




Khurram Ashfaq¹, Muhammad Naeem Anjum² & Muhammad Raza Zafar³

¹Assistant Professor, College of Commerce, Government College University Faisalabad, Pakistan

²Assistant Professor, Department of Business Administration, GCU Faisalabad, LC, Pakistan

³PhD Scholar, Institute of Banking and Finance, BZU, Multan, Punjab, Pakistan

KEYWORDS	ABSTRACT
Corporate Social Responsibility, Earnings Management, Board Diversity, CSR Voluntary Guidelines	<p>This study examines Corporate Social Responsibility (CSR) and Earnings Management (EM) relationship with moderating role of board diversity of two types, i.e., female and foreign directorships on board. Content analysis is used for measurement of CSR through a data sample of 274 firms from the non-financial sector listed on Pakistan stock exchange for years 2012, 2014, and 2015. However, EM is measured over three discretionary accruals models Jones, Modified Jones, and Kothari models. Based on the results of descriptive analysis, it has been found that the level of CSR reporting has been improved in the post-CSR guidelines period as compared to the pre-CSR guidelines period. While results of regression analysis report that the higher CSR level of an organization the lesser would be the EM activities. This study suggests managers to concentrate upon CSR and board diversity for better earning management. Impact of board diversity on relationship as a moderator makes this study more novel because, as far as our research and previous literature is concerned, there has been very limited literature on this topic.</p>  <p>2024 Journal of Social Research Development</p>
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<p>Correspondence Khurram Ashfaq</p> <p>Email: khurram.ashfaq@gcuf.edu.pk</p> <p>DOI https://doi.org/10.53664/JSRD/05-01-2024-05-47-62</p>	

INTRODUCTION

Corporate social responsibility has now been turned out to be a popular debate globally and in the developing countries. In the present time, the organizations are meant to be socially and ethically accountable in order to pay off environmental and societal vulnerabilities caused due to industrial pollution (Ahmad, Hayat, Almaqtari, Farhan & Shahid, 2023). In Pakistan, it is not mandatory to report CSR activities in annual reports; still, SECP (Securities and Exchange Commission of Pakistan) has made efforts to expand this practice, and rules are given in SECP's Organizations (CSR) General

Order 2009. According to these guidelines, the companies need to report CSR activities as a formal report that contains the CSR policy, risks, objectives, activities, modules, implementation status, and diverse partners working with them. CSR may include community investment, Governance, product responsibility, work-life balance, safety, and climate change. The companies are entitled to spend 1-2% of profits on CSR initiatives. Voluntary CSR guidelines 2013 (SECP, 2013) considered Board of Directors as important factor for policy-making and decision-making process. EM has been topic of interest for stakeholders of organization since it is linked with the managerial relations of company with its shareholders.

These parties are always concerned about their interests which are directly handled by managers, and it is assumed in business world that under the effect of agency theory, managers act like agents of their shareholders, and sometimes they can manipulate the earnings in front of their stakeholders for personal benefits (Amar & Salma, 2017). Chen, (2012) defines EM as rational and permissible decision-making regarding financial situation of an organization. Simply, managers try to deploy the earnings, profits, and revenues of the organization in a way that they can justify. In light of the CSR disclosure guidelines 2013, we came to know that the board has been playing an important role in CSR disclosure activities. The board may consist of diverse members who include Foreign Board members and Female Board members. Yasser, Mamun and Ahmed (2017) discussed the relationship between CSR and board diversity in the frame of stakeholders' perspective. The institutional and stakeholder theory has been characterized in this study in order to explain this relationship. They found that board effectiveness in terms of the female representatives may have an impact on CSR. Hoang, Abeyssekera and Ma (2018) have discussed in their study that board diversity may perform both roles, i.e., fiduciary and advisory, but their theoretical background differs as the fiduciary perspective supports agency theory and monitors the board; however advisory nature may support resource dependence theory.

This theory supports that director are a resource for the firm, and diversity in a board may improve the firm's responsibility towards society and shareholders. Considering the relationship between board diversity with EM, Damak (2018) investigated the impact of board effectiveness in terms of gender diversity on the EM of the firm, in the case of monitoring activities, studies have proven that women are good at monitoring functions on a board. The concentration of this study is to investigate how Board diversity may impact the relationship between CSR and EM. A considerable amount of literature has shown the theoretical bases for the theories of the above-cited relationship, which can assess the relationship between CSR and EM are agency theory, stakeholder-legitimacy theory, and signaling theory, as explained in a study by Sun, Salama, Hussainey and Habbash (2010), and Board effectiveness is characterized by resource dependency theory (Hoang et al., 2018). In this regard, so far now, a large number of the studies have been conducted in order to investigate the relationship between CSR and EM. However, no study in the developing country like Pakistan has considered this CSR and EM relationship following the introduction of the CSR guidelines by SECP. Furthermore, role of diverse board members, either in terms of gender or foreign national, in this CSR and EM relationship has also been overlooked in the previous studies, especially in the developing countries like Pakistan.

LITERATURE REVIEW

[Sun et al. \(2010\)](#), in their study, argue about agency theory perspective of EM as if managers failed to inform their stakeholders about the firm's market position and financial value resulting in some wrong market decisions, then they must bear agency cost, like, EM. According to this theory, when sometime there are efficient market conditions, then shareholders can make the corporate decisions based on the information provided by managers. Hence this study will contribute to the literature in a way that how companies have been using CSR guidelines for engaging in CSR activities and in which direction it is affecting EM behavior. This asymmetrical information signals stakeholders to make their decisions timely, as stated by [Sun et al., \(2010\)](#). For some reason, managers may conceal information for their own use and hide firm real worth. [Almahrog, Zakaria and Arun \(2018\)](#) stated that it is obligation of a firm to show transparent and clear knowledge of accounting information to its stakeholders. This theory suggests that firms are considered responsible for offering the useful accounting information to stakeholders, and managers take care of asymmetric information given to stakeholders otherwise this led to EM. So, positive relationship can be assumed from stakeholder theory's perspective.

Legitimacy theory evaluated that there are some responsibilities for organizations towards society, and this theory supports the idea of CSR very strongly. This theory suggests giving back something to society in return for using society's resources. It is stated in a study by [Fernando and Lawrence, \(2014\)](#) that the organization is expected to fulfill the requirements or expectations of a society and its people. The firms engaged in CSR may also be under greater scrutiny from investors and activists, which could deter aggressive earnings management. Directors are important resource for of a firm, so the resource dependency theory proposes the association between the company and peripheral resources, i.e., directors. [Hoang et al., \(2018\)](#), in their study, examine that board is an essential and central part of any organization, and it has different factors, one of which is board diversity. There are several studies that show impact of CSR on the EM level of the firm. Some of these studies show a positive relationship between these two ([Grougiou et al., 2014](#); [Näsholm, 2014](#); [Li & Xia, 2018](#)) and there are other studies that indicate a negative association amid CSR and EM ([Amar & Chakroun, 2017](#); [Andersen, 2012](#); [Cho & Chun, 2016](#); [Yip, Stade, Cahan, Staden & Cahan, 2011](#)). So, following is the hypothesis:

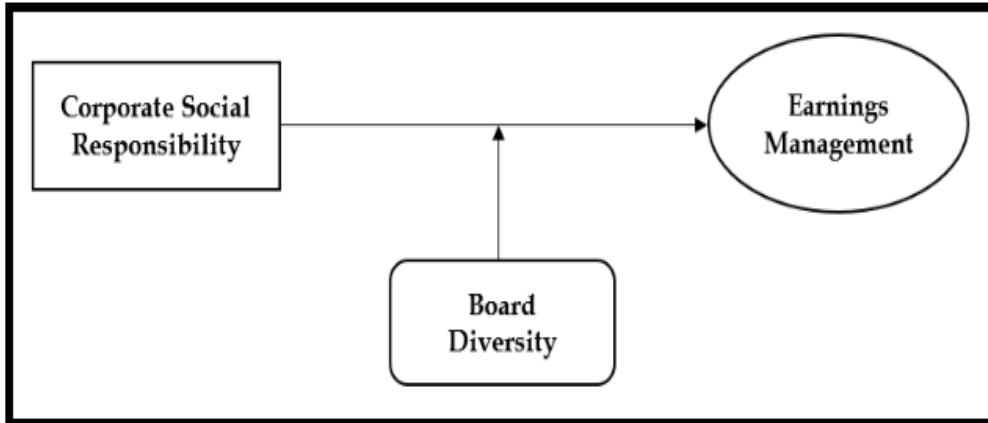
H1: There is an impact of CSR practices on EM

Likewise, this, previous research on the relationship between board diversity and EM state that the presence of diverse board members on the board, either in terms of gender or foreign nationality, is more likely to discourage the EM behavior ([Waweru, 2018](#)). The earnings management involves the manipulation of financial reports to either meet internal or external expectations or to smooth out earnings over time ([Choi, Choi & Byun, 2018](#)). Thus, understanding the relationship amid CSR and earnings management can offer insights into ethical and financial implications of CSR investments. Some studies suggest that CSR activities are associated with lower levels of earnings management as this is attributed to ethical frameworks and transparency that often accompany CSR initiatives. Other research shows that companies use CSR as form of impression management to distract from less ethical financial reporting practices. In this view, CSR could be used to offset negative insights generated by earnings management. [Harris, Karl and Lawrence, \(2019\)](#) found that female CEOs of

companies are less likely to manage earnings than counterparts male CEOs based on their equity incentives. So, we propose:

H2: Relationship amid CSR & EM moderated by board diversity in terms of foreign directorship and female representation on board.

Figure 1 Theoretical Framework



RESEARCH METHODOLOGY

Measurement of Earnings Management

When managers get involved in such that may harm the company or stakeholders, and they try to deploy earnings and work in their own interests, this leads to EM, and this problem causes agency problems. There are various methods in literature to measure EM; however, Jones, Modified Jones, and Kothari models have been used due to the reason that this is a way more practical method of measuring EM and is used widely in studies, and its significance can be determined in a study by (Chen, 2012). To measure EM based on discretionary accruals, Jones, Modified Jones, and Kothari models are used (Chen, 2012). The detail relating to measurement of EM using modified jones model has been given below:

$$DA_{i,t} = TA_{i,t}/A_{i,t-1} - [\alpha_i (1/A_{i,t-1}) + \beta_1 (\Delta REV_{i,t}/A_{i,t-1} - \Delta REC_{i,t}/A_{i,t-1}) + \beta_2 (PPT_{i,t}/A_{i,t-1})]$$

Measurement of CSR

CSR has been taken as an independent variable; it can be defined as obligation of an organization to add their part for a clean and healthy environment and a viable and ecological society. Thus, the organization must return to the workers, employers, people around, areas nearby, and addressable issues in society in such means that are good for organizations and expansion. CSR can be measured in different ways previously, such as seven dimensions of CSR from ISO 26000, data from annual reports, diverse databases, and content analysis. This study has used the content analysis to measure CSR based on the disclosure index as adopted by Majeed, Aziz and Saleem, (2015) in their study. In

this drive, a potential advantage of using this method is that it is way more practical and reliable than other methods.

Measurement of Board Diversity

As discussed above, the board is a central part of any organization, and many of its characteristics may affect firm performance in different ways. Board diversity has a great impact on organization from the stakeholders' perspective, and positive significance has occurred between board diversity and corporate social disclosure (Hoang et al., 2018). Two of its components have been adopted in this study, Female representation and foreign representation of board as moderating variables. Female representation is measured through female directors to total directors, and foreign representation is measured, ratio of foreign national directors to total directors. Ibrahim, 2016; Subramaniam, (2015) adopted this method of measuring board diversity; however, Hoang et al., (2018) have used different approach to measuring board diversity, i.e., un-weighted diversity-of-boards index (UW_DoB), an un-weighted diversity-in-boards index (UW_DiB), a weighted diversity-of-boards index (W_DoB), and a weighted diversity-in-boards index (W_DiB). Still, there are some control variables that have been used in study; these include; firm size, leverage, market-to-book ratio, return on asset, board size, and industry type.

Empirical Models

The econometric models for the potential relationship as assumed are discussed in present study are given below:

$$EM_{it} = \alpha_1 + \beta_1 CSR_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 MB_{it} + \beta_5 BS_{it} + \beta_6 ROA_{it} + \beta_7 IND_TYPE + \beta_8 CSRINDGUIDLINES + \varepsilon_{it} \text{ (Model I)}$$

$$EM_{it} = \alpha_1 + \beta_1 CSR_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 MB_{it} + \beta_5 BS_{it} + \beta_6 ROA_{it} + \beta_7 CSR_{it} * FEMREP_{it} + \beta_8 IND_TYPE + \varepsilon_{it} \text{ (Model II)}$$

$$EM_{it} = \alpha_1 + \beta_1 CSR_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 MB_{it} + \beta_5 BS_{it} + \beta_6 ROA_{it} + \beta_7 CSR_{it} * FORREP_{it} + \beta_8 IND_TYPE + \varepsilon_{it} \text{ (Model III)}$$

Where Model I is used to investigate the impact of CSR disclosure on the extent of EM behavior of sample companies. In Model II, the moderating role of female representation in the relationship between CSR disclosure and EM has been explored. Finally, Model III has been used to determine the moderating role of foreign directors' representation on the relationship between CSR disclosure and EM. In all these three models, EM has been measured using three models Jones, Modified Jones, and Kothari Models.

Data and Sample

A sample of all non-financial firms has been taken from different industries for period of 03 years, i.e., 2012, 2014, and 2015. Data from non-financial sector is collected for study under consideration because financial sector study leads to data collecting problems and difference in nature from non-financial as it would cause biases in study, and results could be affected. Out of these non-financial listed firms, some firms were delisted from sample due to non-availability of annual reports. Further, some other firms were eliminated due to issues like missing variables. Final sample consists of 274 non-financial firms that are listed on PSX. Main reason for collecting data for these three years is

that CSR guidelines were published in 2013, so this study comprises data for time period before and after 2013 to incorporate change analysis. Results are reported in form of panels of CSR categories and industry distributions. The table 1 shows final sample of companies selected from non-financial sector of Pakistan.

Table 1 Sample Companies Classification

Sector	No. of Companies
Textile	107
Sugar	25
Food	16
Chemical, Pharma, Fertilizers	36
Manufacturing/Engineering	9
Glass And Ceramics	6
Cement	19
Automobiles/Vehicles	19
Power Generation	6
Media And Communication	6
Oil And Gas	13
Paper Board and Forestry	10
Leather	2
Total Firms	274

RESULTS & DISCUSSION

In the current study, the effect of board diversity on the relationship between EM and CSR has been tested. Still, before this, descriptive analysis related to dependent and independent variables was performed. For the purpose of additional analysis, the CSR_DUMMY variable has been constructed in this study to check incremental change in the CSR index for the pre and post guidelines period. In this linking, in order to check the multicollinearity, VIF and correlation matrix test has also been performed in study.

Descriptive Analysis

The results are shown in Table 2 regarding the descriptive analysis report that the mean value for CSR activities of the companies in the pre-guidelines period, i.e., 2012, is less than that of the post-guidelines period, i.e., 2014 and 2015. This means that companies tend to improve their level of CSR practices with the implementation of these guidelines issued in 2013. These results have also been confirmed through the Man Whitney U test, which shows that sample companies in post-guidelines period have performed significantly better in terms of CSR performance as compared to the pre-guidelines period.

However, in the case of category-wise distribution in Table 3, the highest mean value lies in PANEL F representing the category of “Environmental issues” for years 2012, 2014, and 2015. The least value for the mean is in PANEL C representing the category of “activities for natural disasters” in all three

years. Moreover, industry-wise analysis of CSR disclosure, as reported in Table 4, indicates that the highest-scoring sector regarding CSR activities is PANEL N representing leather in 2015. However, in 2014, there was zero variance in data. In this connection, along with leather, PANEL H representing that the automobile sector has also been contributing significantly towards the social responsibility diverse activities.

Table 2 Descriptive Statistics of Overall CSR

CSR	Mean	Min	Max	SD
2012	0.066882	0.000000	0.400000	0.080269
2014	0.077239	0.000000	0.400000	0.082133
2015	0.083302	0.000000	0.400000	0.083904

Table 3 Descriptive Statistics of Category-Wise CSR

PANEL A: Contribution to Health Sector				
YEAR	MEAN	MIN	MAX	ST.DEV
2012	0.098652	0.000000	0.666667	0.124698
2014	0.108209	0.000000	0.500000	0.119399
2015	0.117537	0.000000	0.500000	0.121422
PANEL B: Contribution to Education Sector				
2012	0.045496	0.000000	0.750000	0.099864
2014	0.057836	0.000000	0.750000	0.111023
2015	0.056903	0.000000	0.750000	0.108311

Table 3A Descriptive Statistics of Category-Wise CSR

PANEL C: Activities for Natural Disaster				
2012	0.011949	0.000000	0.250000	0.053431
2014	0.017724	0.000000	0.500000	0.067826
2015	0.017724	0.000000	0.500000	0.067826
PANEL D: Other Donations				
2012	0.076471	0.000000	0.600000	0.140760
2014	0.091045	0.000000	0.600000	0.151132
2015	0.092537	0.000000	0.600000	0.146176

Table 3B Descriptive Statistics of Category-Wise CSR

PANEL E: Activities for Employees				
2012	0.045956	0.000000	0.625000	0.100516
2014	0.049907	0.000000	0.625000	0.103847
2015	0.060168	0.000000	0.625000	0.111622
PANEL F: Environmental Issues				
2012	0.159926	0.000000	1.000000	0.224580
2014	0.182836	0.000000	1.000000	0.232363
2015	0.205224	0.000000	1.000000	0.241621
PANEL G: Product/Services Statements				
2012	0.070000	0.000000	0.480000	0.147701
2014	0.075224	0.000000	0.480000	0.153816
2015	0.082985	0.000000	0.480000	0.158769

Table 4 Descriptive Statistics of CSR Based on Industry wise

PANEL A: Textile				
Year	MEAN	MIN	MAX	ST.DEV
2012	0.045913	0.00000	0.275000	0.068895
2014	0.055446	0.00000	0.275000	0.068794
2015	0.057673	0.00000	0.275000	0.070244
PANEL B: Sugar				
2012	0.072000	0.00000	0.325000	0.092511
2014	0.089000	0.00000	0.325000	0.102591
2015	0.098000	0.00000	0.325000	0.104563
PANEL C: Food				
2012	0.075000	0.00000	0.200000	0.074162
2014	0.079688	0.00000	0.225000	0.079172
2015	0.093750	0.00000	0.200000	0.073881
PANEL D: Chemical				
2012	0.086806	0.00000	0.400000	0.089340
2014	0.097917	0.00000	0.400000	0.090903
2015	0.103472	0.00000	0.400000	0.094897

Table 4A Descriptive Statistics of CSR Based on Industry wise

PANEL E: Manufacturing				
2012	0.030556	0.00000	0.100000	0.032543
2014	0.058333	0.025000	0.150000	0.043301
2015	0.058333	0.025000	0.150000	0.043301
PANEL F: Glass				
2012	0.025000	0.000000	0.100000	0.041833
2014	0.029167	0.000000	0.100000	0.040052
2015	0.025000	0.000000	0.100000	0.038730
PANEL G: Cement				
2012	0.101316	0.000000	0.275000	0.086391
2014	0.106579	0.000000	0.275000	0.088914
2015	0.121053	0.00000	0.275000	0.089078
PANEL H: Auto-mobile				
2012	0.101316	0.000000	0.3750000	0.098416
2014	0.117105	0.000000	0.375000	0.102758
2015	0.134211	0.00000	0.375000	0.092500

Table 4B Descriptive Statistics of CSR Based on Industry wise

PANEL I: Power generation				
2012	0.079167	0.00000	0.20000	0.078129
2014	0.095833	0.025000	0.225000	0.078129
2015	0.091667	0.00000	0.200000	0.078528
PANEL J: Media				
2012	0.012500	0.00000	0.075000	0.030619
2014	0.037500	0.00000	0.150000	0.062750
2015	0.037500	0.000000	0.1500000	0.062750
PANEL K: Industrial Transport				

2012	0.112500	0.00000	0.300000	0.131498
2014	0.056250	0.00000	0.100000	0.042696
2015	0.068750	0.00000	0.125000	0.055434

Table 4C Descriptive Statistics of CSR Based on Industry wise

PANEL L: Paper board				
2012	0.095833	0.00000	0.250000	0.091401
2014	0.095833	0.00000	0.275000	0.114473
2015	0.108333	0.00000	0.300000	0.115830
PANEL M: Oil and gas				
2012	0.088462	0.000000	0.225000	0.067404
2014	0.094231	0.000000	0.225000	0.067819
2015	0.098077	0.000000	0.225000	0.068816
PANEL N: Leather				
2012	0.112500	0.075000	0.150000	0.053033
2014	Zero variance	Zero variance	Zero variance	Zero variance
2015	0.162500	0.150000	0.175000	0.017678

Regression Analysis

The regression analysis results shown in Table 5 report the effect of CSR guidelines on relationship between CSR disclosure and EM. For the pre-guidelines period, the value is taken as 0, and for post-guidelines period, the value is taken as 1. The result reports the negative and significant impact of CSR on EM behavior of companies. It means that firms which tend to adopt CSR activities in their organizations are less likely to manage earnings for their own benefit. These results are consistent in all three models used for analysis and measuring discretionary accruals. However, considering the moderating effect of CSR guidelines on the CSR disclosure and EM relationship, insignificant results have been found.

Table 5 Effect of CSR on Earning Management

Variable	Model 1	Model 2	Model 3
	Jones Model	Modified Jones Model	Kothari Model
CSR_IND	-0.143 (0.061)*	-0.134 (0.081)*	-0.134 (0.081)*
FSIZE	-0.002 (0.766)	-0.002 (0.784)	-0.002 (0.779)
LEV	0.016 (0.638)	0.015 (0.657)	0.015 (0.657)
MB_RATIO	-0.060 (0.998)	-1.703 (0.939)	-1.685 (0.940)
ROA	0.595 (0.000)***	0.612 (0.000)***	0.611 (0.000)***
B_SIZE	-0.003 (0.312)	-0.003 (0.336)	-0.003 (0.337)
IND_TYPE	-0.009 (0.321)	-0.007 (0.411)	-0.007 (0.413)
CSRINDGUIDLINES	0.087	0.074	0.074

	(0.267)	(0.340)	(0.340)
R2	0.201	0.213	0.212
N	793	789	789

In below Table 5, the result shows the moderating impact of Board diversity in terms of foreign directors' presence on the board upon the relationship between CSR disclosure and EM. The above-reported results show that the CSR index has a negative impact on EM level of the firms, but here the impact is insignificant. These outcomes are consistent in all three models. Further, the impact of foreign directors' presence on the relationship between CSR disclosure and EM has also been found to be negative but at an insignificant level. In this connection, this can be interpreted as due to the presence of foreign directors on the board; firms are more likely to be socially responsible and less likely to be involved in earnings manipulation activities for their own benefit. However, the results are not significant.

Table 6 Foreign Directors as Moderator on relationship amid CSR & EM

Variable	Model 1	Model 2	Model 3
	Jones Model	Modified Jones Model	Kothari Model
CSR_IND	-0.064 (0.257)	-0.057 (0.308)	-0.057 (0.309)
CSRINDFORDIR	-0.216 (0.366)	-0.283 (0.239)	-0.282 (0.240)
FSIZE	-0.001 (0.823)	-0.001 (0.838)	-0.001 (0.833)
LEV	0.010 (0.774)	0.009 (0.798)	0.009 (0.798)
MB_RATIO	-1.161 (0.959)	-2.847 (0.899)	-2.828 (0.899)
ROA	0.595 (0.000)***	0.613 (0.000)***	0.612 (0.000)***
B_SIZE	-0.003 (0.337)	-0.002 (0.373)	-0.002 (0.374)
IND_TYPE	-0.009 (0.305)	-0.008 (0.389)	-0.008 (0.391)
R2	0.201	0.213	0.212
N	793	789	789

Finally, here are the results reported for female directorship on board and its moderating impact of board diversity on relationship between CSR disclosure and EM. As per table 7, the reported results interpret that the impact of CSR is negative and insignificant, just like in table 7, which means the more likely firms are engaged in CSR activities, the less likely they are involved in EM activities. Further in this analysis, from the present study, the female directorship has been observed as the moderating variable for board diversity. The impact of this moderating variable is also negative but at an insignificant level. It shows that the presence of female directors upon the board makes the organization less likely to use corporate responsibility disclosure as tool to involve in manipulative EM activities.

Table 7 Female Directors as Moderator on Relationship amid CSR and EM

Variable	Model 1	Model 2	Model 3
	Jones Model	Modified Jones Model	Kothari Model
CSR_IND	-0.039 (0.508)	-0.037 (0.530)	-0.037 (0.531)
CSRINDFEMDIR	-0.535 (0.101)	-0.546 (0.094)	-0.547 (0.094)
FSIZE	-0.002 (0.719)	-0.002 (0.730)	-0.002 (0.725)
LEV	0.012 (0.717)	0.012 (0.728)	0.012 (0.728)
MB_RATIO	3.822 (0.865)	2.306 (0.918)	2.328 (0.918)
ROA	0.595 (0.000)***	0.611 (0.000)***	0.611 (0.000)***
B_SIZE	-0.003 (0.253)	-0.003 (0.274)	-0.003 (0.275)
IND_TYPE	-0.007 (0.435)	-0.005 (0.543)	-0.005 (0.544)
R2	0.203	0.214	0.214
N	793	789	789

Additional Analysis

For the purpose of additional analysis, this study has used CSR as a DUMMY variable to check the incremental effect of CSR disclosure following CSR guidelines on EM behavior. If there is increase in CSR activities following CSR guidelines, then value is taken as 1; otherwise, 0. Results reported in this section as additional analysis show that variable CSR_DUMMY, i.e., increase in CSR disclosure following CSR guidelines, has a positive impact on EM behavior, but the impact is not significant. It can be interpreted as there is some incremental change in CSR activities level of firms before and after guidelines period, i.e., level of engagement in CSR activities has increased with introduction of CSR guidelines 2013 in Pakistan. These results are consistent over all three models of discretionary accruals measures. The moderating impact of board diversity in terms of foreign directors has been tested, results came out to be positive and insignificant. ROA has positive and significant impact on EM. (See table 8).

Table 8 Incremental Effect of CSR on Earnings Management

Variable	Model 1	Model 2	Model 3
	Jones Model	Modified Jones Model	Kothari Model
CSR_DUMMY	0.000 (0.977)	0.000 (0.990)	0.000 (0.990)
CSR_DUMMY_FORDIR	0.045 (0.448)	0.016 (0.794)	0.016 (0.793)
FSIZE	-0.014 (0.047)**	-0.015 (0.039)**	-0.015 (0.039)**
LEV	-0.044 (0.324)	-0.040 (0.372)	0.040 (0.373)

MB_RATIO	-30.095 (0.277)	-34.493 (0.213)	-34.433 (0.214)
ROA	0.559 (0.000)***	0.578 (0.000)***	0.577 (0.000)***
B_SIZE	-0.005 (0.130)	-0.005 (0.116)	-0.005 (0.116)
IND_TYPE	-0.009 (0.393)	-0.009 (0.391)	-0.009 (0.392)
R2	0.201	0.210	0.209
N	526	524	524

The outcome in Table 9 reports additional analysis of moderating role of board diversity in terms of female director presence on relationship between CSR disclosure and EM. The result shows that the CSR_DUMMY variable has a positive but insignificant impact on EM. Considering the moderating role of female director presence, a negative relationship amid CSR disclosure and EM is found but at insignificant level. Firm size, leverage, MB ratio, board size, and industry type also have negative impact on the EM.

Table 9 Incremental Effect of CSR on Earnings Management

Variable	Model 1	Model 2	Model 3
	Jones Model	Modified Jones Model	Kothari Model
CSR_DUMMY	0.011 (0.374)	0.008 (0.516)	0.008 (0.516)
CSR_DUMMY_FEMDIR	-0.128 (0.189)	-0.114 (0.241)	-0.114 (0.241)
FSIZE	-0.015 (0.040)**	-0.016 (0.030)**	-0.016 (0.030)**
LEV	-0.053 (0.228)	-0.045 (0.304)	0.045 (0.305)
MB_RATIO	-31.492 (0.255)	-35.808 (0.196)	-35.748 (0.197)
ROA	0.570 (0.000)***	0.588 (0.000)***	0.587 (0.000)***
B_SIZE	-0.005 (0.126)	-0.005 (0.113)	-0.005 (0.114)
IND_TYPE	-0.008 (0.416)	-0.008 (0.423)	-0.008 (0.424)
R2	0.203	0.212	0.211
N	526	524	524

CONCLUSION

The study investigates how engagement in CSR activities following CSR guidelines 2013 impacts EM behavior of sample companies. In addition to this, whether presence of diverse board members, either in terms of the gender or nationality, moderates this CSR disclosure and EM relationship. The

descriptive analysis results report that the level of engagement in CSR activities has been improved after CSR guidelines 2013. Considering the individual categories of CSR activities, results state that contributions to health sector and environmental issues are major concern for sample companies. Regression analysis reported a negative and significant impact of CSR on the EM. It means that firms which tend to adopt CSR activities in their organizations are less likely to manage earnings for their own benefit. Therefore, all three models yield the same findings for analysis in terms of measuring discretionary accruals. However, considering the moderating impact of CSR guidelines 2013 on the CSR and EM relationship, no significant results have been found. These results interpret that Sample Company are indifferent in terms of CSR and EM relationship following the introduction of CSR guidelines in 2013.

Results relating to the moderating impact of board diversity on the CSR and EM relationship also report that the presence of foreign directors moderates the CSR and EM relationship negatively but at an insignificant level. Similar results have been found in terms of moderating the role of female directors in CSR and EM relationships. Summing up the results, the study concludes that CSR and EM have the negative relation. It interprets that the more the firms are socially responsible, lesser would be engaged in manipulating earnings or may, say EM. Further, to strengthen this relationship, female and foreign directors ought to be encouraged by regulatory authorities. This study can be implied in order to know about the level of CSR practices in the non-financial sector of Pakistan. Further, it can also provide grounds for the fact that female and foreign representation on the board negatively affects the CSR and EM relationship of the organizations. In this linking, this study also highlighted the sectors that are highly engaged in CSR practices and those which are not engaged in such activities, so government and other regulatory authorities can take insightful effective steps for its improvement.

There is also a need to improve the role of these diverse board members, either in terms of foreign directors or female directors so that the shareholders' interests are protected and more socially responsible firms must not use that for manipulating earnings called EM. Also, SECP has announced that there must be at least one female director, so this study is in line with this implication as well. Being limited to a smaller sample size i.e., 274 firms from the non-financial sector, the recent study lacks a generalizability factor, thus happened to be the limitation to this study. The relationship between CSR and earnings management is complex and influenced by various factors, including corporate culture, the regulatory environment, and stakeholder expectations. This study can be further extended to other sectors and industries as well with more companies to be involved. Further studies can also be conducted based on another measure of CSR disclosure, as presently, content analysis has been adopted. Further studies can be done with respect to some alternative measures of effective CSR activities and to find out the reasons why CSR disclosure guidelines are not working properly in Pakistan.

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