

Preferences of Institutional Investors at Karachi Stock Exchange

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Abstract—Purpose: This study has investigated the preferences for stocks of institutional investors in Karachi Stock Exchange. The investment behavior of institutional investors is subject to firm's specific characteristics like stocks liquidity, volatility of stocks returns, dividend yield, market capitalization etc. The data of 258 non-financial firms is collected from annual reports of the selected firms, Karachi Stock Exchange and the State Bank of Pakistan. Moreover, the preferences of the institutional investors have been analyzed with respect to firm's stock performance. The study found that investment decisions of the institutional investors are influenced by liquidity of stocks, higher dividend yield, large market capitalization of stocks, and stock returns volatility.

Keywords—Finance, institutional investors, investment, dividend yield, stocks liquidity, Karachi Stock Exchange.

I. INTRODUCTION

INSTITUTIONAL investors are specialized in making investment decisions and they act on behalf of other small investors. Institutional investors have different forms like investment and commercial banks, pension funds, investment institutions, securities companies, insurance companies, hedge and mutual funds.

In 1960's the shareholdings by institutional investors was very low. In US listed companies 84% shares were held by the individuals. However, the percentage of shareholdings by individual investors has gradually decreased and in 2013, the shareholdings by institutional investors has reached up to 60% in the US, in Japan 82% and in UK 89% (Isaksson, 2014). The shareholdings of institutional investors since early 1990's have increased by three times resulting in increased role in management not only in the developed markets but in emerging markets as well (Khorana, Servaes, & Tufano, 2005). Investment institutions like mutual and pension funds are now managing the shares in firms previously hold by individual investors i.e. 51% (Chen, Harford, & Li, 2007).

The increase in investment institutions and their shareholdings has led to the question that; what are the preferences of institutional investors and in which type of stocks they make their investments? The institutional investors are attracted by different features of the firms and equities

such that large market capitalization, liquid stock and higher book to market ratios (Gompers and Metrick, 2001). Institutions prefer stocks having low price impact, effective spread, low volatility, low trade frequency, and large average trade size (Rakotomaves, 2009). Institutional investors are attracted by market capitalization of stocks, better financial performance, low price to book ratio and high leverage (Al-Amarneh, Al-Kilani, & Kaddumi, 2014). Zhu, (2010) have found that both the foreign and local mutual funds opt to invest in large firms with high sales growth, smaller book to market ratio and high yield stocks.

Investment institutions tend to invest in the dividend paying stocks (Grinstein and Michaely, 2005).

Previous literature suggest that institutional investors are attracted by different characteristics of stocks, but there is family ownership concentration in Pakistan (Shabbir, 2014). This paper has empirically investigated the preferences of the institutional investors in the firms listed on Karachi Stock Exchange. The stock specific variables influencing the investment decisions of the institutions are used as independent variables.

This paper has number of contributions to the literature. First, it has empirically investigated the institutional shareholdings and factors influencing the investment behavior of these institutions. Second, the study has covered the recent period, i.e. 2008-2013. Third, the information regarding institutional investor's preferences may be useful for individual as well as other investors in making investment decisions in the firms listed at Karachi Stock Exchange.

II. LITERATURE REVIEW

Institutional investors prefer stocks in large capitalized firms as compared to individual investors. The institutions are attracted by liquid stocks and firms having high book to market ratio (Gompers and Metrick, 2001). Rubin & Smith (2009) studied the affiliation of institutional shareholdings with stock return volatility in both the dividend paying and non-dividend paying firms. They found that this relationship is mainly affected by dividend policy of the firm. The relationship is found to be positive in dividend paying firms while negative in non-dividend paying firms. .

Cai & Zheng (2004) have found that institutional share trading is attracted by stock returns. The market returns has also significant role in this causality. They also found

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negative relationship between stock returns and lagged institutional trading.

Rubin (2007) have examined the relationship of institutions and insiders shareholdings with liquidity of stocks. They examined both ownership percentage as well as level of concentration. They found that institutional shareholdings has greater effect on the liquidity rather than ownership by insiders. They found that there is two folded relationship between stocks liquidity and institutional shareholdings. There have been positive relationship between liquidity of stocks and total institutional shareholdings, however, institutional block holdings have negative effect on the liquidity of stocks.

Bennet, Sias and Starks (2003) have found that intuitional investors prefer to invest in large stocks, however they have changed their preferences to smaller and riskier stocks. Moreover, the growth in the role of institutional investment and shift in preferences for stocks have impacted the financial markets. The increase in shareholdings by institutions have helped increase in market as well as small stocks liquidity and firm specific risk.

III. DATA

The annual observations of 258 non-financial firms listed on Karachi Stock Exchange were collected. The characteristics of the sample firms are: (a) the firms have been listed on Karachi Stock exchange before 2008, (b) The shares of the firms remain listed on KSE between 2008 and 2013 without any interruption, and (c) Investment institutions have percentage of shareholdings in the sample firms. The firms listed at KSE after 2008 were excluded because of the period 2008-2013 selected for analysis. Finally the sample of firms were selected for analysis. The annual reports of these firms were collected from firm's websites in soft form and from Karachi Stock Exchange in hard form. The data on shareholdings pattern, annual sales, annual dividend and total assets is extracted from annual reports of the sample firms. Data of stock turn over and stock prices is collected from KSE. The data on short and long term debt, equities, RAO and EPS is collected from State Bank of Pakistan website. Year of listing of the firms is taken from KSE document.

A. Dependent Variable

The dependent variable, institutional shareholdings (ISH) is calculated as the total percentage share holdings by the investment institutions including mutual funds, banks, and insurance companies. The percentage shareholding by institutions is extracted from the pattern of shareholding in annual reports of the sample firms.

B. Independent Variables

Stock performance variables affecting the investment decisions of institutional investors, are used as independent variables in the study. Stocks liquidity is positive related to institutional shareholdings (Rubin 2007). Stocks liquidity (LIQ) is calculated as the annual stock turnover divided by

number of outstanding shares at the end of each year. PRICE is the year end share price for each of the sample firm. Volatility of stock returns (VOL) is calculated as the standard deviation of daily stock returns for each firm in each year. Institutional investors are attracted by dividend paying stocks (Grinstein and Michaely 2005). Dividend yield (DY) is calculated as the dividend per share divided by year end closing price.

C. Control Variables

The investment decisions of the institutional investors are also affected by some control variables. Large firms are highly diversified and are less expose to insolvency. Institutional shareholding has positive relationship with firm size (Bhaduri, 2002). In order to control for size, SIZE of the firm is taken as the natural log of book value of total assets. BM is the book to market ratio and calculated as the book value divided by the market value of the firm. Highly leveraged firms face higher financial distress costs, affecting the investment decision of the institutional investors. LEV is taken as the long term debt to total assets ratio. Institutional investors may be less attracted by young firms. AGE of the firm, as measured by the number of years the firm has been listed on Karachi Stock Exchange is also used as control variable.

IV. METHODOLOGY

In order to reduce the effects of possibly spurious outliers, winsorisation of the variables is taken at 90%.¹ Ninety percent winsorisation check for the data below the fifth percentile set to the fifth percentile, and data above the ninety fifth percentile set to the ninety fifth percentile. In order to analyze the preferences of institutional investors, pooled regression is employed to panel data. Panel data is consisted of observations on the same cross sectional firms over number of time periods.

The following basic cross sectional model is estimated.

$$ISH_{it} = \alpha_t + \beta_1 LIQ_{it-1} + \beta_2 SIZE_{it-1} + \beta_3 LEV_{it-1} + \beta_4 VOL_{it-1} + \beta_5 DY_{it-1} + \beta_6 BM_{it-1} + \beta_7 AGE_{it} + \beta_8 PRICE_{it-1} + \varepsilon_{it} \quad (1)$$

Where $i = 1, 2, 3, 4, \dots, 258$, and $t = 2008, 2009, \dots, 2013$

In panel data models two types of effects are examined to check for heterogeneity or effects that may not be observed such as possible group or individual effects and time effects or both. These effects are of two types fixed and random. The panel date of the sample firms was checked for both the fixed and random effects. The fixed effect model is preferred over

¹Winsorising or winsorisation is the statistical technique used to minimize effects of possible spurious outliers. The extreme values in the statistical data are limited by winsorisation.

random effect model.

V. EMPIRICAL RESULTS AND DISCUSSIONS

The descriptive statistics for dependent, independent and control variables is given in Table I. The mean of institutional shareholdings (ISH) show that institutional investors are contributing 14.95 percent capital on an average in the sample companies. The mean of liquidity (LIQ) is 0.0036% with a maximum value of 0.42%. Mean of the dividend yield (DY) is 0.0036% having a maximum value of 0.42%. The mean for price volatility (VOL) is 3.5% with a maximum value of 40.8%. The financial performance as measured by ROA show that on average ROA is 14.14% but 25.71% observations have found negative in the sample companies.

TABLE I
DESCRIPTIVE STATISTICS

Variables	Min	Mean	Max	Std Dev
ISH %	0.037	14.95	56.53	12.12
LIQ %	0.00031	0.265	5.01	0.59
VOL %	1.102	3.511	40.82	3.20
PRICE	0.334	57.771	2697.71	189.39
DY %	0.0036	0.074	0.42	0.06
AGE (years)	2.000	27.553	59.00	13.14
BM %	0.0038	0.395	10.44	0.81
LEV %	0.0000	0.128	1.10	0.14
SIZE	18.330	22.355	26.29	1.67
ROA %	(11.690)	14.143	57.99	12.67
EPS %	(67.390)	23.780	223.73	37.86

Table II presents the pooled OLS regression analysis with fixed and random effects. The dependent variable institutional shareholding (ISH) is taken as percentage of

shareholdings by institutions. Liquidity (LIQ) has been calculated as annual turnover divided by year end outstanding shares for each firm. Volatility (VOL) is taken as the standard deviation of stock returns. Dividend yield (DY) is the annual dividend per share divided by year end closing share price. AGE is the number of years the firm has been listed on Karachi Stock Exchange. Price is the year end share price of the firm. Book to Market ratio (BM), * and ** indicates significance level at 1% and 5% respectively.

Table 2 presents the results of OLS regression with random and fixed effects. The OLS regression results show that coefficient of independent variables liquidity (LIQ) is positive and significant at 1% (5.12, t = 5.37) which show that institutional investors have strong and consistent demand for liquid stocks. The coefficient of price volatility (VOL) is negative and significant at 5% (-56.66, t = -2.11) showing that there is inverse relationship exists between institutional shareholdings and price volatility. The coefficient of dividend yield (DY) is positive and significant at 1% (22.35, t = 2.25), indicating that institutional investors are attracted by dividend yield. The coefficient of stock price (PRICE) is also positive and significant at 1% (0.008, t = 2.78) showing that institutional investors weigh the stock price. The coefficient of control variables SIZE is also positive and significant (0.915051, t = 0.0151) indicating that institutional investors prefer large firms than smaller firms. Leverage (LEV), the control variable has negative significant coefficient (-9.35, t = -2.18) showing that institutional shareholdings have inverse relationship with the leverage ratio. AGE has the positive and significant coefficient (2.14, t = 1.86) showing that institutional investors prefer mature firms and young firms are less attractive.

TABLE II
POOLED OLS REGRESSION WITH FIXED AND RANDOM EFFECTS

Variable	Pooled Regression			Fixed Effects			Random Effects		
	Coefficient	t-Stats	Prob.	Coefficient	t-Stats	Prob.	Coefficient	t-Stats	Prob.
LIQ(-1)	5.13	5.38	0.0000*	5.05	5.27	0.0000*	0.18	0.27	0.78
VOL(-1)	-56.67	-2.11	0.0353**	-64.65	-2.29	0.0225**	-6.52	-0.46	0.64
LEV(-1)	-9.36	-2.18	0.0296**	-9.69	-2.29	0.0251**	-1.02	-0.30	0.76
DY(-1)	22.36	2.26	0.0245**	25.31	2.50	0.0127**	0.059	0.01	0.99
LOG(AGE)	2.15	1.86	0.0634	2.39	2.05	0.0412	-0.61	-0.36	0.71
BM(-1)	0.90	0.52	0.6016	1.039	0.58	0.5616	0.11	0.09	0.93
SIZE(-1)	0.91	2.44	0.0151*	0.93	2.47	0.0137*	0.018	0.03	0.97
PRICE(-1)	0.008	2.74	0.0064*	0.008	2.81	0.0051*	-0.0015	-0.59	0.55
C	-11.25	-1.15	0.2487	-12.21	-1.25	0.2108	15.85	1.25	0.21
Adjusted R-squared	0.154			0.156973			-0.021283		
F-Statistics	8.217			6.280129			0.172688		
Prob (F-statistic)	0			0			0.997968		

Fixed and random effects are employed to deal with possible heterogeneity. First, fixed effects are employed and

then random effects. The results suggest that fixed effects are better than random effects. Fixed effect model have better P-value than Random effect model. The random effect model has also misleading R-squared value.

VI. CONCLUSION

Institutional investors are entities which collect large sums of money from other small investors and make investments in firms. The investment decisions of these institutions are affected by different stocks characteristics. This study has empirically examined the preferences of institutional investors in 258 non-financial firms listed on Karachi Stock Exchange for the period 2008-2013. Different stocks features have used as independent variables to check the preferences of the institutional investors in KSE. Stocks related variables used in the analysis are stocks liquidity, share price, and dividend yield. Pooled regression analysis is employed to examine preferences of institutional investors. The study found a positive strong relationship between institutional shareholdings and liquidity, suggesting that institutional investors are attracted by liquid stocks. Stock liquidity is important because liquid stocks are associated with less risk and lower transaction cost. The investors can make changes in portfolio of liquid stock with a lower cost. The negative relationship between institutional ownership and stocks price volatility, show that institutional investors are risk averse and don't prefer risky stocks. The institutional investors consider the price of the stocks and prefer to invest in dividend paying stocks. The institutional investment is also found to be high in firms with large size. Further research can explore the relationship between ownership concentration and institutional investments and how institutional ownership affects stocks liquidity and dividend policy of the firms.

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