Chapter-1

INTRODUCTION OF STOCK PRICE BEHAVIOR THEORIES

1.1 BACKGROUND OF THE STUDY

In the present days of financial markets, investment activity has become an art as well as science. Analysis of investment options always looks into the maximum returns with minimum risk. A number of factors, both internal and external to the business units can cause changes in the returns of the securities. So study of these factors and their impact on security returns generated considerable interest to all the stakeholders of the capital market. Time is the most important factor to be considered for making an investment decision. It doesn't mean timing the market, but time in the market. Prices of shares will fall or rise as time varies. The success of an investment activity depends upon the knowledge and ability of investors to invest the right amount, in the right type of investment and at the right time. A well-planned investment alone can ensure regular income, capital appreciation and can meet the financial requirements of the investors. Forecasting of stock prices may benefit investors to invest the right amount, in the right type of investment, and at the right time. However, forecasting the prices of a stock, which requires study of price and volume behavior of stocks has been a subject of controversy among academicians and stock market professionals. Efficient Market Hypothesis (EMH), Fundamental analysis, Behavioral Finance and Technical analysis are the important school of thoughts which study stock price behavior.

1.1.1 Efficient Market Hypothesis

The concept of stock market efficiency acts as a central paradigm in explaining the behavior of share prices, which is governed by rational,

emotional, economic, geographical and psychological factors. Predictin
the behavior of the stock market is considered as one of the mos
challenging tasks performed by the researchers. Even so, for decades
investors, whether individual or institutional, have always been interested
in finding an answer to the question of how securities are priced. However,
it is believed that a security price moves in such a manner where market
price and its worth are in convergence. However worth of a security
largely depends upon financial and other factors. Information relating
to financial and other relevant factors influence worth of a security and
ultimately its market price. The term market efficiency is used to explain
the relationship between information and share prices in the capital
market literature as it is perhaps the most important concept especially
in terms of understanding of the working of capital markets. It gained
greater importance as the quantum of investment is accelerating in the
market because of technological and regulatory reforms and removal
of other barriers to the international equity investments.

The term market efficiency is used to depict the ability of the stock market to process information with respect to speed and quality. **(Gupta O.P, 1989)** As a result, it is the speed of this price adjustment process which reveals exactly how efficient a market is. Fama Eugene established that information is the basis of efficiency. He defined efficiency of the market as "A market, in which prices always fully reflect available information, is called Efficient" **(Fama Eugene F, 1970)** By virtue of this, such efficiency would result in a price that is appropriate in terms of current available knowledge. This theory is called as the Efficient Market Hypothesis (EMH). The EMH assumes that security prices fully reflect all available information at any given point of time, which implies that price movements do not follow any pattern or trends; they have no memory of their pattern or trends which can make them predictable.

According to the assumption of EMH theory an efficient stock market must ensure rapid information access, so that it can instantaneously process the information to reflect into security prices. Theory implies that stock prices reflect everything known about a company, an industry, or the economy as a whole which gives very little scope for earning extraordinary returns than market returns. There are three forms of EMH based on efficiency of market to access and reflect required information instantaneously.

According to Weak EMH, prices of financial instruments which re in trading (e.g., stocks, bonds, or property) already reflect **publicly vailable historical information**. So only investors of new public iformation and inside information can develop strategies to earn xtraordinary income. According to Semi-strong EMH, prices reflect **ublicly available all information** and instantly change to reflect new ublic information. So only the investors of inside information can evelop strategies to earn extraordinary income. Strong EMH: prices stantly reflect **even hidden or insider information**. So investors ith privileged information also cannot use that information to develop rategies to earn extraordinary income.

1.2 Fundamental Analysis

Fundamental analysis generally refers to the study of the economic d non-economic factors relevant to the price movement of securities. **Kishor Ravi 2002)** It suggests that every stock has an intrinsic value, hich should be equal to the present value of the future income to be earned the stock. Estimate of real worth of a stock is made by considering e earning potentials of a company. However, earning potentials of company depends on the factors relating to a specific company like mpetitiveness, quality of management, operational efficiency, profitability d capital structure and dividend policy. Importance of fundamental alysis is unchallengeable. Decisions based on fundamental analysis n alert investors about the real value of shares, especially in case of arket bubbles. **(Indian Express 14th February 2005)**According to Dr. asanna Chandra (Faculty of Indian institute of management, Bangalore), current market price of a security is less than its intrinsic value then e should enter at the available market price, but if a current market ce is greater than its intrinsic value then one should exit at available rket price."**(Chandra Prasanna, 2008)** In short, fundamental analysts dy the fundamentals to find out the best investment option among ilable corporate firms on the basis of judging potentials of a company. ndamental analysts attempt to quantify the current value of a stock by hering data relating to the general industry outlook, overall market nditions, corporate financial strength and historical patterns of sales, nings, market share, dividends, etc. Thus fundamental analysis covers etailed examination of the underlying forces which affect the well-ng of the economy, industry group and companies.

At the basic level fundamental approach is concerned with the company (which stock is considered for investment). The analysis includes evaluation of company's past financial performance as well as the credibility of its accounts. This approach attempts to determine whether the company is financially sound and would grow in future or continue to achieve the earning level parallel to its past performance. At the industry level, there is an examination of supply, demand forces for the products offered. For the national and global level, fundamental analysis focus on economic and other data to assess the present and future growth of the economy. To forecast the future stock prices, the analysis combines this economic, industry and company analysis to derive a stock's current fair value and then try to assign a future value to the stock as per the analyst's interpretation and projection.

Thus, fundamental approach holds the view that the market price and intrinsic value of stock can differ for some time, but they would eventually tend to be equal. Hence analysis for studying and forecasting intrinsic value is a strategy to grab the difference available between market price and intrinsic value.

1.1.3 Behavioral Finance

Behavioral finance integrates psychology and economics in finance theory. It is a new exemplar of finance, which supplements the existing theories of finance by introducing a study of impact of behavioral forces on financial decisions. It offers a clarification for why investors make irrational decisions. **(www.bookboon.com)**It proposes psychology-based theories to elucidate stock market anomalies on the premises that investors are subject to behavioral biases; it means their financial decisions can be less than fully rational. Evidence of these biases has typically come from cognitive psychology literature which has been applied in a financial context. Examples of biases include overconfidence, over optimism, conservatism, mental accounting, etc. Thus, behavioral finance assumes that it is not the fundamentals or the technical patterns that drive the market price but it is the reaction of the investors and traders to the events that determine market.

1.1.4 Technical Analysis

Contrary to the fundamental analysis, technical analysis is a study of market actions, primarily through the use of charts, for the purpose of forecasting future price trends. **(Achelis Steven, 2005)** It is a study of

trend, its strength, its pattern, continuation, momentum and its reversal to take profitable entry and exit positions on the basis of charts. Technical analysis includes chart pattern study and study of technical indicators. Chart Pattern study discovers numerous buying and selling opportunities based on understanding of momentum of volume (market turnover) and trend. **(Arnold Curtis M., 2001)** Additionally, technical indicators can also be used to generate trading signals (recommendations for buying and selling a particular stock). These signals are of crossover and divergence in nature. Divergence signals show disagreement between the indicator and the stock price. The divergence in uptrend occurs when price makes a higher high, but the indicator does not make a higher high which gives a signal of down trend. In a downturn, divergence occurs when price makes a lower low, but the indicator does not make a lower low which gives a signal of up movement in future. However, the main problem of divergence indicators is that it shows disagreement between the indicator and price, but the degree of disagreement at which buy or sale signal should be assumed as confirmed is at the sole discretion of the user. Thus, in a same situation, one user may find trading opportunities whereas others may find need to wait for confirmation. Whereas in case of crossover signals produced by indicators, signals are generated when the indicator line crosses either price line or other indicator line or a defined level (like a zero line or overbought or oversold line) to confirm the trading signals. Thus, in crossover signals, scope for subjectivity is substantially reduced for confirming the trading opportunities. **This topic evaluates performance of technical indicators which generate such crossover signals.**

In this study, the results of the transactions which are based on such crossover signals given by the technical indicators are compared with each other to guide the readers for their indicators study and investment decisions. This study is interdisciplinary in nature. It used investment profitability ratios which are widely used in the field of accounting and finance. Research is based on these measures for evaluation of the transactions which are triggered by crossover signals of technical indicators in S & P CNX Nifty Index stocks.

1.2 FOCUS OF THE STUDIES

EMH, behavioral finance, fundamental analysis and technical analysis are the theories which include study of price behavior of

stocks. These theories are interwoven as well as contradictory to each other. As per the EMH theory, due to the instantaneous response of prices towards the relevant information, there is a little scope for earning extraordinary returns. Contrary to it, behavioral finance assumes the existence of irrational and psychological forces have brought anomalies in stock behavior. Whereas Fundamental analysts assume that a study of financial, political and other concerned factors can determine the intrinsic value of a stock. On the basis of intrinsic price and current market price buy, hold or sell signals can be given to earn handsome amount of profit. Lastly Technical analysts assume that price actions are repetitive in nature, they move in a trend and generate patterns. Thus, the study of past price actions is useful to forecast future move and hence extraordinary returns can be generated.

Among all these theories, technical analysis has been used to recommend buying and selling of a particular stock based on chart patterns and price levels. With growing volume of market capitalization and technological reforms, brokers and research houses have extended their services to the clients including giving recommendations of buying and selling particular stocks. These recommendations are of short as well as for long term duration based on technical or fundamental analysis of a security. Short term recommendations which are generally based on technical patterns and price levels are called as technical calls. These technical calls are exposed to market volatility and risk. They may result into huge amount of profit in short duration or just diminish the funds of traders.

1.3 MEANING OF THE IMPORTANT TERMS

1.3.1 Stock Market (www.sebi.gov.in)

Stock market is a secondary capital market. It is a mechanism which provides buying and selling of corporate securities which include shares, debentures etc. It also provides trading in futures and options.

1.3.2 Investment (Accounting Standard 13)

Investment means the asset held for earning income by way of dividend, interest or rentals, for capital appreciation or for other benefits. Investment is of three types: Current investment, long term investment and investment property. Current investment is an investment which is readily realizable and is intended to be held for not

more than one year from the date of which such investment is made. Long term investment is investment other than current investment. Lastly, investment property is an investment in land or building that is not intended to be occupied substantially for use by or in their operation of the investing enterprise.

1.3.3 Technical Analysis (Murphy John, 1999)

It is a study of market actions, primarily through the use of charts, for the purpose of forecasting future price trends. It is a study of trend, its strength, its pattern, continuation, momentum and its reversal to take profitable entry and exit positions on the basis of charts.

1.3.4 Technical Indicators (www.investopedia.com)

These are calculations based on the price and the volume of an underlying security that measure such things as money flow, trends, volatility and momentum. Indicators are used as a secondary measure to the actual price movements and add additional information to the analysis of securities. Indicators are used in two key manners: to endorse price change and the quality of chart pattern and to give buy and sell signals. Indicators provide an extremely lucrative information addition to price change. These indicators assist to pinpoint momentum, trends, volatility and liquidity positions of market.

1.3.5 Index (www.nseindia.com)

An Index shows how a specified portfolio of share prices is moving in order to give an indication of market trends. It is a basket of securities and the average price movement of the basket of securities indicates the index movement, whether upwards or downwards.

1.3.6 S & P CNX Nifty Index (www.nseindia.com)

S&P CNX Nifty is a scientifically developed index on fifty stock prices, reflecting accurately the market movement of the NSE. It is currently known as **CNX Nifty Index or simply Nifty Index.** It comprises of some of the largest and most liquid stocks traded on the NSE. It is maintained by India Index Services & Products Ltd. (IISL), which is a joint venture between NSE and CRISIL. The index has been co-branded by Standard & Poor's (S&P).

1.3.7 Trend (www.investopedia.com)

Trend is the general direction in which a security or market is headed.Trend is generally calculated on the difference between Closing and Opening price divided by opening price multiplied by 100.Trend is expressed in terms of Percentage. A trend can be Positive or Negative. If the closing price is greater than the opening price trend, is Positive on the other hand, if the opening price is greater than the closing price, the trend becomes Negative. A trend can be calculated for a day, a week, a month or even for a year. Depending upon time span chosen trend can be Short term, Medium term and Long term in nature.

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