

Ownership Structure and Earnings Management: Moderation of Corporate Governance Measures

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Abstract

This study is conducted to discover the consequence of ownership structure on the earning management practices under the influence of corporate governance. This research consists of a study of 23 non-financial companies of the KSE-30 index of Pakistan from 2011 to 2016. Using Generalized least Square (GLS) method, findings of this research depict that in Pakistan family-owned firms are involved in the manipulation of the financial records while non-family-owned firms are not involved in the earning management practices. The moderating role of corporate governance showed that those firms who have family hold over moderation of the board size, independent board of director ratio and Duality of CEO do not affect the relationship. On the other side, independent director ratio significantly moderates the association between the non-family structure and earning management. The board size as moderator shows the significant and direct relation in non-family structure with earning management but the coefficient value decreased and CEO duality shows the insignificant moderation between the relation of non-family-based firm and with manipulation of earnings.

Keywords: Family-Owned Firms, Earning Management, Non-family-Owned Firms, Generalized Least Square Method

Introduction

This study is conducted to find out the association between the family-owned and non-family-owned organizations and the earning management with the influential practices of corporate governance. The tenacity of researching this area is that in many countries family management is involved in the earning management practices for getting personal benefits. Family influenced businesses possess the window to deliver inappropriate as well as manipulated information related to accounts to their shareholders for their interest in the business. The reason for choosing family-owned companies is due to the reason that a large set of companies in the world have family involvement in them. In Fortune 500 companies' 33.33% of companies are run by the family members, the same thing in the case of 500 companies related to the index of S&P. In the senior of countries that belong to the East Asia region more than half of the listed companies are managed by the family(Chu, 2011). According to the senior of the East Asia region, researchers found that family-owned businesses are involved in poor financial reporting(J. Fan, & Wong, T. J., 2002).In earning management we just target the abnormal accruals instead of normal accruals. The normal accruals depict the progression of sale as well as organization condition that's why normal accruals are very tough to change(Ching Wen Chi, 2014). Abnormal accruals are opted to gauge the management of earning through m-j (Modified Jone) model. The family-owned firms are measured on the behalf of two categories. The first category is based on at least ten percent shares of the company owned by the members of specific family and the second category is based on the fact that at least fifty percent directors of the board belong to the specific family(Ching Wen Chi, 2014).

To find out the moderation effect of board independence in this paper we have used three moderating variables, one variable belonged to the ratio of independent directors in a corporate board, the second variable of moderation is chosen as CEO duality and the third moderating variable is the size of the board. In this research earning management has been selected as dependent variable while family and non-family own firms are considered as the independent variable. Three moderating variables on the behalf of corporate governance influence have been selected, first moderating variable is CEO Duality, second is board independence ratio and third is the size of the board.

Further in this study control variables are selected as size, leverage, sales growth and operating cash flow for this research.

In this study alignment effects and entrenchment effects have been discussed with relevance to the ownership structure. The Entrenchment effects caused the reduction in the earning quality of the firm because owners take devious measures to exploit the quality of earning. On the other hand, the Alignment effect showed that the management of the organization has its objective aligned concerning other shareholders. Hence, owners worked to generate the quality of earning better and these phenomena's increased efficiency and a firms standing in the long run (Wang, 2006).

This study inspects the family-based and non-family-owned firms' connection in earning management under the practices of corporate governance in Pakistan. The current study has the following research questions:

- Do family-owned firms play a part in the practices of earning manipulation under corporate governance influence?
- Do Non-Family owned firms play a part in the practices of earning manipulation under corporate governance influence?

To answer the above research question, objectives are mentioned beneath:

- To investigate that family hold and Non-family hold companies are engaged practices of earning manipulation.
- To investigate that Independent director's presence in board moderates the association between the earnings management and family-owned and Non-family firms.
- To investigate the CEO Duality moderates the association between the earnings management and family-owned and Non-family firms.
- To investigate the size of the board moderates the association between the earnings management and family-owned and Non-family firms

This study is conducted on Pakistan's economy because in Pakistan most of the business are ruled by the family members. The sample which we selected consists of 23 non-financial listed companies in PSX on the behalf of KSE-30 index from 2009 to 2016. For further core variables, we have selected different control variables in our model as well. These variables consist of leverage, size, growth of sale and the cash flow from the operations. To find out the relationship among our variables we GLS on pooled data.

Literature Review

Around the globe large set of companies have family involvement in them. In Fortune 500 companies one-third of companies are run by the family members, the same thing in the case of 500 companies related to the index of S&P. In the scenario of countries that belong to the East Asia region more than half of the listed companies are managed by the family (Wenyi Chu, 2011).

Earning management is one of the ways through which management of corporations manipulate their records to get their benefits as well as for the interest of key shareholders. Management do not bother that their decisions in favor of larger shareholders may result in financial distress for petty shareholders (La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000).

J. P. Fan and Wong (2002) found out in the region of Asia that family-owned firms use excessive power to manipulate the reporting of the financial accounts of the company. The relationship of family-related owners of companies has the command to regulate the information and reporting policies according to their purposes. Investors in under developing countries have a very weak position due to less mature markets as compared to developed countries. Teh, San Ong, and Ying (2017) stated that family-owned firms cause the agency conflicts because the family owners of the firms usually involve manipulating the earning for achieving their desire goals. This resulted in the higher-earning management practices happened in under developing countries for getting their own benefits from the management of the companies (Leuz, Nanda, & Wysocki, 2003). On the other hand, Fan and Wong (2002) discovered that USA and UK

depict the uneven behavior relevant to earning management practices. Firms which have a higher percentage of ownership presented lower levels of presentation of earning information as compared to other firms without family concentration (Wang, 2006). Kim and An (2019) have conducted the study on the Korean firms through which they identified that family-based ownership in a firm enhances the quality of the earning because the family-based shareholders have dominated influence in the organization. Borralho, Vázquez, and Hernández-Linares (2020) conducting a comparative study between the family firm and the non-family firm on the companies of Spain. The outcomes presents that family-based firms work as a steward for the company for enhancing the quality of ermining as a contrast to non-family hold corporations. Dashtbayaz, Salehi, and Safdel (2019) have revealed their findings while conducting the study on 139 Iranian firms from 2013 to 2017 that those firms whose equity is highly invested by family members do not show significant relations regarding the enhancement of the quality of financial results.

S. K. Chen et al.(2010) selected the abnormal accruals for earning manipulation contrary to normal accruals. The normal accruals depicted the progression of sale as well as organization condition that's why normal accruals are very tough to change. To find out the abnormal accruals as a representative of earning management m-j (Modified Jone) model just like used by other researchers(Chi, Hung, Cheng, & Lieu, 2015).

In the scenario of emerging markets, researchers found out that external factors are not in the favor of internal management of the company because outside factors have the effect of corruption and uselessness(Young, Peng, Ahlstrom, Bruton, & Jiang, 2008). For better control of the management, company directors have the key position in companies and the directors of the corporation board are the relevant person to look after the interest of shares holders properly (Cueto, 2013). Due to the practices of exploitation form major shareholders to minor shareholder interest in under developing economies, there is a need that boards of directors look after the presentation of account details to all of the shareholders of the company(S. K. Chen et al., 2010). If any company has an independent board of directors then it may depict as a good gesture to shareholders that their interments are

in the safe hands (Filatotchev, Lien, & Piesse, 2005). Many kinds of research that were conducted earlier discovered the relation that independent boards of directors reduce the effect of earning management (Beasley, 1996; Dechow, Sloan, & Sweeney, 1996). Al-Deen Al-Sraheen and Ahmad Al Daoud (2018) studied the role of independent directors concerning earning management. The outcomes of their study depict that independent directors play a constructive role in reducing the earning management practices in the organization. Further, they discovered that concentration of family-based ownership play a destructive role for the independent directors regarding mitigating the manipulations of the earning.

Board structure influence the earning management practices as well. Many researchers discovered that if the board of directors is from the internal management then they influence the company records concerning their benefits but on the other hand if the board of directors are from outside the company, they deliver expertise and creativity to the organization (Anderson & Reeb, 2003; Beasley, 1996). Researcher Anderson and Reeb (2003) disclosed in their research that there must be an independent director in the family-owned organization to protect the rights of the minor shareholders against the control shareholders. Other prior studies had findings that earning management had an inverse relationship with the independent board of directors (Peasnell, Pope, & Young, 2005; Xie, Davidson III, & DaDalt, 2003).

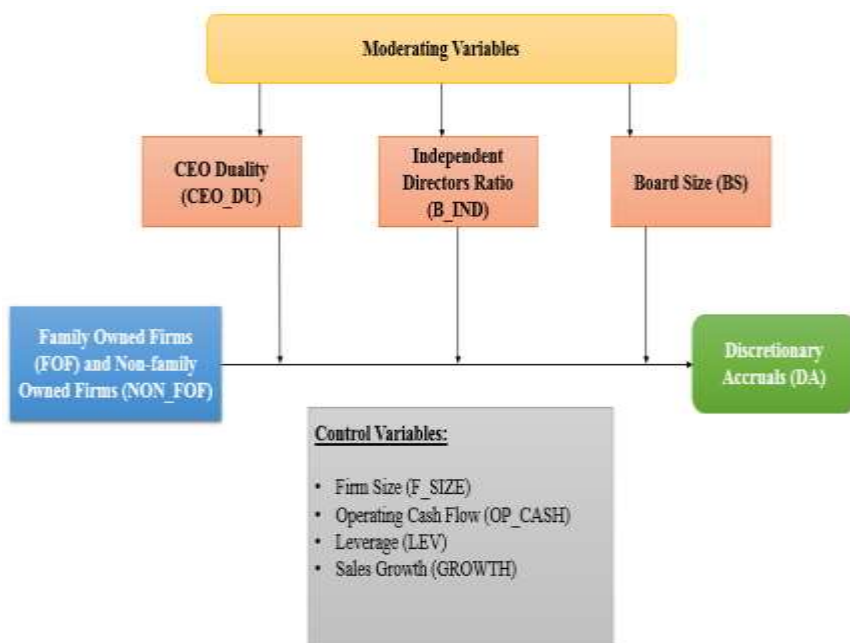
CEO duality depicts that CEO of the organization controls two-position first is the administrative responsibility as CEO and additional have chair position of the board of directors for supervision (Moradi, Salehi, Bighi, & Najari, 2012). The result of duality provides the CEO with the extra authority to influence the decisions of the organization because the power is held by just one person. The prior studies present that if the CEO's did not possess the duality then the firm performs well (Rechner & Dalton, 1991). Some prior studies revealed the connection between the duality of CEO and earning management. In the views of Abdul Rahman and Haneem Mohamed Ali (2006) practices of earning manipulation could be prevented if the CEO's did not possess the chair of the board. Further research conducted by M.-Y. Chen (2014) on Taiwan whose finding depicts that CEO independency reduces the earning management practices into the organization.

(Gomez-Mejia, Nunez-Nickel, and Gutierrez (2001)) discovered that CEO's who belongs to the family-owned businesses are less answerable as compared to the CEO from outside and Family CEO's have a positive relationship to earning management.

Theoretical framework

Figure 1 shows the conceptual framework of the study in which discretionary accrual is the dependent variable and the ownership structure is the independent variable. There are three moderating variables used in this study i.e., CEO role duality, the ratio of independent directors to total directors and the board size to explain the links between discretionary accruals and ownership structure while adding control variables such as firm size, operating cash flow, leverage and sales growth.

Figure 1: Conceptual Framework of Model 1



Hypothesis Development

H₁: Family hold corporation are usually espoused in earnings management than the nonfamily firms

H₂: None Family hold corporation are usually espoused in earnings management than the family firms

H₃: Independent directors moderates the connection between earnings management under family control.

H₄: Independent directors moderates the correspondence between earnings management under nonfamily control.

H₅: Duality of CEO moderates the connection between earnings management and family control.

H₆: Duality of CEO moderates the connection between earnings management and non-family control.

H₇: Corporate Board size magnified the connection between earnings management and family control.

H₈: Corporate Board size magnified the connection between earnings management and non-family control.

Methodology

This research is conducted to check out the behavior of family-owned and non-family-owned firms that are indulged in the manipulation of companies' earnings. All the listed companies which are registered with the PSX are considered as the population of this study. The sample comprises of non-financial twenty-three firms of KSE-30 index of Pakistan out of 23 firms 4 firms meet the criteria of family and 19 firms are the non-family. The purposive sampling technique is used for collecting the sample because companies are chosen on behalf of high market capitalization in the Pakistan Stock Exchange. Table 2 of descriptive analysis present that the skewness value of the variable is not zero which means that there is the issue of normality in data, in this scenario GLS is a better estimator as compared to the OLS for the analysis of data (Gujarati, 2003). Further, the GLS is the most appropriate approach to the analysis of panel data (Che Ahmad, 2014). The Generalized Least Square (GLS) method is applied to the penal data. The time frame ranges from 2011 to 2016. Secondary data has been collected through yearly financial statements of the corporation and from the PSX. For the econometrics analysis of the data, we presented eight working models to achieve the objectives of the study.

$$DA_{it} = \beta_0 + \beta_1(FOF_{it}) + \beta_2(OP_CASH_{it}) + \beta_3(GROWTH_{it}) + \beta_4(SIZE_{it}) + \beta_5(LEV_{it}) + \varepsilon_{it} \quad (1)$$

$$DA_{it} = \beta_0 + \beta_1(NON_FOF_{it}) + \beta_2(OP_CASH_{it}) + \beta_3(GROWTH_{it}) + \beta_4(SIZE_{it}) + \beta_5(LEV_{it}) + \varepsilon_{it} \quad (2)$$

$$DA_{it} = \beta_0 + \beta_1(FOF * B_IND_{it}) + \beta_2(OP_CASH_{it}) + \beta_3(GROWTH_{it}) + \beta_4(SIZE_{it}) + \beta_5(LEV_{it}) + \varepsilon_{it} \quad (3)$$

$$DA_{it} = \beta_0 + \beta_1(NON_FOF * B_IND_{it}) + \beta_2(OP_CASH_{it}) + \beta_3(GROWTH_{it}) + \beta_4(SIZE_{it}) + \beta_5(LEV_{it}) + \varepsilon_{it} \quad (4)$$

$$DA_{it} = \beta_0 + \beta_1(FOF * CEO_DU_{it}) + \beta_2(OP_CASH_{it}) + \beta_3(GROWTH_{it}) + \beta_4(SIZE_{it}) + \beta_5(LEV_{it}) + \varepsilon_{it} \quad (5)$$

$$DA_{it} = \beta_0 + \beta_1(NON_FOF * CEO_DU_{it}) + \beta_2(OP_CASH_{it}) + \beta_3(GROWTH_{it}) + \beta_4(SIZE_{it}) + \beta_5(LEV_{it}) + \varepsilon_{it} \quad (6)$$

$$DA_{it} = \beta_0 + \beta_1(FOF * BS_{it}) + \beta_2(OP_CASH_{it}) + \beta_3(GROWTH_{it}) + \beta_4(SIZE_{it}) + \beta_5(LEV_{it}) + \varepsilon_{it} \quad (7)$$

$$DA_{it} = \beta_0 + \beta_1(NON_FOF * BS_{it}) + \beta_2(OP_CASH_{it}) + \beta_3(GROWTH_{it}) + \beta_4(SIZE_{it}) + \beta_5(LEV_{it}) + \varepsilon_{it} \quad (8)$$

Variables Description

In Table 1 the variable description is provided. In this research earning management has been selected as dependent variable while family and non-family-owned firms have been considered as the independent variables. Three moderating variables on the behalf of corporate governance influence have been selected, first moderating variable is CEO Duality, second is board independence ratio and third is the size of the board. Control variables selected are the size of the firm, leverage, sales growth and operating cash flow for this research.

Table 1: Description of Variables Used in the Study

Variable Name	Proxy	Measurement
Earing management	DA	Discretionary accruals through modified Jone Model $\frac{TA_t}{A_{t-1}} = \alpha_1 \frac{1}{A_{t-1}} + \alpha_2 \left(\frac{\Delta REV}{A_{t-1}} \right) + \alpha_3 \left(\frac{PPE}{A_{t-1}} \right) + \varepsilon$ TA= total accruals in a specific time period, which is derived by subtracting cash from operation from net income. A_{t-1}= Total assets of the previous time period. ΔREV= Difference between the revenue of the current year and the last time period. PPE= Total property plant and equipment ε = Error term, which is the representative of dictionary accruals
Family Owned firms	FOF	Family members having at least ten percent share or more than 50% of family directors on the board. Dummy variable used for it
Board Independence	B_IND	Independent directors divided by total numbers of directors
CEO Duality	CEO_D U	CEO has a post of chairman or not. Use the dummy variable for it.
Board Size	BS	The natural log of complete directors' exist in a specific board
Firm Size	F_SIZE	Natural log of total assets
Financial Leverage	LEV	Financial liability over total assets
Operating cash flow	OP_CASH	Cash flow selected from operations over the total assets
Sales growth	Growth	Percentage change in sale with respect to years

Result and Findings

To test hypothesis 1, Model 1 is constructed in which dictionary accruals are chosen as the dependent variable and family-owned

companies are taken as the independent variable with control variables size, leverage, growth of sale and Operation cash flow.

Table 2: Results of Model 1

Probability of F-stat	0.00000		
R square	0.584993		
Dependent variable	DA		
Independent Variables	Coefficient	Std. Errors	Probability
FOF	0.011297	0.006766	0.0974*
OP_CASH	-0.392078	0.02972	0.0000***
GROWTH	-0.003453	0.005869	0.5573
F_SIZE	-0.00078	0.005686	0.8911
LEV	-0.004941	0.006866	0.473
Constant	0.04766	0.142177	0.738
***1%, **5% and *10% significance			

The result of model 1 presented in Table 2 shows that family firms have a positive and significant impact on the earning management. These results confirm that in Pakistan family-owned firms are involved in manipulating the financial records to get their personal benefits. So, the family-owned firms in Pakistan follow the entrenchment effect regarding earning management. The value of f-statistics depicts that the model is fit and the R square figure shows the model is strong.

Table 3: Results of Model 2

Probability of F-stat	0.00000		
R square	0.584993		
Dependent variable	DA		
Independent Variables	Coefficient	Std. Errors	Probability
NON_FOF	-0.011297	0.006766	0.0974*
GROW	-0.003453	0.005869	0.5573
F_SIZE	-0.00078	0.005686	0.8911
LEV	-0.004941	0.006866	0.473
OP_CASH	-0.392078	0.02972	0.0000***
Constant	0.058957	0.140414	0.6753
***1%, **5% and *10% significance			

To test hypothesis 2, Model 2 has been developed in which dictionary accruals are chosen as predicted variable and nonfamily held companies are taken as the independent variable with control variables size, leverage, growth of sale and Operation cash flow. The outcomes of model 2 are presented in table 3 which depicts that non-family firms have a negative and significant impact the earning management. These results confirm that in Pakistan non-family firms are not indulge in the manipulation of the records because the management of non-family firms is liable for protecting the investment of all the shareholders without their personal interest. So, the non-family owned firms in Pakistan following the alignment concept which shows the same objective shareholders with the higher management of the firm. The value of f-statistics depicts that the model is fit and the R square figure shows the model is strong.

Table 4: Results of Model 3

Probability of F-stat	0.00000		
R square	0.608768		
Dependent variable	DA		
Independent Variables	Coefficient	Std. Errors	Probability
FOF * B_IND	0.008871	0.031386	0.7779
F_SIZE	-0.002975	0.005775	0.6073
GROWTH	-0.004345	0.00559	0.4383
OP_CASH	-0.396196	0.028052	0.000***
LEV	-0.006124	0.006966	0.3809
Constant	0.104965	0.144006	0.4674
***1%, **5% and *10% significance			

To test hypothesis 3, Model 3 is constructed in which dictionary accruals are chosen as the dependent variable while family-owned companies are taken as the independent variable with the moderating variable of the independent board under the control variables size, leverage, growth of sale and Operation cash flow. The result of model 3 is presented in table 4 which depict that family hold corporations have a positive but insignificant impact the earning management. The value of f-statistics depicts that the model is fit and the R square figure shows the model is strong. The insignificant result of moderation shows that independent board proportion does not cause moderation.

Table 5: Results of Model 4

Probability of F-stat	0.00000		
R square	0.663035		
Dependent variable	DA		
Independent Variables	Coefficient	Std. Errors	Probability
NON_FOF * B_IND	0.037192	0.015278	0.0163**
GROWTH	-0.00668	0.004651	0.1533
F_SIZE	-0.004786	0.005899	0.4186
LEV	-0.006089	0.006688	0.3642
OP_CASH	-0.394782	0.02734	0.000****
Constant	0.143978	0.147256	0.33
***1%, **5% and *10% significance			

To test the hypothesis 4, Model 4 is constructed in which dictionary accruals are chosen as predicted variable while nonfamily held companies are taken as the independent variable with the moderating variable of independent directors' proportion to the total board under the control variables size, leverage, growth of sale and Operation cash flow. The result of model 4 is presented in table 5 which shows that non-family firms have a positive and significant impact on the earning management. These results confirm that in Pakistan non-family firms under the independent directors are indulged in the manipulation of the records because in Pakistan mostly independent directors are the nominee of the different institutions which influence the decisions of the management due to their large number of shares present in a corporation. The value of f-statistics depicts that the model is fit and the R square figure shows the model is strong. The R Square and coefficient value increases with the moderation of independent directors' inboard is increased which depicts moderation effect is working on this model.

Table 6: Results of Model 5

Probability of F-stat	0.00000		
R square	0.631186		
Dependent variable	DA		
Independent Variables	Coefficient	Std. Errors	Probability
FOF * CEO_DU	0.007056	0.011809	0.5512
F_SIZE	-0.003447	0.005883	0.5589
GROWTH	-0.004437	0.005504	0.4217
OP_CASH	-0.396333	0.02904	0.0000***
LEV	-0.006443	0.006769	0.3429
Constant	0.116843	0.146477	0.4265
***1%, **5% and *10% significance			

To test the hypothesis 5, Model 5 is created in which dictionary accruals as representative of earning management are chosen as the dependent variable while family-owned companies are taken as the independent variable with the moderating variable of CEO duality under the control variables of size, leverage, growth of sale and Operation cash flow. The result of model 5 is presented in table 6, which depicts family firms has a positive but insignificant impact on the earning management under the CEO duality as moderation. The value of f-statistics depicts that the model is fit and the R square figure shows the model is strong. The insignificant result of the moderation of the duality of the CEO shows that it does not show the moderation to earning management practices of family-owned firms.

Table 7: Results of Model 6

Probability of F-stat	0.00000		
R square	0.632376		
Dependent variable	DA		
Independent Variables	Coefficient	Std. Errors	Probability
NON_FOF * CEO_DU	0.007549	0.008967	0.4014
GROWTH	-0.004304	0.005554	0.4398
F_SIZE	-0.003684	0.005978	0.5387
LEV	-0.006741	0.006943	0.3333
OP_CASH	-0.409137	0.028104	0.000***
Constant	0.123449	0.147754	0.4049
***1%, **5% and *10% significance			

To test the hypothesis 6, Model 6 is shaped in which dictionary accruals is taken as predicted variable and non-family held companies are taken as the independent variable with the moderating variable of CEO duality under the control variables of size, leverage, growth of sale and Operation cash flow. The result of model 6 is presented in table 7 which shows that non-family corporation have a positive but insignificant impact the earning management under CEO duality as moderation. The value of f-statistics depicts that the model is fit and the R square figure shows the model is strong. The insignificant result of the moderation of the duality of the CEO shows that it does not show the moderation to earning management practices of non-family-owned firms.

Table 8: Results of Model 7

Probability of F-stat	0.00000		
R square	0.586903		
Dependent variable	DA		
Independent Variables	Coefficient	Std. Errors	Probability
FOF * BS	0.004778	0.002919	0.104
F_SIZE	-0.000843	0.005709	0.8828
GROWTH	-0.003499	0.005845	0.5504
OP_CASH	-0.392742	0.029542	0.000***
LEV	-0.005091	0.006875	0.4604
Constant	0.049557	0.142739	0.729
***1%, **5% and *10% significance			

To test the hypothesis 7, Model 7 is created in which dictionary accruals as a representative of earning management are chosen as the dependent variable and family-owned companies are taken as the independent variable with the moderating variable of board size under the control variables of size, leverage, growth of sale and Operation cash flow. The result of model 7 is presented in table 8 that shows family firms have positive but insignificant impact on the earning management under the board size as moderation. The value of f-statistics depicts that the model is fit and the R square figure shows the model is strong. The insignificant result of the moderation of board size shows that it does not show the moderation to earning management practices of family-owned firms.

Table 9: Results of Model 8

Probability of F-stat	0.00000		
R square	0.586903		
Dependent variable	DA		
Independent Variables	Coefficient	Std. Errors	Probability
NON_FOF * BS	-0.005126	0.002709	0.0607*
GROWTH	-0.002962	0.006003	0.6225
F_SIZE	-0.000706	0.005766	0.9027
LEV	-0.005667	0.007049	0.4229
OP_CASH	-0.393077	0.030541	0.000***
Constant	0.056943	0.14313	0.6914
***1%, **5% and *10% significance			

To test the hypothesis 8, Model 8 is created in which dictionary accruals as a representative of earning management are chosen as

predicted variable and nonfamily hold companies are taken as the independent variable with the moderating variable of board size under the control variables of size, leverage, growth of sale and Operation cash flow. The result of model 8 is presented in table 9 which shows that non-family firms have the adverse and significant influence on the earning management under the board size as moderation. The value of f-statistics depicts that the model is fit and the R square figure shows the model is strong. The less amount of moderation of board size shows that it does not show the moderation to earning management practices of non-family-owned firms but still, it reduces the practices of earning management due to significant results.

Conclusion

This research has been conducted to find the association of earning management with ownership structure under the moderating effect of governance of corporation on 23 non-financial companies of the KSE-30 index of Pakistan. The results depict that in Pakistan family-owned firms are involved in the manipulation of the financial records and on the other hand non-family-owned firms are not involved in the earning management practices which shows that in the family-owned organizations follow the entrenchment effect and non-family-owned organization follow the alignment effect. The results of independent directors as moderation in non-family firms increase the earning management practices because in countries like Pakistan independent directors are mostly the nominees of the institutional investors which influence the decisions of the management which ultimately lead to the alternation of the records. Moderating variable as board size depicts the negative and significant association of non-family-owned firms with earning management practices which show larger the board size in non-family firms increase the more conservative approach regarding decision relevant to management. The CEO duality as a moderating variable of corporate governance does not significantly influence non-family-owned firms' involvement with manipulations of records. The moderating effect of board size, CEO duality, and the ratio of independent directors does not influence the family-owned organization relation with earning management.

Limitations

There are certain limitations of this study which are; the restricted size of the sample of this study as it consists of only 23 non-financial firms of Pakistan. There is a limitation of the time period from 2011 to 2016. There are specific moderating variables of corporate governance measures are selected for this study. For analysis, only the Generalized Least Square (GLS) method is used for the analysis of the data.

Future Research

This study guides the researchers for future studies by providing certain suggestions to them such as taking all non-financial firms of the KSE-100 index and time span can also be extended. Further, this study can be conducted on different sectors of Pakistan's economy for the sake of comparison. Various moderating variables of corporate governance such as audit quality, frequency of board meetings, etc. can also be selected. Additionally, this study counsels the researchers that they can run different research analysis such as Panel regression with fixed or random effect, GMM, etc.

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