1.1 Introduction

Economies need funds for their development and growth. The fund requirements of these economies are usually met from the surplus economic units or savings. A surplus unit can be an individual, a firm or the government whose income exceeds the consumption during the period under consideration. By making use of these funds the economies purchase assets such as land, building, knowledge and machines, generate income and then allocate the same among the suppliers of funds. This phenomenon will be continued as far as an economy is in its growth phase. So for attaining sustainable growth and development of an economy there should be an environment conducive for the savings and investment growth. In their study, Dailami and Atkin (1990) shows that the provision of funds to finance domestic capital formation is a key factor for the prospects for long term economic growth of developing countries.
Investment is an important means for channelizing the idle savings into the development of the economy. The material wealth of a society is determined ultimately by the productive capacity of its economy – the goods and services that can be provided to its members. Investment raises the level of aggregate demand which in turn increases the level of income and employment in the economy (M. Yogesh, 2008).

1.1.1: Investments –Financial and Economic meaning

From the financial stand point of view of investors or suppliers of capital, investment is the commitment of present funds in order to derive future income in the form of interest, dividend, retirement benefits, or of appreciation in the value of the principal. So the allocation of money over assets that is to yield some gain over a period is financial investment. It is an exchange of financial claims for money and is expected to yield returns and experience capital growth over the years. In fact most investments in popular sense are transfers of financial assets from one person to another.

The ideas on the nature of investment in the financial or popular sense should be contrasted with its meaning in the economic sense. In the latter context the term investment implies the formation of new and productive capital in the form of construction, new producers’ durable equipment or additional inventories (Dougall and Corrigan, 1978). It is the investment in real assets that brings about the production of goods and services for the purpose of maximizing the present value of owner’s equity. But from the view point of financial investment whether the money saved and invested is devoted to a ‘productive’ use is not important. Similarly it does not matter whether the funds are to be used for new assets. The purchase in the open market of a ‘second hand’ instrument such as bond or share is just as much as an investment as the purchase of a security issued for new capital.

However, the financial and economic meanings of the investments are related. A part of the savings of individuals which flow into the capital market
either directly or through institutions are devoted to new permanent capital financing. Investors as suppliers and investors as users of long term funds thus find a meeting place in the capital market. When the real assets used by a firm ultimately generate income, the income is allotted to investors according to their ownership of financial assets or securities issued by the firm. In this study the term investment will be used in its financial sense.

1.1.2: Investment in securities

One of the prime components of financial investment made in every economy is securities. A security is a document that evidences specific claims on a stream of income and/or to particular assets. Debt securities include bonds and mortgages. Ownership securities include common shares (equity shares). In addition preferred stock/ preference share is a hybrid security which entitles its owners to a mixture of both ownership and creditor ship privileges.

Common stock is the first security of a company to be issued and the last to be retired (Francis, J. Clark, 1986). It represents the share in the ownership of a firm. It has the last claims on earnings and assets of all other securities issued. But it also has an unlimited potential for dividend payment through increasing earnings and for capital appreciation through rising prices.

The valuation of common stock/equity share is much more difficult than that of other securities. To determine the value of a common stock, three important variables must be dealt with. First, the amount of future earnings or when they will be earned is not known precisely. Second, the amount and the timing of dividend income is uncertain. Third, the value that will be given to future earnings and dividends of the company by the investor is unknown and uncertain. Therefore it is difficult to determine the future price. If all these variables were known – that is with complete knowledge and certainty about future earnings, dividend, price and risk associated with common stock investment – making a decision could be relatively easy. Since practically such precise knowledge about the future is
unavailable, an investment in common stock demands that future earnings, dividend and price are to be estimated. The risks involved must be determined and then weighted against the estimated yield to decide whether the stock is overpriced, fairly priced or underpriced that is, whether the stock is overvalued, fairly valued or undervalued (Amling Frederick, 1978).

1.2: Review of Literature

For identifying the research gap the study has reviewed the empirical findings of considerable number of research studies on various dimensions of stock market investments and its price behavior in various markets across the globe at different points of time.

Dow (1920) has been the pioneer in making a systematic study on the prediction of future stock prices or stock returns. He has studied the potential for past share prices and movement therein, to predict future equity values in US stock market. He proved the ability of the technical analysis to explain current and future share prices as well as equity returns.

Cowles (1934) showed that trading based upon Dow Theory would have resulted in earning less than a buy and hold strategy using a well diversified portfolio. The study concluded that a buy and hold strategy produced 15.5 per cent annualized returns for the period 1902-1929 from US market, when Dow strategy produced annualized return of 12.0 per cent during the same period. Cowles analysis was a land mark in the development of the empirical evidence on the informational efficiency of the market.

Graham and Dodd (1934) are among the first to formally argue the importance of fundamental factors in share valuation exercises. They suggested that the stock owner should not be too concerned with erratic fluctuations in stock

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1 Infact it dates back to a series of 255 editorials published by Charles H Dow in Wall Street Journal for the period 1900-1902
prices, since in the long term its true value will be reflected in its stock price.
Hence the investors spend time and effort to analyze the financial state of
companies and then assess its intrinsic value before making his final investment
decision.

Gordon (1959), in his study based on the data relating to four industries from
US economy for the period 1951 to 1954, very compactly illustrated the connection
between a stock’s price, the current level of dividend, the expected growth rate of
dividends and the discount rate. His study showed the relevance of dividend in
determining intrinsic worth of a stock thereby the stock returns also. But
Modigliani and Miller (1961) showed investor indifferences as to the amount of
dividend since it has no influence on the value of a firm. Any investor can create a
‘homemade dividend’ if required or can invest the proceeds of a dividend payment
in additional shares as and when a company makes dividend payment.

Holt (1962) made a study for measuring the influence of growth duration of
earnings on share price movements. He found that the forecasting of future
earnings and other economic variables become more difficult if the rate of growth
is expected to change in the future. So estimation of growth rate not only in terms
of its size but also its duration must be made for correct valuation of a stock.

Sharpe (1964) and Lintner (1965) predict a positive linear relationship
between expected security returns and market betas with their Capital Asset Pricing
Model (CAPM). The model is developed under the assumption of the existence of
an efficient capital market where security transactions are costless and information
is freely available to all investors instantaneously. CAPM, in such an idealized
market environment, bifurcates total risks involved in investments into two
orthogonal parts, risk associated with the overall market conditions called ‘market
risk’ or ‘systematic risk’ and risk specific to the asset called ‘unique risk’ or
‘unsystematic risk’. The unsystematic portion of the risk can be eliminated by
holding well-diversified portfolios but the systematic portion cannot be eliminated.
even if one virtually holds all assets in the economy. The CAPM also predicts that market beta is sufficient to describe cross-sectional expected returns. These predictions have been the subject of a great deal of empirical investigation. Much of the evidence does not support the model. Empirical contradictions of the CAPM are documented in Banz (1981), Reinganum (1981), Basu (1983), Rosenberg, Reid and Lanstein (1985) and Bhandari (1988).

King (1966) in his study returns for a sample of 63 stocks in six different industries was examined over the time period 1927-1960. The study used multivariate analysis to decompose the causes of price movements in the stocks he studied. On averaging the overall the industries he studied, King found that 20 per cent of the stock price movements were the results of factors unique to each firm, 31 per cent due to general market factors, 12 per cent were the result of industry factors and 37 percent were the result of factors tied to industry subgroups.

Malkiel and Cragg (1970) studied the effect of historical growth of earnings, dividend payout ratio and stock’s rate of return relative to the market in determining P/E. Earnings growth was found to have a positive effect on the P/E ratio. The closer a stock’s return followed that of the market; the more negative the P/E effect. The dividend payout effect was not clear; in some years, the higher the payout the higher the P/E, but this was not true for all years.

Sharpe and Cooper (1972) conducted a study concerning the relationship between risk and return on the basis of 10 risk classes of NYSE common stocks over the period 1931-1967. The risk classes were determined by estimating the beta of each stock at the beginning of each year. The results of the study proved consistent relationship between risk and return. Black et al (1972) and Fama and Macbeth (1973) also confirmed the basic tradeoff between risk and return. While preponderance of the historical evidence does suggest that higher returns are associated with riskier securities, the relationship is not perfect, particularly over relatively short time periods.
Niederhaffer and Regan (1972) had performed a specific test of the relationship between earnings and prices of selected stocks listed in NYSE for the period 1966-1970. Their study has found changes in stock prices are highly correlated with changes in earnings. An investor with superior earnings forecasts is more likely to enjoy pleasant surprises and avoid disappointing earnings reports and stock performance.

Meyers (1973) and Livingston (1977) in similar studies confirmed King’s findings. The Meyer’s study involved 60 of the same companies used by King (1966) and 60 additional companies, using data through December 1967. Meyers concluded that although there was strong industry effects, King may have overstated the per cent of residual variance explained by industry association. Livingston used 50 companies in 10 industry groups and studied monthly returns from January 1966 through June 1970. He also found strong co movement among stocks in the same industry, and concluded that 18 per cent of residual variance was accounted for by industry effects.

Sharma and Kennedy (1977) and Sharma (1983) test the weak-form efficiency of the BSE. Both of these studies with the former covering the 1963-1973 periods and the later encompassing the 1973-1971 period, conclude that Indian stocks generally conformed to random-walk behavior and in the successive period changes were independent. Poterba and Summers (1988), however, find evidence of mean reversion in Indian stock prices, suggesting a deviation from random-walk behavior.

Basu (1977) in his study found that the security prices over the period from 1957 to 1971 in US market not completely described by the Efficient Market Hypothesis (EMH). He argued that publicly available Earnings Price (EP) ratio seems to possess information content and may warrant an investor’s attention at the time of portfolio formation or revision. Based on this analysis, he argued that for
the 14-year period studied, high E/P securities have higher expected returns than predicted by CAPM.

Shleifer (1986) was among the first to investigate the index effect and his study examined price impacts related to changes in S & P 500 between 1966 and 1983. His study found an abnormal price increase of 2.79 per cent and the cumulative returns persisted. The returns are positively related to measures of buying by index funds and the results were attributed to the downward sloping demand curves for stocks.

Fama and French (1988) found that the predictability of stock price return variances was larger than expected in the US stock market for the period 1926-1985. The predictable variances of three to five year stock price returns were estimated to be about 40 per cent for portfolios of small firms and 25 per cent for portfolios of large firms. They also observed strong negative autocorrelation of stock returns over a three to five year period in their multi period returns regression model. The negative autocorrelation of stock returns implies Mean reversion in stock prices.

Barth et.al (1990) made an empirical examination between common stock prices and two major components of bank earnings shows that earnings before securities gains and losses play an important role in explaining bank stock prices. The market appears to assign a significant multiple to this component of earnings, judging from regression results over the 1968-87 period.

Gupta (1992) in his study examines the volume and nature of speculation in Indian stock exchanges with focus on effects of excessive speculation. He points out the most important weakness of Indian stock market in the existence of unhealthy and excessive speculation resulting in irrational price behaviour and very high volatility.
Fama and French (1993) introduced a ‘Three Factor Model’ in the spirit of arbitrage pricing theory. They argued that the effects of size and book equity - to-market equity could be explained as manifestations of risk premiums. Using an arbitrage pricing type model they show that stocks with higher sensitivity on size or book-to-market factors have higher average returns. According to them risk is determined by sensitivity of a stock to three factors (1) Market portfolio, (2) a portfolio that reflects relative returns of small verses large firms and, (3) a portfolio that reflects relative returns of firms with high verses low book-to market ratio firms. They argued that even though size and book to market equity ratios are not direct factors affecting returns, they perhaps might be proxies for more fundamental determinants of risk. Thus they conclude that these patterns of returns are consistent with efficient market hypothesis in which expected returns depend solely on risk.

Mittal (1994), using daily returns data of BSE National Index for the period January 1990 to February 1993, shows that daily returns are most negative for Tuesday and most positive for Friday. Hence, investors can make use of this information to make excess returns by trading in National Index portfolio.

Chiang et.al (1995) based on the earnings and dividends as proxies for fundamental values, show that the larger the difference between the stock price and the fundamental asset value the stronger will be restoring force of the movement of stock price towards the fundamental value. But Wigmore (1997) showed that the share prices increased much more than their intrinsic values in the 1980’s and only 35 per cent of the 245 point rises in the S&P 500 during the 1980s was explained by changes in fundamental values.

Classens (1995) in his study on equity investment in developing countries found that the benefits available to a foreign investor in emerging markets ultimately depend upon a tradeoff between the expected rate of return and its associated risk. For assessing this kind of relationship he considered the
underlying factors which are influencing the rate of return and its variability, the efficiency of the domestic stock market and the working of the regulatory mechanism in the host country. The study revealed that due to the correlation between equity returns from different countries is much lower than that between equity returns in the same country, the benefits of diversification—a lower risk for same or higher rate of return or a higher return for same or lower level of risk—are much stronger across international financial markets than within domestic markets.

Bae and Duvall (1996) applied multi-index CAPMs to explore the relationships of US aerospace industry stock returns to selected market and industry variables during the period 1982-1991. The study found that the market returns represented by the S&P 500 index and Department of Defense expenditures are significantly positively related to aerospace stock returns.

Madhusoodanan (1997) conducted a study to find out the relationship between the expected return and risk by using portfolio method rather than the individual security approach. For the purpose, portfolios were formed to test their performance in the consequent period. Results indicated that the risk and expected return in the Indian market are not necessarily positively related. Moreover, in the Indian market, the investor rationality and risk aversion do not appear to be important.

Sehgal (1997) empirically tested three-parameter Capital Asset Pricing Model in Indian capital market by taking monthly rates of return (adjusted for bonus, stock splits and right issues) for 80 securities included in BSE National Index. The evidence indicated that CAPM is not a suitable descriptor of asset pricing on the Indian capital market for the period of the study. Slope was found negative but insignificant for the total period, implying absence of any significant relationship between beta and average return.

Ajit Singh (1998) examines the growth and evolution of stock markets in India during the 1990’s, which according to him is largely due to internal and
external liberalization measures and the general liberal economic ethos created by the reforms. Singh argues that even though the corporate sector considerably benefited from the boom in the stock market by raising huge amount of capital from the market, the aggregate real economy did not benefit from this. What really happened was a portfolio substitution by households and institutions from bank deposits to financial corporate securities. Also Singh does not see any increased productive use of investment resources.

Brown et al. (1998) challenged the efficient Market Hypothesis and proved the validity of Dow theory in producing excess risk adjusted returns to the investors. More specifically the return of a buy and hold strategy was higher than a Dow theory portfolio by 2 per cent, but the riskiness and volatility of the Dow theory portfolio was lower, so that it was able to produce higher risk adjusted returns to its investors in US market.

Sullivan et al. (1999) report that although data snooping biases might not explain the historical possibility of trading based on technical analysis, such trading practices are no longer viable given the increased efficiency of equity markets afforded by cheaper computing power, the lower transaction costs and increased liquidity.

Ramasastri (1999) applied the unit root test to examine the existence of weak form of capital market efficiency in India in the wake of recent capital market reforms. He used daily closing prices of SENSEX for a period of eight years from January 1991 to December 1998 for the analysis. The study concludes that Indian capital market is weakly efficient during the study period.

Tomy Varghese (1999) analyzed the perceptions and attitudes in the individual investors in the primary market in Kerala. The study revealed that among the various factors that influenced the investment decisions in the capital market, investors have given top priority to the track record of companies and their promoters. Other important factors are the highlights of the issue and the product
mix of the company. Risk factors and ratings given in the publications also influence their investment decisions.

Chordia and Swaminathan (2000) examined the predictability of short-term stock returns based on trading volume and concluded that high volume stocks respond promptly to market-wide information. Wang (1994) developed a model based on asymmetric information and showed that the trading volume is related to information flow in the market and investor’s private information is revealed through trading volume.

Chaturvedi (2000) examined the existence of P/E effect in India by using a sample of 90 scrips for a six-year period 1990-1996. He concludes that significant P/E effect exists in India during his study period.

Jegadeesh and Titman (2001) has verified the profitability of momentum strategies suggested by the technical analysts. Their research found the profitability of buying a portfolio of past ‘winners’ and simultaneously short selling a portfolio of past ‘losers’, then holding the resultant position for 3-12 months, which challenge the validity of Efficient Market Hypothesis.


Tuli Nishi and Mittal (2001) made an attempt to determine price earnings ratio of 105 companies in India for the period 1989 -93 and found variability in market price, dividend payout ratio and earnings per share to be significant variables whereas size, debt equity ratio and growth were significant.

Cauchie et al. (2002) through their research paper investigated the determinants of stock returns in a small open economy in an Arbitrage Pricing Theory framework. The analysis is conducted with monthly data from the Swiss stock market over the period 1986-2000. They used data on industrial sector
indices, as well as macro-economic data. They found that Swiss equity returns are influenced by both global and domestic economic conditions. The results also show that the statistically determined factors yield a better representation of the determinants of stock returns than the macro-economic variables.

Mohanty (2002) examined the effect of a number of firm specific characteristics, such as size, book-to-market equity ratio, price earnings ratio, book leverage, market leverage, price-to-cash flow ratio, price-to-sales ratio, and market beta in explaining cross sectional variations of stock returns over the period 1991 to 2000. By using Fama and MacBeth (1973) methodology on individual securities of the sample, he found variables’ size, market leverage, book-to-market ratio, and price-earnings ratio are significant in explaining stock returns, of which size is the most significant variable. Moreover, he observed that variables other than size did not have any additional explanatory power, once the size effect had been adjusted for. This implies that size captures the effects of the other variables in Indian stock markets.

Malakar and Gupta (2002) took an effort to explain the major determinants of sectoral stocks in Indian stock market. Their sample consists of eight major cement companies India and study covered the period from 1968 to 1988. The study has found earnings per share and investment expenditure to be significant determinants of share price.

Lee and Ryan (2002) analyze the dividend signaling-hypothesis and the issue of direction of causality between earnings and dividends - whether earnings cause dividends or vice versa. For a sample of 133 dividend initiations and 165 dividend omissions, they found that dividend payment is influenced by recent performance of earnings, and free cash flows. They also found evidence of positive (negative) earnings growth preceding dividend initiations (omissions).

Lanne and Saikkonen (2004) analyzed monthly excess US stock returns from January 1946 to December 2002. The results indicate the presence of
conditional skewness in stock returns. This is because large pieces of news persist, which increases not only present but also future volatility. The evidence seems to suggest that there is informational efficiency and stock prices can be predicted with a fair degree of reliability.

Samanta (2004) carried out spectral shape tests for daily data on the BSE-100 from January 1993 to December 2001. He partitioned the entire period into 18 sub-periods and tested separately for each sub-period. The study showed that the market was considerably inefficient during each sub-period till June 1996. It achieved high level of efficiency during July 1996 to December 1999 and showed efficiency at a relatively lower level thereafter, except with some aberration during 2000.

Mishra (2004) examined the relationship between stock market and foreign exchange markets in India using Granger causality test and Vector Auto Regression technique. They used monthly data for stock return, exchange rate, interest rate and demand for money for the period 1992 to 2002. The study found a unidirectional causality between the exchange rate and interest rate and also between the exchange rate return and demand for money. The study also suggested that there is no Granger causality between the exchange rate return and stock return.

Nath and Dalvi (2005) examined the day of the week effect anomaly during 1999 to 2003 for Nifty. They found market inefficiency exists in Indian stock market. Dhankar and Chakraborty and Dinakar (2005) also confirmed this finding and the variance ratio test applied by the study suggests dependency of SENSEX series, thereby utility of technical analysis in predicting stock price behavior.

Ahamed et al. (2005) in their effort to study the integration of Indian stock market with the global markets, after analyzing the daily closing data of NASDAQ, Nikkei and SENSEX from 1999 to 2004 found that there is no long-term relationship of the Indian stock market with the US and Japanese markets.
Courteau et al. (2005) assessed the relative performance of the direct valuation method and industry multiplier models using firm-quarter Value Line observations over an 11 year (1990–2000) period. Results from both pricing error and return-prediction analysis indicate that direct valuation yields lower percentage pricing errors and greater return prediction ability than the forward price to aggregated forecasted earnings multiplier model. However, they suggested a simple hybrid combination of these two methods leads to more accurate intrinsic value estimates, compared to either method used in isolation. It would appear that fundamental analysis could benefit from using one approach as a check on the other.

Ahmad M Khan et al. (2006) made an attempt to seek evidence for the weak form efficient market hypothesis using the daily data for Sensex and Nifty for the period 1999-2004. The random walk hypothesis for the Sensex and the Nifty stock indices were rejected and the study also found the inefficiency of Indian stock market with high and increasing volatility. Both the indices showed a negative autocorrelation at lag 2, indicating over-reaction on day after information arrival, followed by a correction on the next day.

Sehgal and Tripathi (2007) investigated value effect in the Indian stock market by using alternative value measures such as book equity-to-market equity (BE/ME), earnings-to-price (E/P), cash flows-to-price (C/P) and dividends-to-price (D/P). The basic data consists of month end adjusted prices of 482 companies forming part of BSE 500 equity index over the period 1990-2003. The study reports existence of statistically significant value effect on unadjusted as well as risk-adjusted basis on all the value measures used. The study also found operating profitability, size and financial leverage as the three important sources of value effect.

Chandan Sharma (2008) in his study based on annual data of fourteen developing economies for the period from 1990 to 2006 found no direct
Shan and Morris (2002) find weak evidence that financial development leads economic growth, either directly or indirectly.

Shahid Ahmed (2008) examined the nature of the causal relationships between stock prices and the key macroeconomic variables representing the real and financial sector of the Indian economy for the period March 1995 to March 2007 using quarterly data. The results of the study revealed differential causal links between aggregate macroeconomic variables and stock indices in the long run. However, it revealed that causal pattern is similar in both markets in the short run. The study results indicate that stock prices in India lead economic activity except movement in interest rate. Interest rate seems to lead the stock prices.

Ray et al. (2008) made an attempt to unravel the relationship between the real economic variables and the capital market in Indian context. They considered the monthly data of several economic variables like the national output, fiscal deficit, interest rate, inflation, exchange rate, money supply, foreign institutional investment in Indian markets between 1994 and 2003, and ascertained the relative influence of these variables on the sensitive index of the Bombay stock exchange. Compared to the earlier similar attempts, they applied the modern non-linear techniques like VAR and Artificial Neural Network. The finding shows that certain variables like the interest rate, output, money supply, inflation rate and the exchange rate have considerable influence in the stock market movement in the considered period, while the other variables have very negligible impact on the stock market.

Based on CAPM as theoretical framework and the samples of size varying from 182 companies to 544 companies for various estimations period between April 1991 to March 2006 Francy (2008) provides empirical validity of the Three factor model of Fama and French(1992) in determining stock returns in India. The explanatory power of the three-factor model was found to lie between 69 per cent
and 90 per cent for the various portfolios constructed which shows that the three-factor model has captured the majority of the positive returns that had been left unexplained by the CAPM in Indian context.

Bettman et al. (2009) made an attempt to assess the relative ability of fundamental and technical analysis to explain share prices based on the data pertaining to US listed companies that spans the period January 1983 through December 2002. For this purpose they incorporated both fundamental factors (Book value and EPS) and technical factors (lagged share prices and momentum factors – extreme past return performance) in their hybrid dummy regression models. The test results of the study confirmed the complementary nature of the two approaches in stock valuation by showing that, although each performs well in isolation, models integrating both have superior explanatory power. Taylor and Allen (1992) also verified the complementary nature of technical and fundamental analysis.

Brajesh Kumar and Prayanka Singh (2009) empirically examined the relationship between returns, volatility and trading volume for 50 Indian stocks. Three measures of trading volume namely number of transactions; number of shares traded and value of shares traded are used. It is found that in Indian stock market, the number of transactions may be a better proxy of information than the number of shares traded and the value of shares traded. The evidence for positive contemporaneous relation between returns and volume as well as conditional and unconditional volatility and volume is found. They also found that the level of volume is dependent on the direction of price change only in case of 60 per cent of the stocks in the sample.

A.S. Ahmed et al. (2009) provides empirical evidence on factors that drive differential interpretation of earnings announcements. The study suggests that investor disagreement can increase investment risk, increase the cost of capital, and cause stock prices to deviate from fundamental value and by increasing the quality
of earnings and pre-announcement information can improve the efficiency of capital markets.

Deutsche Bundes Bank (2009) in its study based on stock price movement in DAX for the period 1991 to 2009 tested and proved that corporate earnings is an important fundamental determinant of stock returns in Germany. The Impulse Responses Function generated by the Vector Auto Regressive (VAR) model used in the study confirmed direct reaction by stock yields to changes in earnings expectations.

1.3: Research gap

On surveying the existing literature available on the equity research it is identified that studies verifying the determinants of stock returns have already been made in Indian context, though not extensive. But the divergence in findings of these studies often confuses the millions of investors in the country – which approach they should follow and what factors they have to consider as the base for the valuation of their stock investments. A single study investigating the usefulness of fundamental approach in valuation of equity shares in India through an Economy –Industry – Company framework based on a uniform time period has not been found. This makes the research in this area often incomplete and bias. Again most of these studies giving thrust only to identify the prominent factors which determine the stock returns in India during a particular period. In fact they have not made any attempt to examine the ability of these factors to forecast the share prices/returns in subsequent periods, and thus failed to give sensible and concrete solutions to problems persisting in the valuation of stocks in the Indian capital market. Studies leading to the decision as to how the performance of a particular sector or firms in the group specifically affects the returns of that sectoral stock and the nature of relationship between the factors determining its performance and stock returns are rare among the research works of this kind. The present study titled ‘Fundamental approach to valuation of securities – A study with reference to
Information Technology (IT) sector shares in Indian Stock Market” is expected to fill these gaps in the equity research base in India.

1.4: Importance of the study

Even though as a part of economic liberalization measures in the country the capital market reforms have been initiated in India since 1991, it has not acknowledged much mileage until 2000. For the last ten years, there has been a remarkable development in Indian capital market and which is clearly visible there in both market breadth and volume terms. The present study spans from 2000 to 2010, to judge the impact of capital market reforms on the stock market performance in India. Decisions taken within the framework of the firms play a significant role in driving equity prices under the new policy regime (Kakani et al. 2001). So a study relating to valuation of equity shares covering this period could produce more fruitful results than those produced by similar works based on different timeframe.

With changes taking place at terrific pace in the field of investments, it has become a specialized activity demanding scientific plans and procedures for success. Availability of large number of innovative product alternatives has added complexity to the process. One is therefore required to master the science of investing in order to optimize his investment function. Since equity share is one of the important media of investments among the aforementioned group a study of this kind focusing on the general as well as specific factors important in explaining share prices shall definitely help the investors to acquire substantive knowledge on equity investment management and can devise active investment strategies in accordance with their investment objectives and resource constraints. By understanding the dynamic nature of the relationship between these factors and stock prices, the prediction of stock price behavior would be much simpler for them. They need not be gone after the rumors and rationality shall guide the investors in their investment valuation mechanism.
The study might also be relevant to Institutional investors, pension funds and governments as many of these long term investors base their investment in equities on the assumption that corporate cash flows should grow in tandem with the economy, given either a constant or slowly moving discount rate. Thus they can link the expected return on equities to future economic fundamentals. Using these knowledge the policy makers may try to influence the stock markets with the help of effective fiscal/monetary measures and corporate may design and draft appropriate financial and business policies to improve their earnings and financial conditions under the expectations of increased values for their stocks in the market.

Information Technology is of recent origin, but it is spreading fast in India. As per the study of NASSCOM-Deloitte (2008), the contribution of IT/ITES industry to the GDP of the country has soared up to a share of 5 per cent in 2007 from a mere 1.2 per cent in 1998. A number of large, profitable Indian companies today belong to the IT sector and a great deal of investment interest is now focused on this sector. Companies from this sector such as Infosys Technologies, Wipro, TCS etc are constituents of major benchmark indices in India – Nifty and SENSEX, thereby to an extent decide the general price movement in the market. But on the other side compared to other sectoral stocks in India, Information Technology stocks in general are less profitable and more volatile (detailed in Chapter 4 of this report) which is really paradoxical to the basic principle of investment. By assessing the structure of Indian IT Industry and the financial health of its member firms investors can definitely make out the exact reason for this absurdity. It shall also help him to trace out the prominent factors behind the success of profitable stocks from the sector which could be a strong basis for his investment decisions pertaining to this sector or similar sectors in future.
**1.5: Research problem**

The empirical studies conducted in India as well as abroad on the validity of fundamental approach in valuation of stocks have produced mixed results. There are empirical studies reported from the world markets as well as from Indian market supported the efficacy of fundamental approach in long term investment decisions. Several other authors questioned the validity of this approach in producing superior returns to investors. Even those researchers who are positive to this approach, differences of opinion have expressed as to the variables relevant in explaining the stock price behavior in many of the markets they had observed. Some studies have identified some critical variables greatly affecting the share price behavior in a particular market, while some others have found the same group of these variables insignificant in capturing its relationship with stock prices in the same market or at least in another market. These issues which are common to different capital markets across the globe raise the following questions in connection with Indian capital market:- Is the fundamental approach to valuation of stocks bring superior returns for investors in Indian capital market after the recent capital Reforms? Are there any macroeconomic variables in guiding the general price movement in the market? Are the different sectoral indices India have exhibited the uniform risk-return profile, if not, what factors have contributed to such divergence? Are there any firm specific variables that have additional explanatory power in explaining the cross sectional variations of equity returns in India? Is the PE ratio as a tool of Value investment strategy able to identify the mispriced securities in Indian stock market conditions?

The present study is an attempt to answer these questions through an in depth empirical research by using data taken from India stock market.
1.6: Objectives of the study

The main objective is to study the usefulness of Fundamental approach in valuation of equity shares in Indian stock market context. For supporting the main objective, the following sub objectives are also framed out.

1. To analyze the macroeconomic environment of India for knowing its impact on the general price movements in its stock market.
2. To explore the relevant industry variables which cause divergence in the market performance of indices representing equity securities of different industrial sectors in India.
3. To identify the specific company factors which determine the stock returns of firms belonging to Indian IT industry.
4. To evaluate the efficacy of Price Earnings strategy as an analytic device for making successful equity investments in Indian stock market.

1.7: Hypothesis used in the study:

Stock price movement in India is mainly determined by a host of Economy, Industry and Company fundamentals in the long run. So the Fundamental approach to valuation of shares can produce superior returns to long term equity investors in India.

1.8: Database and methodology

1.8.1: Database

The study is based on secondary data. Data related to Indian economy have mainly collected from official publications of Government of India, Central Statistical Organization (CSO), Reserve Bank of India (RBI) and Securities and Exchange Board of India (SEBI) and stock price data have obtained from NSE database. Both industry and firm level data have been collected from databases of
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Prowess (CMIE), Capital Line and CRISIL and also from annual reports of companies. In addition to this, publications of Trade bodies such as NASSCOM, reports of various National and International research firms, Reports, Journals, Periodicals, Text books, News papers etc. have also sourced for other data relevant to the study. Almost all these data were related to the period 2000-01 to 2009-10 (Financial Years).

1.8.2: Methodology

Simulation, Run Test and Auto Correlation Function have been applied for formulating the base hypothesis of the study. Unit root tests (ADF and PP) were used for checking stationary property of time series data. VAR, Impulse Responses Function and Variance Decomposition techniques have been applied for capturing the causal relation between stock returns and macro economic performance of India.

Stepwise regression method (Max R method) has been used for identifying the key industry variables which determine the stock returns in India. Michael Porter’s industry analysis model has been followed for assessing the competitiveness and structure of Indian IT industry. With the help of Financial Accounting ratios, the financial health of companies was assessed. Factor analysis and OLS regression model has been used for making statistical analysis on the firm level financial performance and corporate stock returns in India.

Data used for the analysis and further explanation of the methodology as to its relevance and use are detailed in respective Chapters.

1.9: Limitations of the study

Window dressing practices adopted by corporate in their published financial reports for giving rosier picture on their business often be a major problem in deciding the quality of the data provided by such reports. Since the major input for this research work is published financial data related to corporate firms in India, the
quality of such data over a long period range might be a great challenge. Since the specific objective of the study is the empirical evaluation of Indian stock markets in terms of fundamentals of companies representing Indian Information Technology (IT) industry, the dissimilarity in nature and structure of this sector relative to other sectors in India may cause some problems in making generalizations as to the determinants at firm level in explaining the variations in stock returns in India. Hence the price behavior of stocks from other sectors should also be investigated separately.

1.10: Organization of the research report

The report of the research work is divided into seven chapters with the first Chapter providing an introduction consisting of a brief description of corporate securities' investments, review of literature, importance and objectives of the study, hypothesis used and methodology adopted. A discussion on the different approaches to investment valuation, procedure followed for the formulation of the base hypothesis and a theoretical framework on accounting ratios and its use in company analysis is provided in Chapter 2. Chapter 3 to chapter 6 is devoted to the discussion of the analysis and the results obtained. When Chapter 3 discusses the empirical validity of the causal relations between macroeconomic performance and stock returns in India, Chapter 4 explains the divergence in the market performance of indices representing equity securities of different industrial sectors in India and its causes. It also gives some glimpses of Indian IT industry and its structure and competitiveness. Chapter 5 and Chapter 6 are completely devoted to the discussion of firm level performance and stock returns. While Chapter 5 gives descriptions on the financial performance of selected IT firms in India, Chapter 6 provides empirical validity on the use of Price Earnings ratio in making successful stock investments in India. Finally the last chapter, Chapter 7 is set apart for the summary of findings and conclusions of the study.
References


