INSTITUTIONAL OWNERSHIP AND CORPORATE VALUE: EVIDENCE FROM KARACHI STOCK EXCHANGE (KSE) 30-INDEX PAKISTAN

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SUMMARY - *The study aims to explore the relationship between institutional ownership and firm performance. To obtain the targeted objectives, the required data, ranging from 2008 to 2013 were collected from annual reports and financial statements of concerned firms. Such type of data contains endogeneity problems. In order to deal with endogeneity problem, Durbin-Wu-Houseman test was applied. Among many advance econometric techniques, OLS and 2SLS were found appropriate to estimate the coefficient of interest. Institutional ownership being endogenous variable was found significantly and positively related with firm performance. Firm performance was found negatively related with debt ratio and fix expenditures. Finally it was found that institutional investors take more interest in firms having higher dividend payout ratio.*

Key Words: *Institutional ownership, Firm performance, Agency Problem, Endogeneity, DW and 2SLS*
JEL Classification: G34

1. INTRODUCTION

Institutional investors are important stake holder of today's financial market and appeared as integral force in equity market. They are major player not only in the developed market but also in the emerging markets of the world. The amount of funds held by them can be guessed from the fact that more than 50% of shares of listed firms in London stock exchange are held by institution investors in U.K. Similarly in United States these institutions hold round about 5% in 1945, 8% in 1950, 33% in 1980, 45% in 1990, 60% in 2003 and 67% of total shares of listed companies in 2010 and their shareholding increasing continuously (Blume and keim, 2012). In 2005 these professional investors manage financial assets exceeding US$45 trillion including over US$20 trillion in equities (IMF Report, 2005).Therefore now they have become more visible and active in influencing the major business decision and firms.

In past these investors were not directly involved in decision making and follow the exit policy by selling the shares held by them if they were not satisfied with management policies and decisions. But now due to increasing ownership of equity they have become more powerful to raise their voice in case of disagreement with management and hence are actively participating in the corporate decision making process through their voting right in company's meetings and try to influence the firm top management to take care the long-term interest of shareholders. Thus these institutional investors are playing very effective monitoring role and hence improving firm performance.

In the developing countries like Pakistan institutional investors are not actively participating in corporate decision making due to large shareholding by family business and groups. Institutional investors are not deep rooted in the corporate sector of Pakistan and the main reason of this is unavailability of suitable environment and lack of interest by the institutional owners in the corporate governance of the country. Company's ordinance 1984 and the code of corporate governance 2002 contain many provisions regarding the active participation of shareholders in the managerial affairs of the investee companies (Shabbir, 2012). Therefore the role of institutional investors is enhancing in Pakistani equity market in recent years and they have started to monitor management affair, disclosure of voting policy, appointment of non-executive directors, external auditors and other affairs of the firms.

1.1 Agency Theory:

Agency relationship is very common relationship in large business organizations and firms in which shareholders act as principle and management as their agent. Agency problem started with the separation of management and ownership when size of business corporations become large and owners hired business managers as their agents to run their businesses. (Smith, 1776; Berle and Means, 1932; Ross, 1973; Jensen and Meckling. 1976; Agrawal, 1996; Shleifer and Vishny, 1997) studied the agency problem and tried to mitigate these problems ascend due to difference of interest between managers and shareholders. Smith (1776) found that managers cannot run the businesses like owners of the business organizations. Similarly Berle and Means (1932) questioned the ability of shareholders to monitor the managers being the owners and declared the effect of ownership on firm performance as subject to debate. Stephen A. Ross in 1973 declared the agency relationship as one of the oldest and argued that the conflict arises due to difference of interest between managers and shareholders. Jensen and Meckling (1976) studied the same contractual relationship between shareholders and managers concluding that the agency costs are real and develop a theory known as "Agency Theory" stating that company performance is affected by the conflict of interest between principle (shareholders) and agents (management).The agency problem cannot be eliminated but it can be reduced by giving incentives to managers, ownership right in the corporation and by enabling their monitoring by creditors and institutional investors (Jenson and Meckling, 1976). Further studies (Agrawal, 1996; Shleifer and Vishny, 1997 and Denis and McConnell, 2003) argued in favor of agency theory by declaring that corporate governance and institutional ownership can reduce the agency problem and improve the firm performance.

1.2 Problem Statement:

Institutional investors play important role in improving firm performance by monitoring firm management and reducing agency problem. The corporations with low shareholdings of institutional owners have weak governance structure and show poor performance. Despite efforts made to improve ownership structure, the level of institutional ownership is still low in Pakistan. This is a serious obstacle in improving firm performance in developing countries especially in Pakistan.

1.3 Objectives of the Study:

1- Examine the effect of institutional ownership on the firm performance.

2- Examine effect of firm performance on the shareholdings of institutional investors.

1.4 Research Questions:

1- How does institutional investors play role to increase the firm performance?

2- How does firm performance attract the institutional investors?

1.5 Significance of the Study:

Many researchers have studied the institutional ownership and their relationship with firm performance and showed mixed results. This study tries to clarify the relationship of institutional investors and firm performance. Moreover, a very few researchers have conducted on the role of institutional investors in Pakistani firms, hence this study reduce the knowledge gap of institutional investors.

1.6 Organization of the Study:

Remaining of the study is organized as: section two reviews the literature of existing relationship between institutional ownership and firm performance. Section three shows the theoretical framework of the study. Section four explains the data and methodology and section five discuss the empirical results. Section six concludes the discussion and Section seven give directions for the future studies.

2. LITERATURE REVIEW

Pounds (1988) studied the relationship between institutional ownership and firm performance by using the data of 100 U.S firms over the period of 1981-1985. By applying cross-sectional comparison approach and log it regressions model he found association between institutional investors and firm value. He further claimed that the institutional investor effect is positive when they monitor firms efficiently and this relationship becomes negative when they work only for their own benefits and interest.

Mcconnel and Servaes (1990) conducted a research to test the relationship between firm value and ownership structure on two samples of 1173 firms in 1976 and 1093 firms in 1986 respectively. By applying regression model on the data they found a positive and significant relationship between firm's value and ownership of institutional investors. Furthermore they also concluded that institutional investors monitor the firm and force the management to maximize firm value.

Chaganti and Damanpour (1991) tested whether institutional ownership and capital structure have any impact on firm value. For this purpose they used the data of 80 US firms over period of 1983-1985. They used institutional ownership as

independent variable and firm performance as dependent variable and found ROE as measure of financial performance as positively related to institutional ownership. They also concluded that institutional shareholder serve as efficient monitor in lieu of creditors.

Agrawal and Knoeber (1996) while investigating the link between control mechanism and firm value applied the cross-sectional OLS regression model. They used ownership of insiders, institutions, large block holders and outside directors as independent variable and firm value as dependent variable. They used the data of 383 large companies out of 500 US firms and found insignificant relationship between fractions of shares owned by institutional investors and firm performance.

Duggel and Miller (1999) conducted a study to check the effect of institutional investors on performance of different corporations. They employ OLS regression model and standard event study methodology on S&P 500 index over the period of 1985-1990 and find the positive but insignificant relationship between stock-holding scale of institutional investors and firm performance.

Tsai and Gu (2007) conducted a study to check the link between institutional investors and casino firm value over the period of 1999-2003. They used proxy of Q as the measure of performance of 24 casino firms. By applying simultaneous equation model they found positive and significant relationship between institutional investors and casino's performance. Furthermore they concluded that institutional shareholders increase managerial monitoring and help in improving firm performance.

Ferreira and Matos (2008) studied the role of institutional shareholders around the globe using the broad data set of equity holding from 27 countries. By employing three stage least square regressions model they found positive relationship between institutional ownership and firm performance and concluded that the firms with higher institutional investors have higher firm valuation and better operating performance.

Elyasiani and Jia (2010) investigated the link between firm performance and level and stability of institutional investors of non-financial firms. By applying the simultaneous equation model on 1532 firms over the period of 1992-2004, they found that both shareholding proportion and the shareholding stability are essential for the monitoring effectiveness of the institutional investor and long term institutional ownership is linked with better firm performance.

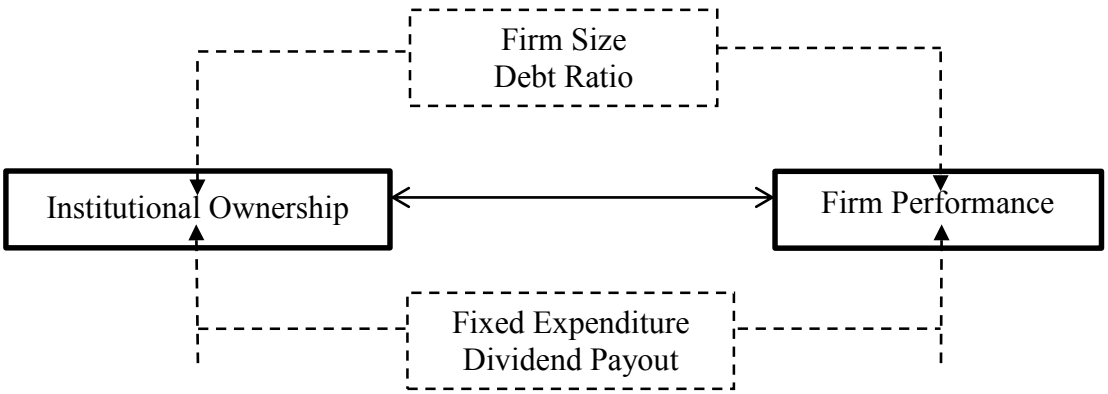
Charfeddine and Elmarzougui (2010) by taking the institutional ownership as endogenous variable explored the impact of institutional shareholding on French listed firms. They used the sample of 35 firms listed in Paris stock exchange and CAC 40 index consisting of 140 observations period from 2002 to 2005. By using simultaneous equation model, they found that institutional shareholding have significant negative effect on performance.

Alfariah, Alanezi and Almujamed (2012) investigated the effect of institutional ownership on performance of firm listed in Kuwait Stock Exchange. They used institutional ownership as independent variable and firm performance as dependent variable and firm size, firm leverage, dividend payout and board size as control variable. By applying two multivariate regression models, they found significantly positive relationship between firm performance and institutional ownership.

2.1 Gap of the Study:

According to our limited knowledge in Pakistan very few researchers have examined the relationship between institutional ownership and firm performance and that work is done while considering the institutional ownership as exogenous variable. The contribution of the study is that this is examining the relationship between institutional ownership and firm performance by considering institutional ownership as endogenous variable.

3. THEORETICAL FRAMEWORK:



4. RESEARCH METHODOLOGY

The current study investigated the relationship between institutional ownership and performance of firms listed in KSE 30 Index. The required data was collected for consecutive six years ranging from 2008-2013 through their annual reports and financial statements. The sample of study consisted of 126 observations of 21 non-financial listed firms.

4.1 Description of Variables

This study used three types of variables which are explained below:

4.1.1 Independent Variable:

Institutional ownership is used as independent variable in equation (1) and (2). The ownership of institutional investors is measured by number of outstanding shares held by them in a firm at the end of financial year and this can be known from shareholding pattern in the annual reports of the firms. Where in equation (3) and (4) firm performance is used as independent variable and measured by ROA and ROE.

Return on Assets (ROA): ROA is the ratio of net income of firm at the end of year to its total assets and is used as accounting measure of firm performance in this study. Many researchers have used this ratio to measure the firm performance (Chaganti and Damanpour, 1991) and it is measured from following formula:

ROA = Net Annual Income / Total Assets

Return on Equity (ROE): ROE is ratio of net income of the firm at end of financial year to its shareholder's equity and it shows net income as percentage of shareholder's equity (Bhattacharya and Graham, 2009). It is calculated from following formula:

ROE = Net Annual Income / Shareholder's Equity

4.1.2 Dependent Variable:

Firm performance is used as dependent variable while checking the impact of institutional ownership on firm performance in equation (1) and (2) and Institutional ownership is used as dependent variable while investigating the effect of firm performance on institutional ownership in equation (3) and (4).

4.1.3 Control Variables:

There are following variables which are used as control variables in the study:

1. **Size:** Size mean size of the company and it is measured by logarithm of total assets at the end of financial year. Size of firm may affect firm performance and institutional investor's ownership.
2. **DEBT:** Debt means debt ratio and it represent the firm leverage and measure from the ratio of total debt to total assets and calculated through following formula:
   Debt ratio = Total debt/Total assets
3. **Fixed:** Fixed means expenditure on fixed assets i.e. on plant and equipment and is measured as the fraction of sales revenue.
4. **DIV:** DIV indicating the dividend payout ratio is included in the model as controlling variable to show that dividend payout affect the institutional investors to invest and hold the stock in the firm.
   Dividend Payout Ratio = Dividend / Net Profit after Tax

4.2 Research Hypotheses Development:

Existing literature on the relationship between institutional ownership and firm performance suggests that the firm performance is linked with institutional investors. If they are actively taking part in monitoring then it affect firm performance positively and significantly. On the basis of existing literature we can develop the following hypotheses:

H_1: Institutional ownership has significant and positive effect on firm performance.

H_0: Institutional ownership has no effect on firm performance.

Similarly firm performance also effect the level of shareholdings of institutional investors in the firms. (Ferreira and Matos, 2008; Elyasiani and Jia, 2010) found that firm performance effect the level of shareholdings and stability of institutional shareholders. On the basis of these studies we can develop the following hypothesis:

H_2: There is positive and significant impact of firm performance on the institutional ownership.

H_0: There is no impact of firm performance on the institutional ownership.

4.3 Model Specification:

In order to test the hypothesis we use OLS regression and 2SLS regression model on the sample data of firms and following models are developed:

$$ROA_{it} = a + B_0INST_{it} + B_1SIZE_{it} + B_2DEBT_{it} + B_3FIX_{it} + E_{it} \quad \text{... (1)}$$

$$ROE_{it} = a + B_0INST_{it} + B_1SIZE_{it} + B_2DEBT_{it} + B_3FIX_{it} + E_{it} \quad \text{... (2)}$$

$$INST_{it} = a + B_0ROA_{it} + B_1SIZE_{it} + B_2DEBT_{it} + B_3DIV_{it} + E_{it} \quad \text{... (3)}$$

$$INST_{it} = a + B_0ROE_{it} + B_1SIZE_{it} + B_2DEBT_{it} + B_3DIV_{it} + E_{it} \quad \text{... (4)}$$

4.4 Endogeneity and the Durbin-Wu-Hausman Test:

Demsetz (1983) argued that ownership structure is endogenous variable and can lead to inclusive and biased results when studying the ownership

structure and firm performance relationship. Later on many studies (Demsetz and Villalonga, 2001; Clay, 2001) provide the empirical evidence on the endogenous behavior of ownership structure of firms. On this base this study considers the institutional ownership as endogenous variable.

Following (Tsai and Gu, 2007; Charfeddine and Elmarzougui, 2010) we apply Durbin-Wu-Hausman test to check endogeneity of institutional ownership and firm performance measures (ROA, and ROE). To check endogeneity INST as suspicious endogenous variable will be regressed against all exogenous variables in equations i.e. SIZE, DEBT, FIX and DIV and residual (INST_res) will be saved as follow:

$$INST = a_0 + B_1SIZE + B_2DEBT + B_3FIX + B_4DIV + B_5INST\_res \ldots \quad (5)$$

INST_res obtained will be added to equation (1) and regression model is run again as follow:

$$ROA = a_0 + B_1INST + B_2SIZE + B_3DEBT + B_4FIX + B_5INST\_res + E \ldots \quad (6)$$

After regressing this equation if coefficient of INST_res is significantly different from zero in the t-statistics, the OLS results will considered as biased and inconsistent and use of 2SLS regression model is justified for equation (1). If INST_res is not significantly different from zero in t-statistics then OLS results will be considered as unbiased and consistent and 2SLS regression is not applied. Similarly performance measures (ROA and ROE) may be endogenous variable and Durbin-Wu-Hausman test (DWH test) will be applied to accept or reject the use of 2SLS.

5. EMPIRICAL RESULTS AND DISCUSSION:

Regression model is applied in the study to know the relationship between institutional ownership and firm performance and following empirical results are obtained.

5.1 Descriptive Statistics:

Descriptive statistics for the required variables of the sample firms is presented as follow:

TABLE 1 DESCRIPTIVE STATISTICS OF SAMPLE FIRMS

Variables	N	Mean	Median	Std. Deviation	Maximum	Minimum
ROA	126	8.7479	6.390	10.841	38.03	-21.660
ROE	126	11.8436	15.725	54.001	93.36	-451.970
INST	126	0.2643	0.248	0.186	0.873	0.0052
SIZE	126	7.8066	7.725	0.366	8.620	7.030
DEBT	126	0.5496	0.600	0.229	1.000	0.010
FIX	126	1.1454	0.880	1.269	7.520	0.010
DIV	126	0.3837	0.315	0.391	1.800	-0.410

Table 1 represent the descriptive statistics of sample firms with 126 observations of six year pooled data from 2008-2013 used in the regression analysis. On average institutional shareholding is 26.43% (Median= 24.86%) ranges from 0.52% to 87.28% showing that institutional investors do not hold significant ownership in the sample firms. The firm performance measured by ROA and ROE with mean value 8.75% and 11.84% respectively. The mean size of sample firms is 7.807 (Median= 7.725) with a minimum of 7.030 and maximum of 8.620 where fixed expenditures as fraction of sales (FIX) is 1.145 on average. As for dividend and financing concern, average dividend payout (DIV) is 0.384 and debt ratio (DEBT) with mean of 54.96% shows that sample firms rely relatively more on the debt financing than on equity. The standard deviations values of the variables are very high which show that sample contain firms with different characteristics.

5.2 The Durbin-Wu-Hausman Test:

By applying DWH test on the INST and performance measures (ROA and ROE) in all equations following results are generated:

TABLE 2 DWH TEST RESULTS FOR INST

Dependent Variable: Firm Performance (ROA)			
Variables	**Coefficient**	**t-statistics**	**p-value**
Independent Variable			
(Constant)	-5.249	-0.320	0.749
INST	57.734	3.951	0.000
SIZE	1.784	0.910	0.365
DEBT	-24.412	-6.675	0.000
FIX	-1.547	-2.130	0.035
INST_res	-48.947	-3.232	0.002

As shown in Table 2, the DWH test shows that coefficient of INST_res is significantly different from zero (t= -3.232, p= 0.002) at 0.01 significance level. The endogeneity of INST_res against ROA is evident and applying OLS will produce biased and

inconsistent regression coefficient and application of 2SLS in equation (1) is justified.

TABLE 3 DWH TEST RESULTS FOR INST

Dependent Variable: Firm Performance (ROE)			
Variables	**Coefficient**	**t-statistics**	**p-value**
Independent Variable			
(Constant)	42.389	0.417	0.677
INST	291.09	3.211	0.002
SIZE	-10.154	-0.835	0.406
DEBT	-49.425	-2.179	0.031
FIX	-0.903	-0.200	0.842
INST_res	-226.088	-2.407	0.018

As shown in Table 3, the DWH test shows that coefficient of INST_res is significantly different from zero (t= -2.407, p= 0.018) at 0.05 significance level. The endogeneity of INST_res against ROE is evident and applying OLS will produce biased and inconsistent regression coefficient and use of 2SLS in equation (2) is justified.

TABLE 4 DWH TEST RESULTS FOR ROA

Dependent Variable: Institutional Ownership (INST)			
Variables	**Coefficient**	**t-statistics**	**p-value**
Independent Variable			
(Constant)	0.230	0.679	0.498
ROA	0.008	1.554	0.123
SIZE	-0.018	-0.384	0.701
DEBT	0.144	1.064	0.288
FIX	0.070	1.186	0.238
ROA_res	-0.003	-0.599	0.550

As shown in Table 4, the DWH test shows that coefficient of INST_res is not significantly different from zero (t= -0.599, p= 0.550) and ROA_res is not endogenous against INST. Therefore applying OLS is sufficient and will produce unbiased and consistent regression coefficient and 2SLS in equation (3) is not justified.

TABLE 5 DWH TEST RESULTS FOR ROE

Dependent Variable: Institutional Ownership (INST)			
Variables	**Coefficient**	**t-statistics**	**p-value**
Independent Variable			
(Constant)	-0.084	-0.225	0.822
ROE	0.003	1.567	0.120
SIZE	0.030	0.653	0.515
DEBT	0.138	1.054	0.294
FIX	0.016	0.184	0.854
ROE_res	-0.002	-1.110	0.269

As Table 5 shows the DWH test results of coefficient of INST_res is not significantly different from zero (t= 0.678, p= 0.499) and it indicate that applying OLS in equation (4) is appropriate and will give unbiased and consistent regression coefficient and 2SLS is not justified in this equation.

5.3 Regression Results and Discussion:

Regression model is statistical tool used to know relationship between variables. We employ OLS and 2SLS regression model to know the relationship between institutional ownership and firm performance and following results are obtained:

TABLE 6 REGRESSION RESULTS OF PERFORMANCE EQUATION (1)

Dependent Variable: Firm Performance (ROA)						
Variables	OLS			2SLS		
	Coefficient	t-statistics	p-value	Coefficient	t-statistics	p-value
(Constant)	9.768	0.599	0.550	-5.249	-0.213	0.831
INST	12.143	3.056	0.003	57.734	2.633	0.010
SIZE	1.968	0.967	0.335	1.784	0.606	0.546
DEBT	-29.760	-8.788	0.000	-24.412	-4.449	0.000
FIX	-2.829	-4.474	0.000	-1.547	-1.419	0.158
F-statistics	25.875			13.006		
Adjusted R^2	0.443			0.278		

Tables 6 shows in OLS model institutional investors has significant and positive effect on firm performance determined by ROA (t= 3.056, p= 0.003) at 0.01 significance level. Considering institutional ownership as endogenous variable as DWH test proved that INST in 2SLS is also found having significantly and positively related to firm performance (ROA). These findings are consistent to the previous researches (Alfaraih, Alanezi and Almujamed, 2012).

Size has positive but insignificant effect on ROA in both OLS and 2SLS regression model as showing (t= 0.967, p= 0.335) and (t= 0.606, p= 0.546) respectively indicating that large firms owns more resources and perform well but size is not significantly affect performance. DEBT was found negatively and significantly affecting the firm performance (t= -4.449, p= 0.000) at 0.01 significance level and consistent with previous researches (Alfaraih, Alanezi and Almujamed, 2012; Elyasiani and Jia, 2010). Similarly FIX exhibit insignificant and negative effect on ROA in 2SLS (t= -1.419, p= 0.158) in the sample firms. The adjusted R^2 for equation (1) is 0.443for OLS and 0.278 for 2SLS indicating that INST effect performance measured by ROA 44.3% in OLS and 27.8% in 2SLS model where the F-statistics is 25.87 in OLS and 13.006 in 2SLS at 0.01 significance directing that both models are statistically significant.

TABLE 7 REGRESSION RESULTS OF PERFORMANCE EQUATION (2)

Dependent Variable: Firm Performance (ROE)						
Variables	OLS			2SLS		
	Coefficient	t-statistics	p-value	Coefficient	t-statistics	p-value
(Constant)	111.753	1.125	0.263	42.389	0.321	0.749
INST	80.432	3.324	0.001	291.019	2.469	0.015
SIZE	-9.301	-0.750	0.455	-10.154	-0.642	0.522
DEBT	-74.129	-3.594	0.000	-49.425	-1.676	0.096
FIX	-6.822	-1.771	0.079	-0.903	-0.154	0.878
F-statistics	7.284			4.306		
Adjusted R^2	0.167			0.96		

Tables 7 shows in OLS model institutional investors has significant and positive effect on firm performance (t= 3.324, p= 0.001) at 0.01 significance level. Due to endogenous behavior of institutional ownership 2SLS is applied and INST found significantly and positively linked to ROA (t= 2.469, p= 0.015) at 0.05 significance level. These findings are consistent to the previous researches (Mahoney and Roberts, 2007).

Size has negative and insignificant effect on ROA in both OLS and 2SLS regression model as showing (t=-0.750, p= 0.455) and (t= 0.642, p= 0.522) respectively. DEBT was found negatively and significantly affecting the firm performance (t= -3.594, p= 0.000) at 0.01 significance level in OLS but becomes insignificant in 2SLS as (t= -1.676, p= 0.096). Similarly FIX exhibit significant and negative effect on ROA in OLS (t= -1.771, p= 0.079) and become insignificant in 2SLS (t=-0.154, p=0.878). The adjusted R^2 for equation (2) is 0.167 for OLS and 0.96 for 2SLS indicating that INST effect performance measured ROA 96% in 2SLS model where the F-statistics is 7.284 in OLS and 4.306 in 2SLS.

Table 8 shows the results of OLS regression model for equation (3). Firm performance is found significant determinant of institutional ownership as (t= 2.647, p= 0.009) and is consistent with previous studies of (Elyasiani and Jia, 2010).

TABLE 8 REGRESSION RESULTS OF INSTITUTIONAL OWNERSHIP EQUATION (3)

Dependent Variable: Institutional Ownership (INST)			
Variables	**Coefficient**	**t-statistics**	**p-value**
(Constant)	0.210	0.624	0.534
ROA	0.005	2.647	0.009
SIZE	-0.009	-0.200	0.841
DEBT	0.80	0.971	0.333
DIV	0.94	2.136	0.035
F-statistics	4.853		
Adjusted R^2	0.110		

Size effect negatively and insignificantly institutional ownership in OLS as (t=-0.200, p= 0.841) and this result is inconsistent with previous researches (Elyasiani and Jia, 2010; Tsai and Gu, 2007). The debt is positively related to institutional ownership which is inconsistent with previous researches (Mahoney and Roberts, 2007). However DIV has significant and positive relation with institutional ownership as (t= 2.136, p= 0.035) at 0.05 significance level. In OLS regression model F-statistics is 4.853 and the adjusted R^2 for equation (3) is 0.110 showing that main explanatory variables are not included in this model.

TABLE 9 REGRESSION RESULTS OF INSTITUTIONAL OWNERSHIP EQUATION (4)

Dependent Variable: Institutional Ownership (INST)			
Variables	**Coefficient**	**t-statistics**	**p-value**
(Constant)	0.094	0.286	0.775
ROE	0.001	2.860	0.005
SIZE	0.014	0.329	0.743
DEBT	0.016	0.225	0.822
DIV	0.100	2.351	0.020
F-statistics	5.175		
Adjusted R^2	0.118		

Table 9 shows firm performance (ROE) has positive and significant effect on institutional ownership in equation (4) as (t= 2.860, p= 0.005) at 0.01 significant level and is consistent with (Mahoney and Robert, 2007) indicating that institutional shareholding increase significantly with improvement in performance.

Size effect positively on institutional ownership as (t=-0.329, p= 0.743) and directs that institutional investors desire to invests in large firms. DEBT is insignificantly but positively related to institutional ownership which is inconsistent with prior studies (Tsai and Gu, 2007; Charfeddine and Elmarzougui, 2010). However DIV has significant and positive relation with institutional ownership as (t= 2.351, p= 0.020) at 0.05 significance level indicating that institutional investors invest in firms with higher dividends. F-statistics is 5.175 and the adjusted R^2 for equation (4) is 0.118.

6. CONCLUSION AND POLICY IMPLICATIONS:

Agency theory suggests that institutional investors monitor the firm management from governance viewpoint and help in increasing the firm performance. Many studies empirically examined the relationship between institutional ownership and firm performance but produced mixed results. This study is conducted to clarify the relationship between institutional investors and firm performance by using the annual data of 21 listed firms in KSE 30 index from 2008 to 2013.

The empirical results of the study found evidences on the endogeneity of institutional ownership and these results are consistent with previous studies (Demsetz, 1983; Clay, 2001; Tsai and Gu, 2007; Charfeddine and Elmarzougui; 2010). Considering institutional ownership as endogenous we applied OLS and 2SLS model to estimate the coefficient of interest. The Durbin-Wu-Hausman test on the endogeneity of institutional ownership also justifies the adoption of 2SLS model in the study. Institutional ownership has positive and significant effect on firm performance measured by ROA and ROE in both OLS and 2SLS regressions and these findings were consistent with previous researches (Chaganti and Damnpour, 1991; McConnell and Servaes, 1990; Tsai and Gu, 2007; Ferreira and Matos; 2008).

The study found DEBT significantly and negatively related with firm performance which indicates that firm with higher leverage perform poorly which is consistent with previous studies (Elyasiani and Jia, 2010) however in institutional ownership equation positive relation was found between DEBT and institutional ownership which is inconsistent with previous studies (Tsai and Gu,

2007; Charfeddine and Elmarzougui, 2010).FIX have significant and negative impact on the firm performance measured by ROA and ROE indicating that higher fixed expenditures decrease firm performance. The results of this study also show that DIV signifies positive and significant effect on institutional ownership which suggests that institutional investors take more interest in firms with higher dividend payout ratio.

6.1 Policy Implications:

1- Assist the business managers to understand the role of institutional ownership in improving the firm performance.
2- Help the institutional investors to increase their shareholdings in the listed firms of Pakistan to improve firm performance.
3- Help the policy makers to designs such policies which not only increase the institutional ownership but also improve the governance structure and firm performance.

7. DIRECTIONS FOR FUTURE STUDIES:

1- Further researches may include other measures of performance such as Tobin's Q, profit margin, operating cash flow, price earnings ratio etc.
2- Sample size and time period may be increased to increase the predictability of research.
3- Other ownership types such as director's ownership and family ownership can be modeled in the regression system to check their relation with firm performance.

8. REFERENCES

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