

A Study On The Effect Of Market And Stock Specific Factors On Investment Behavior Of Investors In Indian Context

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ABSTRACT

Investment refers to the employment of funds to assets with the aim of achieving additional income or growth in value over a given period of time. The art of investment tries to maximise the return with minimum risk which is inherent in all investments. As the stock prices are governed by random walk hypothesis, it is highly unpredictable. Knowledge of factors that contribute to the movement in stock prices is worth analysing for all segments of investors as the investment decisions will have major impact on the investor's future well being. This paper tries to unearth the relation between important market parameters by analysing the data relating to Bombay Stock Exchange.

Key words: investor, market capitalization, price to earnings ratio

I. INTRODUCTION

Investors try to optimize the risk and return associated with any investment avenue. They differ in their pattern of investment, preferences, perceptions and objectives for investment. A rational investor can identify the right avenue and make his investment and directly take part in the stock market operations. In current scenario, Indian stock investors are required to be alert about happenings in the market. For that it is very important for investors to be aware of major factors affecting the performance of stock market. Understanding various market parameters and their effect on the investment decisions of various categories of investors is essential for the better understanding of the investment process. This paper is a study on market parameters and their interrelations in Indian context. The paper covers the literature relevant to the topic, the data and methodology adopted for analysis, results and their discussion and concluding remarks.

When analyzing developed stock markets, numerous studies have concluded that foreign and institutional investors tend to be better informed and financially sophisticated. The individual investors, on the other hand can be subjected to psychological biases which limit their trading performance^{[4][2]}. Stock market is one of the vital investment avenues to earn returns more than the real expected rate of return.

Performance of stock market is reflected by a number of factors related to country's economy, industrial positions, companies' performance, and

global factors. If an investor wants smart movements in the value of his investment he is required to understand the determinants of the market performance.

Inflow of funds to stock market boosts the parameters like market capitalization and this in turn will affect the market performance indices. Mrunal Joshi^[5] finds that the major factors that affect the Indian stock market are flow of funds from foreign institutional investors, political stability, growth of gross domestic product, Inflation, liquidity, different interest rates, industry level factors and the global factors.

Fund flow from Foreign Institutional Investors (FII) as well as the portfolio investors affects performance of emerging capital markets. To attract the foreign investment, the emerging markets will be forced to update their facilities^[3]. The foreign fund flow provide the host country with more funds to employ in its developmental activities while the investors get the advantage of higher return at comparatively lesser cost.

Market capitalization or market cap is the standard measure of company size. It gives a picture of the company's value in the market place and helps investors to identify the optimum investment strategy. The total market capitalization data of Bombay Stock Exchange as available in RBI's (Reserve Bank of India) website is used to find its relation with various market parameters like BSE 100 index, Average price to earnings ratio, Average price to book value ratio etc, the relevant data being taken from RBI website^[7].

Price to earnings ratio (P/E ratio) is one of the most valuable parameter to be considered while selecting stocks. The P/E ratio represents how much investors are willing to shell out for each unit of a company's earnings. It provides a measuring stick to compare valuations across companies as it reflects the growth prospects, risk characteristics, share holder orientation, corporate image and degree of liquidity.

The price to book value ratio (P/B ratio) is a good indicator of what investors are willing to shell out for each unit of a company's assets. It is an objective measure of value. The P/B ratio divides a stock's share price by its net assets, less any intangibles such as goodwill. It means that the P/B ratio indicates what investors are paying for real-world tangible assets, not the harder-to-value intangibles assets.

II. DATA & METHODOLOGY

The researches in the field investors decision making process and their performance are well studied and documented with regard to developed markets. Indian financial market is still in its infancy with limited research initiatives. The BSE 100 index is taken as proxy for the market performance. The data for 156 months (from April 2000 to March 2013) as compiled and published by the RBI (Reserve Bank of India) is used to find whether there is any significant correlation between the factors mentioned in the previous section.

Data published by BSE^[6] (Bombay Stock Exchange) relating to market capitalization, Price to earnings ratio, Price to Book value ratio and the BSE 100 index for the period from March 2006 to March 2013 relating to the client categorywise turnover is considered for finding out the effect of technical and other related factors on investment decisions on various categories of investors.

IBM SPSS 21 is used to analyse data as it is an effective tool for statistical analysis. Bivariate correlations, the simplest of analysis tools, were considered to find the presence of significant association between various parameters and the regression analysis provides extend of variability in factors that is successfully explained by the predictor considered. The relevant results of the analysis are included in the following section.

III. RESULTS AND DISCUSSION

The data relating to monthly averages of FII investment, market turnover, market capitalization, price to earnings ratio, price to book value ratio were taken from the data published by RBI for the period from April 2000 to December 2013. Bivariate correlations were calculated to find out the dependencies between the parameters. The table 1 shows the results of the analysis:

From table 1, considering the bivariate correlations FII has influence on market capitalization, monthly turnover, BSE 100 Index and is related to Price to Earnings ratio. The effect is more significant in the case of market capitalization and BSE 100 Index (1% level of significance) where as for the other two the level of significance is 5%. The relation among the market capitalization and monthly turnover, average price to book value ratio, BSE 100 index and average price to earnings ratio are significant at the 1% level of confidence. Monthly turnover, average price to book value ratio, BSE 100 index and average price to earnings ratio are also having correlation at 1% level of significance.

Table 1

Correlations

	FII Investment (B.Rs.)	Monthly turn over (Rs. Billion)	Market cap (Rs. Billion)	Ave. Price to book value ratio (BSE)	BSE 100 Index	Ave_Pric e_to_earn ings
FII Investment (B.Rs.)	1	.167	.392	.074	.367	.162
Monthly turn over (Rs. Billion)	.167	1	.514	.734	.565	.648
Market cap (Rs. Billion)	.392	.514	1	.402	.991	.354
Ave. Price to book value ratio (BSE)	.074	.734	.402	1	.494	.728
BSE 100 Index	.367	.565	.991	.494	1	.410
Ave_Price_to_earn ings	.162	.648	.354	.728	.410	1

REGRESSION

Data relating to the parameters were taken from the websites of RBI and BSE. Relevant data were combined and analysed in IBM SPSS 21. For this the data relating to market cap, BSE 100 index, average price to book value ratio and average price to earnings ratio were taken from the data published by RBI and other relevant data were obtained from client category wise turnover data as available from the website of theBSE for the period. Analysis was performed on data from March 2006 to March 2013.

From the model summary of the regression analysis (table 2), it is clear that there is strong correlation between market capitalization (predictor) and BSE 100 Index (response). The R square value of 0.925 suggests that 92.5% of variability in the values of the response could be explained by the predictor and the linear model as depicted by figure 1 well fits the data.

Table 2

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.962 ^a	.925	.924	270.62769

a. Predictors: (Constant), market capitalization (Rs. Billion)

The table 3 shows the results of regression analysis comparing the influence of FII investment and the BSE 100 Index. The effect is not as strong as that of market capitalization. The R square value of 0.127shows that FII investment accounts for only 12.7% of variability. Market capitalization is a result of foreign as well as domestic fund flows and includes all classes of investors.

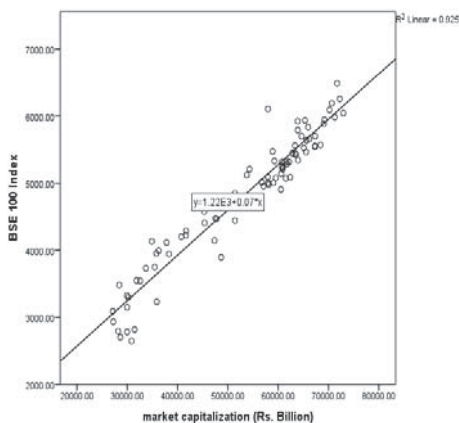


Figure 1

Table 3

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.356 ^a	.127	.117	924.57806
a. Predictors: (Constant), FII Investment (B.Rs.)				

The influence of technical factors such as the price to book value ratio and price to earnings ratio are considered and results of analysis presented in table 4. The market is more influenced by the institutional investors than individual investors'. Many papers consider individuals as noise traders and this proposition is to be confirmed through further investigation.

As far the individual investors, the price to earnings ratio has more influence on their investment decisions. The results show that the investment decisions of foreign as well as domestic institutional investors influence the investment decisions of individuals. The technical and market specific factors do not have noticeable influence on investment decisions of individuals. From the analysis the influence of stock specific and market specific factors on investment decisions of various categories of investors is meagre.

Table 4

Dependent variable	Predictor	R square
BSE 100 index	Net investment by individuals	0.005
	Market capitalization	0.925
Net investment by individuals	Price to earnings ratio (P/E ratio)	0.037
	Price to book value ratio (P/B ratio)	0.001
	P/E ratio + P/B ratio	0.072
	Net investment by FII's	0.459
	Net investment by DII's	0.164
Net investment by DII's	Price to earnings ratio (P/E ratio)	0.009
	Price to book value ratio (P/B ratio)	0.073
	P/E ratio + P/B ratio	0.106

The behavioural and socio cultural factors may influence the investors during their decision making.

IV. CONCLUSIONS

The paper examines the factors that influences investment decisions of various categories of investors and their inter relations.

- Market specific and firm specific factors could not fully explain the investment behaviour.
- Behavioural and socio cultural factors also need due consideration to have a better understanding of the decision making process.
- Incorporating the theories of behavioural finance the predictable irrationalities and the consistent inconsistencies could be better explained.

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