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# Corporate Social Responsibility and Earnings Management: Evidence from Saudi Arabia after Mandatory IFRS Adoption\*

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## Abstract

This study attempts to examine the relationship between corporate social responsibility (CSR) disclosure and earnings management practices in the context of Saudi Arabia after mandatory IFRS adoption. It is carried out on an unbalanced panel of 277 observations over the period 2017–2019. For this purpose, CSR disclosure is measured by Bloomberg ESG scores, while the residuals from the modified Jones model are considered for earnings management. As control variables, we have retained the firm performance, market-to-book ratio, firm size, financial leverage, board independence, ownership concentration, managerial ownership, and lagged discretionary accruals. Using the system GMM estimator in the dynamic panel, the results show a positive association between CSR disclosure and earnings management practices, thus supporting the perspective of agency theory. Managers engage in socially responsible activities beforehand to conceal their wrongdoing and convince stakeholders that the organization is transparent. They probably use ethical codes as a tool to achieve their own goals rather than the firm's goals. Our contribution is the use of recent data (2017–2019) taking into account the mandatory adoption of IFRS in Saudi Arabia. Additionally, to our knowledge, this study is the first to address CSR disclosure and earnings management practices using GMM system estimates.

**Keywords:** Corporate Social Responsibility, Earnings Management, Saudi Arabia, Mandatory IFRS Adoption, System GMM Model

**JEL Classification Code:** G15, G32, G34, M14, M41

## 1. Introduction

The United Nations Industrial Development Organization (UNIDO) defines Corporate Social Responsibility (CSR, hereafter) as “a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders”. This concept has become in recent years, one of the top concerns of management and an important

topic of academic debate. In fact, several studies have investigated the nature of the relationship between CSR and financial performance (Jiao, 2010; Nollet et al., 2016). Others have studied the relationship between CSR and respectively the cost of capital (El Ghouli et al., 2011; Goss & Roberts, 2011), firm value (Fatemi et al., 2017; D'Amato & Falivena, 2020), bankruptcy risk (Nguyen et al., 2020), information asymmetry (Yoon & Lee, 2019), company cash holdings (Cheung, 2016; Arouri & Pijourlet, 2017), Profitability (Hategan et al., 2018; Machmuddah et al., 2020), share prices (Fiori et al., 2015) and earnings management (Ajina et al., 2019; Mohamed et al., 2020; Habbash & Haddad, 2020).

As earnings management has received much more attention among investors, practitioners, regulators, and academics, especially after the accounting scandals in recent decades, from several large well-known companies around the world such as Enron, Xerox, WorldCom, and Parmalat, we are interested in studying the relationship between CSR disclosure and earnings management practices.

In this context, the literature suggests two opposing perspectives to explain the relationship between CSR and

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earnings management. On one hand, proponents of CSR believe that engaging in CSR activities has a positive impact on quality earnings (stewardship theory and stakeholder theory). On the other hand, opponents argue that managers may use CSR opportunistically to improve their reputation among stakeholders and cover their undesirable behavior (agency theory). Therefore, studying the relationship between CSR and earnings management is complex given the existence of two contradictory theoretical assumptions. This complexity is all the more when certain authors (Prior, 2008; Mohmed et al., 2020) raise the issue of an inverse or simultaneous causality between the two phenomena in question. Furthermore, a review of empirical literature shows that the vast majority of studies have focused on developed countries such as the United States and the United Kingdom, while underdeveloped countries have known only very few works.

This article focuses on the Middle East region and particularly Saudi Arabia. Indeed, Saudi Arabia accounts for over 25 percent of the Arab world's gross domestic product (GDP) and it is one of the world's largest oil exporters and a member of the Group of Twenty Finance Ministers and Central Bank Governors (G20). So, we find it an interesting and important market to study, especially on topics related to financial transparency and integrity. To our knowledge, the only study dealing with the CSR - earnings management relationship in the context of Saudi Arabia is that of Habbash and Haddad (2020). Our research stands out from this study by at least two essential points. First, the study by Habbash and Haddad (2020) focused on the period (2015–2016) while our study covers companies listed on Saudi Stock Exchange "Tadawul" from 2017 to 2019. This choice of the period is not arbitrary. It allows us to consider two new variables having probably an effect on earnings management practices and/or CSR disclosure. Indeed, it is at the beginning of 2017 that the adoption of international financial reporting standards (IFRS) became mandatory for all listed companies. In addition, it is at the beginning of the same year 2017 that the Capital Market Authority issued a new resolution (number 8-16-2017) which is likely to strengthen certain corporate governance mechanisms. The year 2020 has been ruled out to avoid the likely effect of COVID-19 on the relationship to study.

Secondly and in the manner of other works such as Ajina et al. (2019) and Habbash and Haddad (2020) proceeded by habitual estimation procedures (OLS regression). In this case, a serious endogeneity problem could arise and skew the results. It should be noted that this endogeneity issue essentially stems from simultaneous causality and/or reverse causality (Semadeni et al., 2014) that may exist between CSR and earnings management practices (Prior, 2008; Choi et al., 2013). Also, research on corporate governance often experiences endogeneity problems as the studied variables

are by nature endogenous (Bhagat & Jeffries, 2005). To compensate for the endogeneity biases and to control the specific individual and temporal effects, we proceed by a system GMM estimator (Blundell & Bond, 1998) in the dynamic panel.

Thus, our study contributes to the existing literature on CSR by providing further evidence on the association CSR - earnings management practices in the context of Saudi Arabia after mandatory IFRS adoption, using the system GMM estimator.

The remainder of this paper is organized as follows: Section 2 presents the literature review and develops the hypothesis. Section 3 describes the data and specifies the research methodology. Section 4 presents the study results and discussion. Section 5 concludes.

## 2. Literature Review and Hypothesis Development

The literature suggests two opposing perspectives to explain the relationship between CSR and earnings management. On one hand, proponents of CSR believe that CSR activities have a positive impact on quality earnings. On the other side, opponents argue that managers may use CSR opportunistically to improve their reputation among stakeholders and cover their undesirable behavior.

### 2.1. The Proponents of CSR: A Negative Relationship

The first perspective is based on both stewardship theory and stakeholder theory and supports a negative relationship. Stewardship theorists (Davis et al., 1997) admit that managers, left on their own, will act as responsible stewards of the assets they control. Given a choice between self-serving behavior and pro-organizational behavior, a steward will place a higher value on cooperation than defection. Stewards are assumed to be collectivists, pro-organizational, and trustworthy. Thus, they need to be socially responsible, drive the corporate contribution to CSR and direct their ethical business reporting practices (Davis et al., 1997). According to the stakeholder theory (Freeman, 1984), building good relationships with different stakeholders is social capital which can only strengthen the sustainable financial performance of the company (Donaldson & Preston, 1995). Boards of directors are considered as the corporate mechanism that takes into account the ethical, environmental and social impact of the company on the various stakeholders (Donaldson & Preston, 1995). In this regard, investing in CSR is a strategic action to improve and maintain a company's reputation. Firms are assumed to have a social contract with society as a whole (Carroll, 1991). Therefore, they should conduct their business based

on integrity and morality. This means that firms are expected to provide reliable financial information to different stakeholders (Mohmed et al., 2020). In this regard, providing quality earnings is closely linked to CSR, especially to meet the needs of stakeholders (Choi et al., 2013). In this sense, Kim et al. (2012) admit that socially responsible firms manage less their earnings by being more responsible in preparing financial statements. Indeed, ethics motivate managers to be trustworthy and honest since this behavior is beneficial for the firm.

Empirically, some studies support this perspective. Using a sample of 1,653 companies in 46 countries, Chih et al. (2008) found a negative relationship between CSR and earnings management when the latter is measured by earnings smoothing or earnings loss avoidance. Moreover, using a sample of non-financial US firms over the 1995–2005 period, Hong and Andersen (2011) showed that active businesses in the CSR domain reveal higher earnings quality and have low levels of discretionary accruals. Similarly, Kim et al. (2012) found that socially responsible firms are less likely to manipulate earnings by discretionary accruals. Otherwise, using a sample of 139 firms in 10 Asian countries (Australia, China, Hong Kong, India, Japan, Malaysia, Pakistan, Philippines, Singapore, and Thailand), Scholtens and Kang (2013) showed that firms with relatively good CSR are less likely to engage in earnings management. During the same year, and using a sample of Korean firms from 2002 to 2008, Choi et al. (2013) documented empirical evidence of a negative association between CSR engagement and the level of earnings management. Recently, and using panel data for a sample of French listed companies between 2010 and 2013, Ajina et al. (2019) found that CSR engagement constrains earnings management practices suggesting that managers would comply with the ethical requirements and satisfy stakeholders' interests. More recently, Mohmed et al. (2020) employed CSR annual scores from the Egyptian environmental, social, and governance index for the 100 highest scoring firms from 2007 to 2015. The results indicated that CSR has a negative association with earnings management only for the top CSR scoring firms. Engaging in CSR in such firms enhances the quality of their earnings.

## **2.2. The Opponents of CSR: A Positive Relationship**

The second perspective is based on agency theory (Jensen & Meckling, 1976) and supports a positive relationship between CSR and earnings management practices. This theory postulates that managers are engaging in CSR only when such practices provide them with private benefits (Dhaliwal et al., 2011). Furthermore, earnings management practices could generate or aggravate agency costs (Davidson et al., 2004) and may have serious consequences for stakeholders (Zahra et al.,

2005). To escape this, managers can take action in CSR to obtain more media coverage, limit detailed verification by stakeholders and guarantee the legitimacy of the entire community. Managers can therefore use CSR to cover up their misconduct (Hemingway & Maclagan, 2004) and convince stakeholders that the company is transparent. Likewise, Fritzsche (1991) argued that managers can use ethical codes as a tool to pursue economic selfishness and self-interest.

Empirically, some studies support this perspective. Using archival data from a multinational sample of 593 companies in 26 countries between 2002 and 2004, Prior et al. (2008) identified a positive impact of earnings management on CSR. They explain that managers having incentives to manage earnings will be very proactive in boosting their public exposure through CSR. In parallel, firms with low levels of earnings management have less incentive to seek public exposure by engaging more in CSR activities. Note here that the authors admit that it is earnings management that causes CSR, and not the reverse. For their part, and using a sample of 116 American commercial banks listed during the period 2003–2007, Grougiou et al. (2014) found a positive relationship between CSR disclosure and earnings management practice. Belgacem (2015) performed her study on a sample of Tunisian listed companies over the 2002–2011 period and provides strong evidence that social disclosure is positively associated with earnings management level. The author concludes that social disclosure is used by managers as a mechanism to cover up their earnings management practices to reinforce firm legitimacy. Muttakin and Subramaniam (2015) confirmed that poor earnings quality in firms is linked to a greater commitment to the CSR, and indicate that the relationship between CSR and earnings management should be examined with more caution. Likewise, and based on a sample of 55 Nigerian manufacturing companies, Uyagu and Dabor (2017) showed a positive relationship between CSR and earnings management. Finally, using panel data from all Saudi public firms listed on “Tadawul” over the 2015–2016 period, Habbash and Haddad (2020) found that CSR is positively related to earnings management practices. This implies that Saudi firms undertaking CSR actions are more likely to manipulate their earnings.

As we specified in the previous section, our study is an extension of the work of Habbash and Haddad (2020), as it covers the period 2017–2019. This period takes into account the mandatory adoption of IFRS by Saudi listed companies, which may have an impact on the relationship to be studied. Indeed, according to Daske and Gebhardt (2006), the IFRS adoption offers a positive signal of greater quality and transparency of financial reports and that is because quality disclosure has improved significantly compared to firms continuing to apply Generally Accepted Accounting Principles (GAAP). Li and Yang (2016) found

that IFRS adoption changes corporate disclosure motivation in response to increased capital-market requests. Barth et al. (2008) considered that the information asymmetry is reduced as IFRS enhances recommended disclosures and provides reliability and relevance of the information for investment decisions.

Finally, based on this literature, we can consider that each perspective has a different predictive content and that the CSR - earnings management relationship remains very ambiguous. We try to contribute to the existing literature on CSR by providing additional evidence on the association CSR - earnings management practices in the context of Saudi Arabia after mandatory IFRS adoption. Our study retains a non-directional hypothesis formulated as follows:

*H1: There is a significant relationship between CSR and earnings management.*

### 3. Data and Methodology

#### 3.1. Sampling and Data

Given that in Saudi Arabia, the year 2017 was marked by the mandatory adoption of (IFRS) by all listed companies, our initial sample consists of Saudi companies listed on “Tadawul” for the period 2017–2019. However, this sample was subject to certain restrictions. We excluded financial institutions because of their atypical behavior in financial reporting, and companies that lack data. After restating, our final sample is made up of an unbalanced panel of 277 observations. Table 1 shows the distribution of firm-year observations over the study period.

##### 3.1.1. Dependent Variable

The dependent variable is “Earnings management”. It is defined as a “Purposeful intervention in the external financial reporting process, with the intent of obtaining some private gains” (Shipper, 1989). The present study uses discretionary accruals (DA) as a proxy of earnings management. Healy (1985) was the first to introduce DA

to measure earnings management practice. It is assumed that DA should be subject to managerial discretion while non-discretionary accruals are the expected accrual level. According to almost all the research on earnings management, we use the modified Jones model (Dechow et al., 1995) to determine the non-discretionary level of total accruals. The Jones model proceeds by three steps to identify the DA. In the first step, the total accruals are regressed on the change of sales and the gross level of property, plant, and equipment. In the second, the estimated parameters from this regression are combined with total accruals, sales changes, and property, plant, and equipment to determine the non-discretionary accruals. The Jones model has shown its failure in capturing sales-based manipulation. To redress the model’s misspecification, Dechow et al. (1995) proposed a model identical to the standard-Jones model except that non-cash sales changes are subtracted from sales changes. Subsequently, the measure of DA is the residuals from firm-specific regression of changes in non-cash sales and gross level of property, plant, and equipment. DA (lagged by total assets) then serve as a proxy for earnings management practice and are determined as follows:

First, calculating Total Accruals (TAC):

$$\frac{TAC_{i,t}}{TA_{i,t-1}} = \frac{1}{TA_{i,t-1}} \left[ \alpha_0 + \alpha_1 (\Delta REV_{i,t} - \Delta REC_{i,t}) \right] + \alpha_2 PPE_{i,t} + \varepsilon_{i,t} \quad (1)$$

Where, for the year ( $t$ ) and firm ( $i$ ), (TAC) is the total accruals defined as the difference between earnings and operating cash flows, (TA) is the total assets, is the change in revenues from the previous year, is the change in net accounts receivables from the previous year, (PPE) stands for the gross property, plant, and equipment, and the residual term ( $\varepsilon$ ) represents the discretionary accruals.

Next, calculating non-discretionary accruals (NDA):

The parameter estimates from eq (1) are next used to identify the non-discretionary accruals:

$$NDA_{i,t} = \alpha_0 + \alpha_1 \frac{(\Delta REV_{i,t} - \Delta REC_{i,t})}{TA_{i,t-1}} + \alpha_2 \frac{PPE_{i,t}}{TA_{i,t-1}} \quad (2)$$

Finally, the discretionary accruals are calculated by taking the difference between total accruals (lagged by total assets) and estimated non-discretionary accruals:

$$DA_{i,t} = \frac{TAC_{i,t}}{TA_{i,t-1}} - NDA_{i,t} \quad (3)$$

We retain the absolute value of discretionary accruals.

**Table 1:** Sampling

	2017	2018	2019	Total
Initial sample	179	190	199	568
Financial firms (less)	(42)	(47)	(51)	(140)
Missing data (less)	(54)	(48)	(49)	(151)
Final sample (number of observations)	83	95	99	<b>277</b>

### 3.1.2. Independent Variable

Our independent variable is “CSR disclosure”. For its measurement, we rely on the rating provided by Bloomberg LP which provides environmental, social, and governance (ESG) [1] disclosure scores for more than 52,000 companies worldwide. Bloomberg calculates the ESG disclosure score to quantify a company’s transparency in communicating ESG information. It is based on the Global Reporting Initiative (GRI) guidelines and covers a total of 247 possible criteria in the environmental, social, and governance dimensions (Eccles et al., 2011). This disclosure score out of 100 is based on whether or not actual information was disclosed for each of the environmental, social, and governance categories (Wang & Sarkis, 2017).

This Bloomberg ESG database is considered as the most comprehensive methodology to assess firms’ ESG activities (Marquis et al., 2011), and has been used by numerous studies dealing with CSR disclosure (Halbritter & Dorfleitner, 2015; Dorfleitner et al., 2015; Fatemi et al., 2017; Alazzani et al., 2021). In our study, corporate ratings for which there is insufficient information are eliminated.

### 3.1.3. Control Variables

**Firm performance:** The “firm performance” variable is important in the earnings management modeling. This is because managers tend to save income for future periods through negative discretionary accruals (DeFond & Park, 1997; Haw et al., 2004). We measure this variable by the return on assets (ROA) ratio.

**Market-to-book ratio (MTB):** According to Summers and Sweeney (1998), when growth slows managers will be more motivated to misreport financial statements to maintain the appearance of steady growth. The price-to-book ratio is defined as the stock market value exceeding its book value, which represents the market’s expectations for future profit growth. Therefore, the CEO will use any accrued profits to manage revenue to meet this expectation. It is measured by the market value of equity to the book value of equity.

**Firm size (SIZE):** Large firms are subject to more scrutiny from financial investors because they have greater influence in the stock market (Watts & Zimmerman, 1978). Additionally, large companies generally have more sophisticated internal control systems that reduce the incentives to manage earnings. However, large firms may have more opportunities to manipulate earnings and this is due to the complexity of their operations (Lobo & Zhou, 2006). Firm size is measured by the natural logarithm of total assets.

**Leverage (LEV):** According to Jensen and Meckling (1976), debt plays a disciplinary role in resolving the

discretionary behavior of managers. However, DeFond and Jiambalvo (1994) and Chandra and Wimelda (2018) admitted that CEOs of highly leveraged companies are more likely to use discretionary accruals to increase revenue to avoid breaching debt contracts. It is measured by total liabilities to total assets.

**Board independence (INDP):** According to agency theory, independent directors are required to provide effective monitoring of corporate boards. Moreover, Klein (2002) found a negative relationship between board independence and discretionary accruals. However, Larcker and Richardson (2004) and Bradbury et al. (2006) showed that the presence of outside directors has no effect on earnings management. As a measure of this variable, we use the ratio of independent directors to the total number of directors on the board.

**Ownership concentration (BLOC):** According to Ramsay and Blair (1993) and Hart (1995), in case shareholders have a low stake in a firm, they have no incentive to monitor managers because the monitoring cost will exceed the benefits. In this context, Grimaldi and Muserra (2017) showed a negative relationship between ownership concentration and earnings management. We measure this variable by the percentage of capital held by the blockholders of 5% and over (Grimaldi & Muserra, 2017; Garfatta & Zorgati, 2021).

**Manager ownership (MAN):** The literature studies the relationship between management ownership and opportunistic management behaviors related to earnings management. The economic theory defines two conflicting effects of manager ownership on manager incentives: the incentive alignment effect (Jensen & Meckling, 1976) and the management entrenchment effect (Morck et al., 1988). This variable is measured by the percentage of capital in the hands of the manager.

**Lagged discretionary accruals (LDA):** Finally, the discretionary accruals of the previous year are integrated into our regression to control the reversibility of the accounting variables (Hunt et al, 1996; Garfatta & Zorgati, 2021).

Table 2 summarizes all the variables in our study.

## 3.2. Empirical Specification

According to Bhagat and Jeffries (2005), research on corporate governance often experiences endogeneity problems as the variables studied are by nature endogenous. Moreover, endogeneity can occur in OLS regression and can be the consequence of an error in measuring variables, autoregression, omitted variables, simultaneous causality, and reverse causality (Semadeni et al., 2014). In each of these scenarios, the OLS regression may report biased coefficients.

**Table 2:** Summary of Study Variables

Variables	Definition	Measure
<b>Dependent Variable</b>		
DA	Discretionary accruals	The absolute value of the difference between total accruals and the non-discretionary accruals estimated by Jones modified (1995) model.
<b>Independent Variable</b>		
CSR	Corporate social responsibility	Bloomberg scores (out of 100) based on the extent of a company's Environmental, Social, and Governance (ESG) disclosure.
<b>Control Variables</b>		
L.DA	Lagged discretionary accruals	The absolute value of discretionary accruals of ( <i>t</i> -1) period.
ROA	Return on assets	The ratio of net income to total assets.
MTB	market-to-book ratio	(Number of outstanding shares × market price) / (total assets – total liabilities)
LEV	Financial leverage ratio	The ratio of total debt to total assets.
INDP	Board independence	The proportion of independent directors.
BLOC	Ownership concentration	(Capital held by the blockholders of 5% and over / Total capital) × 100
MAN	Manager ownership	(Capital owned by manager / Total capital) × 100
SIZE	Firm size	Natural logarithm of total assets

In our study, the issues of simultaneous and reverse causality between CSR and earnings management have been explicitly raised by some authors (Prior, 2008; Choi et al., 2013; Mohamed et al., 2020). To compensate for the endogeneity biases and to control the specific individual and temporal effects, Arellano and Bond (1991) provided the first difference GMM as a solution. Later, Blundell and Bond (1998) observed that with highly persistent data, the first-difference GMM estimator may suffer from a severe small-sample bias due to weak instruments. As a solution, they suggest a system GMM estimator with first-differenced instruments for the equation in levels and instrument in levels for the first-differenced equation. We use thus a system GMM estimator (Blundell & Bond, 1998) in a dynamic panel. It integrates lagged values of the dependent variable (L.DA) as an independent variable. It estimates simultaneously the model in levels and first differences and instruments the endogenous variables with the lagged variables in levels and first differences.

To investigate the association between CSR disclosure and earnings management practice, our study adopts the following regression model:

$$\begin{aligned}
 DA_{it} = & \beta_1 LDA_{it} + \beta_2 CSR_{it} + \beta_3 ROA_{it} + \beta_4 MTB_{it} \\
 & + \beta_5 LEV_{it} + \beta_6 INDP_{it} + \beta_7 MAN_{it} + \beta_8 BLOC_{it} \\
 & + \beta_9 SIZE_{it} + \alpha_i + \varepsilon_{it}
 \end{aligned}$$

## 4. Results and Discussion

### 4.1. Preliminary Analysis of the Data

In this subsection, we try to check the statistical properties of the sampled data. Table 3 reports the main descriptive statistics of our sampled variables. The dependent variable, measured by the absolute value of discretionary accruals, shows an average level of 0.174 using the modified model of Jones. The average CSR score is 10.61, varying between a minimum of 2.64 and a maximum of 49.11. Regarding ROA and MTB, our sample shows an average value of 0.657 and 1.428, respectively. As for governance variables, the percentage of independent directors is on average 47.2%, with a disparity between companies with a percentage of independent members ranging from 4.54% to 83.3%. The percentages of shares held by blockholders and managers are on average 34.4% and 16.2%, respectively.

Table 4 provides the correlation matrix between the different explanatory variables in order to identify any potential multicollinearity problem. According to Bryman and Cramer (2001), such a problem can arise when the correlation between two variables exceeds the value (0.8). As shown in Table 4, the highest correlation is between the LEVERAGE - SIZE variables with the value of 0.62, which

**Table 3:** Descriptive Statistics of Study Variables

Variables	Mean	Median	SD	Minimum	Maximum
DA	0.174	0.119	0.113	0.001	1.944
CSR	10.611	9.703	6.051	2.64	49.11
ROA	0.657	0.124	0.34	-2.055	6.899
MTB	1.428	2.244	3.018	-12.071	39.366
LEV	0.164	0.02	0.127	0.000	1.265
INDP	0.472	0.321	0.422	0.045	0.833
BLOC	0.344	0.436	0.231	0	0.912
MAN	0.162	0.304	0.153	0	0.851
SIZE	9.045	8.616	0.781	6.188	11.759

**Table 4:** Pearson Correlation Matrix and Variance Inflation Factors (VIF)

	CSR	ROA	MTB	LEV	INDP	BLOC	MAN	SIZE	VIF
CSR	1.00								1.56
ROA	0.17	1.00							1.16
MTB	-0.00	0.42**	1.00						1.93
LEV	0.08**	-0.32	-0.19*	1.00					2.62
INDP	0.12	0.01	-0.02	0.07*	1.00				1.74
BLOC	-0.09	0.11	0.26	-0.08	0.31**	1.00			2.16
MAN	0.04	0.13*	0.05	-0.15*	-0.17*	0.10	1.00		1.05
SIZE	0.51*	0.47**	0.13**	0.62*	0.05	-0.09	-0.25*	1.00	1.27

proves that there is no multicollinearity problem between the independent variables. Furthermore, Table 4 indicates that the variance inflation factors (VIFs) range between 1.05 and 2.62, and are much lower than the 10-cutoff point, as set by Greene (2000). There is therefore no multicollinearity concern in our study’s model.

#### 4.2. Empirical Results

First, it is noteworthy that the effectiveness of GMM estimation relies on the validity of two tests, namely the Sargan-Hansen test and the Arellano and Bond test. The first serves to check the validity of the lagged variables used as instruments, while the second is to ensure the absence of autocorrelation of the second errors AR (2).

Using Stata statistical software (version 16), the results obtained from the system GMM estimates are displayed in Table 5. We note that we accept the presence of an AR (1) effect for the residues [2], which proves that the dynamic model is appropriate. We accept also the absence of an AR (2) effect [3]. Regarding the Sargan-Hansen test, the *p*-value is greater than 5% which leads to

retaining the null hypothesis and therefore the validity of the instruments set.

First, with regard to control variables, the model estimate shows that lagged discretionary accruals (L.DA), market to book (MTB) and managerial ownership (MAN) have a positive and significant effect on the earnings management practices. On the other hand, the board independence (INDP) shows a negative effect.

For our variable of interest, the coefficient associated with CSR is positive (0.074) and statistically significant at the 10% level. This result suggests that CSR is positively associated with earnings management. In the context of Saudi companies adopting IFRS, CSR has no role in reducing earnings management; rather it increases with the extent of earnings management practices. This finding is consistent with the empirical results reported by Habbash and Haddad (2020), Uyagu and Dabor (2017), Muttakin and Subramaniam (2015), Grougiou et al. (2014), and Prior et al. (2008), and supports therefore the perspective of agency theory. Even with the mandatory IFRS adoption, managers are engaging in socially responsible activities to cover up their misconduct (Hemingway & Maclagan, 2004) and

**Table 5:** Results of System GMM Estimates (Blundell & Bond, 1998)

	Coefficient	Standard Error
L.DA	0.118*	0.042
CSR	0.074*	0.019
ROA	-0.022	0.011
MTB	0.046**	0.000
LEV	0.016	0.002
INDP	-0.096**	0.024
BLOC	-0.032	0.018
MAN	0.019*	0.002
SIZE	0.027	0.008
Constant	-0.171***	0.047
Observations	277	
Groups	99	
AR(1)	0.000	
AR(2)	0.316	
N. instruments	23	
Sargan-Hansen test	0.388	

Note: \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ .

convince stakeholders that the company is transparent. They use ethical codes as a tool to achieve their own goals rather than the firm's goals. Managers may, for example, use CSR to improve their own careers and other personal plans (Prior et al., 2008). In fact, managers who manipulate earnings are likely to have an incentive to develop a socially friendly image to gain stakeholder support. This, in turn, will reduce the likelihood that the manager will be fired. Thus, from an agency theory perspective, managers involved in earnings management are expected to make more CSR disclosures in an attempt to pursue their own benefits. This finding is opposed to the ethical perspective which predicts a negative relationship between CSR and earnings management.

## 5. Conclusion

This study attempts to examine the relationship between CSR disclosure and earnings management practices in the context of Saudi Arabia after mandatory IFRS adoption. It is carried out on an unbalanced panel of 277 observations over the 2017–2019 period. For the purpose of this study, CSR was measured by Bloomberg ESG scores, while the residuals from the modified Jones model are considered for earnings management. Using the system GMM estimator in the dynamic panel, the results show a positive association between CSR disclosure and earnings management practices. This confirms some previous studies (Habbash & Haddad, 2020; Uyagu &

Dabor, 2017; Muttakin & Subramaniam, 2015; Grougiou et al., 2014; Prior et al., 2008) and supports the perspective of agency theory. Even with the mandatory IFRS adoption, managers are engaging in socially responsible activities to cover up their misconduct (Hemingway & Maclagan, 2004) and convince stakeholders that the company is transparent. They use ethical codes as a tool to achieve their own goals rather than the firm's goals. We can therefore argue that within the framework of our study, CSR is just a “greenwash” statement to deceive stakeholders. In fact, Saudi companies that engage extensively in earnings management tend to cover this up through more CSR disclosure. This assumption may make more sense in a market lacking strict regulations and investor protection like Saudi Arabia, as well as less developed countries in general. That is why, alongside the mandatory adoption of IFRS, Saudi policymakers should introduce certain guidelines to make CSR based on real practices and not on a misleading “greenwash” statement. They should also focus on alternative features of corporate governance that may control the use of CSR activities, which could constrain earnings management and therefore improve the quality of financial reporting.

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## Endnotes

<sup>1</sup>ESG is interchangeable with CSR.

<sup>2</sup>P-value is less than 5% which leads to accepting H1.

<sup>3</sup>P-value is greater than 5% which leads to accepting H0.