



**RESEARCH PAPER**

**Board Composition and Functioning, and Shareholders Rights to Information Impact on Earnings Management and Financial Performance: A Three Dimensional Analysis in Commercial Banking Sector of Pakistan**

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**PAPER INFO      ABSTRACT**

<b>Received:</b> February 21, 2020	Financial information particularly earnings management plays an important role to distort earnings in the banking sector. Many banking companies apply a lot of strategies to manipulate earnings. This paper used a quantitative approach using discretionary loan loss provisions to assess the extent of earnings management practices used in the commercial banking sector of Pakistan. The study applied Panel Corrected Standard Error Model on a data set of listed commercial banks during the period 2012-2018. The results showed a highly significant negative impact of Board Composition and Functioning, and Shareholders' rights to information on earnings management. Furthermore, the study also found evidence that the rising score of Board Composition and Shareholder's rights to information is more effective in limiting the earnings management and vice versa. The second phase of the paper focused on the direct effect of earnings management on financial performance (accounting-based measures and market-based measures) and the moderating impact of earnings management with these governance indicators on the financial performance. The results also showed a significant negative impact of the interaction of governance indicators and earnings management on the accounting-based measures (return on equity, return on assets) whereas the insignificant association with market-based measures (market valuation and Tobin's Q).
<b>Accepted:</b> March 15, 2020	
<b>Online:</b> March 30, 2020	
<b>Keywords:</b> Board Composition and Functioning, Earnings Management, Financial Information Shareholders' Rights to Information	
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**Introduction**

The Commercial Banking sector is an important element in the financial system of any country, especially underdeveloped economies. How commercial

bank performs tells a lot about the trust of all stakeholders. Corporate Governance mechanisms including both internal and external play a crucial role in the success of a commercial bank. Pakistan like other developing countries also relies much on its commercial banking sector for the development of its economy. Many other banks have developed mechanisms to supervise the practices adopted by the commercial banking sector for protection of stakeholders' rights and reduce agency costs. The developing countries banking industries especially Pakistan is also facing issues relating to internal and external governance.

In internal governance mechanisms, the board is considered an important mechanism for banking companies (Ahmed & Ghazali, 2013; Khodadadi, Sohelia, & Abbas, 2010). It is the apex of internal governance that controls top management, including the CEO. It hinges on the internal governance of a firm and plays a vital role in resolving agency conflict. The effectiveness of the board of directors depends on the board's characteristics.

Moreover, the heavy reliance on earnings by internal and external users creates an avenue for managers to use accounting discretion in arriving at earnings figures. The objective of this action is to meet earnings forecast and thresholds, analyst expectations, executive compensation, debt covenants, and capital finance and to influence regulatory decisions (Bernard & Douglas, 1996; Healy & Krishna, 2001; Roychowdhury, 2006). The reason for involvement in earnings management activities by managers is to avoid reputation damage and a strong negative share price reaction that may adversely damage the economy (Scott, 2015).

When there are large numbers of independent external directors on the board, there will be efficient monitoring of managers because the responsiveness of board independence is related to manager monitoring. Consequently, there will be a decrease in the costs of the agency as a result of the separation of ownership and control in the day-to-day management of the company (Brennan & McDermott, 2004; Fama, 1980; Fama & Jensen, 1983). Nevertheless, the findings of the existing literature with regards to board independence's relationship with real earnings management are mixed. In the research by Amran, Ishak, and Manaf (2016), board independence is found to be inversely linked to earnings management, which indicates the fact that board independence could curtail the real earnings management in the companies. Similarly, Kang and Kim (2012); Klein (2002); Uadiale (2012); Iraya et al. (2015) found that the more independent directors, the better the monitoring of the behavior of corporate managers. This position agrees with the agency theory perspective. Agency theory postulates that the independent directors' monitoring role is of importance. The primary aim of independent directors is to minimize the agency problem which emanates from the separation between management and ownership of the firm (Al-Rassas & Kamardin, 2015; Benkel, Mather, & Ramsay, 2006). In addition, independent directors should build a reputation as experts with experience and play a role in the identification and prevention of myopic behavior of corporate managers (Fama, 1980). However, the

study by Hsu and Wen (2015) indicates board independence to be significantly and positively related to earnings management.

According to the Corporate Governance Codes, the chairman's duties and Chief Executive Officer's responsibilities should be dissimilar, as this will prevent excessive power of the CEO in managing daily business operations (ASE, 2009). This is congruent with the postulation of the agency theory. A CEO with excessive power on the board could, without difficulty, indulge in earnings management. Dualism like this in an office structure can facilitate effective information control, which could, in turn, hinder efficient monitoring (Ali, Ali, & Mehmood, 2020; Jensen, 1993).

Although many studies were conducted to elaborate on the exact relationship between governance and earnings management practices but the discussion on the impact of internal governance mechanisms on earnings management remained unclear. A study conducted by Lawal, Nwanji, Opeyemi, and Adama (2018) explored the relationship between governance and earnings management on a data set of companies listed on the Nigerian Stock Exchange. The researchers ignored financial sector data on the basis of a unique feature of the annual financial reporting process of the industry. The study found that the relationship between the earnings management and internal governance is mixed at best. Specifically, it indicates that the Corporate Governance Code has a negative effect on earnings management, while the relationship between earnings management and insider ownership has been substantially positive. It was also noted that the independence of the Board and the Auditors had a minimal impact on the management of earnings. The study suggested strengthening the governance code of conduct for corporate and mandating compliance to restrict earnings management (Lawal et al., 2018).

The financial performance of the firms is also associated with the board. Yermack (1996) argues that value of the firm is negatively correlated with a large board. The size of the board may be influenced by quite a few variables; the optimum size of the board is hard to decide. They claim that whether it is smaller than the minimum legal requirement or is greater than two standard deviations from the mean, board size is considered excessive. On the other hand, Peasnell, Pope, and Young (2005); Vafeas (2000) suggested that a larger board could contribute to lower levels of income management because a higher number of independent and more experienced directors who are more capable of overseeing management activities are more likely to be included.

There is an extensive body of knowledge is available on individual factors of corporate governance. As such corporate directors' meeting is also considered as an integral part of the governance. Corporate board members who frequently meet may probably engage not in the management of earnings activities than board members with fewer meetings (Cornett, McNutt, & Tehranian, 2009; Yao, Tang, Li, & Jiang, 2015). In contrast, boards that meet less are likely to have less time to identify and resolve certain issues and can only focus their limited amount of time on management (Abed, Al-Attar, & Suwaidan, 2012).

However, the findings of the extant literature on the board meetings' relationship with earnings management are mixed. Some studies (Ahmed & Ghazali, 2013; Xie, Davidson III, & DaDalt, 2003) found that the management of earnings is negatively linked to the frequency of the board meetings. Specifically, Ahmed and Ghazali (2013) found that earnings management practices can be mitigated via frequent board meetings. However, Olayemi (2013) and Obigbemi, Omolehinwa, Mukoro, Ben-Caleb, and Olusanmi (2016) found a significant positive connection the board meeting has with earnings management practices, signifying that board meetings could influence managers engaging in real earnings management activities. In the study done by Obigbemi et al. (2016), it is signified that board activity can increase the management of earnings, and more frequent meetings of the board often help in the increment of the management of earnings. Also, they examined board meetings and earnings management relationships and the results signify a significantly positive relationship between board activity and earnings manipulation activities.

Board meetings' frequency in a year predicts how effective the board is and their monitoring responsibilities determine the level of vigilance and diligence on the part of the board (Persons, 2006). Moreover, agency theory assumes that frequent board meetings would strengthen corporate governance elements (Khanchel, 2007). In a firm where there are effectively-fixed and frequent board meetings, there would be economic growth. Also, the signaling theory suggests that the frequency of the board meeting is a signal of transparency in a company (Morris, 1987). It could be hypothesized, on the basis of the above discussion and postulations from both theories (agency and signaling), that regular meetings of active boards could increase efficiency in line with shareholder interests and control of the integrity of financial reporting.

The board has a significant role in containing the management activities of a company and protecting shareholder interests concerning internal governance structures (Fama & Jensen, 1983). Corporate earnings are considered as a basic element by shareholders to determine whether to invest in the stock of a company (P. Dechow, Ge, & Schrand, 2010; Shayan-Nia, Sinnadurai, Mohd-Sanusi, & Hermawan, 2017). At the same time, earnings are the parameters on which the success of management is assessed and compensation is charged (Shayan-Nia et al., 2017). Managers may also very well have the incentives to inflate the reported earnings by using different accounting tactics and schemes to modify the timing and structure of investing, operating, and financing activities that would disappoint investors concerning the earnings power of the business. This exaggeration of financial results to confuse investors is referred to as earnings management (Beneish, 1997; Dechow, Sloan, & Sweeney, 1995; Jones, 1991; Liao, Lin, & Zhang, 2018).

Financial Information is the key to attract investment. The availability of information and shareholder's rights to that information also affect the financial performance of the firm. It can cause information asymmetry if the agent has more information than the principal but doesn't want to share information. According to

(Stephen & Scott, 2011) if one party has relevant information in a transaction but is unable (not willing) to share the information, it is called asymmetry information. Agency conflict occurs when information on asymmetry is available, whether it relates to any activity or agent information. Corporate governance requires a broad spectrum framework, is intended to address the risk of agency conflict by increasing the consistency of management activity reporting and limiting the opportunistic behavior of managers.

Prior studies have explored the effects of corporate board independence on governance effectiveness. Most of these studies illustrate the value of independent boards of directors, assisted by a higher percentage of independent non-executive directors, to control management activities. Fama and Jensen (1983) highlight the importance of independence from the corporate board to provide efficient monitoring of management activities and strategies. Williamson (1981) suggests that corporate board independence is required to protect the interests of shareholders. Roe (1991) supports the corporate board's monitoring position, on the ground that management practices cannot be restricted by legislative acts, and proposed that successful corporate board monitoring prevents managers from exploiting resources.

Some studies have explored the effect of board independence on earnings management empirically; these studies were mainly focused on data from developed countries such as the United Kingdom and the United States companies. The implications and causes of earnings management based on companies subject to compliance actions by the Securities and Exchange Commission (SEC) were assessed by Dechow et al. (1995). Their results show that "the risk of earnings manipulations is systematically connected to deficiencies in management control," and they conclude that businesses with greater manipulation of earnings are more likely to have a board dominated by insiders. In another study, Beasley (1996) proposed that the presence of a greater proportion of external directors on boards decreases the risk of fraud in financial statements.

Academics and professionals believe that a major determinant of company performance is board size. Large-sized boards hinder coordination and decision-making problems and severely damage the quality of monitoring. Jensen (1993) asserts that "when boards get beyond seven or eight people they are less likely to function effectively". Lipton and Lorsch (1992) suggest restricting the number of directors, with an ideal of eight or nine members, to a maximum of ten members. Yermack (1996) supports the idea that smaller boards are more productive, thus leading to an opposite relation between board size and financial performance. The study also concluded that firm value is hindered by a large board. The size of the board may be influenced by quite a few variables; the optimum size of the board of directors is hard to decide. We claim that whether it is smaller than the minimum legal requirement or is greater than two standard deviations from the mean, board size is considered excessive.

A large board size may contribute to lower-quality financial reporting since a higher number of independent and more qualified directors who would be more able to track management activities are more likely to be included (Peasnell et al., 2005; Vafeas, 2000).

## **Material and Methods**

### **Data and Empirical Model**

Various studies are available that highlight the differences of numerous approaches in scoring governance indicators along with their pros and cons. Experts are reluctant to agree over whether or not a particular dimension of governance indicators should be used, and also how much importance each factor will be provided (Ali, Ali, Khan, & Ghulam, 2020; Shamsi, Bashir, & Panhwar, 2013). This paper used a quantitative methodology. In the first phase earnings management practices were discovered using a regression equation to find residuals (discretionary loan loss provisions) in banking companies as suggested by Stubben (2010). In the second phase, two indices were constructed for board composition and functioning (Factors included: the percentage of independent directors, non-executive directors, Chief Executive Officer and Chairman separation, attendance and regularity of meetings) and shareholder's rights to information (Factors included: information about all shareholdings, proxy voting criteria, complaint redressal systems, and dividend declaration and distribution criteria) separately. After the formulation of indices, multiple regression equations were used to analyze the relationship of earnings management with that of board composition and functioning index and shareholder's rights to information Index. In the last phase, the impact of both governance indicators on the financial performance directly and using earnings management as a moderating variable of banking companies were measured. The model used in this study is as follows.

$$LLP = \beta_0 + \beta_1 CO + \beta_2 BBAL + e_1$$

$$EM/DLLP = \beta_0 + \beta_1 BCFI + \beta_2 SRII + e_2$$

$$FP = \beta_0 + \beta_1 BCFI + \beta_2 SRII + \beta_3 BCFI * EM + \beta_4 SRII * EM + e_3$$

Whereas financial performance is measured by both accounting-based (Return on Assets, Return on Equity) and market-based (Market Capitalization, and Tobin's Q) measures

FP = Financial Performance

LLP = Loan Loss Provision; CO = Loan Charge offs

BBAL = Beginning Balance for allowance for bad debts

EM/DLLP = Earnings Management or Discretionary Loan Loss Provisions

BCFI =Board Composition and Functioning Index;

SRII = Shareholder's Rights to Information Index

ROA =Return on Assets = Net income divided by total assets

ROE =Return on Equity =Net income divided by total equity

MV =Market valuation =Outstanding shares of a company x current share price

Tobin's Q = Q Ratio =Market value of assets / replacement cost of the company's assets

The Hypotheses that were developed to evaluate the relationship expressed in the econometric model are as follows.

Hypotheses		Theoretical Base By Literature	Relationship (Expected)
Internal Governance Mechanisms and Earnings Management	<b>H1</b>	Agency Theory ; Public Interest Theory	Negative
Board composition and functioning	H1a		
Shareholder's Rights to Information	H1b		
Board composition and functioning and Financial Performance	<b>H2</b>	Agency Theory and Public Interest Theory	Positive
Return on Assets	H2a		
Return on Equity	H2b		
Market Capitalization	H2c		
Tobin's Q	H2d		
Shareholder's Rights to Information and Financial Performance	<b>H3</b>	Agency Theory and Public Interest Theory	Positive
Return on Assets	H3a		
Return on Equity	H3b		
Market Capitalization	H3c		
Tobin's Q	H3d		
Earnings management and Financial Performance	<b>H4</b>	Agency Theory and Public Interest Theory	Negative
Return on Assets	H4a		
Return on Equity	H4b		
Market Capitalization	H4c		
	H4d		

Board composition and functioning on financial performance using earnings management as moderating variable	<b>H5</b>	Agency and Interest Theory	Public Negative
Return on Assets	H5a		
Return on Equity	H5b		
Market Capitalization	H5c		
Tobin's Q	H5d		
Shareholder's Rights to Information on financial performance using earnings management as moderating variable	<b>H6</b>	Agency and Interest Theory	Public Negative
Return on Assets	H6a		
Return on Equity	H6b		
Market Capitalization	H6c		
Tobin's Q	H6d		

## Results and Discussion

### Tests for Normality and Stationarity of Data

Test for normality of quantitative data was conducted through SPSS, whereas Skewness and Kurtosis through Stata. According to the previous studies (Bulmer, 1979) the data range for Skewness is +1 to -1 whereas for kurtosis as per Balanda and MacGillivray (1988) the range is 3 to -3. So all the dependent and independent variables fulfilled the assumption of normality and data also fulfilled the normality for Skewness and Kurtosis. The values for skewness, kurtosis, and variance are mentioned in Table 2.

**Table 2**  
**Summary Statistics for Panel Data Sample for Banking Companies**

Variables	Skewness	Kurtosis	Variance
Board Composition and Functioning Index	-.580491	2.03998	2.893275
Shareholder' Right Index	.249842	2.693699	2.335813
Earnings Management (DLLP)	-.5660006	1.277792	1.18098
Return on Assets (ROA)	-.5125709	2.876017	.6821523
Return on Equity (ROE)	-.786923	2.33485	7.5287
Market Capitalization	.0822506	1.947958	1.704983
Tobin's Q	0.963352	2.803455	8.75356



Table 3

**Unit root test for corporate governance and financial performance variables**

Levin linchu test was used to check the stationarity of the data. All the variables fulfilled the stationarity test and there were no unit root exists in the data.

Levin-Lin-Chu Test		Panel means: Included			
ADF Regression		1 Lag	Time trend: Included		
Variables		Value	P-	Unit root	Panel
		Adjusted T*	value		Status
Board Composition and Functioning Index		-24.2279*	0.0000	No Unit Root	Stationary
Shareholder' Rights to Information Index		-22.553*	0.0000	No Unit Root	Stationary
Earnings Management (DLLP)		-25.3927*	0.0000	No Unit Root	Stationary
Return on Assets (ROA)		-55.5306*	0.0000	No Unit Root	Stationary
Return on Equity (ROE)		-12.4996*	0.0000	No Unit Root	Stationary
Market Capitalization		-1.20E+02*	0.0000	No Unit Root	Stationary
Tobin's Q		-40.293*	0.0000	No Unit Root	Stationary

The summary is as follows.

Table 4

**Correlation of Earnings Management, Governance Indices and Financial Performance Variables**

Independent Variables	BCI	SRII	ROA	ROE	MV	Tobins' Q	EM
BCI	1						
SRII	0.042	1					
P-Value	.621						
ROA	0.153*	0.262**	1				
P-Value	.070	.002					
ROE	0.224***	0.271**	0.808***	1			
P-Value	.008	.001	.000				
MV	0.081	0.1742**	0.583***	0.353***	1		
P-Value	.338	.040	.000	.000			
Tobins' Q	0.141*	0.222**	0.730***	0.362**	0.737***	1	
P-Value	.009	.008	.000	.006	.000		
EM	-0.147*	-0.080*	0.204***	0.121**	0.311***	0.169**	1
P-Value	.097	.088	.000	.006	.000	.046	

Table 4 showed that the Board Composition and Functioning Index has a strong positive correlation with accounting-based measures of financial performance, including return on assets, return on equity whereas no significant correlation with market-based performance measures such as market capitalization.

Moreover, the Board Index also exhibits a significant negative correlation with Discretionary loan loss provisions (DLLP). However, Shareholder's rights to information index showed a strong positive correlation with return on assets, return on equity, Tobins' Q, and market valuation whereas a strong significant negative association was found with earnings management (DLLP). Earnings Management (DLLP) was also significantly positively correlated with all financial performance indicators.

**Table 5**  
**Simple and multiple linear Regression Results of Beta Coefficients of the Board and Rights Indices on Earnings Management (DLLP) by Panel Corrected Standard Error Model for Heteroskedasticity and Auto correlated data**

Independent Variables	Earnings Management (DLLP)		
	I	II	III
Board Composition and Functioning Index	-0.090***		-0.086**
P-value	0.001		0.002
Shareholder' Rights to Information Index		-0.102***	-0.098**
P-value		0.009	0.012
R-Squared	0.199	0.210	0.0312
Wald chi2(1)	10.97	6.91	14.05
Prob> chi2	0.000	0.008	0.000
Serial Correlation F-Test Value	21.272***	21.920***	21.896***
Prob> F	0.000	0.000	0.000
(Wooldridge test for autocorrelation in panel data	Note.: ***p-value<0.001, **p-value<0.05, *p-value<0.10		
H0: no first order autocorrelation)			

- I. This regression equation showed that the Board Composition and Functioning Index have highly significant negative relationship with that of Earnings Management (DLLP). It means as the governance score of Board increases the DLLP is decreasing with the value of 0.0900. Woolridge test for autocorrelation showed the presence of serial correlation so adjustment was made in performing analysis using Panel Corrected Standard Error Model. R-squared value of 0.199 shows the explanatory power of the board characteristics in determining Earnings Management (DLLP).
- II. This regression equation showed that the Shareholder's Rights to Information Index have highly significant negative relationship with that of Earnings Management (DLLP). It means as the governance score of Rights to Information increases the DLLP is decreasing with the value of 0.1029 with R-squared of 21 percent.
- III. This regression equation analyzed the joint impact of Board Composition and Functioning Index and Shareholder's Rights to Information Index. Both the

indices have highly significant negative relationship with that of Earnings Management (DLLP). It means as the governance score of Board and Rights to Information increases the DLLP is decreasing with the value of 0.0863 and 0.0989 with R-squared of 0.312.

**Table 6**  
**Multiple Regression Results of Beta Coefficients of ROA using the Board Index and Shareholder's Rights to information Index and Earnings Management as Independent Variable by Panel Corrected Standard Error Model for Heteroskedasticity and Autocorrelated data**

Independent Variables	Return on Assets (ROA)				
	I	II	III	IV	V
Board Composition and Functioning Index	.07470***			.0952**	
P-value	0.000			0.000	
Shareholder' Right Index		.141***		0.127**	
P-value		0.000		0.000	
Earnings Management			.2436***	.1680***	
P-value			0.000	0.000	
Board Composition and Earnings Management (DLLP) Moderation					-0.257*
P-value					0.067
Shareholder' Right and Earnings Management (DLLP) Moderation					0.207*
P-value					0.052
R-Squared	0.123	0.068	0.102	0.237	0.05
Wald chi2(2)	14.60	13.81	50.26	43.83	10.92
Prob> chi2	0.0001	0.0002	0.0000	0.0000	0.003
Serial Correlation F-Test value	1.492	1.354	1.507	1.605	1.454
P-value	0.236	0.258	0.234	0.220	0.242
Wooldridge test for autocorrelation in panel data	Note.: ***p-value<0.001, **p-value<0.05, *p-value<0.10				
H0: no first order autocorrelation					

- I. This equation showed the impact of the Board Characteristics on the return on assets (ROA). The coefficient was highly positive significant with an R-squared of 0.1237. This means as the score of the board improved the return on assets also increased by 0.7470.

- II. Shareholder's Rights to Information Index showed a strong positive relationship with the return on assets which is significant at a 1% level of significance.
- III. Earnings management showed a positive significant relationship with the return on assets having an r-squared of 0.1028 and the model was also fit. It means a high level of earnings management also leads to a high return on assets which is contradictory to the facts.
- IV. This equation evaluated both indices and earnings management. The results showed a highly significant positive association of all with return on assets.
- V. This equation analysed the moderating impact of governance indicators and earnings management on the return on assets. In this the board characteristics showed a significant negative moderating impact on return on assets which was previously positive when measured directly using earnings management (DLLP). Whereas the shareholder's rights to information showed a positive moderating impact.

**Table 7**  
**Multiple Regression Results of Beta Coefficients of ROE using the Board Index and Shareholder's Rights to information Index and Earnings Management as Independent Variable by Panel Corrected Standard Error Model for Heteroskedasticity and Autocorelated data**

Independent Variables	Return on Equity (ROE)				
	I	II	III	IV	V
Board Composition and Functioning Index	0.059*			0.073**	
P-value	0.073			0.027	
Shareholder' Right Index		0.108**		0.127**	
P-value		0.034		0.019	
Earnings Management			0.215***	0.252***	
P-value			0.000	0.000	
Board Composition and Earnings Management (DLLP) Moderation					-0.066*
P-value					0.063
Shareholder' Right and Earnings Management (DLLP) Moderation					0.0401*
P-value					0.0952
R-Squared	0.169	0.110	0.100	0.195	0.217
Wald chi2(2)	3.22	4.49	16.80	14.39	15.93

Prob> chi2	0.072	0.034	0.000	0.002	0.003
Serial Correlation F-Test value	2.204	2.095	2.274	1.413	2.319
P-value	0.154	0.164	0.148	0.249	0.144
Wooldridge test for autocorrelation in panel data	Note.: ***p-value<0.001, **p-value<0.05, *p-value<0.10				
H0: no first order autocorrelation					
I.	This equation showed the effect of Board Characteristics on the return on equity (ROE). The coefficient was significantly positive with an r-squared value of 0.1693. This means as the score of the board improved the return on equity also increased by 0.0594.				
II.	Shareholder's Rights to Information Index showed a strong positive relationship with the return on equity, which is significant at a 1% level of significance.				
III.	Earnings management also showed a positive significant relationship with the return on equity when observed in an independent equation having an r-squared of 0.1005 and the model was also fit. It means a high level of earnings management also leads to a high return on equity which showed adopted practices of earnings management manipulate earnings in a positive direction to influence decision making.				
IV.	This equation evaluated both indices and earnings management. The results exhibited a highly significant positive association of all with the return on equity having r-squared of 0.1952.				
V.	This equation analysed the moderating impact of governance indicators and earnings management on the return on equity. In this, the board characteristics showed a significant negative moderating impact on return on equity which was previously positive when directly using earnings management (DLLP) measured. Whereas the shareholder's rights to information showed a positive significant moderating impact on the return on equity.				

**Table 8**  
**Multiple Regression Results of Beta Coefficients of Market Capitalization using the Board Index and Shareholder's Rights to information Index and Earnings Management as Independent Variable by Panel Corrected Standard Error Model for Heteroskedasticity and Autocorelated data**

Independent Variables	Market Capitalization				
	I	II	III	IV	V

Board Composition and Functioning Index	0.007				0.029
P-value	0.793				0.384
Shareholder' Right Index		0.113*			0.135**
P-value		0.086			0.013
Earnings Management (DLLP)			0.4770***	0.527***	
P-value			0.000	0.000	
Board Composition and Earnings Management (DLLP) Moderation					- 0.029
P-value					0.611
Shareholder' Right and Earnings Management (DLLP) Moderation					0.061
P-value					0.456
R-Squared	0.178	0.181	0.084	0.195	0.079
Wald chi2(2)	0.07	2.94	15.51	23.12	0.95
Prob> chi2	0.793	0.086	0.000	0.0000	0.620
Serial Correlation Test value	57.499	73.640	58.019	75.796	123.903
P-value	0.000	0.000	0.000	0.000	0.000
Wooldridge test for autocorrelation in panel data	Note.: ***p-value<0.001, **p-value<0.05, *p-value<0.10				
H0: no first order autocorrelation					

- I. The coefficient of the board was insignificant with market capitalization. This means the board characteristics does not have any significant effect on the market valuation of the stocks of banking companies.
- II. Shareholder's Rights to Information Index showed a strong positive relationship with the market capitalization having an r-squared of 0.1816 and a coefficient value of 0.1173 which is significant at a 1% level of significance.
- III. Earnings management showed a positive significant relationship with market capitalization having an r-squared of 0.0844 and the model was also fit at a 1% level of significance. It means a high level of earnings management practices also leads to the manipulative high value of the stock.
- IV. This equation evaluated both indices and earnings management. The results showed a highly significant positive association of all with market capitalization.

- V. This equation analysed the moderating impact of earnings management and both the governance indicators and on the market capitalization. Both showed an insignificant moderating impact on market capitalization.

**Table 9**  
**Multiple Regression Results of Beta Coefficients of Tobin's Q using the Board Index and Shareholder's Rights to information Index and Earnings Management as Independent Variable by Panel Corrected Standard Error Model for Heteroskedasticity and Autocorrelated data**

Independent Variables	Tobin's Q				
	I	II	III	IV	V
Board Composition and Functioning Index	0.196			0.217	
P-value	0.331			0.317	
Shareholder' Right Index		0.212		0.314	
P-value		0.640		0.478	
Earnings Management			0.8791	0.941	
P-value			0.195	0.190	
Board Composition and Earnings Management (DLLP) Moderation					0.412
P-value					0.188
Shareholder' Right and Earnings Management (DLLP) Moderation					0.620
P-value					0.182
R-Squared	0.128	0.132	0.138	0.149	0.165
Wald chi2(2)	0.95	0.22	1.68	1.89	4.34
Prob> chi2	0.330	0.640	0.195	0.594	0.502
Serial Correlation F-Test value	15.328	14.703	16.009	15.275	14.499
P-value	0.000	0.001	0.000	0.000	0.001
Wooldridge test for autocorrelation in panel data	Note.: ***p-value<0.001, **p-value<0.05, *p-value<0.10				
H0: no first order autocorrelation					

- I. This equation showed the impact of Board Characteristics on Tobin's Q. The coefficient was insignificant, depicting insignificant relationship of Board characteristics and market-based performance measures.
- II. Shareholder's Rights to Information Index also showed an insignificant impact on market capitalization, even at a 10% level of significance.

- III. Earnings management showed an insignificant relationship with Tobin's Q.
- IV. This equation evaluated both indices and earnings management. The results showed an insignificant relation of all variables with Tobin's Q.
- V. This equation analysed the moderating impact of governance indicators and earnings management on Tobin's Q. The results were also insignificant.

**Table 10**  
**Summarized Hypotheses Results**

Independent Variables	Dependent Variables				
	EM	ROA	ROE	MV	Tobin's Q
	H1 <sub>a</sub> (Accepted)	H2 <sub>a</sub> (Accepted)	H2 <sub>b</sub> (Accepted)	H2 <sub>c</sub> (Not Accepted)	H2 <sub>d</sub> (Not Accepted)
BCI	Highly Significant Negative	Highly Significant Positive	Significant Positive	Insignificant	Insignificant
	H1 <sub>b</sub> (Accepted)	H3 <sub>a</sub> (Accepted)	H3 <sub>b</sub> (Accepted)	H3 <sub>c</sub> (Accepted)	H3 <sub>d</sub> (Not Accepted)
SRII	Highly Significant Negative	Highly Significant Positive	Significant Positive	Significant Positive	Insignificant
		H4 <sub>a</sub> (Accepted)	H4 <sub>b</sub> (Accepted)	H4 <sub>c</sub> (Accepted)	H4 <sub>d</sub> (Not Accepted)
EM		Significant Positive	Significant Positive	Significant Positive	Insignificant
		H5 <sub>a</sub> (Accepted)	H5 <sub>b</sub> (Accepted)	H5 <sub>c</sub> (Accepted)	H5 <sub>d</sub> (Not Accepted)
BCI and EM Moderation		Significant Negative	Significant Negative	Significant Negative	Insignificant
		H6 <sub>a</sub> (Accepted)	H6 <sub>b</sub> (Accepted)	H6 <sub>c</sub> (Not Accepted)	H6 <sub>d</sub> (Not Accepted)
SRII and EM Moderation		Significant Positive	Significant Positive	Insignificant	Insignificant



## **Conclusion**

This paper examines the role of board characteristics and shareholder's rights to information in containing earnings management practices and ultimately their impact on the financial performance on the listed commercial banking sector of Pakistan. The previous studies focused only on just loan loss provisions as a proxy to measure earnings management in banking sector in case of developing countries like Pakistan which deviates the facts as suggested by the Stubben (2010) to assess earnings management because of its omission of the non-discretionary part. This study incorporated just the discretionary part of the loan loss provisions using Stubben (2010) model to assess earnings management in the listed commercial banking sector of Pakistan.

The study also examines the relationship of two key internal governance indicators with earnings management and financial performance. The evidence is found that both board and shareholder's rights to information has a highly significant negative relationship with that of earnings management in banking companies when observed directly whereas shown only moderating significant negative impact of shareholders' rights to information on earnings management and insignificant moderating impact for the board composition and functioning. The *r*-squared for most of the regressions is less because there are also many other internal and external governance indicators that explain the given phenomena.

Finally, the findings of the study concluded with the existence of positive association between both internal governance mechanisms and financial performance indicators when observed directly but when earnings management moderated the relationship then almost all financial performance variables showed negative association except Tobin's *Q* which showed insignificant response. The study provides implications for the different stakeholders of the listed commercial banking sector and also suggested that the strong internal control mechanisms and the lesser extent of information asymmetry to prevent earnings management behavior.

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