# "A STUDY ON MAJOR FACTOR AFFECTING INDIAN STOCK MARKET AND RISK & RETURN OF DIFFERENT CAPITALISATION STOCKS IN DIFFERENT PHASES OF INDIAN STOCK MARKET"

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## Abstract

Stock Market is ever green field for Investment and good choice of investment provides very lucrative scope. But it is very difficult to select companies for investment as there are number of companies listed in different stock exchanges. In this paper I have tried to categories different stock on the basis of market capitalization and study them on the basis of performance of different indices of Bombay stock exchange related to different capitalization stocks i.e., Sensex for Large Cap Stocks, Mid Cap Stoks and Small Cap Index for Small Cap Stocks. For my study I have used daily value of selected indices from January 2007 to December 2009. In this study I have found that there is no major difference in the risk and return of different capitalization stocks, but there is significant difference in risk and return of same stocks in different phase of stock market i.e. Bearish Trend, Consolidation Period and Bullish Trend

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## Introduction

Management is an art to achieve its objectives with the use of optimum utilization of available resources. Means are always limited and wants are unlimited. With limited means we are required to satisfy maximum need and wants. This is possible only when we manage our resources in optimum manner. One of the important resources for all individuals, organizations and countries is finance. As other resources money is also scare for all concern parties. Everyone would like to invest this limited resource i.e. money in such a way that they can earn maximum out of it. But there is phenomenon – "high risk high return". Hence investment decision becomes important to minimize risk and maximize return. To minimize the risk, investor can keep his money in saving bank account or he can invest in government securities, but that will not give good returns to him. Especially, when inflation determines real return and affects it in a negative manner.

Investor should earn at least a return which will minimize the effect of inflation. Hence due to the time value of money investor is required to earn well on his investment at least to maintain value of his amount of investment.

When investors want to optimize return, they are required to balance risk and return related to available alternatives for it. Return can be considered as profit earned on investment or total return i.e. capital-gain plus regular income, while risk is of different types. But here risk is considered as variability in return due to any reason.

For that it is important to consider different investment avenues, which have enough scope to consider good range of risk and return. Stock market provides these kinds of avenues where investor has scope to determine his expected level of return and his readiness to take different level of risk. There are different kinds of the stocks which may provide different combinations of risk-return relationship and number of factors which may affect these stocks prices due to which return may vary. So it is important for investors to know about return of different stock and risk related to them before investing their money. Investor can understand risk related to different stocks well, when he has some idea about major factors which may influence prices of stock. In my study I have tried to incorporate these aspects of investment decision.

**Problem Identification**

From above discussion we can conclude that investment decision is very crucial for each and every investor. Investment decision is important not only due to increase in value of investors' wealth, but sometimes also to at least maintain the value of his wealth. Stock market provides better opportunities to do that as there is wider scope in comparison with debt instrument or government securities. Hence in my work I have tried to study mainly two problems of investor in his decision making in stock market: Firstly, to know risk and return of different capitalization stocks i.e. large-cap, mid-cap and small-cap; during different phases of stock market i.e. bullish, consolidation and bearish phase. Secondly, to know major factors responsible for variability in return in stock market.

**Statement of the problem undertaken:**

1. To understand risk and return of different capitalization stocks (large-cap, mid-cap and small-cap) during different phases (bullish, consolidation and bearish) of stock market in India; and
2. To understand major factors affecting Indian Stock markets.

**Importance and justification of the stated problem**

1. Knowledge of risk and return guides investors to take investment decision. In stock market there are different kinds of stocks and their performance may not remain the same during different phases of stock market (bullish, consolidation and bearish). Investment decision is a continuous process and cannot be restricted to certain time period. This study will be helpful in determining selection of different types of stock during different phases, with the consideration of different attitudes of different investors expected risk and return. Hence it is important to know risk and return of different type of stocks during different phases of stock market.
2. Stock market is always one of the important sources of investment to earn good returns, which could be more than the real rate of return. (Real rate of return is = actual rate of return – inflation rate). To earn in stock market, knowledge related to it is very important. Performance of stock market reflects number of factors related to country's economy, industrial positions, companies' performance and factors related to globe. If investor wants smart movement in stock market, he is required to understand effect of major factors in stock market. Before understanding effect of major factors, it is important to aware about these major factors.

**Literature Review**

The literature review is divided into two parts. Firstly, related to different types of stocks and secondly, related to factors affecting stock market.

**Literature related to different types of stocks and their movement in stock market**

*Fama and French (1992)* have found that size and book value to market value are leading explanatory variables for the cross section of average return.

*W. Scott Buman, C. Mitchell Conover and Robert E. Miller (1998),* have studied that the value stocks outperform growth stocks in all firm capitalization-size categories except the smallest. The value stocks offer investors relatively more factorable return than growth stocks in the developed non-US markets. The difference in performance between large value stocks and large growth stocks were greater than between small value stocks and small growth stocks. Value stock may out-perform internationally because investors and research analysts overreact to past corporate earnings trends of growth stocks and value stocks.

According to *Louis K.C.Chan, Jason Karceski and Josef Lakonishok (2000)*, Operating performance of large cap growth stocks in last few years can not have been trigger for their huge stock returns. Over the period 1996-98 period, large-cap growth stock earned a return of 34% a year, but their operating performance for this period was not outstanding when compared with the past. The growth rate (in terms of sales) for the three years was 6% a year but he average for these companies was 10.3% for the entire sample period. It is not easy to continuously perform at higher rate or increasing rate. The same thing happens with large-cap companies.

Small-cap stocks have historically outperformed large-cap stocks and value stocks have had higher return than growth stocks. For the selected period they have found that small-cap stocks did well and small-cap value stocks did particularly well.

**Literature Review related to Different Phases of Stock Market and Major Factors responsible**

*Fredrick Hewish Allen and Galbraith (1931)*, seen the stock market bubble beginning in March 1928. In April and May Index of New York Exchange increased 15%. He has identified date march 5 on which certain stocks and certain indices increased by significant rate and times. e.g. industrial indices by 2 times, rail and roads by 1.6 times and utilities more than 3 times during the bubble of 1928. The crash of 1929 followed by bubble of 1928.

*Galbraith (1954)* has found that the Great Crash of 1929 was followed by boom. Due to rapid economic growth of the 1920s created euphoria in investment. The Element of loan from brokers added fuel in it i.e. dangerous leverage. All these are due to irrational investors. *DeLong and Summers (1989), show that the variance of real GNP was not much higher* during the financial panics from 1890-1913 than during non-panic periods. *Hamilton's (1989)*, evidence that recessions typically have shorter duration than expansion predicts that cash flow persistence should decrease during recessions.

*Schwert (1988)*, shows that the standard deviation of both stock returns and industrial production growth are higher during recessions than during expansions. *According to G. William Schwert (1989)*, stock volatility was noticeably higher during 19th century financial crises, during the post-world war I recession, during the 1929-1934 and 1937-1938 depressions and during the 1973-1974 OPEC recession.

*Schwert (1989a,b)* shows that volatility was higher during recessions and around the major banking panics in the nineteenth and early twentieth centuries. Negative returns lead to larger increases in volatility than do positive returns. The risk borne by investors in the stock market, and where stock volatility reflects uncertainty about more fundamental economic aggregates, they provide information about the health of the economy.

*White Eugene N. (1990)*, found that the major reason for the crash of 1929 was the irrational behavior of the investor. The mania of the investor was also due to expansion of broker's loan. Fundamentals of certain companies supported it. Many people who had never bought stock before entered the market. Women, new investors, supplied programs and articles in women's magazines. Including irrational behavior of the investors other factors were Credit Policy, New Stock Issue, Decision of Authorities for Big Corporate, Changes in Dividend/Earning of company, Changes in Tariff, Duties and charges, International Effect like Monitory policy of other countries, Interest Rate of home and other country.

According to *Barro Robert J. (2009)*, there is high correlation between depression in economy and crash in stock market. The long-term data also show that the majority (67 percent) of minor, non-war depressions are accompanied by stock-market crashes, whereas most major, non-war depressions (83 percent) are accompanied by these crashes.

*Kawai (2008)*, explained Subprime story: Bubble burst in 2008, collapse of the financial systemof US, affected global level.

*Avadhani V.A. (2008)*, has noted that trading on May $5^{th}$2000 was Teji (Bullish) while tradingthe next day May $8^{th}$, was Mandi (Bearish) both involving wide wings of 140 to 230 points in a day and both sawed by market rumors and sentiment. These days are classical example of role of sentiments on the market. The fundamental of the economy were good.

*Avadhani V.A. (2008)*, also noted that if purchases of FIIs are more than sales involving a netlong position, the market may turn out to be Bullish and if net sales are more involving a short position, the market turn Bearish.

*Sandeep Kumar and SwetaBakshi (2009)*, observed that 1.3% industrial growth is the lowest IIP(Index of Industrial Production) data ever registered since last ten years. April-august growth is 4.9% which also lowest for the first five months of the financial year in 14 year period except 1998 and 2001. The Industrial growth in August of 2008 plummeted to mere 1.3% compared to same month in 2007. This industrial slow down affected transport service too.

Global recession will also lead to less tourists coming to India. That will negatively affect tours and travels industry. The global recession affected IT, automobile industry and the export-oriented firms adversely.

*Taylor (2009)*, has come across the fact that the greater depression was marked by bankingcrisis, unemployment rate soared past 20 percent and 89 percent decline in stock prices.

*Desai Jayesh N. (2009)*, has observed that world output rose at 5% in 2007, slowdown at 3.9%and 3% in 2008 and 2009 respectively. He found that according to IMF world economic outlook; India grew at 9.3% in 2007 and 7.9% and 6.9% in year 2008 and 2009 respectively. He has also focus on measurement of effect on developing countries, which can be identify by decrease in Export.

According to Chen, H., Lobo, B. J., & Wong, W.-K. (2006), the U.S. stock plays dominant role in the relation with Indian and Chines stock market, whereas there is an interactive relationship between Indian and Chinese stock market.

**Research Methodology**

To achieve my above discussed objectives following Research Methodology have been carried out.

**Type of Research Design:**

For my study I have applied Descriptive Research design. I have described different facts on the basis of primary and secondary data analysis. In primary data I have collected opinion of stock brokers and sub-brokers; and in secondary data I have collected daily data of different Indices of different Capitalization of BSE i.e., Sensex, Mid-Cap Index and Small-Cap Index.

For this study my population for secondary data includes all different stocks of different capitalizations and their daily price values from the date of their listing in Stock Exchanges in India.

I have observed daily value of selected indices during the period from $1^{st}$ January 2007 to $31^{st}$ December 2009, which was my sample frame. A graph is prepared showing lines for daily values of Sensex, mid-cap and small-cap index. The graph could present different phases of stock market from the selected period data. Thus, different phases of stock market viz. bearish, consolidation period and bullish phase are observed in my study.

After determining two years period and careful study of chart of daily values of different indices i.e. Small-Cap, Mid-Cap and Sensex, I could select a particular period from $10^{th}$ Sept 2008 to $19^{th}$ May 2009. This period is the part of the observed overall period ($1^{st}$ January 2007 to 30 November 2009), which is taken for consideration for detailed analysis.

Population for the primary data is all the experienced and well positioned member stock brokers, sub-broker and employees of them, listed at Stock Exchanges at national level in India i.e. BSE and NSE, and having their branch or franchisee at Surat city.

**Scope of Study**

Scope of my secondary data is restricted to selected period of from $1^{st}$ January 2007 to $31^{st}$ December

2009. Scope of my primary data is limited to Surat city.

**Source of Data**

It becomes easy for me to collect secondary data of daily value of different indices of BSE as they are available on archive of website www.bseindia.com. This source is very efficient and reliable as Bombay stock exchange keeps record of daily data.

**Sampling, Sampling Frame and Sample:**

For study of different Capitalization stock I have selected different indices of Bombay Stock Exchange i.e. Sensex, Mid-Cap Index and Small-Cap Index. These indices may properly represent all different stocks grouped on the basis of their capitalization. Then on the basis of judgment I have identified particular period in representing bearish, consolidation and bearish phase of stock.

For **Primary data** initially efforts was made to collect the list of broker, as list was not available I have used convenient sampling in that snowball is used. In my survey 56 respondents were surveyed from 39 different offices of 25 different brokers. Out of them 38 were head or ownerof the company, whereas 18 were employee of these companies. Sample structure is mention in following table.

| Sr. No. | Name of Broker | Respondents are Promoter / Head or Employees | | Total respondents | Total number of Broker Offices Visited |
|---|---|---|---|---|---|
| | | Promoter/Head | Employees | | |
| 1 | Angle broking | 3 | 0 | 3 | 3 |
| 2 | Arham Share Consultant Pvt. Ltd | 1 | 0 | 1 | 1 |
| 3 | Concept Sec. Pvt. Ltd. | 1 | 1 | 2 | 1 |
| 4 | Dhwaja Shares and Sec. Pvt. Ltd. | 1 | 0 | 1 | 1 |
| 5 | EnamSecurties Direct Pvt. Ltd. | 2 | 0 | 2 | 2 |
| 6 | FairWealth Sec. Ltd. | 1 | 0 | 1 | 1 |
| 7 | HDFC Securities Ltd. | 2 | 0 | 2 | 1 |
| 8 | ICICI Securities Ltd. | 2 | 1 | 3 | 1 |
| 9 | India Infoline Ltd. | 3 | 5 | 8 | 3 |
| 10 | ISE | 0 | 3 | 3 | 1 |
| 11 | Jainam Share Consultant Pvt. Ltd. | 3 | 2 | 5 | 4 |
| 12 | Karvey | 1 | 0 | 1 | 1 |
| 13 | KRChoksey | 3 | 2 | 5 | 3 |
| 14 | Marwadi Shares and Finance Ltd. | 1 | 0 | 1 | 1 |
| 15 | Monarch | 1 | 1 | 2 | 1 |
| 16 | Nirmal Bung | 2 | 0 | 2 | 2 |
| 17 | PrabhudasLilladher Pvt. Ltd. | 1 | 2 | 3 | 1 |

| | | | | | |
|---|---|---|---|---|---|
| 18 | Religare Sec. Ltd. | 1 | 0 | 1 | 1 |
| 19 | Roongta Rising Stock Pvt. Ltd. | 2 | 0 | 2 | 2 |
| 20 | South Guj. Shares & Sec. Ltd. | 0 | 1 | 1 | 1 |
| 21 | Sherkhan Ltd. | 2 | 0 | 2 | 2 |
| 22 | SMC Global Sec. Ltd. | 2 | 0 | 2 | 2 |
| 23 | SSJ Finance | 1 | 0 | 1 | 1 |
| 24 | Sunidhi Sec. and Fin. Ltd. | 1 | 0 | 1 | 1 |
| 25 | VSE Stock Services Ltd. | 1 | 0 | 1 | 1 |
| Total | | 38 | 18 | 56 | 39 |



**Data Interpretation**

For primary data collection I have used questionnaires. This questionnaire is prepared carefully with consideration of important variables studied in literature review. As the respondents were the expert, open-ended questions were used to give chance to air-out their views without being restricted by forced choices.

**Tools for Data Analysis of Secondary Data**

First of all, I have used **technical analysis** for the selection of data out of the Sample Frame. In technical analysis I have used concept of support line and resistant line *(S. Kevin, 2009)*. Theselines were drawn on the basis of trend lines of selected Indices of different Capitalization Stocks.

For the calculation of Return I have used **Arithmetical Mean** which represents expected return and Risk is calculated on the basis of deviation from mean. Here **standard deviation** has been used for calculation of risk.

For study of significant difference in Return and Risk **ANOVA** has been used with the use of statistical computer package SPSS (Statistical Package for Social Science). I have used pared t-test of Schiffe.

**Analysis of Primary data:**

For analysis of primary data frequency distribution is analyzed with the use of **cross tabulation** and **chi-square test**.

**Conclusion**

As my research work is more focusing on nominal data, I have used Chi-Square Test. This test is used to understand the relationship of opinion about Volume and opinion about Volatility of different capitalization stocks with different phases of Stock market and their time-span. Chi-square test is also used to understand the effect of demographic factor on selection of different capitalization stock to deal with.

In questionnaire some of my questions where open-ended for which I have identified most probable answer and then categories them in different categories.

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