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# Institutional Ownership and Discretionary Accruals: Empirical Evidences from Pakistani Listed Non-Financial Companies

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**Abstract:** Current study empirically investigates the impact of institutional ownership on discretionary accruals; we took a sample size of 68 listed non -financial companies from a population of 652 companies listed on Karachi Stock Exchange (KSE). This data was gathered for the period of 5 years, starting from 2006 up to 2010. Modified Jones Model was employed for this study to quantify discretionary accruals while institutional ownership measured by dividing number of shares kept by institutions from total number of shares outstanding. The fix effect model showed that the magnitude of discretionary accruals in Pakistani listed firms tends to significantly decrease for the firms where institutions hold a decent amount of share of that particular firm. Thus the findings of this study are in consensus with our hypothesis, which proposes that institutional ownership is quite an effective tool in aligning insider management and administration to take the right decision for value maximizing of the companies, and thus shareholders.

**Key Words***: Institutional ownership, Discretionary accruals, Non-financial companies, Karachi Stock Exchange*

## 1. Introduction

The purpose of this study is to thoroughly examine the relationship between institutional ownership and discretionary accrual in the Pakistani listed non-financial firms. The differentiation of ownership and control in firms is a reality in today's business environment, where for a diversified portfolio, the huge amount of insignificant shareholders of a firm are also shareholders of many other listed firms. This keeps the investor farthest from even the concept of ownership while assuming maximum profit. As greater number of companies is listed on stock exchanges, the growing differentiation creates a serious conflict between the owners of a firm and the managers (Ali et al, 2008). One such entity among stakeholders is that of the Institutional Owners. These entities comparatively have higher stakes in the company, and thus are highly interested in its better internal control. Dorothy et al (2003) suggests that institutional ownership engages as a vital part in the corporate governance structure of the firm, as the institutional investors are open to vide range of resources to govern managers in relation to small individual investors. This makes them are more effective in persuading board to perform better. Having this high emphasis on control is primarily because managers in most cases opt for a creative way of reporting financial statements. Here management is determined, and puts in a continuous effort to find loopholes in the financial reporting standards. This is led by the managements yearning to project earnings at a desired level, while following a valid pattern that will let them adjust the financial figures as far as is practicably possible and significantly benefitting (Watts and Zimmerman, 1986). However, this is done in compliance with, the accounting practices, which are valid, and follow the book of standard accounting practices, but is not in coherence with the thought and spirit with which these rules were penned down.

This opportunity of discretionary accrual is like an open option for the firms to practice as per to GAAP principles. By this creative accounting, the managements do not present the true information through their company's financial statements. This is done to provide favorable management and company information to the stakeholders about the economic performance of their companies. This is done in order to negate all of its possible cons, and to realize forecasted benefits. Lev (1989) suggested that a positive view of earning depicts a positive surge in the total worth of the firm, and vice versa. Assuming that the better the value of the firm, the better rewarded is the management. Thus, discretionary accrual is considered as an extremely important issue in our current accounting practices. This usually comprises of the simulated increase or decrease in earnings, profits, or in revenues, which is done through manipulative accounting strategies. Earnings are

specially managed in the case where the company is victim to losses. This is done to show the company in a favorable situation to the investors (Hayn, 1995). This in turn raises questions over the integrity of the financial statements, but until the time these speculations do not defy the confines of accounting practices, they cannot be reported as illegal. The contribution of this study is to explore the effect of institutional ownership on discretionary accrual within the public listed firms. Remaining portion of study includes literature of previous studies, methodology to calculate discretionary accruals and institutional ownership, analysis and conclusion.

## 2. Literature Review

**Discretionary Accrual:** Beneish (2001) suggested that there is a deficiency in consent over the definition of discretionary accrual. Schipper (1989) cited in his study, defining discretionary accrual as "*intentional actions by the management while remaining within the bounds of GAAP to project a preferred level of income*". According to prior researches, discretionary accrual is a common practice (Scott 1998). Schipper (1989) defines discretionary accrual as the desired and meaningful mediation into the financial reporting process to maximize personal gains. Discretionary accrual takes place in following three ways, firstly by constructing of desired for revenue and/or expense activities, secondly due to differing accounting practices changing from company to company and thirdly by managing the accruals (Schipper 1989). There are two perspectives on discretionary accruals; the opportunistic perspective and the information perspective. Opportunistic perspective proposes that management tries to deceive the investors, whereas the information perspective is the one in which manipulation by managers is a means for management to project for investors their personal expectations considering a company's future cash flows. Many previous studies have derived assumptions based on opportunistic perspective, while discarding the information perspective (Holthausen and Leftwich, 1983).

**Institutional Ownership:** Institutional financiers are the major chunk of investors in the market, other than those few influential individuals who exercise discretion over the investment of others. Organizations taken to be as institutional investors includes insurance firms, pension funds, trust institutions, financial firms also including investment firms, and other companies selected and allied with the above named institutions (Lang and McNichols,1997). It has taken as beneficial for the entire governance practices of the company, as institutional investors are open to more resources to regulate managerial activities in relation to the large number of insignificant individual investors. A very vital part is acted upon by the institutional owners of the firm's corporate governance structure (Dorothy et al 2003); concerning the fact that they are, more effective in imposing had better board performance. Agency theory suggests that controlling shareholders often use their power to undertake activities intended to obtain private gain in relation minority shareholders who cannot exercise that power (Shleifer and Vishny, 1997).

**Discretionary Accruals and Institutional Ownership:** Quite a few researches have focused on the association of the ownership structure with discretionary accruals. Whereas, most of the researchers maintained their dedication towards the influence of board practices and its characteristics on the earnings management, while having just a few studies to have incorporated ownership structure with discretionary accrual. Those few researches conducted even pose a lack of consensus. As per to our awareness, a study conducted by Shah et al (2009) found a negative relationship between institutional ownership and discretionary accrual with corporate governance variables. Contrary to that, Fayoumi et al (2010), suggests there is no universal conformity concerning the impact of ownership structure on discretionary accruals. Adding to contrary, Frank (2006) proposed two categories for the governance variables i.e. internal and external. Internal variables groups up board structure with ownership concentration, while the external variables comprises of the takeover pressure on a company and its institutional ownership pattern. His research disclosed that the firms with much steady internal governance body feel more secure to perform discretionary accruals in relation to the firms with steadier external governance body. However, more researches regarding corporate ownership structure and discretionary accrual are briefly discussed in the literature below. The aptitude of managers to manage earnings is controlled by the usefulness of exterior monitor such as institutional ownership and block-holders ownership. These types of monitoring imply less occasion for managing the accruals (Yeo et al. 2002).

Wong et al. (2009) conducted a research to verify the part played by the outside directors and the institutional shareholders in limiting discretionary accrual events within construction, industrial and consumer industries of Malaysia. Their results revealed that no significant relationship exists between the intensity of discretionary accruals and institutional ownership. Examining the same relationship, Hsu and Koh (2005) concluded that institutional investors having long-term intentions of ownership influence aggressive earnings management practices in the end. However, they also suggested that association between institutional ownership and discretionary accruals depends entirely on the context in which the firms are taken in consideration for the study. Koh (2003) empirically tested the association of institutional ownership with discretionary accruals. His results revealed that with the increase in institutional ownership, the degree of earnings manipulation decreased, and vice versa. These results are consistent with my hypothesis; along with the view that institutional owners having long-term investment intentions act to nullify managers' aggressive attitude towards earnings manipulation. Further, Rajgopal and Venkatachalam, (1998); and Cheng and Reitenga, (2000), through their study proposed that high motivation to monitor a firms management exists, where institutional owners have intended invest in firms for a long period. This study here is to add content to the existing body of knowledge, including previous researches and theories. This research here is as extension as to further pave the way for better understanding the impact of institutional ownership on discretionary accruals of the public listed companies.

## 3. Methodology

**Sample:** To empirically test the impact of institutional ownership on discretionary accruals, i took a sample size of 68 listed companies from a population of 652 companies listed on Karachi Stock Exchange (KSE). We excluded the companies whose complete information was not available. Further, financial institutions were also kept out of the study due to their being different in capital structure and returns compared to other industries (Shah *et al.* 2009). The data was gathered online from various websites of the listed companies which were interlinked with Karachi Stock Exchanges' and Security Exchange Commission of Pakistan's' website.

**Hypothesis**
$\mathbf{H_0}$ **=** Institutional Ownership does not affect discretionary accruals.
$\mathbf{H_1}$ **=** Institutional Ownership structure causes a decrease in discretionary accruals.

**Calculation of Variables:** The variables of study in focus are;

- Discretionary Accruals (DA)
- Institutional Ownership (IO)
- Asset Size of the company (AS)
- And, Return on Equity (RoE)

Where, discretionary accrual (DA) also known as earnings management is the dependent variable, having Institutional Ownership (IO) impacting it as an independent variable. The other two variables in the study are control variables. Now as for the calculations of the variables, following procedures have been taken in consideration;

**Discretionary Accruals (Earnings Management):** Consistent with previous studies, Total Accruals (TA) is needed to get DA. TA can be calculated using two methods, which are as follows;

- Balance Sheet Approach (BSA)
- Cash Flow Statement Approach (CFSA)

Balance Sheet Approach method was used by (Healy & Wahlen, 1998) and (Jones, 1991) to calculate TA in their studies, but for this study, we used CFSA. This approach is being taken in consideration due to the citation of Collins and Hriber (1999), by Shah et al (2009), which suggest that BSA is inferior to CFSA considering some circumstances. Where TA was considered as DA in BSA calculations, but tempering in earnings exists in case where the management has the option to influence the earnings. Therefore, CFSA distributes TA into sort of accruals;

- Discretionary Accruals (DA)
- Non-Discretionary Accruals (NDA)

So in this regards where TA and NDA are calculable, NDAs are deducted from TAs, which results in DAs. As per to the CFSA, the formula is as given bellow;

$$DA_T = TA_T - NDA_T - - - - - -(I)$$

Where,

$DA_T$ = Discretionary Accruals at time T
$TA_T$ = Total Accruals at time T
$NDA_T$ = Non-Discretionary Accruals at time T

Now find TA, following formula is put to use;

$$TA_T = NI_T - NOCF_T - - - - - -(II)$$

Where,

$NOCF_T$ = Net Operating Cash Flow at time T
$NI_T$ = Net Income at time T

Further, NDA is calculated through Modified Cross-Sectional Jones Model (1995), which is as give bellow;

$$NDA = \beta_0 \left(\frac{1}{AS_{T-1}}\right) + \beta_1 \left(\frac{\Delta Rev_T - \Delta Recv_T}{AS_{T-1}}\right) + \beta_3 \left(\frac{\Delta PPE_T}{AS_{T-1}}\right) + \varepsilon - - - -(III)$$

Where,

β = Parameters of the equation
$AS_{T-1}$ = Asset size at time T less Asset size at time T-1
$\Delta Rev_T$ = Revenue at time T less revenue at time T-1
$\Delta Recv_T$=Receivables at time T less receivables at time T-1
$\Delta PPE_T$ = Property, Plant & Equipment (PPE) at time T less PPE at time T-1
$E$ = Residual

**Institutional Ownership**: To calculate institutional ownership (IO) of each company for the certain year, we opted for to find out two important variables of each company, which determine the share of institutional owners in a company for that year. This data was gathered for the period of 5 years, starting from 2006 up to 2010. The formula of IO is as follows;

$$I.O = \frac{TSIO_T}{TSO_T} - - - - - -(IV)$$

Where,

$TSIO_T$ = Total shares of IO at time T
$TSO_T$ = Total shares outstanding at time T
$TSIO_T$ = Total IO at time T

**Control Variables**: The control variables of the study are Asset Size of the firm (AS), and, Return on Equity (ROE). These variables are to be calculated as follows;

$$ROE = \frac{Net\ Profit}{Total\ Shareholders' Equity}$$

$$AS = Natural \log of\ Total\ Assets$$

A natural log of total assets has been taken for this study due to the reason that all companies asset size varies by a huge scale. This makes the companies incomparable. Therefore, to overcome this scenario and make the companies comparable with each other, we applied natural log to the value of these total assets.

**Hausmen Test and Fixed Effect Model:** To estimate the impact of IO on DA, we applied fixed effect model (FEM) as the data was a panel data. This was further favored as the best model for the estimation by applying Hausmen test to the data, which rolled the dice in favor of FEM, giving a significant chi-square value for FEM. The FEM identified for estimation is as given bellow;

$$DA_T = \beta_0 + \beta_1 IO_T + \beta_2 AS_T + \beta_3 ROE_T + \mu - - - - - -(V)$$

Where,

β = Parameters of the equation
$DA_T$ = Discretionary Accruals at time T
$IO_T$ = Institutional Ownership at time T
$AS_T$ = Asset size at time T
$ROE_T$ = Return on Equity at time T
μ = Unidentified Variations

## 4. Empirical Analysis

In order to apply any tests to this data for an empirical study, I first needed to identify the type of data under analysis, the outcomes of which is as given below in table 1. The descriptive stats below show the total number of observation of the panel data, along with the variables mean values, and the variation existing within each variable of the data.

**Table 1: Descriptive Statistics**

| Variable | Obs | Mean | Std. Dev. |
|---|---|---|---|
| *Discretionary Accruals (DA)* | 340 | 0.1123737 | 0.2126623 |
| *Institutional 0wnership (IO)* | 340 | 0.5258768 | 0.3239274 |
| *Asset Size (AS)* | 340 | 22.48264 | 1.4839070 |
| *Return on Equity (ROE)* | 340 | -0.0647718 | 2.7527180 |

As for the Table 2, it shows the correlation between the variables, that is, of the independent variables with the dependent and independent variables. This is done to check whether multi-co-linearity exists between the variables or not. If so the factor of multi-co-linearity exists, the data needs to be fixed. Here it is clearly visible that no such factor of multi-co-linearity exists. This allows us to proceed with the other test for estimation of the data to identify the impact of institutional ownership on discretionary accruals.

**Table 2: Correlation Analysis**

| | DA | IO | AS | ROE |
|---|---|---|---|---|
| *DA* | 1.0000 | | | |
| *IO* | 0.0015 | 1.0000 | | |
| *AS* | 0.1270 | 0.1409 | 1.0000 | |
| *ROE* | -0.0098 | 0.0700 | -0.0713 | 1.0000 |

When we estimated the data through fixed effect modeling, the data had been grouped into sixty-eight individual groups (companies) for a period of five years. The product of which stood out to be a decent 340 observations. Those observations as from the results of data estimation implies that the impact of institutional ownership and asset size significantly impacts on discretionary accruals at 85% confidence interval, while giving a 15% levy for variations from the estimated results. On the contrary, the ROE and the debt to equity ratio show no significant impact on the discretionary accruals.

**Table 3: Fixed Effect Model (FEM)**

| *DA* | *Coef.* | *Std. Err.* | *t* | *P>\|t\|* |
|---|---|---|---|---|
| ***IO*** | -0.1371182 | 0.0868796 | -1.58 | 0.116 |
| ***AS*** | 0.0622067 | 0.01808 | 3.44 | 0.001 |
| ***ROE*** | -0.0118981 | 0.0183453 | -0.65 | 0.517 |
| $R^2$ | | | | 0.0490 |
| ***F-Stats & Probability*** | | | 3.4500 | 0.0090 |

**Note:** Significant at 85% confidence interval.

Further, the value of the $R^2$ reveals that the model is not the best one, but this is due to the formation of data in the panel form. Due to this reason, the $R^2$ would never give a favorable result for the appropriateness of the model. Therefore, for that reason, we take F-stats and its probability, which suggests that the model is appropriate, and the parameters (variables) on a collective level significantly affect discretionary accruals. The results show that our hypothesis $H_1$ stands true. That where the share a of institutional ownership increases in a company, the less does the manipulation of earnings takes place. This implies that the results are in line with the previous theories or studies, where the norm is that the firms with a concerned institutional ownership make the management practice less discretionary accruals comparatively (Frank, 2006, & Shah *et al, 2009*).

## 5. Conclusion

Having gone through a thorough empirical analysis, we draw a conclusion that in Pakistan, institutional ownership has a negative impact on discretionary accruals. Suggesting that the companies in Pakistan are getting more aware of corporate governance along with which role of institutional owners has also expanded its borders. Institutional owners are now taken as a vital mediator for improving practices in corporate governance. This reveals that the institutional owners in reality perform the job of a watchdog making it difficult for the management to alter the earnings for any desired purpose. This also ensures that governance authority for self-benefiting interest of institutional owners also indirectly looks after the interest of minority shareholders in Pakistan.

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