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Institutional Ownership Heterogeneity and Earnings Management Practices: Empirical Evidence from Pakistan

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Abstract

The manipulation of the firms' earnings reported in the financial statements, also known as *earnings management*, is common among companies. The current study examined the relationship of institutional ownership heterogeneity and earnings management practices through the Arellano-Bond Dynamic Data-Estimation regression approach. The study adopted the Kothari et al. (2005) model for the measurement of earnings management practices. The research classified the institutional investors into different categories such as mutual funds, pension funds, investment companies, foreign companies, and group ownership. The study analyzed the selected variables by tanking a sample of 206 listed companies on Pakistan Stock Exchange (PSX) for 2013 to 2018. Consistent with agency theory, the results reveal that mutual funds and financial firms' ownership curtail earnings management practices. Our results reveal the negligible effect of group ownership, investment companies' ownership, and pension funds ownership in curtailing the earnings management practices in Pakistan. As a result, the findings support monitoring the role of hedge funds and international ownership in earnings management, which restricts managers' opportunistic behavior. Thus, the proclivity of earnings management practices by managers is mitigated by mutual funds and foreign ownership as compared to the other institutional ownership structure in Pakistani firms.

Keywords: Ownership Structure, Accrual Earnings Management, Earnings Management

JEL Classification Code: D22, M14, M19, M21

1. Introduction

The gigantic financial scandals of business giants such as Tyco, Worldcom, and Enron among many others revealed

the opportunistic behavior of corporate decision-makers to peruse self-interest and its disastrous consequences over the firm value (Kouaib & Jarboui, 2014). Primarily, this huge financial debacle has been attributed to earning management practices due to weak internal corporate control (Chen et al., 2019). Earnings management is a method of manipulating financial records to improve the appearance of the company's financial position. Companies use earnings management to present the appearance of consistent profits and to smooth earnings fluctuations. The agency theory is based on the relationship between principals and agents. In economics, this theory comes as a result of the separation between business ownership and its management. In the relationship between principal and agent, we face the problem of the existence of asymmetric information and risk aversion (Jensen & Meckling, 1976). The prior literature ascertained the diverse and resounding contribution of corporate governance mechanisms to mitigate the agency problem. For instance, the existence of strong corporate governance ensures transparency in financial disclosure, minimizes accounting

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frauds, makes the top management hold accountable in case of non-compliance, and deters the managers to divert the available resources for personal benefits.

However, the previous literature also ascertained the negative relationship of institutional ownership and earning management practices to reduce the agency cost (Alzoubi, 2016; Tran et al., 2020). Ajay and Madhumathi (2015) argued firms with higher institutional holdings are found to have higher earnings quality thus restricting managers from using their discretionary powers to report earnings. Institutional ownership has a negative relationship with earnings management for larger and matured firms. Sakaki et al. (2017) asserted that pension funds ownership mitigates earnings manipulation, thereby following a carrot and stick monitoring strategy. Also, to mitigate the agency conflict, larger shareholders play a positive role. Bricker and Markarian (2015) argued that mutual funds ownership ensures financial reporting reliability and transparent disclosure to enhance stakeholders' confidence which minimizes the principal-agency problem. Al-Fayoumiet al. (2010) argued that the investment companies' ownership has a positive association with earnings quality. Moreover, the quality of financial reporting increases whenever the proportion of foreign firms' ownership is higher.

The current research empirically extended the existing literature. Several studies have been conducted regarding earnings management practices. Kamran and Shah (2014) ascertained the relationship of ownership structure and corporate governance with earning management in Pakistan and results indicated that institutional investors play a significant role in constraining earnings management practices. The results of Sajjad et al. (2019) established connections among corporate governance, product life cycle, and earnings management practices. The results showed that governance variables i.e. corporate board size, independent directors, board meeting, and audit quality are negatively coupled with discretionary accruals. However, institutional ownership and CEO duality have a positive association with discretionary accruals. Bao and Lewellyn (2017) ascertained that the relationship of institutional ownership and controlling ownership with earning management practices is negative in the US. Although, in the context of emerging economies there is an endogeneity between institutional ownership and firms' performance, and institutional ownership heterogeneity also affects governance and performance mechanism, so there is a need to explore that how heterogeneity of institutional investors will affect the earnings management practices in the firms.

Although these studies offer useful insights into the advancement in the related literary work, nevertheless, the previous literature asserted the decisive role of various types of institutional ownership to minimize the agency conflict. Ajay and Madhumathi (2015) argued that institutional ownership curtails the earning management practices.

Phung (2015) observed that foreign ownership ensures the transparent disclosure of financial statements which reduces the agency problem. Sakaki et al. (2017) found that mutual funds ownership has a negative association with earnings management practices. On the other hand, directors' ownership and group ownership are positively associated with earning manipulation practices (Zhong et al., 2007). Hence, we examine the effectiveness of various types of institutional ownership, such as mutual funds ownership, foreign ownership, affiliated group firm ownership, investment companies' ownership, director's ownership, and pension funds ownership on earning management practices. The remainder of the paper is categorized into various sections. Section 2 reports a literature review. Section 3 comprises of research methodology and section 4 reports an empirical analysis. Section 5 presents the conclusion.

2. Literature Review

2.1. Mutual Funds Ownership and Earning Management

A mutual fund is an open-end professionally managed investment fund that pools money from many investors to purchase securities. Mutual funds ownership reaps the benefits whenever their funds are significantly invested. However, mutual fund owners invest in short and long-term horizons. To restrict the managers from earnings manipulation, mutual fund owners are interested in investing in the long-time horizon to play a supervisory role to reduce negative earnings management. Chi et al. (2014) suggested that there is a positive impact of short-term mutual funds on earnings management. Sakaki et al. (2017) revealed that whenever mutual funds ownership increases the earnings manipulation decreases. However, to monitor the firm's earnings manipulations, mutual funds ownership puts some effort to minimize such practices (Baig et al., 2018). Bricker and Markarian (2015) suggested that such ownership helps to reduce exploitation and significantly increases the quality of financial reports.

H1: The proportion of shares owned by mutual funds investors significantly impacts non-financial listed firms in Pakistan earning management.

2.2. Foreign Companies' Ownership and Earnings Management

Foreign institutional ownership is one of the active and sophisticated approaches to control the private gains, exercised in firms. They minimize the legal risk and maintain a reputation in other countries by implementing good corporate governance (Klapper et al., 2006). A foreign institutional investor is an investor in a financial market

outside its official home country. Foreign institutional investors can include pension funds, investment banks, hedge funds, and mutual funds. Foreign institutional owners have a positive relation and advantageous position over others, in terms of expertise, financial resources, and the know-how of managerial practices (Gill-de-Alborno & Rusanescu, 2018). Putra and Mela (2019) argued that opportunistic earnings management reduces and monitors effectively through foreign ownership. Accrual earnings management practices are lower if a large portion firm's shares are owned by foreign shareholders. Jiang and Kim (2004) found that in Asia, foreign shareholders concentrate only on information-rich companies with lower information asymmetry.

H2: The proportion of equity shares owned by foreign companies significantly impacts non-financial listed firms in Pakistan earning management.

2.3. Group Ownership and Earnings Management

An affiliated group is two or more corporations that are related through common ownership but are treated as one for federal income tax purposes. An affiliated group consists of a parent corporation and one or more subsidiary corporations. *Earnings management* practices could have an impact on business group affiliation and industry differences. Affiliated group ownership is found to be having higher earnings management. (Kim & Yi, 2006). Moreover, affiliated group ownership may destroy firm value and create agency problems because of diverting the resources to gain more opportunities. Group owners use accounting information to gain personal benefits. Small shareholders are not in the state to control the manager's activities and do not involve in the firm's activities (Zhong et al., 2007). Al-Fayoumi et al. (2010) documented that group owners, play a myopic role to monitor activities and have a significant impact on management earnings. As part of the above argument, some researchers notify that shares owned by the group and earnings management have a negative association. Wang and Shailer (2015) revealed that group ownership negatively correlated with performance.

H3: The proportion of shares owned by group investors significantly impacts non-financial listed firms in Pakistan earning management.

2.4. Investment Firms Ownership and Earnings Management

The main business of an investment company is to hold and manage securities for investment purposes. Investment companies are transient investors who quarterly change their investments to monitor the policies to minimize the earnings management (Bae & Jeong, 2007). Boehmer and Kelley

(2009) argued that agency costs are minimized, whenever investment companies actively participate and control the management decisions. Long-term investment horizons made by investment companies are specialized to deal with factors like earnings management (Chen et al., 2019). Moreover, However, Sakaki et al. (2017) showed that there is a significant and positive relationship between investment companies and earning management.

H4: The proportion of equity shares owned by the investment companies significantly impacts non-financial listed firms in Pakistan earning management.

2.5. Pension Funds Ownership and Earnings Management

Sakaki et al. (2017) argued that pension fund ownership is positively significant in mitigating the earnings manipulation in a firm. Gilson and Kraakman (1991) reveal that such funds hold their investment for decades. Moreover, pension funds limit the practices of earnings management actively. Del Guercio and Tkac (2000) suggested that for assured remittance against investment, mostly pension funds are invested, therefore, the leaders restrict managers from discretionary accruals. However, Black (1990) asserted that the utilization of pension funds for institutional ownership is a dynamic investment.

H5: The proportion of shares owned by pension fund investors significantly impacts non-financial listed firms in Pakistan earning management.

2.6. Director Ownership and Earnings Management

To resolve the agency problems and align the interest of directors, shareholders give incentives to the directors. Several researchers argue that shares owned by directors support agency theory and show a positive impact (Athanasakou & Olsson, 2013). Athanasakou and Olsson (2013) revealed shares owned by directors mitigate earnings management (discretionary accruals). Moreover, Omar and Hind (2012) also suggested that firm performance and the director's ownership are significantly related.

H6: The proportion of shares owned by the director, spouse, and their children significantly impact non-financial listed firms in Pakistan earning management.

3. Research Methodology

The population of current research consists of 648 listed firms. Out of the total, 146 firms belong to the

financial sector. Our study excludes financial firms because their nature of accruals is different from non-financial firms. Afterward, we have excluded 296 firms either due to incomplete data or because of having less than 3 years of data during the sample period. Finally, the current research considered a sample of 206 firms over the period starts in 2013 to 2018. The data regarding the listed companies is computed from their audited annual reports published by the Security and Exchange Commission of Pakistan (SECP).

3.1. Calculation of the Dependent, Independent, and Control Variables

This study considers discretionary accruals as a dependent variable. To calculate the total accruals two different approaches are used: (i) the balance sheet approach and (ii) the cash flow approach. Most of the researchers prefer the cash flow approach and do not practice the balance sheet approach which in comparison to the cash flow approach is much lengthier (Haider et al., 2012; Soliman & Ragab, 2014). To implement the cash flow approach, the difference between net incomes minus cash flow from operating activities is total accruals (Chen et al., 2019; Jones, 1991; Omar & Hind, 2012). The crucial role of the accruals is to prove firms' true performance for a period in which the firm records its expenses and revenues. Furthermore, accruals can be used to manage earnings.

For calculating total accruals, the following equation is used:

$$T \text{ Accruals}_{it} = N_{it} - \text{CFO}_{it} \quad (1)$$

Where,

$T \text{ Accruals}$ = Total Accruals,

NI = Net income,

CFO = Cash flow from Operating Activities,

While i denotes firms and t denotes time.

Discretionary accrual is the amount of asset or liability that is not mandatory but is recorded in the system and that would be realized later when settled. Defined as the part of total accruals, which are not directly observable, and they are easy to manipulate by the company. Discretionary accruals represent that part of total accruals which mainly impact earnings quality. To calculate the earnings management, accruals are taken as the initial proxies. In literature, the discretionary accrual is used to detect the quality of accounting information (Choi et al., 2010). The Jones model (1991) is one of the most popular models for the calculation of earnings management. While, later on, the Modified Jones Model (Jones, 1991) points out the Jones model's weakness. Moreover, Kothari et al.

(2005) suggested Performance-Matched Modified Jones Model as the extension of the Modified Jones Model. Subsequently, to draw inference related to the degree of discretionary accruals, the Kothari model is more reliable and consistent. In our current study, we use the applications of the Kothari model, which is consistent with the earlier studies to draw inferences related to earnings management (Jouber & Fakhfakh, 2012). Therefore, to investigate the chemistry between institutional ownership structure and earnings management using discretionary accruals is one of the justified and appropriate methods. The Kothari model is used to measure the discretionary accruals (Accrual earnings management) as a proxy for earnings (Al-Fayoumi et al., 2010). The Kothari Model is discussed as follows:

$$\frac{T \text{ Accruals}_{it}}{\text{Assets}_{it-1}} = \alpha_1 \left[\frac{1}{\text{Assets}_{it-1}} \right] + \alpha_2 \left[\frac{\Delta \text{REV}_{it} - \Delta \text{REC}_{it}}{\text{Assets}_{it-1}} \right] + \alpha_3 \left[\frac{\text{PPE}_{it}}{\text{Assets}_{it-1}} \right] + \alpha_4 \left[\frac{\text{ROA}_{it}}{\text{Assets}_{it-1}} \right] + \epsilon_{it} \quad (2)$$

Where,

$T \text{ Accruals}$ = Total Accruals,

Assets_{it-1} = Total Assets in year ($t-1$),

PPE_{it} = Gross value of Equipment, Plant and Property,

ΔREV_{it} = Change in Revenue,

ΔREC_{it} = Change in net Receivables,

REC_{it} = Return on Assets in a year ($t-1$),

ϵ_{it} = Residual terms (to represent the discretionary accruals). See Table 1 below.

3.2. Econometric Model

The Arellano–Bond estimator is a generalized method of moments estimator used to estimate dynamic models of panel data. The *Arellano–Bond* estimator sets up a generalized method of moments (GMM) problem in which the *model* is specified as a system. The study adopted Arellano and Bond (1991) dynamic panel model under the assumption of GMM to evaluate the association between earnings management (accrual earnings management) and institutional ownership structure. Miteza (2012) suggested that Arellano and Bond (GMM estimator) is used to deal with endogeneity issues. This method removes the dynamic panel bias, uses lags of the dependent variable, transforms the equation by the first difference, and fixes the effect problem which deals with the endogeneity of variables. In this study, all variables used are to find a connection between institutional ownership structure and earnings management. The association

Table 1: The Measurement of Earning Management, Institutional Ownership, and Control Variables

Variable	Symbol	Operationalization
Dependent Variables		
Discretionary accruals	Dis _{Accruals}	Discretionary accruals are measured through the residuals of the Kothari model (2005)
Independent Variables		
Mutual Funds Ownership	NSMF	Proportion of equity shares owned by mutual funds in each year for firm <i>i</i>
Pension Funds Ownership	NSPF	Proportion of equity shares owned by pension funds in each year for firm <i>i</i>
Investment companies Ownership	NSIC	Proportion of equity shares owned by the investment companies in each year for firm <i>i</i>
Director Ownership	NSOD	Proportion of equity shares owned by the directors and their spouses, children in each year for firm <i>i</i>
Foreign Companies Ownership	NSFC	Proportion of equity shares owned by the foreign companies in each year for firm <i>i</i>
Group Ownership	NSGO	Proportion of equity shares owned by the Group ownership in each year for firm <i>i</i>
Control Variables		
Firm Leverage	LEV	Computation of firm leverage ratio is the total debt divided by total assets annually for firm <i>i</i>
Return on Equity	ROE	NI/Equity per year for firm <i>i</i>
Firm Size	SIZE	Natural logarithm of firm's total assets for each year for firm <i>i</i>
Market to Book Equity Ratio	MVE	Market to Book Equity Ratio for time <i>t</i> and firm <i>i</i>

between these two variables is examined based on the following equation. To test the hypotheses between earnings management and institutional ownership structure and to examine the regression equation for Dis_{Accruals} the following model is used.

$$\begin{aligned}
 \text{Dis}_{\text{Accruals}} = & \beta_0 + \beta_1 \text{Dis}_{\text{Accruals}(t-1)} + \beta_2 \text{NSFC}_{it} \\
 & + \beta_3 \text{NSMF}_{it} + \beta_4 \text{NSPC}_{it} + \beta_5 \text{NSIC}_{it} \\
 & + \beta_6 \text{NSGO}_{it} + \beta_7 \text{NSOD}_{it} + \beta_8 \text{SIZE}_{it} \\
 & + \beta_9 \text{ROE}_{it} + \beta_{10} \text{LEV}_{it} + \beta_{11} \text{MVE}_{it} + \mu_i \\
 & + \eta_t + \varepsilon_{it}
 \end{aligned} \quad (3)$$

Whereas, Dis_{Accruals} stands for discretionary accruals, NSFC represents foreign ownership, NSMF stands for Mutual ownership, NSIC, NSGO, and NSOD stands for ownership of investment firms, groups, and directors. Whereas, control variables include the market value of equity (MVE), return on equity (ROE), Firm size (SIZE), leverage (LEV). Furthermore, the μ_i in equation (3) represents unobserved firm's fix effects; as associated to all companies, η_t represents time-variant and time-specific

effects, e.g. other macroeconomic conditions; and ε is the error term which is assumed to be identically distributed and independent.

4. Results and Discussion

4.1. Descriptive Statistics

The summarized statistics of the key variables are presented in Table 2. Using the Kothari model, the mean value of DAC is 0.591, which is greater than the value of Kamran and Shah (2014). The difference in mean values of discretionary accruals may be attributed to a difference in sample firms and period. On average, group ownership holds the maximum ownership of 30%, followed by the ownership of about 25% by directors, their spouses, children, and other relatives collectively. Whereas, foreign ownership and Mutual funds ownership hold a 9.4% and 2.8% in the selected non-financial firms. Furthermore, the Investment companies, pension funds have the lowest shareholdings. Consistent with the notion of Harris et al. (2014), institutional investors are reluctant to hold a greater

proportion of shareholdings due to the presence of weak governance.

4.2. Correlation Matrix

Table 3 provides the correlation matrix and illustrates the correlation coefficients result of the selected variables. The correlation coefficient of Mutual funds ownership is negative and statistically significant at 10%. This indicates that shares' proportion owned by mutual funds is negatively allied with discretionary accruals. Likewise, the correlation between foreign ownership and earning management

is negative which is significant at 10 percent. Similarly, group ownership has a negative correlation coefficient but statistically significant with earnings management practices. The correlation of group ownership is higher than foreign ownership and mutual funds ownership. Furthermore, the correlation among accrual earnings management and firm size, return on equity, leverage, and market to book value of equity is positively correlated. Moreover, the size of the firm and leverage is positively and perfectly correlated, which shows that the constraint level of the larger firms has high leverage as associated with the small firms (Cotter, 1998). The correlation of market to book value of equity and the return on equity with the firm size is also perfectly positive.

Table 2: Descriptive Statistics

Variables	Obs.	Mean	Std. Dev.	Min	Max
Dis _{Accruals}	1005	0.591	0.594	-0.078	0.856
NSFC	1005	0.094	0.215	0.000	0.947
NSMF	1005	0.024	0.054	0.000	0.895
NSPF	1005	0.002	0.011	0.000	0.233
NSIC	1005	0.007	0.019	0.000	0.303
NSGO	1005	0.300	0.296	0.000	0.980
NSOD	1005	0.257	0.285	0.000	0.261
SIZE	1005	18.00	0.5208	10.82	22.85
ROE	1005	0.306	0.268	0.000	0.4203
MVE	1005	0.377	0.242	0.006	0.431
LEV	1005	0.528	0.1737	0.145	0.700

4.3. Empirical Results

We examined the nexus of earnings management practice and institutional ownership structure through static and dynamic penal estimation models. Table 4 represents the regression results. The results reveal that foreign ownership and earnings management practices in Pakistan are negatively associated. The coefficients of foreign ownership have persistent behavior across static and dynamic penal estimation. To present consistent findings with the notion, prior studies such as Alzoubi (2016), and Phung (2015) suggested that foreign ownership effectively allies with managers' performance and limits earnings management practices. Ajay and Madhumathi (2015) revealed that foreign institutional ownership also has a negative relationship with earnings management. When foreign institutional ownership percentage is higher, the control of management is better.

Table 3: Correlation Matrix

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Dis _{Accruals}	1.00										
NSPF (2)	0.05	1.00									
NSIC (3)	-0.001	0.06	1.00								
NSGO (4)	-0.06*	0.001	0.09**	1.00							
NSFC (5)	-0.02*	-0.008	0.07*	0.45***	1.00						
NSOD (6)	-0.001	0.006	-0.01	0.01	-0.01	1.00					
NSMF (7)	-0.07*	0.0200	0.07*	0.12***	0.17***	0.01	1.00				
SIZE (8)	0.24***	0.10**	0.09**	0.02	0.12***	0.17***	0.17***	1.00			
ROE (9)	0.34***	0.06*	0.08*	-0.01	0.11***	0.04	0.09**	0.46***	1.00		
LEVG (10)	0.30***	0.07*	-0.01	-0.05	0.01	0.020	0.01	0.33***	0.24***	1.00	
MVE (11)	0.29***	-0.02	-0.01	-0.07*	0.02	0.12***	-0.06	0.18***	0.56***	0.24*	1.0

Table 4: The Institutional Ownership and Earning Management

	OLS	Random Effect	GMM
L. Dis _{Accruals}			-0.487*** (0.0089)
NSFC	-0.00497** (0.00212)	-0.00386** (0.00154)	-0.000703*** (0.000264)
NSMF	-0.0817*** (0.0215)	-0.0795*** (0.0199)	-0.0155*** (0.00516)
NSPF	0.0612 (0.0594)	0.0744 (0.0644)	0.143 (0.139)
NSIC	-0.0375 (0.0273)	-0.0352 (0.0319)	0.0295 (0.0428)
NSGO	-0.000267 (0.000215)	-0.000430*** (0.000156)	-7.74E-05 (6.55E-05)
NSOD	-0.00699 (0.0117)	-0.0075 (0.0106)	0.012 (0.0156)
SIZE	-0.0799 (0.0357)	-0.0484 (0.041)	-5.414*** (0.56)
ROE	0.214*** (0.0429)	0.265*** (0.0544)	0.469*** (0.0747)
LEV	0.202*** (0.0317)	0.206*** (0.033)	0.838*** (0.206)
MVE	0.113*** (0.0379)	0.0950** (0.0433)	-0.403*** (0.107)
Constant	158.7*** (15.5)	156.9*** (24.96)	2.056*** (225.3)
F(10, 999)	35.64		
Prob. (F Test)	0.0000		
Wald $\chi^2(10)$		327.7	15452.07
Prob. (Wald χ^2)		0.0000	0.0000
AR1 (P-value)			0.085
AR2 (P-value)			0.2608
Sargan (P value)			0.11
Observations	1,004	1,004	590
R-squared	0.188	0.1869	
Number of ids	206	206	206

Robust standard errors in parentheses, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The table present correlation matrix, AEM stands for accrual earnings management, NSFC is the number of shares owned by a foreign company, NSPF is the number of shares owned by pension funds, NSIC is the number of shares owned by the investment company, NSGO is the number of shares owned by group owners, NSOD is the number of shares owned by the director, spouse, and their children, SIZE is the firm size, ROE is the return on equity, LEVG is the financial leverage, and MVE is the market to book value of equity.

Also, the earnings quality increases whenever the number of foreign ownership increases. Moreover, our results confirm Aggarwal et al. (2011) who stated that foreign ownership provides protection and enhances the performance of the firm in countries where a weak shareholder structure is exercised.

Consistent with the previous studies, the negative coefficient of ($\beta = 0.0155$) of mutual funds ownership in the dynamic penal estimation model reveals that the mutual funds' ownership presence reduces the earning management practices. Our findings of mutual funds corroborate with the results of Baig et al. (2018). A further novel finding is that mutual funds ownership is negatively significant at (p -value <0.01). However, the results are contradictory to the findings of Chi et al. (2014), who established a positive

relationship between mutual funds ownership and earning management practices. However, the remaining variables of interest such as shareholdings by the pension funds, groups, investment companies, and directors are statistically insignificant. The empirical studies such as Al-Fayoumi et al. (2010) and Chen et al. (2019) support our results that the largest shareholder ownership proportion has no significant relation with earnings management.

The overall results corroborate with the notion of agency theory which indicates that the separation of ownership and management control will lead to agency problems. The managers serve their personal benefits, thereby maintaining an excessive cash position (Jensen & Meckling, 1976). However, incentives motivate institutional investors to

monitor management performance to curtail earning management practices. Therefore, institutional investors are critical to curtail the earning management practice and reduce agency conflict (Alzoubi, 2016).

5. Conclusion

The causal effect of institutional ownership structure and earnings management is examined through static and dynamic penal estimation. The study considers six proxies of ownership structure, whereas, for discretionary accruals estimation, Kothari et al. (2005) is considered. Our empirical results are compatible with Baig et al. (2018) and demonstrate that the presence of the number of shares owned by mutual funds and foreign companies curtail earnings manipulations. Suto (2003) suggested a statistically significant impact to exercise the earnings management practices and manager's behavior to manipulate financial reports. However, our results reveal the negligible effect of group ownership, investment companies' ownership, and pension funds ownership in curtailing the earnings management practices in Pakistan.

The findings of this study generate professional and theoretical implications that signify the recent evidence regarding earnings management and institutional ownership structure. Concerning the academicians' interest related to the firm's ownership structure and earnings management, it adds a shred of comprehensive evidence to the existing literature from a developing country, Pakistan. Consequently, the results are supportive of monitoring the role of mutual funds and foreign ownership which curbs the managers' opportunistic behavior in relation to earnings management. Thus, the proclivity of earnings management practices by managers is mitigated by mutual funds and foreign ownership as compared to the other institutional ownership structure in Pakistani firms.

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