

**INSTITUTIONAL HETEROGENEITY AND CORPORATE FINANCIAL
PERFORMANCE IN VIEW OF SIGNALING AND MYOPIC INSTITUTIONS
THEORIES**

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ABSTRACT

The current study aims to investigate the impact of institutional ownership heterogeneity in enhancing the financial performance of firms listed on Pakistan Stock Exchange (PSX). The study tested the institutional heterogeneity in the contradictory Signaling theory and myopic institutions theory. The study analyzed these relationships by taking a sample of 287 non-financial companies listed on the Pakistan Stock Exchange from 2006 to 2017. The research applied Arellano-Bond dynamic panel methodology to test the sample. In the light of the literature there exists endogeneity among institutional ownership, corporate governance and performance variables and literature also identified that in such dynamic relationships, the methodology of Arellano and Bond (1991) provides more robust and generalizable results. As the study empirically found that commercial banks, mutual funds and modarba companies are negatively, and pension funds are positively and insurance companies, investment companies

and charitable trusts are insignificantly related to the firm's performance. This study will help the corporate management to develop an ideal equity structure, by considering the heterogeneous nature of financial institutions. The research enables the individual and institutional investors to make a long or a short-term investment decision in the corporations. The research also enlightens the regulatory authorities to formulate policies related to ownership mechanism that ensures the safety of the benefits of all the stakeholders of the firm.

Key words: Institutional Ownership, Institutional Heterogeneity, Arellano-Bond Dynamic Panel Methodology, Pakistan Stock Exchange.

INTRODUCTION

Financial institutions have emerged as leading actors of the investment community in the corporations of the developed and emerging economies of the world (Clark & Monk, 2017). There exists a plethora of research, both theoretical and empirical, which explored the impact of financial institutions in enhancing the performance of corporations in advanced as well as growing world economies but with inconclusive results (Aggarwal, Saffi, & Sturgess, 2015; Bhattacharya & Graham, 2007; Clay, 2002; Lee, 2008; Tsai & Gu, 2007; Waheed & Malik, 2019c). Secondly, researchers also identified that financial institutions are heterogeneous in nature and they vary in terms of their structure and investment objectives in the investee firms (Abd Mutalib, Jamil, & Husin, 2017; Ozer, Alakent, & Ahsan, 2010; Sherman, Beldona, & Joshi, 1998; Waheed & Malik, 2019b).

Schmidt and Fahlenbrach (2017) argue that the previous empirical evidence is unable to build a consistent association between institutional ownership and performance, so it calls for further research in this domain. Moreover, the majority of the contemporary empirical literature either neglects or fails to distinguish the heterogeneous nature of institutional investors and provides conflicting findings (Al-Sartawi & Sanad, 2019; Waheed & Malik, 2019b). Moreover, the agency theory also fails to recognize the heterogeneous impact of institutional owners in governance and performance mechanisms (Chang, Kang, & Li, 2016). So, there is a need to fundamentally rethink and identify the role of different types of financial institutions in enhancing firms' performance mechanism. Thus, in order to have a deeper understanding, the study further classified the institutional investors into "banks, charitable trusts, insurance companies, investment companies, modarba companies, mutual funds, pension funds" and empirically tested their role as proposed constructs gauging the corporate performance in the context of developing Pakistani economy.

Institutional investors are considered as erudite investors (Cheng, Hameed, Subrahmanyam, & Titman, 2017). The market knowledge and financial expertise of institutional investors not only make them superior investors but also enable them to have a profound influence on the corporations either directly or indirectly through various channels, for instance, corporate governance and corporate social responsibility (Singh, Tabassum, Darwish, & Batsakis, 2018; Mizuno, 2010; Waheed & Malik, 2019b, 2019c). The historical evidence revealed that

after the economic crisis of the 1970s', the USA and the UK corporations grew and remained profitable due to a larger share of corporate equity in the hands of financial institutions (Fichtner, 2019; Verick & Islam, 2010). However, sometimes institutional owners acquire private information about the firms, which is evident from their trading activities (Sias, Starks, & Titman, 2006). Unlike the individual investors, the information searching and processing ability of institutional investors enable them to adopt, enter or exit investment strategies in the firms, so there is another scholarly opinion that institutional investors do not enhance firms performance rather they invest in those firms which have superior performance on the bases of the market conditions (Cheng et al., 2017; McCahery, Sautner, & Starks, 2016; Waheed & Malik, 2019b).

Thus, the connection between institutional ownership and firm performance has generated important literature with often contradictory conclusions. Therefore, further investigation is necessary to clarify the ties between institutional ownership and firms, by considering the heterogeneous nature of the financial institutions, especially in the context of developing economies (Bhattacharya & Graham, 2007; Waheed & Malik, 2019c).

Thus, the present research classified the institutional investors into different types on the basis of their heterogeneous nature, such as, "banks, charitable trusts, insurance companies, investment companies, modarba companies, mutual funds, pension funds" and, then the study tested their effect on firms' performance indicators such as Tobin's Q, ROA and ROE. Moreover, the current study is conducted in the context of developing "Pakistani economy", where the "socioeconomic and behavioral peculiarities" are different from those of the developed Western World (Papanek, 2019; Waheed & Malik, 2019a), along with the insubstantial legal and unsound financial environment where unethical and opportunistic investor's behavior prevails (Ahmad, 2017; Qasim, Hussain, Mehboob, & Arshad, 2019; Rehman, Hasan, Mangla, & Sultana, 2012; Waheed & Malik, 2019a). Thus, by considering the monitoring abilities of the erudite financial institutions, the current study expects that presence of institutional ownership in the corporate equity structure can mitigate the expropriation of the wealth of individual shareholders. Moreover, the results of current study may also be generalized to the other developing economies of the region which face similar issues like poor governance and concentrated ownership in their firms (Abbas et al., 2018; Hussain & Amir Shah, 2018; Sajjad et al., 2019). Furthermore, the results of the current study will create a niche to call for more research exploring further interventions for better generalizations in both developing and developed economies.

LITERATURE REVIEW

INSTITUTIONAL HETEROGENEITY AND FIRM PERFORMANCE

Reviewed literature suggested that there exist studies, especially in the advanced countries, which examine the polymorphous nature of institutional investors in firm's performance mechanism (Del Guercio & Hawkins, 1999; Hoskisson et al., 2002; Sherman et al., 1998; Yao & Niu, 2015). Del Guercio and Hawkins (1999) identified that "institutional investors" are basically heterogeneous in nature and their role in firms' performance mechanism

cannot be fully comprehensible without studying their heterogeneity. Thus, by studying institutional heterogeneity based on the division of institutional investors in different groups by the regulatory authorities (such as banks, charitable trusts, insurance, investment and modarba companies, mutual and pension funds) the current study will be able to reply contradictory theoretical and empirical results.

Sherman et al. (1998) studied the growing activism of “institutional investors” in corporations and performance. The study was unique because it studied both the homogenous and heterogeneous part of institutional investors. Their research categorized institutional investors into four types i.e., mutual and pension funds, insurance and banking companies. Their hypotheses were founded on the phenomenon that heterogeneity in “institutional investors”, who are investing in a firm, affects the policies of the firms related to advertising expenditure, capital expenditure and R & D expenditure.

According to Sherman et al. (1998), when institutional investors were considered as a homogeneous group, the result suggested a negative relationship with advertisements and capital expenditure. To the contrary, when they are studied on the basis of heterogeneity, mutual funds were found to have a negative relationship with the variables under study. However, pension funds due to their long-term nature had positive relationship with capital and R & D expenditure and were found positively correlated with corporate valuation. Whereas, insurance companies had a negative affiliation with capital expenditure and banks had negative relationship and R & D expenditure, however, banks have positive associations with advertising expenditure. Their study focused on only three “corporate governance” aspects. Furthermore, they have only analyzed the data for a period of three years, and this time period is not enough to predict long term behavior of a firm.

Hoskisson et al. (2002) studied the heterogeneous nature of “institutional investors” in the “New York Stock Exchange (NYSE)”. For the purpose of analysis, Hoskisson et al. (2002) classified the financial institutions in mutual and pension funds, banks, investment banks and charitable foundations. Their study confirmed potential conflicts in the internal governance mechanism due to heterogeneous nature of institutional investors in firm’s equity structure. They further concluded that pension funds are capable not only to enhance the governance practices but also improve firm performance. In a similar study, David, Hitt, and Gimeno (2001) also confirmed the positive role of pension funds in research and development (R&D) related policies in firms.

Rebai (2011) further researched the heterogeneity of institutional investors by taking a sample of US, S & P 500 firms from 2003 to 2005. The research work explored the role of pension funds, investment funds and banks in earnings management practices of the corporations. However, Rebai (2011) reported, on the basis of the selected sample, that pension funds are ineffective but banks and investment funds are found effective in earnings management corporate strategies of the firms. Li, Zhao, Cao, and Lu (2014) studied the heterogeneity of institutional investors in enhancing firm’s financial productivity in the emerging Chinese economy. Their research confirmed that various financial institutes, for instance, “pension funds,

insurance companies, banks, and investment funds” have different investment objectives in the investee firms and concluded that diversity in the “institutional ownership” is inversely linked to the performance. In another study, Ozer et al. (2010), categorized the financial investors into banks and insurance companies and studied their institutional heterogeneity in corporate strategies. Their study reported that banks and insurance companies' ownership in firms is negatively related, whereas, insider ownership is positively related to corporate political strategies in organizations. Thus, the review of the related studies suggests that diverse type of “institutional investors” have different impact on the performance mechanism of the corporations. So, there is a need to explore the heterogeneity of the institutional investors based on their types in the context of developing Pakistani economy. Thus, on the basis of the above-mentioned arguments the study reached on the following hypotheses:

H₁₂: Presence of different types of institutional investors differently influences firm performance.

THEORETICAL FRAMEWORKS

The current research is conducted to scrutinize the heterogeneous influence of “institutional investors” in improving the financial performance of firms in the emerging Pakistani economy. The study further proposes a theoretical framework, based on the contemporary theories which are widely used in the governance and performance mechanisms.

There exist strong indications that “financial institutions” are heterogeneous in nature; therefore, there is a need for a deeper understanding regarding their individual role in the firms’ performance mechanism, especially, in the developing economies. The study of institutional investors based on their heterogeneity is also helpful to respond to the contradictory theoretical opinions and empirical findings both in advanced and developing economies. Thus, for the in-depth comprehension of this phenomenon, the study further classified the institutional investors into “commercial banks, mutual funds, pension funds, insurance companies, investment companies, charitable trusts and modarba companies” and then, empirically tested their influence on the firms’ performance in emerging the Pakistani economy.

The following model developed on this logic that if heterogeneity of the financial institutions is based on their short- or long-term investment objectives in corporations, then, their influence on firms’ performance could deviate from the predicted theoretical views of Signaling and Agency Theories (Waheed and Malik, 2019b). Such as myopic theory states that financial institutions are myopic in nature and they invest in the corporation on the short-term bases and they are not concerned with the governance and performance mechanism of the firms. Information asymmetry theory explicates that investment decision of the financial institutions in the corporate equity structure is based on the insider private information about the investee firm, whereas, effectively monitoring hypothesis describes that institutional investors with their market knowledge and analytical abilities effectively monitor the management and as a result the performance of the corporation enhances (Waheed and Malik, 2019b) Thus, agency theory and effective monitoring hypothesis describes that institutional investors enhance the firm

performance by improving the overall governance mechanism of the firm, signaling theory proposes that presence of institutional investors in the corporate equity structure is just an indication of the past financial performance of the firm and myopic theory states that institutional investors are not necessary for the superior corporate financial performance.

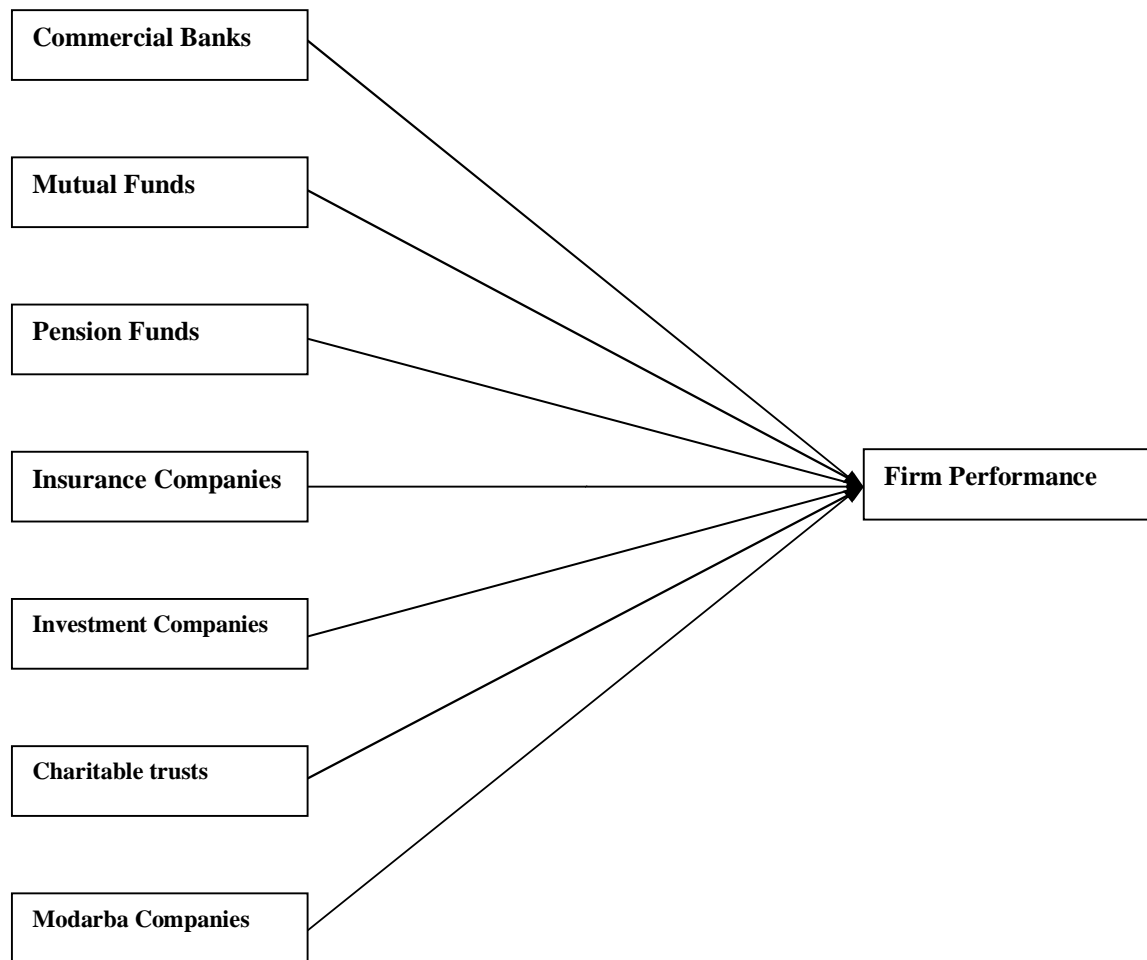


Fig 1. Theoretical Framework for Model 1

ECONOMETRIC EQUATION FOR MODEL 1

In the present research, model four is developed to find out the influence of institutional ownership heterogeneity on the firm's performance. To test the objective of the institutional owner's heterogeneity, the research adopted the methodology of (Ozer et al., 2010; Sherman et al., 1998; Suto & Toshino, 2005) in the context of the developing Pakistani economy. The research tests the impact of different types of institutional investors such as "commercial banks, mutual funds, pension funds, insurance companies, investment companies, charitable trusts and

modarba companies” in the light of effective monitoring hypothesis and myopic institutions theory. On the basis of model four, the current study will be able to test the hypothesis number 11 of the dissertation.

MODEL EQUATION

The study developed the following econometric equation by using the dynamic panel methodology of Arellano and Bond (1991). Dynamic panel models are also considered superior when the nature of the relationship among the variables is endogenous (Akbar, Poletti-Hughes, El-Faitouri, & Shah, 2016). Thus, in view of the literature, the endogenous nature of institutional ownership and firms’ financial performance provides a solid ground to apply the Arellano-Bond dynamic panel estimations on the selected sample. Moreover, dynamic panel models are considered more effective in handling the problems of unobserved heterogeneity, simultaneous and dynamic endogeneity in the unbalanced panel data sets (Akbar et al., 2016).

$$\begin{aligned} Per_{i,t} = & \beta_0 + \beta_1 Per_{i,t-1} + \beta_2 C_BNK_{i,t} + \beta_3 M_FUD_{i,t} + \beta_4 P_FUD_{i,t} + \beta_5 INS_COMP_{i,t} \\ & + \beta_6 INV_COMP_{i,t} + \beta_7 CAH_TRT_{i,t} + \beta_8 MOD_COMP_{i,t} + \beta_9 FS_{i,t} + \beta_{10} LEV_{i,t} \\ & + \beta_{11} FA_{i,t} + Industry\ effect + Year\ effect + \varepsilon_{i,t} - (4) \end{aligned}$$

Where:

$Per_{i,t}$ = Tobin’s Q, ROA and ROE are used separately as dependent variables for the assessment of the firms’ performance. The econometric equation also included the lagged performance value as a requirement of the Arellano & Bond dynamic panel estimation technique (Arellano & Bond, 1991).

$C_BNK_{i,t}$ = Fraction of commercial banks ownership to the total equity of corporation i^{th} at t time

$M_FUD_{i,t}$ = Fraction of mutual funds ownership to the total equity of corporation i^{th} at t time

$P_FUD_{i,t}$ = Fraction of pension funds ownership to the total equity of corporation i^{th} at t time

$INS_COMP_{i,t}$ = Fraction of insurance companies’ ownership to the total equity of corporation i^{th} at t time

$INV_COMP_{i,t}$ = Fraction of investment companies’ ownership to the total equity of corporation i^{th} at t time

$CAH_TRT_{i,t}$ = Fraction of charitable trusts ownership to the total equity of corporation i^{th} at t time

$MOD_COMP_{i,t}$ = Fraction of modarba companies ownership to the total equity of corporation i^{th} at t time

$FS_{i,t}$ = Log of total assets for the corporation i^{th} at t time

$LEV_{i,t}$ = Debt to assets ratio for the corporation i^{th} at t time

$FA_{i,t}$ = Log of age of the firms for the corporation i^{th} at t time

SAMPLE SIZE

The sample set of the current research is selected from Pakistan Stock Exchange (PSX). The sample includes 287 non-financial sector companies listed on PSX from 2006 to 2017. This time period is robust as Pakistani firms faced different economic phases during this time period.

This has enabled our sample to incorporate different crises and non-crises situations in the country. The sampled firms are selected from 35 different sectors of the economy. The research excluded the 146 financial sector firms because they have different financial structures and are exclusively regulated by the regulated authorities (Klein, 2002). The data related to institutional ownership is obtained from the audited published annual reports. The data related to the firm performance proxies are computed from the balance sheet analysis published by the “State Bank of Pakistan (SBP)” and the data about the firms’ age is obtained from the Pakistan Stock Exchange (PSX). Thus, the final sample consists of 287 firms with 3157 firm year observations from 2006-17. Lastly, the variables of the study are winsorized at 1% and 99% levels in order to control the possibility of outliers.

RESULTS AND DISCUSSION

DESCRIPTIVE STATISTICS

Descriptive statistics of the selected variables Tobin’s Q, ROA, ROE, commercial banks (C_BNK), mutual funds (M_FUD), pension funds (P-FUD), insurance companies (INS_COMP), investment companies (INV_COMP), charitable trusts (CHA_TRT), modarba companies (MOD_COMP), firms’ size (FS), leverage (LEV) and firms’ age (FA) are presented in the following table 5.1. The table 5.1 includes the selected variables along with its mean, minimum, maximum and standard deviation values. The table 1 shows wide range of variations among the selected variables of the study. The variation in the values of the selected variables describes that sample is carefully selected and there is no element of biasness. Mean value of the Tobin’s Q is 1.385, whereas it’s maximum value 12.97 and minimum value of 0.251. The Tobin’s Q proved to be a reasonable tool since most of its values are above one. The mean value of ROA is 0.048 with standard deviation of 0.132 units. The descriptive statistics reports that the sampled firms also have negative value of ROA. The maximum value of ROE is 11.6 percent with standard deviation of 0.569 units. Thus, the mean values of Tobin’s Q, ROA and ROE are 1.385, 4.8% and 11.6%, which indicates that firms in the sample are not highly profitable, and these results are similar with the sample statistics of (Ullah, Ali, & Mehmood, 2017; Waheed & Malik, 2019a).

The average values of C_BNK, M_FUD and P_FUD are 5.2%, 3.4% and 2.7% respectively. The average values of INS_COMP, INV_COMP, CHA_TRT and MOD_COMP are 0.13%, 0.06%, 0.05% and .08% respectively in the sample. Thus, in the context of Pakistani firms, C_BNK, M_FUD and P_FUD have higher concentration as compared to their other counterparts, so there is a need to test their impact on corporate financial performance in the context of developing Pakistani economy. The study also used firms’ size (FS), leverage (LEV) and firms’ age (FA) as control variables of the study. The FS is computed by taking natural logarithm of the total assets of the firms. The mean value of FS is 6.690, which varies from 4.132 to 9.617. The mean value of LEV is 62.7%, its mean, which indicates that bulks of assets are funded with the help of debt in Pakistan. Ullah et al. (2017) also reported the average values of

firm size 7.77 and leverage 66.23% in his study. FA is computed by taking the natural logarithm of the age of the firms since it is established; now the average age of the firm is 3.476 with minimum age 1.386 and maximum age 5.030 in the selected sample. Moreover, majority of the selected variables are positively skewed, as value of the mean is greater than the value of the median, and the descriptive statistics also depict that majority of the selected variables are not normally distributed.

Table 1:- Descriptive Statistics

Variable	Mean	Median	Max	Minimum	SD
Tobin's Q	1.385	0.982	12.973	0.251	1.286
ROA	0.048	0.046	0.784	-1.961	0.132
ROE	0.116	0.120	4.754	-7.735	0.569
C_BNK	0.052	0.014	0.962	0.000	0.085
M_FUD	0.034	0.002	0.895	0.000	0.041
P_FUD	0.027	0.006	0.120	0.000	0.006
INS_COMP	0.013	0.001	0.437	0.000	0.026
INV_COMP	0.006	0.000	0.776	0.000	0.037
CHA_TRT	0.005	0.000	0.536	0.000	0.044
MOD_COMP	0.008	0.000	0.484	0.000	0.026
FS	6.690	6.662	9.617	4.132	0.655
LEV	0.627	0.593	4.155	0.080	0.414
FA	3.476	3.497	5.030	1.386	0.528

Note: N= 287 firms taken from non-financial sector and 3157 firms year observations.

REGRESSION ANALYSIS

REGRESSION ANALYSIS OF INSTITUTIONAL HETEROGENEITY AND FIRM PERFORMANCE

Table 2 provides the dynamic panel estimations of the different categories of institutional investors, such as, bank (C_BNK), mutual fund (M_FUD), pension fund (P_FUD), insurance company (INC_COMP), investment company (INV_COMP), charitable trust (CHA_TRT) and modarba company (MOD_COMP) on the Tobin's Q, ROA and ROE. The model 4 is analyzed to test the hypothesis H₁₂ of the study. The post estimation tests, such as, Sargan test and AR (2) are statistically insignificant, indicating that all the instruments are valid and data has no issue of serial correlation, among the selected variables, especially of second order. Moreover, the coefficients of lagged performance proxies are positively associated with the current performance. It also depicts that the current year performance is affected by the previous period corporate performance. As the selected sample is unbalanced panel, so panel data methodology is used to control the undetectable heterogeneity (Nguyen et al., 2014). Secondly, there exists endogeneity among the selected variables, so the current study applied Arellano–Bond estimations (Arellano & Bond, 1991) on the selected sample to control serial correlation,

unobserved heterogeneity, simultaneous and “dynamic endogeneity” (Wintoki et al., 2012; Wooldridge, 2010). The dynamic panel models are also considered superior and they provide unbiased and consistent coefficients when nature of relationship among the variables is endogenous (Akbar et al., 2016; Waheed & Malik, 2019a). In order to check the validity of the instruments in dynamic panel estimations the study also employed Sargan and serial correlation tests.

Scholarly research provided diverse theoretical and empirical opinions regarding the effect of institutional investors in corporate productivity, so to answer these theoretical and empirical discrepancies there is a need to scrutinize the dominance of different types of institutional investors in corporate performance to fill this gap. Thus, based on this logic, the study has the hypotheses (H₁₂) of the study articulates that the manifestation of different types of

Table 2
Results of the model 4 for Tobin's Q, ROA and ROE

Variables	Dynamic Panel (Tobin's Q)	Dynamic Panel (ROA)	Dynamic Panel (ROE)
Lagged variable	0.300*** (0.032)	0.246*** (0.051)	0.123*** (0.041)
C_BNK	-0.685*** (0.147)	-0.051** (0.022)	-0.163* (0.098)
M_FUD	-0.020** (0.009)	-0.025* (0.014)	-0.137** (0.059)
P_FUD	0.346* (0.202)	0.467* (0.272)	1.687* (0.974)
INS_COMP	0.357 (0.267)	0.0240 (0.036)	-0.161 (0.170)
INV_COMP	-0.284 (0.449)	0.0177 (0.060)	0.218* (0.123)
CHA_TRT	-0.066 (0.273)	-0.064* (0.0359)	-0.030 (0.039)
MOD_COMP	-0.676** (0.297)	-0.066 (0.058)	-0.608** (0.250)
FS	-0.382*** (0.082)	-0.041*** (0.016)	-0.032 (0.062)
LEV	0.043 (0.028)	-0.081*** (0.004)	0.303 (.030)
FA	0.583*** (0.122)	0.006 (0.039)	0.264 (0.194)
Arellano –Bond			
AR(1) in diff. (m1) p-value	0.000	0.000	0.000
AR(2) in diff. (m2) p-value	0.314	0.161	0.471
Over identification test			
Sargan test p-value	0.185	0.251	0.381

In the above table 5.6 dependent variables are “Tobin’s Q, ROA and ROE whereas commercial banks, mutual funds, pension funds, insurance companies, investment companies, charitable trusts and modarba companies” are independent variables of the study, the study also included firms size, leverage and firms age as control variables. The table 5.6 provides the econometric results of these variables by using Arellano-Bond dynamic panel models. The dynamic model includes the lagged value of the dependent variable and each regressed equation also includes industrial and year effects. Statistical significance is denoted by *, **, and *** at 10%, 5%, and 1%.

Financial institutions influence differently on the firms performance. The column 2 in table 2 provides the empirical findings of different types of financial institutions on the Tobin’s Q. The empirical fallouts confirm the heterogeneous nature of institutional investors by using Tobin’s Q. The study found that coefficients of C_BNK, M_FUD and MOD_COMP are negatively related with the firms’ performance measure, whereas the coefficient of P_FUD is positively related with Tobin’s Q. However, the study further reports that the coefficients of INS_COMP, INV_COMP and CHA_TRT are insignificantly related with the Tobin’s Q. Moreover, in column 2, the result of AR (2) and Sargan test p-value are also insignificant which specifies that there is no issue of serial correlation in the data and instruments are valid for the selected variables under the study. Thus, the study confirms the heterogeneous nature of institutional ownership and, thus, hypothesis H₁₂ of the thesis is accepted by using Tobin’s Q.

The empirical results confirm the heterogeneous nature of institutional investors by using ROA. The study provides that coefficients of C_BNK, M_FUD and CHA_TRT are negatively connected with ROA, whereas, the coefficient of P_FUD is positively associated with ROA. However, the study further reports that the coefficients of INS_COMP, INV_COMP and MOD_COMP are insignificantly related with the ROA. Moreover, in the bottom of column 3, the result of AR (2) and Sargan test p-value are also insignificant which specifies no issue of serial correlation instruments valid for the selected variables under the study. Thus, the study confirms the heterogeneous nature of institutional ownership and, thus, hypothesis H₁₂ of the thesis is accepted by using ROA.

The column 4 in table 2 provides the empirical results of different types of financial institutions on ROE. The empirical results also confirm the heterogeneous nature of institutional investors by using ROE. The study found that coefficients of C_BNK, M_FUD and MOD_COMP are negatively related with ROE, whereas, the coefficient of P_FUD, INS_COMP and INV_COMP are significantly and positively related with ROE. However, the study further reports that the coefficient of CHA_TRT is insignificantly related with the ROE. Moreover, in the bottom of column 4, the result of AR (2) and Sargan test p-value are also insignificant which shows no serial correlation in the data and instruments are valid for the selected variables under study. Thus, the research confirms the heterogeneous nature of institutional ownership and thus hypothesis H₁₂ of the thesis is accepted by using ROE. These findings are empirically in line with (Del Guercio & Hawkins, 1999; Hoskisson et al., 2002; Sherman et al., 1998; Yao & Niu, 2015).

CONCLUSION

A great number of studies advocate that institutional investors are heterogeneous in nature, so their role in the enhancement of the firms' performance cannot be fully understood without studying their heterogeneous nature. Thus, to better apprehend the role of financial institutions in firm performance, the study further classified the institutional investors into distinct categories based as identified globally by the regulatory authorities in the various countries. Thus, by classifying the institutional investors into diverse groups, e.g., "banks, pension and mutual funds, insurance and investment companies, charitable trusts and modarba companies", the study concludes their varying effect on the market and account performance measures. The present study concludes that financial institutes, such as commercial banks, mutual funds and mobarba companies have a positive impact on the firms' performance, whereas, the impact of the pension funds on the performance is positive. The study also concludes the insignificant impact of charitable trusts, insurance companies and investment companies on the firms' performance in the Pakistani context. On the bases of this analysis, the research further concludes that the positive, negative or insignificant effect of institutional investors (as a homogeneous group) on firm performance is due to the dominance of any type of financial institution in the firms' ownership structure.

IMPLICATIONS OF THE STUDY

The current research is very important for corporate managers, governing body managers, policy makers and academicians in the following ways.

The current study is very useful for corporations; this research will help to develop an ideal equity structure that ensures the protection of all the stakeholders of the firm. The current study is useful for the financial institutions; this research is useful for financial institutions of the developing Pakistani economy. The study enables institutional investors to make a long or short term investment decisions in the corporations. Thirdly, the regulatory authorities should also consider that institutional investors have long or short term investment objectives. Pension funds invest in the firms for a longer period of time and mutual funds banks have an investment in the firms for a shorter period of time. So, the regulatory authorities should encourage pension funds to invest in the corporations. Thus, the findings enable the regulatory bodies to enact laws to promote good governance practices in corporations. The present research is also useful for individual investors to apprehend the firm performance by understanding the role of institutional heterogeneity. The current thesis is limited to only those firms which are listed on Pakistan stock exchange (PSX), although there are a large number of businesses operating in Pakistan which are not registered on PSX. Secondly, the study has only included firms from the non-financial sector, future research could be carried out by taking a sample form financial sectors. The available data related to ownership structure (pattern of shareholding) is published annually in Pakistan and it provides limited information. The study also urges regulatory authorities to enforce the

corporation to publish quarterly data related to their ownership structure; it would help to understand the phenomena of institutional investment horizon in greater detail.

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