Emphasis on community development and Poverty alleviation programs
10	Granted fund for physical disable students and rehabilitation
11	Establishment educational institutions
12	Employee compensation, welfare or donation and training facilities
13	Freedom of association for collective bargaining
14	Male-female ratio in employment
15	Initiatives to improve access to financial services for disadvantages people
16	Engaged in treating cleft lips, cataract, cancer and leprosy
17	Creating Job opportunities
18	Vaccinations or other health programme of employees
19	Disclosure on free from child labour
20	Vaccinations or other health programme of employees
21	Disclosure on free from child labour
22	Research and Development (R & D) for services and goods
23	Donation to prime minister fund and Disaster relief program
24	Financial contribution to the victims in accident or other tragedies
25	Commitments in operating within Shariah principles
26	Heritage preservation

Sources: Adapted from Rahman et al., 2020 (a); Rahman et al., 2021; GRI (2013), Bangladesh Bank (2021)