FWU Journal of Social Sciences, Winter 2017, Vol.11, No.2, 109-126

Institutional Investors as Monitors of Corporate Managers: A Case Study of Pakistan's Cement Industry and Food and Personal Care Products' Industry

Maryam Jabeen and Shahid Ali
Institute of Management Sciences, Peshawar

The significance of institutional owners in monitoring corporate behavior is still to be explored deeply in Pakistan. This present study investigates the influential impact of different groups of institutional owners on performance of firms through its ability to discipline management. The role of institutional shareholders in monitoring corporate behavior is determined by using operating performance and investment efficiency measures on panel data set of two industries including cement industry and food and personal care products' industry for the period 2006 to 2014. Operating performance is measured by using net profit margin ratio whereas sales growth ratio, expense ratio and production costs ratio are used as proxies for measuring the investment efficiency. The findings show that in case of cement sector, mutual funds, and modaraba companies are playing an influential role in improving the performance of firms and in preventing the opportunistic behavior of managers. The results for food and personal care products sector show a significant impact of banks on firms' production cost ratio; however, the sign of the coefficient is not in accordance to the formulated hypothesis.

Keywords: Agency Theory; Corporate Governance, Institutional investors; Operating Performance; Investment Efficiency JEL Classification: G3

Following mega financial scandals in many parts of the world it was inevitable to focus more on improving corporate governance. The financial crises adversely affected investors' confidence around the world and a genuine need was felt for its restoration. A greater emphasis has been put on the role of institutional shareholders to make sure that the investee companies function according to the best governance practices and have appropriate corporate governance structure (Mallin, 2012). Institutional investors are believed to exert their due influence on firms for not only committing resources to plausible business opportunities but also to ensure due diligence. In many markets now a vital role is being played by the institutional investors. The rapidly growing importance of institutional investors is deemed an essential factor in the worldwide capital markets for improving corporate governance (Balling, Hennessy & O'Brien, 2013). Such a role has its importance in the developed markets but perhaps gains more credence for the developing markets around the world.

Empirical research in Pakistan focused more on the aggregate ownership by institutional investors (Shah, Zafar, & Durrani, 2009; Abdullah, Shah & Khan, 2012; Gul, Sajid, Razzaq& Afzal, 2012; Afgan, Gugler & Kunst, 2016; Javaid & Javid, 2017). It is evident from extensive research that institutional investors should not be treated as homogeneous group of investors and they should be

Correspondene concerning this article should be addressed to Ms. Maryam JabeenPhD Scholar, Institute of Management Sciences, Peshawar, Email: maryam.jabeen@imsciences.edu.pk

Contribution of Authors: Maryam Jabeen, worked on different sections of the manuscript (literature review, hypotheses development, sample framework and data sources, findings, conclusion etc) under the supervision of Dr. Shahid Ali.

analyzed separately (Almazan, Hartzell & Starks, 2005; Cornett, Marcus, Saunders & Tehranian, 2007; Chen, Harford & Li, 2007; Ferreira& Matos, 2008; Elyasiani & Jia, 2010). This study investigates whether monitoring by banks, insurance companies, mutual funds and modaraba companies can result in managers focusing less on self-serving behavior and more on improving corporate performance. Institutional investors in Pakistan mainly include mutual funds, modaraba companies, banks, insurance companies and other financial institutions. Mutual funds were introduced in Pakistan in 1962. National Investment Trust (NIT) is the only open-ended mutual fund of public sector in Pakistan. In private sector of Pakistan, there are currently 22 close-ended and 43 open-ended mutual funds operating (Nazir & Nawaz, 2010). Another popular mode of investing institution that is based on Islamic principles is modaraba companies. Insurance sector also has a massive contribution towards the welfare of society. A major role in channeling funds to industries and contributing towards financial and economic stability is played by banks in Pakistan. At present, around 80% of the banking assets are held by private sector banks in Pakistan (Ahmad, Malik & Humayoun, 2010). The structure of banking industry has changed considerably in Pakistan due to mergers and acquisitions of foreign and private banks, privatization, restructuring of government owned banks and introduction of Islamic banks.

There is a need to determine the presence of different institutional investors in improving internal corporate governance mechanisms of firms operating indifferent sectors of our economy. Our study takes two sectors including the cement sector and food and personal care products' sector for gauging the impact of institutional investors on their corporate governance. Our cement industry has to play its due role in development of country's infrastructure. It also has to play a fundamental role in the socio-economic development of the country despite of the fact that it is considered as a profit generating industry in our country. Increasing manufacturing costs and the rising fuel prices are major challenges confronting this sector. Pakistan is the 14th largest cement producer in the world and ranks amongst the top 5 exporters (JCR-VIS, 2016). On the other hand, food and personal care products' industry is growing sharply due to urbanization, population growth, and the rising average household spending. There exists a lucrative market for personal products for international as well as for local investors. In our country, a number of food companies, mostly multinational firms like Engro Foods, Nestle Pakistan, National Foods and Unilever Pakistan Foods have ventured into the food businesses market and they are experiencing robust growth in their profits and sales (ICMAP, 2015).A latest report by State Bank of Pakistan (SBP) showed a tremendous growth in food and beverage sector as it was the top borrower from banks in fiscal year 2014.

There has been an increased focus by researchers and regulators on the role of institutional investors in monitoring, influencing and disciplining corporate managers. Our study classifies the governance benefits provided by different groups of institutional investors in advancing corporate behavior. The rest of the study is organized as follows; Section 2 and Section 3 is the review of empirical findings of previous research and the development of the hypotheses. Section 4 describes the specification of the model, sample and the detail of the variables. Section 5 presents the discussion of the empirical results and Section 6 concludes the study and addresses policy implications.

Literature Review

Agency theory identified several internal and external monitoring mechanisms and questioned the roles of managerial decision rights in favor of shareholders. There is enough empirical literature on this front (Ang, Cole & Lin, 2000). Advocates of agency theory believe that the presence

of majority of outside directors on corporate boards act as an effective monitoring tool in reducing the agency conflicts (Fama & Jensen, 1983). To mitigate agency problem between managers and shareholders a monitoring role is played by institutional investors (Hartzell & Starks, 2003). Institutions can actively monitor the actions of management as they have the resources, skills and greater incentives to prevent the opportunistic behavior of the managers (Wan Hussain & Ibrahim, 2003).Institutional investors can improve value of a firm either through direct monitoring or through indirect monitoring. By direct involvement the institutions can voice the concerns of owners to the management. In indirect monitoring the institutions can analyze the value of the firm (Ferreira & Matos, 2008).

Institutions cover a wide set of heterogeneous investors including insurance companies, banks, investment funds, pension funds and mutual funds. They are subjected to different regulations and should be examined independently. Their role demands scrutiny as to how they concentrate on their ability to engage in active ownership, and how this can be achieved at the minimum costs (Rose, 2007). A number of studies divided institutions into two groups i.e. grey institutions and independent institutions. Grey institutions include insurance companies, bank trusts and other institutions whereas independent institutions include investment advisers and mutual fund managers. Grey institutions are also called 'passive' or 'pressure-sensitive' institutions whereas independent institutions are 'active' or 'pressure-resistant'. Potentially active institutional investors face less legal regulatory restrictions, have more skilled workers and are more liable to gather information. However, passive institutional investors are loyal to management of the company (Brickley, Lease & Smith, 1988; Almazan, Hartzell & Starks, 2005; Chen, Harford, & Li, 2007).

The impact of different categories of institutional investors on firm performance and corporate governance has mostly been tested in studies from developed economies. The findings of Ang, Cole and Lin (2000) suggested that banks lead firms to function more efficiently by moderating their perquisite consumption and better utilize their assets. They incur monitoring costs to improve the reported financial performance of the firms and safeguard their loans. The authors conclude that monitoring of small firms by banks reduces the agency costs as in case of small business financing banks are major contributors of financing. Almazan, Hartzell and Starks (2005) showed that in comparison to insurance companies and bank trust departments, investment advisers and investment companies take more active role in monitoring corporate management. They analyzed the impact of monitoring by institutions on executive compensation. Rose (2007) analyzed the impact of institutional owners on performance of firms for a sample of Danish listed firms for the period 1998-2001. Tobin's Q was used as a proxy to determine performance of firms. The findings showed that institutional owners had no impact on performance of firms. On the other hand, by decomposing the results a positive impact of the ownership by insurance companies and banks on performance was found. Ferreira and Matos (2008) used a broad database of equity holdings to examine the role of institutional investors over the period 2000 to 2005. The findings showed a significant effect of foreign and independent institutional investors on firm valuation. They concluded independent and foreign institutions are associated with reduced capital expenditures and better operating performance. Chhaochharia, Kumar and Niessen-Ruenzi (2012) showed that companies with high ownership by local institutions were more profitable and have more independent boards. They concluded that firms with local institutions are effective monitors of corporate behavior. Annuar (2015) empirically analyzed the involvement of different institutional investors in corporate governance of Malaysian public listed companies. The study relied on qualitative approach consisting of a series of interviews with senior investment managers of different groups of institutional

investors. In Malaysia, institutional investors are divided in two categories. The first category of institutions has a strong government control and the second category is free of government influence. The former category is further divided into strategic investors and portfolio style investors. The findings reveal that the control role as envisaged by the agency theory is performed by the government linked investment companies. Duan and Jiao (2016) in their study advocate that both exit and voice as a significant governance mechanisms for mutual funds. They studied the proxy voting records of mutual fund families to investigate their choices between exit (voting with their feet) and voice (voting against management) by using the Institutional Shareholder Services (ISS) voting analytics database. The sample consists of 3876 mutual funds, 261 mutual fund families and 1174 portfolio firms. The findings showed that mutual funds with shorter investment horizons and smaller ownership blocks are more likely to exit than vote against the corporate managers.

In the case of Pakistani markets, several studies assessed the relationship between firm performance, ownership structure and corporate governance. Few researchers concluded from their findings that institutions play a key role in monitoring firms and in improving governance at various firm levels (Shah et al.2009; Afza & Mirza, 2011; Gul et al., 2012; Sheikh et al.,2012). However, there is limited research that provides evidence on the role played by different groups of institutional investors in monitoring corporate managers. This present study offers an attempt on exploring the governance benefits provided by different groups of institutional investors in improving corporate behavior.

Hypotheses Development

An improvement in operating performance of a firm can be thought of an outcome of effective monitoring by institutional investors. They have the ability and the power to influence board decisions thus positively affecting corporate performance (Shleifer & Vishny, 1997; Rose, 2007). Monitoring by institutional investors improves firms' investment and production efficiency thus leading to an overall increase in performance. Institutional investors play a vigilant role in corporate governance especially for underperforming firms (Cornett et al., 2007). In light of this discussion the following hypothesis can be formulated:

H_1: Institutional owners can improve firms' operating performance (NPM)

Investment policies are crucial for corporate owners as they directly influence firm value (Jensen & Meckling, 1976). In a frictionless environment, investment opportunities ought to be the only determinant of corporate optimal investment decisions. Empirical studies suggest that investment may deviate from its optimal level in presence of agency conflicts and information asymmetry (Myers & Majluf, 1984; Jensen & Meckling, 1976; Jensen, 1986; Stein, 2003). The investing activities of firms are generally more subject to managerial discretion. Managers can jeopardize corporate value and shareholder returns by deviating from the optimal investment level. Deviations such as over-investment may occur when corporate insiders behave opportunistically (Stulz, 2005). Investing activities are also more observable for outsiders. For that reason in comparison to financing and operating activities, these activities have received more attention and therefore serve as a key channel through which institutional investors can affect corporate value. Institutional investors have become more active in improving the performance of firms' through the channel of corporate investment decisions. Their activities can range from enhancing governance mechanisms and corporate control to strengthening the corporate investment competitiveness and industry's capacity (Fung & Tsai, 2012). To understand the extent of monitoring and its impact on investment decisions, it is important to distinguish between different categories of institutional

investors. Anecdotal evidence suggests that fund managers during investor conferences often meet with the managers of largest companies in their portfolio. During these meetings, institutional investors attain valuable information about corporate policies and make suggestions to managers (Cella, 2009). This discussion leads us to frame the following hypothesis:

H_2: Institutional ownership has a positive relationship with firms' sales growth

Excessive consumption of executives' perquisites and poor investment decisions by the management will cause an increase in a firm's operating costs. Financial institutions play a vigilant role in monitoring mangers expenditures on personal consumption and other perquisites (Ang, Cole & Lin, 2000). They have the ability to reduce the tendency of managers towards over investment (Ferreira and Matos, 2008). Effective monitoring by institutional investors results in improvement of a firm's investment and production efficiency. Advancement in production efficiency of a firm is reflected by a decrease in costs (Chhaochharia, Kumar & Niessen-Ruenzi, 2012). In light of this discussion we develop the following hypotheses:

H_3: Institutional ownership has a negative impact on firms' operating expenses

H_4: Institutional ownership is negatively associated with firms' production costs

Research Objectives

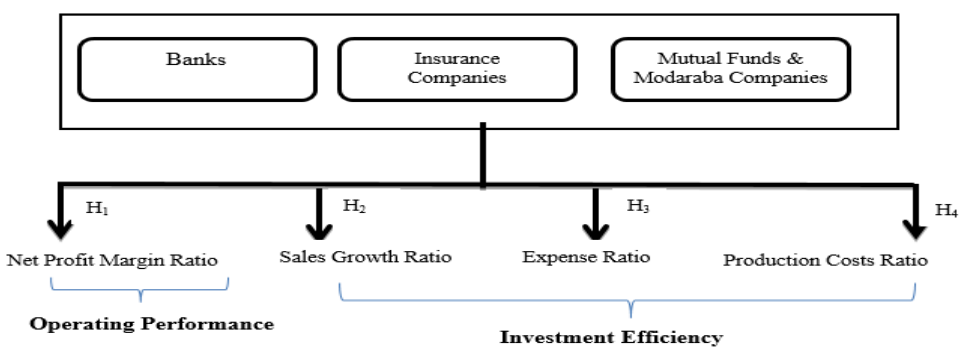
The objective of the present study is two-fold. Firstly, it attempts to explore the effect of different institutional owners on the performance of firms across cement industry and food and personal care products' industry of Pakistan. Secondly, it investigates whether institutional investors are capable of monitoring and disciplining corporate managers and in reducing the firms' agency costs.

Research Questions

The present study addresses the following research questions:

- Which group of institutional investor can influence the performance across non-financial firms operating in cement industry and food and personal care products' industry of Pakistan?
- Whether monitoring by different institutional investors can effectively reduce agency costs by curtailing the tendency of managers to overinvest?

- Theoretica lFramework:



Method

Sample Framework and Data Sources

In order to test the hypotheses given in the preceding section it was mandatory to find ample data both in terms of statistical requirements and logical sense. Finding long panels for firms is a problem in Pakistan and there is a lot of spade work needed before data on required variables is gathered. The research focused on acquiring the longest panel but for many firms both in the cement sector and food and personal care products sector data before 2006 was not available. Also selecting the number of firms in each sector was difficult as the randomly sampled firms were subject to no records on some variables. In view of these limitations a whole available sample for both the sectors having data on all required variables was selected for the period 2006 to 2014. The details about the industry population and the sample are reported in the following table:

Industry	Total Number of Firms	Number of Sample Firms
Cement	20	16
Food and Personal Care Products	19	14

The usage of the above sampled firms for both sectors were scrutinized for further analysis as the findings were primarily based on the secondary data collected from the annual reports of the firms. For testing the adequacy of samples standard statistical procedures were used. The sampling adequacy was verified by KMO (Kaiser-Meyer-Olkin) and Bartlett's test. The table below report the KMO and Bartlett's test statistics for both the industries:

Industry	**KMO measure of sampling adequacy**
Cement	0.6043
Food and Personal Care Products	0.5248

A value of KMO test greater than 0.5 usually indicates that using the sample is suitable for further data analysis.

Model Specification and Variables

The following panel data regression model is used for determining the impact of banks, insurance companies, mutual funds and modaraba companies on firms' operating performance and investment efficiency on the sampled firms:

$$\text{operating performance} = \alpha + \beta_1(\text{banks})_{ij} + \beta_2(\text{insurance})_{ij+} \beta_3(\text{MFs n modaraba})_{ij} + \beta_4 (\text{firm size}) + \beta_5 (\text{firm age}) + \beta_6 (\text{leverage}) + \beta_7 (\text{insider ownership}) + € \quad \text{(i)}$$

$$\text{sales growth ratio} = \alpha + \beta_1(\text{banks})_{ij} + \beta_2(\text{insurance})_{ij+} \beta_3(\text{MFs n modaraba})_{ij} + \beta_4 (\text{firm size}) + \beta_5 (\text{firm age}) + \beta_6 (\text{leverage}) + € \quad \text{(ii)}$$

$$\text{expense ratio} = \alpha + \beta_1(\text{banks})_{ij} + \beta_2(\text{insurance})_{ij+} \beta_3(\text{MFs n modaraba})_{ij} + \beta_4 (\text{firm size}) + \beta_5 (\text{firm age}) + \beta_6 (\text{leverage}) + € \quad \text{(iii)}$$

production cost ratio= $\alpha + \beta_1(banks)_{ij} + \beta_2(insurance)_{ij+} \beta_3(MFs\ n\ modaraba)_{ij} + \beta_4$ (firm size)+ β_5 (firm age)+β_6 (leverage) + € (iv)

Operating performance of firm is measured by using net profit margin ratio (Shaheen & Nishat, 2005; Ferreira & Matos, 2008). Firm investment efficiency is measured by using 3 ratios: sales growth ratio (Wong and Yi, 2015), operating expenses by total sales ratio (Ang, Cole &Lin, 2000) and cost of goods sold by total sales ratio (Giroud & Mueller, 2010; Chhaochharia, Kumar & Niessen-Ruenzi, 2012). The present study has used sales growth as a measure of investment opportunities. Sales growth is a widely used measure for investment opportunities (Bloom, Bond, & Van Reenen, 2007; Michaely & Roberts, 2012; Wong &Yi, 2015). Vlachvei and Notta (2008) used growth rate in terms of sales and number of employees as a measure of firm growth. In another study, Hassani and Torabi (2014) used fixed asset efficiency ratio to assess the effectiveness of management in utilizing fixed assets and planning for new investments in these assets. The ratio determines the efficiency of investments in fixed assets (i.e. property, plant and equipment) in generating sales revenue. In addition firm size, firm age, leverage and insider ownership are included as control variables. The log of assets is used as a proxy to calculate firm size (Chung & Pruitt, 1994; Cornett et al. 2007). Ferreira and Matos (2008) included firm size as a control variable for firm operating performance and capital expenditure. Ang, Cole and Lin (2000) used size of a firm as a control variable to measure the influence of ownership structure on firm's operating expenses by total assets ratio. Firm age is found to be positively and negatively related with corporate performance (Loderer & Waelchli, 2010; Chen, 2012). The correlation among financial leverage and firms' investment decision is a fundamental issue in corporate finance (Aivazian, Ge & Qiu, 2005). Giroud and Mueller (2010) and Chhaochharia, Kumar and Niessen-Ruenzi (2012) control for firm size, firm age, and leverage to capture the propensity of managers to engage in empire building or their tendency to lead the quiet life. To control for firm specific characteristics that affect performance, the present study has included insider ownership in the regression equation. In our country, managers hold substantial portion of shares as firms are owned by groups and families (Abdullah, Shah & Khan, 2012). The ownership structure in Pakistan is not widely dispersed as in the UK and USA. Ahmed Sheikh, Wang and Khan (2013) findings suggest that in our country on average 58.25 percent of the total outstanding shares are owned by the five largest shareholders which means that few members of the firm hold substantial portion of the total issued shares.

Further detail of the variables is given below:

Operating Performance(OP)		
net profit margin ratio	NPM	net income divided by total sales
Investment Efficiency(IE)		
Expense ratio	OE/SALE	operating expenses divided by total sales
Production costs ratio	COGS/SALE	cost of goods sold divided by total sales
Sales growth ratio	SALESGWT	change in sales divided by beginning-of-year sales

Institutional Ownership		
Banks	BANKS	percentage shares owned by banks
Insurance companies	INSURANCE	percentage shares owned by insurance companies
Mutual funds and modaraba companies	MFs n Modaraba	percentage shares owned by Mutual funds and modaraba companies
Control Variable		
Firm size	FirmSize	natural logarithm of total assets
Firm Age	AGE	natural logarithm of (current year – year in which the firm was established)
Leverage	LEVERAGE	total debt by total assets
Insider Ownership	I.O	percentage of shares held by CEO, directors and their families

Sample Description

An aggregate value for mutual funds and modaraba companies has been taken because the shareholding pattern of the companies in cement sector and food and personal care products sector do not provide separate information on the number of shares owned by these two institutional shareholders.

Results

Descriptive Statistics

Table 1A shows the descriptive analysis of the sample for cement sector. The highest percentage of shares is owned by banks followed by mutual funds and modaraba companies. Insurance companies own the least amount of shares in cement sector companies. The average value for sales growth ratio is 40.68%. The mean value for operating expenses divided by total sales ratio is 9.10% whereas the average value for cost of goods sold by sales ratio is 86.40%. The mean value for firm size is 10.0209. The mean value of 1.4623 for firm age suggests that the average age of the firms is approximately 29 years. The mean value for leverage and insider ownership is 54.25% and 24.8729% respectively.

Table 1A

Descriptive Statistics (Cement Sector)

Variable	Mean	Standard Deviation	Min	Max
NPM	-0.0690	0.4545	-3.2133	0.4489
SALESGWT	0.4068	1.1399	-0.9999	7.9801
OE/SALE	0.0910	0.1905	0	2.1353

COGS/SALE	0.8640	0.4693	0	3.5796
BANKS	5.3521	5.4040	0.0045	21.4241
INSURANCE	0.4865	0.7290	0	3.17
MFs n Modaraba	1.5996	2.6884	0	12.08
FirmSize	10.0209	0.3893	9.3187	10.803
Firm Age	1.4623	0.1984	0.9031	1.7924
Leverage	0.5425	0.1871	0.1606	0.8120
Insider ownership	24.8729	27.1526	0	86.78

Table 1B shows the descriptive analysis of the sample for food and personal care products sector. Banks own the highest percentage of shares followed by mutual funds and modaraba companies. The least percentage of shares is held by insurance companies. The average value for sales growth ratio is 28.67%. The mean value for operating expenses divided by total sales ratio is 18.60% whereas the average value for cost of goods sold by sales ratio is 71.97%. Firm size is calculated by using the natural logarithm of total assets. The maximum value for firm size is 10.7184. The mean value of 1.5932 for firm age suggests that the average age of the firms is between 38 years to 40 years. The average value for leverage and insider ownership is 53.16% and 29.8637% respectively.

Table 1B

Descriptive Statistics (Food and Personal Care Products sector)

Variable	Mean	Standard Deviation	Min	Max
NPM	0.2432	2.0038	-3.4747	19.7592
SALESGWT	0.2867	0.3605	-0.9850	1
OE/SALE	0.1860	0.2359	0.0219	2.1949
COGS/SALE	0.7197	0.1026	0.4623	0.9336
BANKS	1.5083	3.1921	0	19.1
INSURANCE	1.8391	2.3837	0	9.64
MFs n Modaraba	0.6841	1.3469	0	11.51
FirmSize	9.2908	0.6515	7.7147	10.7184
Firm Age	1.5932	0.2932	1.0414	2.1847
Leverage	0.5316	0.2148	0.0087	0.8006
Insider ownership	29.8637	29.4676	0	98.4

Correlation Matrix

The problem of multicollinearity does not exist among the variables as shown by the correlation matrices 2A and 2B. The absence of multicollinearity was further determined for both the industries through VIF (Variance Inflation Factor).

Table 2A

Correlation Analysis (Cement Sector)

Variable	NPM	SALESGWT	OE/SALE	COGS/SALE	BANKS	INSURANCE	MFs n Modaraba	FirmSize	Age	Leverage	I.O
NPM	1										
SALESGWT	0.1523	1									
OE/SALE	-0.2193*	-0.2618*	1								
COGS/SALE	-0.7317*	-0.0726	0.2684*	1							
BANKS	0.1569	-0.0098	-0.1222	-0.1480	1						
INSURANCE	0.0592	-0.0294	0.3847*	-0.0992	-0.0323	1					
MFs n Modaraba	0.5326*	0.0810	0.0298	-0.4029*	0.0260	0.2700*	1				
FirmSize	0.3695*	0.0673	0.1149	-0.3897*	0.0615	0.2282*	0.5546*	1			
Age	-0.0908	-0.1067	-0.0099	0.0049	0.0786	-0.3368*	-0.2550*	-0.1608	1		
Leverage	-0.5787*	0.0069	0.0767	0.4424*	0.0608	-0.0888	-0.3995*	-0.2484*	0.1757*	1	
I.O	-0.2825*	0.0723	-0.1936*	0.3253*	-0.0915	-0.3840*	-0.3238*	-0.2926*	0.2118*	0.1791*	1

Table 2A show a negative correlation between different institutional investors and cost of goods sold by total sales ratio. However, different institutional investors are positively correlated with firms' net profit margin ratio.

Table 2 *Correlation Analysis (Food and Personal Care Products sector)*

Variable	NPM	SALESGWT	OE/SALE	COGS/SALE	BANKS	INSURANCE	MFs n Modaraba	FirmSize	Age	Leverage	I.O
NPM	1										
SALESSGWT	0.1829	1									
OE/SALE	-0.1592	-0.0935	1								
COGS/SALE	-0.3606*	-0.1048	-0.2860*	1							
BANKS	-0.2870*	-0.1015	-0.0346	0.3129*	1						
INSURANCE	0.0471	-0.1618	-0.2501*	0.1880	0.4061*	1					
MFs n Modaraba	0.1490	-0.1100	-0.0104	-0.1000	0.2529*	0.1224	1				
FirmSize	0.2280*	-0.0404	-0.3619*	-0.0645	0.1179	-0.1000	-0.0509	1			
Age	0.1814	-0.1341	-0.1988*	0.0313	0.1051	0.5708*	-0.0787	0.2249*	1		
Leverage	-0.4630*	0.0761	0.0300	0.3046*	0.1312	-0.1408	-0.3841*	0.1114	-0.1287	1	
I.O	-0.2895*	-0.0325	-0.1427	0.1644	-0.1117	0.1643	-0.3961*	-0.1542	0.3325*	0.4019*	1

The findings from Table 2B show that sales growth ratio and operating expenses by total sales ratio are negatively correlated with different institutional investors. Net profit margin ratio and cost of goods sold by total sales ratio is negatively correlated with banks and mutual funds and modaraba companies respectively.

Discussion

For all the four models, the dependent variables are regressed separately on the independent variables for both the sectors. The study has applied the Breusch and Pagan Lagrange Multiplier test for random effects to test for heterogeneity across the panel units. The null hypothesis in Lagrange Multiplier test is that variance across the entities is zero. Pooled OLS is applied if the null hypothesis is not rejected suggesting that there are no significant differences across the panel units. However, if the null hypothesis is rejected it means that random effects are in fact present. In model estimation, the findings of Lagrange Multiplier tests for both industries favor the random effects model over the pooled OLS. Hausman tests is then applied to choose between fixed effects model or random effects model.[1]The details of the findings are given below for both the industries in Table 3A and Table 3B.

Table 3A

Regression Model Results (Cement Sector)

	Regression Models			
	Model #1	**Model #2**	**Model #3**	**Model #4**
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity (H_0:constant variance)	**Robust Std.Err.**	**Robust Std.Err.**	**Robust Std.Err.**	**Robust Std.Err.**
Hausman Test (p-value)	**<0.05**	**>0.05**	**>0.05**	**>0.05**
	NPM	**SALESGWT**	**OE/SALE**	**COGS/SALE**
BANKS	0.0071	-0.0152	-0.0012	-0.0093
	(0.0047)	(0.0166)	(0.0011)	(0.0062)
INSURANCE	-0.0793	0.0134	0.0074	-0.0323
	(0.0412)***	(0.0791)	(0.0095)	(0.0237)
MFs n Modaraba	0.0158	-0.0031	-0.0035	-0.009
	(0.0078)**	(0.0221)	(0.0026)	(0.0048)***
Firm Size	0.2420	-0.1705	-0.0254	-0.2152
	(0.1300)	(0.2045)	(0.0419)	(0.1408)
Firm Age	0.1574	-0.4508	-0.0056	-0.4259
	(0.1853)	(0.2312)***	(0.0534)	(0.2686)
Leverage	-0.0561	0.6346	-0.0043	0.0536
	(0.0308)*	(0.5351)	(0.0066)	(0.0452)
Insider ownership	-0.0108	---	---	---
	(0.0039)**			
Constant	-2.8782	2.4879	0.3718	3.7521
	(1.4316)**	(2.4437)	(0.4728)	(1.5211)**
R^2	0.1327	0.0363	0.0115	0.1142

[1]The testing of hypotheses is carried out using STATA v.11

F Statistics	4.30	12.19	9.45	13.90
p-value (F Statistics)	(0.0064)	(0.0578)	(0.0000)	(0.0000)

( ) standard error in parenthesis *p<0.01; ****p<0.05;*** ****p<0.1*

Heteroskedasticity is controlled through the use of 'robust' standard errors option. For hausman test, the null hypothesis is that the preferred model is random effects vs. the alternative the fixed effects. *NPM stands for net profit margin ratio. SALESGWT represents change in sales divided by beginning-of-year sales. OE/SALE represents expense ratio. It is measured by dividing operating expenses by total sales. COGS/SALE represents production costs ratio. It is measured b dividing cost of goods sold by total sales. BANKS, INSURANCE and MFs n Modaraba represents ownership by banks, insurance companies and mutual funds and modaraba respectively. Firm Size is calculated by taking the log of total assets. Firm Age is measured by taking the log of (current year – year in which the firm was established). Leverage is measured by dividing total debt by total assets. I.O represents insider ownership. It is measured by taking the percentage of shares held by CEO, directors and their families.*

The findings confirm that the presence of mutual funds and modaraba companies is associated with better operating performance (model #1) and reduced production costs (model #4). The findings for model #1 show a positive and a significant impact of mutual funds and modaraba companies on firms' operating performance. The impact of insurance companies is significant but it's not in accordance to the formulated hypothesis H_1. The findings for model #4 support hypothesis H_4. It shows a significant and a negative impact of mutual funds and modaraba companies on firms' cost of goods sold by total sales ratio. Mutual funds and modaraba companies lead firms to operate more efficiently by utilizing their assets and restraining perquisite consumption by corporate managers. In emerging economies like Pakistan, mutual funds play an imperative role in enhancing corporate governance (Cheema and Shah, 2006). Cheema, Shah and Burki (2006) presented an argument that in comparison to banks and other creditors, mutual funds are more important as they act directly on behalf of minority investors. By indulging in active trading in extensive blocks of securities, mutual funds can put up considerable pressures on firm management to perform on behalf of all shareholders. A number of research studies document that mutual funds, investment companies and investment advisors are pressure-insensitive institutional investors. These institutional investors are better suited to discipline, monitor and impose controls on managers as they are less subject to pressure from firms in which they invest (Brickley, Lease & Smith, 1988; Almazan, Hartzell & Starks, 2005; Chen, Harford& Li, 2007; Cornett, Marcus, Saunders & Tehranian, 2007; Ferreira &Matos, 2008). The findings for control variables show a significant and negative impact of leverage and insider ownership on firms' operating performance (NPM). The negative impact of leverage and managerial ownership on firms' performance is consistent with the findings of Ahmed Sheikh, Wang and Khan (2013). The use of higher than appropriate levels of debt in presence of agency issues negatively affect performance as it limit the ability of managers to effectively manage operations due to an increase in lenders influence. In Pakistan, managerial ownership negatively affects corporate performance as entrenched managers tend to use firm resources for personal benefits. Managers on behalf of shareholders might take decisions that may be unpredictable to maximize shareholders capital (Fama & Jensen, 1983). Firm age has significant and negative impact on sales growth ratio. Older firms with greater experience show better performance in comparison to new firms. Older firms do not have to pay the liability of newness. New firms have to bear additional costs in terms of learning new tasks and new roles (Stinchcombe, 1965).

Table 3B

egression Model Results (Food and Personal Care Products sector)

	Regression Models			
	Model #1	**Model #2**	**Model #3**	**Model #4**
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity (H_0:constant variance)	**Robust Std.Err.**	**Robust Std.Err.**	**Robust Std.Err.**	**Robust Std.Err.**
Hausman Test (p-value)	**>0.05**	**<0.05**	**>0.05**	**>0.05**
	NPM	**SALESGWT**	**OESALE**	**COGSSALE**
BANKS	-0.0139	-0.0099	0.0003	0.0039
	(0.0180)	(0.0056)	(0.0012)	(0.0021)***
INSURANCE	-0.0172	0.0232	-0.0021	0.0006
	(0.0208)	(0.0132)	(0.0051)	(0.0022)
MFs n Modaraba	-0.0867	-0.0008	-0.0117	-0.0078
	(0.1209)	(0.0189)	(0.0082)	(0.0052)
Firm Size	0.0744	-0.5905	-0.0159	0.0064
	(0.2143)	(0.2108)**	(0.0225)	(0.0294)
Firm Age	-0.4276	-4.2299	-0.1319	-0.0531
	(0.4321)	(0.9821)*	(0.1101)	(0.1183)
Leverage	-0.4547	-0.3969	-0.0987	0.0170
	(0.2122)**	(0.1121)*	(0.0630)	(0.0180)
Insider ownership	-0.0102	---	---	---
	(0.0081)			
Constant	-0.0053	12.7031	0.4666	0.7525
	(2.5101)	(2.1384)*	(0.2580)***	(0.3828)
R^2	0.0605	0.0083	0.1764	0.1676
F Statistics	50.00	23.85	9.68	38.09
p-value (F Statistics)	(0.0000)	(0.0000)	(0.0000)	(0.0000)

( ) standard error in parenthesis *p<0.01; **p<0.05; ***p<0.1

Heteroskedasticity is controlled through the use of 'robust' standard errors option. For hausman test, the null hypothesis is that the preferred model is random effects vs. the alternative the fixed effects. *NPM stands for net profit margin ratio. SALESGWT represents change in sales divided by beginning-of-year sales. OE/SALE represents expense ratio. It is measured by dividing operating expenses by total sales. COGS/SALE represents production costs ratio. It is measured b dividing cost of goods sold by total sales. BANKS, INSURANCE and MFs n Modaraba represents ownership by banks, insurance companies and mutual funds and modaraba respectively. Firm Size is calculated by taking the log of total assets. Firm Age is measured by taking the log of (current year – year in which the firm was established). Leverage is measured by dividing total debt by total assets. I.O represents insider ownership. It is measured by taking the percentage of shares held by CEO, directors and their families.*

The findings show a significant impact of banks on firms' production cost ratio (model #4), however, the sign of the coefficient is not in accordance to the formulated hypothesis. Corporate boards in Pakistan are mostly dominated by family owners; therefore, institutional investors are reluctant to monitor managers if they lack significant shareholdings (Mahmood and Sharif, 2003). In our country the main objective of banks and other creditors is to safeguard their interests as being corporate lenders. Banks with corporate shareholdings may suffer from severe conflicts of interests and may perhaps tend to prefer their interests as lender over their interests as shareholders (Cheema, Shah and Burki, 2006). A handful of past research studies (Brickley, Lease and Smith, 1988; Almazan, Hartzell and Starks, 2005; Chen, Harford and Li, 2007; Ferreira and Matos, 2008) have termed banks as grey or pressure sensitive institutional investors. They compromise on their monitoring activities as they have long term business ties with the investee companies. These institutional investors are unwilling to influence management decisions as they can possibly be penalized by the firm by means of withdrawal of business. The findings for control variables show a negative impact of leverage on operating performance of firms. A number of studies in Pakistan showed a decline in profitability for firms with high leverage, presenting an argument that long-term debt is more expensive due to certain direct costs and indirect costs (Raza, 2013). Firm size, firm age and leverage are also found to be negatively related with sales growth ratio. The growth of the firm is expected to slow with age (Oliviera and Fortunate, 2006). Small sized and younger firms tend to grow (Evan, 1987a; Evan 1987b). In comparison to younger firms, older firms grow less rapidly (Almus, 2000; Davidson et al. 2002). According to Myers (1977) leverage could have a negative impact on investment due to the agency problem that exists between corporate owners and bondholders. If management performs in the interests of corporate owners, they may possibly give up some projects with positive net present value due to debt overhang. Leverage signals the information that management has about the investment opportunities. The negative correlation between leverage and investment efficiency suggest a reduction in leverage by managers in anticipation of future investment opportunities. Firms with high levels of leverage are less likely to exploit valuable growth opportunities as compared to low leveraged firms (Aivazian, Ge, & Qiu, 2005).

Conclusion

Corporate scandals around the world necessitated better corporate governance mechanisms for which the role of institutional investors was believed pivotal. This study raised similar questions in the context of Pakistani firms. After reviewing literature interesting hypotheses emerged for which relevant data was gathered from 2006 to 2014 for two important business sectors of Pakistan including cement and food and personal care products industries. There are interesting findings emerging from this study in the context of gauging institutional role played by investors in Pakistan. Our study contributes to the extant literature in Pakistan by not treating institutional owners as a homogeneous group of investors. It has gone a step further by analyzing the impact of banks, insurance companies, mutual funds and modaraba companies on firms' operating performance and investment efficiency. Net profit margin is used as a proxy for measuring operating performance. Investment efficiency is measured by using three ratios: sales growth ratio, expense ratio and production costs ratio. These variables capture the indirect benefits of monitoring by different institutional investors. In case of cement sector, mutual funds and modaraba companies are having a significant positive impact on net profit margin ratio; however, the impact of these institutional investors is significant and negative on firms' production costs ratio. The findings reveal that mutual funds and modaraba companies are exerting their due influence on corporate managers to focus more on firm performance and less on self-serving or opportunistic behavior. These institutional investors are willing to use their ownership rights to pressurize firm managers to act in the best

interest of the shareholders. This finding is in line with a number of empirical studies suggesting that mutual funds and investment advisers are active monitors. In case of food and personal care products sector, testing the hypothesis that predicts the impact of different institutional investors on firms' production costs ratio, the significance of the relationship is confirmed only for banks; however, the sign of the coefficient does not confirm the formulated hypothesis H_4.The findings of the present study have significant inferences for the governance debate of the corporation. In order to ensure best corporate governance practices in Pakistan's corporate sector there is a need to engage institutional investors with their investee companies. Institutional investors having large shareholdings can take part in the existing and future development of the investee company. Countries like Germany and Japan are used as an example of universal banking system. Banks are the largest shareholders and play a major role in corporate governance structure. The financial system in these two countries that is characterized by close bank-firm relationships is often credited for increasing access to capital and reducing agency costs, thus improving the performance of firms (Agarwal and Elston, 2001). The study highlight the need for the regulators and policy makers to improve the capabilities of institutional investors in Pakistan and to establish measures that can protect the rights of institutional investors by providing a healthy corporate governance culture.

References

Abdullah, F., Shah, A., & Khan, S. U. (2012). Firm performance and the nature of agency problems in insiders-controlled firms: Evidence from Pakistan. *The Pakistan Development Review*, 161-182.

Afgan, N., Gugler, K., & Kunst, R. (2016, September). The effects of ownership concentrationon performance of Pakistani Listed Companies. In *CBU International Conference Proceedings* (Vol. 4, pp. 214-222).

Afza, T. & Mirza, H.H. (2011) "Institutional Shareholdings and Corporate Dividend Policy In Pakistan". *African Journal of Business Management*, 5(22), 8941-8951

Agarwal, R., & Elston, J. A. (2001). Bank–firm relationships, financing and firm performance in Germany. *Economics Letters*, *72*(2), 225-232.

Aivazian, V. A., Ge, Y., & Qiu, J. (2005). The impact of leverage on firm investment: Canadian evidence. *Journal of corporate finance*, *11*(1), 277-291.

Ahmad, A., Malik, M. I., & Humayoun, A. A. (2010). Banking Developments in Pakistan: A Journey from Conventional to Islamic Banking. *European Journal of Social Sciences*, *17*(1), 12-17

Ahmed Sheikh, N., Wang, Z., & Khan, S. (2013). The impact of internal attributes of corporate governance on firmperformance: evidence from Pakistan. *International Journal of Commerce and Management,23*(1),38-55.

Almazan, A., Hartzell, J.,& Starks, L.T., (2005). Active institutional shareholders and cost of monitoring: Evidence from managerial compensation. Working paper, University of Texas at Austin.

Almus, M. (2000). Testing" Gibrat's Law" for Young Firms–Empirical Results for West Germany. *Small Business Economics*, *15*(1), 1-12.

Ang, J.S., Cole, R.A.,& Lin, J.W., (2000). Agency costs and ownership structure. *Journal of Finance*, 55, 81–106.

Annuar, H. A. (2015). Changes in ownership forms and role of institutional investors in governing public companies in Malaysia: a research note. *Journal of Accounting & Organizational Change*, *11*(4), 455-475.

Balling, M., Hennessy, E., & O'Brien, R. (Eds.). (2013). *Corporate governance, financial markets and global convergence* (Vol. 33). Springer Science & Business Media

Bloom, N., Bond, S., & Van Reenen, J. (2007). Uncertainty and investment dynamics. *The review of economic studies*, *74*(2), 391-415

Brickley, J., Lease, R., &Smith, C., (1988) . Ownership structure and voting on antitakeover amendments. *Journal of Financial Economics,* 20, 267–292.

Cella, C. (2009). Institutional investors and corporate investment, Working Paper, Stockholm School of Economics

Cheema, M. & Shah, S. A. (2006). The Role of Mutual Funds and Non-Banking Financial Companies in Corporate Governance. *Centre for Management and Economic Research*(*CMER*) *Working* Paper No. 06-46: Lahore University of Management Sciences, Lahore Pakistan.

Cheema, M., Shah, S. A., & Burki, A. A. (2006). The Role of Mutual Funds and Non-BankingFinancial Companies in Corporate Governance in Pakistan: Lahore University of Management Sciences, Centre for Management and Economic Sciences.

Chen, L. (2012). The Effect of Ownership Structure on Firm Performance Evidence from Non-financial Listed Companies in Scandinavia. *Finance & International Business*, *4*(11), 112-129.

Chen, X., Harford, J., &Li, K., (2007). Monitoring: which institutions matter? *Journal of Financial Economics,* 86, 279–305.

Chhaochharia, V., Kumar, A. & Niessen-Ruenzi, A. (2012). Local investors and corporate governance. *Journal of Accounting and Economics*, 54, 42-67.

Chung, K.H., &Pruitt, S.W. (1994). A simple approximation of Tobin's Q. *Financial Management,* 23, 70-74.

Cornett, M. M., Marcus, A. J., Saunders, A., & Tehranian, H. (2007). The impact of institutional ownership on corporate operating performance. *Journal of Banking & Finance,* 31(6), 1771–1794.

Davidsson, P., Kirchhoff, B., Hatemi–J, A., & Gustavsson, H. (2002). Empirical analysis of business growth factors using Swedish data. *Journal of small business management*, *40*(4), 332-349

Duan, Y., & Jiao, Y. (2016). The role of mutual funds in corporate governance: evidence from mutual funds' proxy voting and trading behavior. *Journal of Financial and Quantitative Analysis*, *51*(02), 489-513

Elyasiani, E., & Jia, J. (2010). Distribution of institutional ownership and corporate firmperformance. *Journal of Banking & Finance, 34*(3), 606-620.

Evans, D. S. (1987a). The relationship between firm growth, size, and age: Estimates for 100manufacturing industries. *The journal of industrial economics*, 567-581

Evans, D. S. (1987b). Tests of alternative theories of firm growth. *Journal of political economy*, *95*(4), 657-674.

Fama, E. & Jensen, M. (1983). Separation of ownership and control. *Journal of Law and Economics,* 26 (2). 301-325

Ferreira, M.A., and P. Matos, (2008), "The Colors of Investors' Money: The Role of Institutional Investors around the World," *Journal of Financial Economics*, 88, 499-533.

Fung, S., & Tsai, S. C. (2012). Institutional ownership and corporate investment performance. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, *29*(4), 348-365

Giroud, X., and Mueller, H., (2010). Does corporate governance matter in competitiveindustries? *Journal of Financial Economics*, 95, 312–331.

Gul,S., Sajid, M., Razzaq, N., &Afzal, Farman. (2012) "Agency Cost, Corporate Governanceand Ownership Structure (The Case of Pakistan)" *International Journal Of Business And Social Science*,3(9), 268-277

Hartzell, J. C. & L. T. Starks (2003) "Institutional investors and executive compensation", *Journal of Finance*, 58, 2351-2374

Hassani, M., & Torabi, A. S. (2014). The Monitoring Role of Institutional Ownership on the Relationship between Free Cash Flow and Assets Efficiency. *International Journal of Finance and Accounting*, *3*(4), 266-275.

Javaid, H. M., & Javid, S. (2017). Determining Agency Theory Framework through Financial Leverage & Insider Ownership: Evidence from Pakistan. *International Journal of Economics and Finance*, *9*(3), 21.

Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American economic review*, *76*(2), 323-329

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costsand ownership structure. *Journal of financial economics*, *3*(4), 305-360

Loderer, C. F., & Waelchli, U. (2010). Firm age and performance, Working Paper, Institute of Financial Management, University of Bern

Mahmood, S., & Sharif, H. (2003). Institutional Shareholders and Their Role in Promotion of Corporate Governance in Pakistan. SECP Working Paper.

Mallin, C. (2012). Institutional investors: the vote as a tool of governance. *Journal of Management & Governance*, *16*(2), 177-196

Michaely, R., & Roberts, M. R. (2012). Corporate dividend policies: Lessons from private firms. *Review of Financial Studies*, *25*(3), 711-746

Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of financial economics*, *5*(2),147-175.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of financial economics*, *13*(2), 187-221

Nazir, M. S., & Nawaz, M. M. (2010). The determinants of mutual fund growth in Pakistan. *International research journal of finance and economics*, *54*(10)

Oliveira, B., & Fortunato, A. (2006). Firm growth and liquidity constraints: A dynamicanalysis. *Small Business Economics*, *27*(2), 139-156

Raza, M. W. (2013). Affect of financial leverage on firm performance. Empirical evidence fromKarachi Stock Exchange.

Rose, C. (2007). Can Institutional Investors Fix the Corporate Governance Problem? Some Danish Evidence. *Journal of Management and Governance*, 11(4), 405-428.

Shah, Z. A., Zafar, N. & Durrani, T. K. (2009). Board Composition and Earnings Management an Empirical Evidence Form Pakistani Listed Companies. *Middle Eastern Finance and Economics*, 3(29), 30-44.

Shaheen, R., & Nishat, M. (2005). Corporate governance and firm performance: An exploratory analysis. Paper presented at 2nd annual conference on corporate governance in Pakistan at Lahore University of Management Sciences, Lahore, Pakistan.

Sheikh, A.M., Iqbal, M.J., and Shah, S.Z.A. (2012). Institutional Ownership and Discretionary Accruals: Empirical Evidences from Pakistani Listed Non-Financial Companies. *Information Management and Business Review,* 4(4), 217-222

Shleifer, A., & Vishny,R., (1997). A survey of Corporate Governance. *Journal of Finance*, 52(2), 737-783

Stinchcombe, A. L., & March, J. (1965). Social structure and organizations. *Handbook of organizations*, 142-193.

Stein, J. C. (2003). Agency, information and corporate investment. *Handbook of the Economics of Finance*,*1*,11-165.

Stulz, R. M. (2005). The limits of financial globalization. *The Journal of Finance*, *60*(4), 1595-1638

Vlachvei, A., & Notta, O. (2008). Firm growth, size and age in Greek firms. In *Proceedings of International Conference on Applied Economics* (pp. 915-21)

Wan Hussin, W.N. & Ibrahim, M.A. (2003). Striving for quality financial reporting. AkauntanNasional. March. 18-24

Wong, K. P., & Yi, L. (2015). Institutional Investors and Corporate Investment

Received: March25th, 2016
Received Revisions: Nov 16th, 2017