

BEHAVIORAL FINANCE- A REVIEW

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ABSTRACT

According to conventional financial theory, the world and its participants are, for the most part, rational "wealth maximizers". However, there are many instances where emotion and psychology influence our decisions, causing us to behave in unpredictable or irrational ways. Behavioral finance is a branch of finance that studies how the behavior of agents in the financial market and influenced by psychological factors and the resulting influence on decisions made while buying or selling the market, thus affecting the prices. The science aims to explain the reasons why it's reasonable to believe that markets are inefficient. Some of the key definitions of behavioral finance are discussed below.

According to Sewell (2007), "*Behavioral finance is the study of the influence of psychology on the behavior of financial practitioners and the subsequent effect on markets.*"

This field deals with theories and experiments that focus on what happens when investors make emotional decisions and based on intuition.

Let's discuss why is behavioral finance necessary? Is it really required to be studied? When using the labels "conventional" or "modern" to describe finance, we are talking about the type of finance that is based on rational and logical theories, such as the capital asset pricing model (CAPM) and the efficient market hypothesis (EMH).

TRADITIONAL FINANCE VIS A VIS BEHAVIOURAL FINANCE

The Modern Portfolio Theory (MPT), Capital Asset Pricing Model (CAPM) and Arbitrage Pricing Theory (APT) are the quantitative models that underpin the rational expectations based theories. Unfortunately, there is a large amount of research, which could not confirm this theory in the available investment data. For example, Fama and French, (1993, 1996) and others have shown that the basic facts about the aggregate stock market, the cross-section average returns and individual trading behavior are not easily understood in this framework. The behavioral finance paradigm has emerged in the response to the difficulties faced by the traditional paradigm.

In essence, it argues that investment choices are not always made on the basis of full rationality, and it attempts to understand the investment market phenomena by relaxing the two doctrines of the traditional paradigm, that is,

- (i) investors fail to update their beliefs correctly and
- (ii) there is a systematic deviation from the normative process in making investment choices. (Kishore,2004)

Although it is relatively easy to pour cold water on the efficient market hypothesis, its relevance may be growing. With the rise of computerized systems to analyze stock investments, trades and corporations,

investments are becoming increasingly automated based on strict mathematical or fundamental analytical methods. Given the right power and speed, some computers can immediately process all available information, and even translate such analysis into an immediate trade execution.

Despite the increasing use of computers, however, most decision-making is still done by human beings and is therefore subject to human error. Even at an institutional level, the use of analytical machines is anything but universal. While the success of stock market investing is based mostly on the skill of individual or institutional investors, people will continually search for the surefire method of achieving greater returns than the market averages.

Schindler (2007) lists three main cornerstones for research in Behavioral finance. (i) Limits to arbitrage – which argues that “*it can be difficult for rational traders to undo the dislocations caused by less rational traders*” (Barberis and Thaler, 2003). Therefore, arbitrage opportunities exist which allows investor behavior to be substantially irrational and have long-lived impact on prices.

Behavioral finance argues that some financial phenomena can plausibly be understood using models in which some agents are not fully rational. The field has two building blocks: limits to arbitrage, which argues that it can be difficult for rational traders to undo the dislocations caused by less rational traders; and psychology, which catalogues the kinds of deviations from full rationality we might expect to see. To explain investor irrationality and their decision-making process, behavioral finance draws on the experimental evidence of the cognitive psychology and the biases that arise when people form beliefs, preferences and the way in which they make decisions, given their beliefs and preferences (Barberis and Thaler, 2003) thus bringing us to the second cornerstone (ii) Psychology – research in this area has shown that individuals exhibit certain biases systematically while formulating their beliefs and preferences thus affecting their decisions. (iii) Sociology – which emphasizes the fact that a considerably huge number of financial decisions are a result of social interaction rather than being made in isolation. This contradicts the implicit assumption that individuals reach decisions without external influences.

The field of finance, until recently, had the following central paradigms:

- (i) portfolio allocation based on expected return and risk
- (ii) risk-based asset pricing models such as the CAPM and other similar frameworks,
- (iii) the pricing of contingent claims, and
- (iv) the Miller-Modigliani theorem and its augmentation by the theory of agency.

These economic ideas were all derived from investor rationality. While these approaches revolutionized the study of finance and brought rigor into the field, many lacunae were left outstanding by the theories. For example, the traditional models have a limited role for volume, yet, annual volume on the NYSE amounts to somewhere in the region of 100% of shares outstanding. Second, while the benefits of diversification are emphasized by modern theories, individual investors often hold only a few stocks in their portfolios. Finally, expected returns do not seem to vary in the cross-section only because of risk differentials across stocks.

Based on the above observations, traditional finance appears to play a limited role in understanding issues such as (i) why do individual investors trade, (ii) how do they perform, (iii) how do they choose their portfolios, and (iv) why do returns vary across stocks for reasons other than risk. In the arena of corporate finance, recent evidence indicates that mergers and acquisitions and capital structure decisions do not seem to conform to rational managers behaving as per the theories, so again, there is a puzzle to be explained.

Behaviour Finance is a relatively new paradigm of finance, which seeks to supplement the traditional and standard theories of finance by introducing behavioral and emotional aspects to the decision-making process. It assumes that the investors are subject to mental perceptions and errors and not always rational in their decision making. Early proponents of behavioral finance are considered by some to be visionaries. The awarding of the 2002 Nobel Prize in economics to psychologist Daniel Kahneman and experimental economist Vernon Smith vindicated the field. Kahneman studied human judgment and decision making

under uncertainty while Smith studied alternative market mechanism through experimental research. This was the first time a psychologist was awarded the Nobel Prize and played a key role in convincing mainstream financial economists that investors can behave irrationally.

Over the past decade, behavioral finance has become a household name in the finance industry. Nowadays, many financial institutions offer financial services based on findings grounded in behavioral finance. For instance, defined contribution pension plans, in which participants have to decide how to invest their retirement money, use findings from behavioral finance to help participants improve their investment strategies. Also, many asset managers and hedge funds act based on strategies originating in behavioral finance.

As the name suggest, behavioral finance aims at improving the understanding of financial markets and its participants by applying insights from behavioral sciences (e.g. psychology and sociology). This in sharp contrast to the traditional finance paradigm, which seeks to understand financial decisions by assuming that markets and many of its participating people and institutions (called economic agents) are rational. That is, they should act in an unbiased fashion and make decisions by maximizing their self-interests. The economic concept of rationality means that economic agents make the best choices possible for themselves.

Although appealing, this concept entails strong and unrealistic assumptions about human behavior and the functioning of financial markets. For example, it assumes that economic agents process new information correctly and make decisions that are normatively acceptable (Barberis and Thaler, 2003). Agents must be capable of integrating and considering many different pieces of information and must fully understand the future consequences of all their actions. Moreover, financial markets must be frictionless, such that security prices reflect their fundamental value (i.e. prices are right), and the influence of irrational market participants is corrected by rational traders (i.e. markets succumb to efficiency). By contrast, human beings and financial markets do not possess all of these capabilities and characteristics. For example, people fail to update beliefs correctly (Tversky and Kahneman, 1974) and have preferences that differ from rational agents (Kahneman and Tversky, 1979). People have limitations on their capacity to process information, and have bounds on capabilities to solve complex problems (Simon, 1957). Moreover, people have limitations in their attention capabilities (Kahneman, 1973), and care about social considerations (e.g. by deciding not to invest in tobacco companies). In addition, rational traders are bounded in their possibilities such that markets will not always correct 'non-rational' behavior (Barberis and Thaler, 2003).

Therefore, classic finance theories may give a bad description of financial behavior. In fact, several studies confirm this suggestion in the aggregate behavior of financial markets, the trading behavior of individual investors and the behavior of managers. For example, numerous evidences show that the most important traditional asset pricing theory, the Capital Asset Pricing Model (CAPM), is inconsistent with many empirical regularities found in cross-sectional asset pricing data, showing that one group of stocks earn higher (risk-adjusted) returns than another. Moreover, stock and bond returns are predictable based on various macro-economic variables, as well as investor's sentiment measures (Fama and French, 1988, 1989, Whitelaw, 1994, Cremers, 2002, Avramov, 2004, Baker and Wurgler, 2007). Hence, not all information is correctly included in market prices. Another traditional finance anomaly is the equity premium puzzle, which says that stocks outperform bonds over long horizons by a difference that is too large to explain by any rational asset pricing theory (Mehra and Prescott, 1985). Furthermore, many individual investors hold investment portfolios that are insufficiently diversified or non-preferred (Benartzi, 2001 and Benartzi and Thaler, 2002) and that under-perform benchmarks due to excessive trading (Barber and Odean, 2000).

By contrast, the main thought behind behavioral finance is that investment behavior exists, that differs from what the traditional finance paradigm assumes, and that this behavior influences financial markets. Indeed, many recent studies show that behavioral finance theories are able to explain several empirical findings the traditional finance theories leaves unexplained. For example, Benartzi and Thaler (1995) and Barberis, Huang and Santos (2001) show how a disproportionately large aversion to losses, in combination with an annual investment horizon, can explain the puzzling high returns of equities over bonds (i.e. the equity premium puzzle). Similarly, Barberis, Shleifer and Vishny (1998), Daniel, Hirshleifer and Subrahmanyam (1998), Hong and Stein (1999) and Barberis and Shleifer (2003) explain the high (low) returns of stock after

good (bad) earnings announcements, high (low) returns for recent winner (loser) stocks, and the reversal of these recent winner or loser returns over longer horizons, by modeling various behavioral biases and limitations to which investors are subject.

Moreover, Shefrin and Statman (1984) show how behavioral finance can explain why firms pay dividends, while dividends actually have a tax disadvantage.

Over and above, findings from behavioral finance have proven to be excellent tools for improving the decisions of individual investors, especially in investment decisions for retirement (Benartzi and Thaler, 2004). Moving focus to India in 2008, the SENSEX – India's oldest and among the most popular stock market index of the Bombay Stock Exchange representing the free-float market value of 30 component stocks representing the most well-established companies across key sectors – had touched an all-time high closing high of 20,873 points in January 2008 although the sub-prime mortgage crisis had already originated in the USA. A year later, in March 2009, the index had tanked to 8,160 points, after the crisis had spread globally. Even before the impacts of the crisis had smoothed out completely, the SENSEX touched a new all-time high in November 2010 and closed at 20,893 points. Therefore, it can be observed that one word that has dominated the world of financial markets since 2008 has been 'Volatility' and the markets in India have been no exception. Extreme movements in stock prices because of fear and anticipation have, as it is supposed to, made life tough for a rational investor.

Market sentiments have been observed to sway wildly from positive to negative and back, in the shortest timeframes like weeks, days and hours. In this context, understanding irrational investor behavior becomes extremely imperative for higher and consistent returns. Various psychological biases can be arguably influencing the investment decisions of investors, and this is where the problem was identified.

HOW PEOPLE HANDLE DECISION MAKING

People have erroneous intuitions about the law of chance. They regard a sample randomly drawn from a population as highly representative (Kahneman and Tversky, 1971) and 'representativeness' plays a key role in intuitive predictions made by investors (Kahneman and Tversky 1972, 1973). **The three heuristics and biases i.e. 'representativeness', 'availability', and 'anchoring' as used by the investors in various decision situations leads to improve their judgment in situations of uncertainty.** The choice of investors is also affected by the "framing effect", which refers to the way in which the same problem is explained in different ways and presented to decision makers and effect helps one to study how axioms of rational choice does not hold (Tversky and Kahneman, 1981) Framing also results in the violation of the rule of dominance. The role of transparency and the significance of framing are consistent with the concept of bounded rationality (Tversky & Kahneman, 1986).

The investors place much more weight on the outcomes that are perceived more certain than those that are considered mere probable, a feature known as the "certainty effect" (Kahneman and Tversky, 1979).

Another tendency among people was recognized that they segregate their money into different accounts based on varying criteria and treat these accounts differently, leading to another Behavioral bias known as "Mental Accounting" (Thaler, 2008).

Investors along with many other biases were seen exposed to this bias as well (Jureviciene & Jermakova, 2012) **Thaler made a remark in National Bureau of Economic Research (NBER) conference to traditionalist Robert Barro and said "The difference between us is that you assume people are as smart as you are, while as I assume people are as dumb as I am".**

This statement beautifully illustrated how modest differences in traditional and behavioral viewpoints can be amplified by framing and presentation. Normal consumers, unlike experts, do not spend whole of the time in thinking about the decisions they must make. They simply follow some simple rules to arrive at decisions, rather than going into some experts' complex models and details (Thaler, 1980). Thaler (1999), in an article "The End of Behavioral Finance," predicted that in the not-too-distant future, the term behavioral finance will be correctly viewed as a redundant phase. What other kind of finance is there? In their enlightenment, economists will routinely incorporate as much, behavior' into their models as they observe in the real world. After all, to do otherwise would be viewed as irrational'.

Often investors hold on to losers too long and sell winners too soon. Apparently, investors fear losses much more than they value gains. This is explained by 'prospect theory', which contends that utility depends on deviation from moving reference points rather than absolute wealth (Kahneman and Tversky, 1979).

Another bias documented by Solt and Statman (1989) for growth companies is over confidence in forecasts, which causes analysts to overestimate growth rates for growth companies and over emphasize good news and ignore negative news for these firms. Investors generally think they are smarter and have better information than they do (Pompian, 2006; Shefrin, 2000). Investors are positive about the likely performance of the shares that they own rather than the ones they don't own (Hassan et al, 2013). Investors exhibit behavioral biases and make poor trading decisions, while as experienced investors make more trading mistakes (Chen et al, 2004). A common trait among investors is a general over confidence of their ability when it comes to pricing stocks and to decide when to enter or exit a market. These tendencies were researched by Odean (1998) and he manifests that traders who conduct trades were average and had under performance compared to market. Further, psychologists have determined that over confidence causes people to overestimate their knowledge, under estimate risks and exaggerate their ability to control events. Studies reveal gender has an impact on overconfidence and generally men are more overconfident compared to females (Bondt, 1998 & Lin, 2011). This type of behavior exhibits the highest level of over confidence (Nofsinger, 2001). Sometimes investors disregard the reason that stocks evident drop, the anchored higher price is mentally considered its 'rightful' price. The stock is therefore believed to bounce back over a certain time (Phung, 2008; Fagerstrom, 2008). An investor generally feels that the stocks of growth companies will be good stocks. This bias is referred to as confirmation bias, whereby investors look for information that supports their prior opinions and decisions. As a result, investors place incorrect value for the stocks of generally popular companies. Similarly, some investors have tendency to think that one would have known actual events prior to the time when they actually unfold, had one be present then or had he paid serious attention, referred to "Hindsight Bias" (Shiller, 2000; Hertwig et al, 1997).

In this context, Monti and Legrenzi (2009) investigated that relationship between investment decision making and hindsight bias and concluded that there is a strong evidence for the consequences that hindsight bias has affected the investor's portfolio decisions, portfolio allocation and risk exposure. Sometimes an investor operates in stock market under the perception that errors in random events are self-correcting and present trend will reverse automatically, is generally referred to as "Gamblers Fallacy Bias" (Kahneman and Tversky, 1971; Shefrin, 2000). Gambler's Fallacy is believed to be a product of "Representativeness" and analysts are prone to exhibit Gambler's Fallacy (Shefrin, 2007)

Brennan et al. (1998) find that investments based on book/market and size result in reward-to-risk ratios which are about three times as high as that obtained by investing in the market. These seem too large to be consistent with a rational asset pricing model. Given the Euler equation for the representative investor, as Hansen and Jagannathan (1991) point out, a high Sharpe ratio implies highly variable marginal utility across states. Moreover, the returns of small and high book/market stocks would need to covary negatively with marginal utility. This implies that the returns would need to be particularly high in good times when marginal utility is low and vice versa. Lakonishok et al. (1994) do not find any evidence that this is true.

Rouwenhorst (1999) finds that firm size and book-to-market ratios predict returns in several emerging markets. Daniel and Titman (1997) also find that the common stocks of firms with higher book/market ratios are more liquid than vice versa, so that the book/market effect cannot be justified by way of an illiquidity premium.

Jegadeesh and Titman (1993) provide evidence of the important 'momentum anomaly,' namely, the cross-sectional predictability of returns over 6–12 month horizons. Rouwenhorst (1998) finds out-of-sample evidence of a momentum effect in many European countries. The momentum anomaly has been analyzed extensively in subsequent literature, and there is little doubt that it is robust across time, and across many countries. While Conrad and Kaul (1998) attribute the momentum anomaly to time-variation in expected returns, Jegadeesh and Titman (2002) argue that methodological issues in their study negate their conclusions.

Hong et al. (2005) suggest a model where agents use overly-simplified models to evaluate stocks, ignoring the true, more complex model. They use this notion to explain a variety of phenomena including momentum and asset bubbles. For example, an agent who believes in a particular model uses this model to make persistent forecast errors while ignoring a persistent but pertinent information signal, which leads to momentum. Further, an agent using a particular model while seeing a sequence of positive earnings, can

drastically re-evaluate his beliefs after seeing the sequence being broken, leading to dramatic changes in stock prices.

A notable recent addition to theoretical thought is Barberis and Shleifer (2003), which argues that the tendency of investors to heuristically categorize objects can lead to the emergence of style-based mutual funds. Further, assets within a style co-move more than those outside of that style. The research by Barberis et al. (2005) follows up by documenting that S&P 500 betas of stocks go up when these stocks are added to the index, and, in effect, arguing that this comovement, at least in part, is simply because investors treat S&P stocks as belonging to one category.

Other empirical evidence on the theories is preliminary at this point. For example, Kausar and Taffler (2006) provide evidence supporting the Daniel et al. (1998) arguments. They show that stocks initially exhibit continuation in response to an announcement (a going-concern audit report) that the firm is in distress, but later exhibit reversals. Chan et al. (1996), however, argue that momentum is due to slow diffusion of news, because they do not find any evidence that high momentum stocks reverse later. Doukas and Petmezas (2005) find support for the self-attribution hypothesis in the market for corporate control. Specifically, they find that managers earn successfully smaller returns in each successive acquisition, suggesting they become more and more overconfident with each successful acquisition.

Chan et al. (2003) find no evidence in favour of the Barberis et al. (1998) implication of extrapolation following a sequence of news events within returns data, but, using order flow data around earnings announcements, Frieder (2004) does. Hong et al. (2000) find that stocks with fewer analysts following them have greater momentum, suggesting that less analyst following, by causing slower diffusion of news creates more momentum, thus supporting the Hong and Stein (1999) arguments. Doukas and McKnight (2005) show that the Hong et al. (2000) results also hold in Europe, providing out-of-sample confirmation to the Hong and Stein (1999) theory.

To provide a room for the limitation of the standard finance model, behavioral finance has added a few assumptions about the cognitive limitations to the basic models of standard finance (Kahneman, 2003). Adaptive market hypothesis can better explain the market behavior as compared to EMH (Tseng, 2006). Behavioral finance cannot be considered as a separate discipline but instead a part of main stream finances (Ritter, 2003). The efficient model theory has failed to such an extent that it would be impossible to attribute this failure to as data error, price index error or change in tax laws (Shiller, 1981). This philosophy is so strong that we need to redefine and readjust our legal fundamentals to the new insights of behavioral finance (Spindler, 2011).

An analysis of the literature states that individual investor behavior acts as an important determinant of movements in stock prices and subsequent returns. This may also help in revisiting the asset pricing theories by incorporating behavioral factors into the existing theories of asset pricing.

Taking into consideration the theory of irrationality, researchers have shown that investors across financial markets do not act in purely rational manner, rather their investment decisions are influenced by a number of factors which also include psychological biases, heuristics, social affiliation, demographic factors and so on (Kumar and Lee, 2006; Baker and Wurgler, 2007; Gärling et al, 2009; Barnea et al, 2010). The purpose of the present study is to show the impact of several behavioral and contextual factors on Indian individual investors' decision making in financial markets.

We argue that unlike their peers in developed financial markets such as the USA and Europe, Indian individual investors are more susceptible to psychological biases while making investment decisions in financial markets. To identify the behavioral factors and establish their relationship with investor behavior in financial markets, we follow the cognitive approach and carried out a structured survey of individual investors. Using the widely approved methodology of inferential analysis, we apply in addition to univariate techniques the principal components analysis and follow the Varimax rotation with the Kaiser criterion to extract and truncate the factors from variables/items captured by the questionnaire survey. We find that for sample Indian individual investors, five pertinent axes of behavioral factors are mainly affecting their behavior. These factors are: financial heuristics, self-regulation, prudence and pre-cautious attitude, financial addiction, and informational asymmetry. The results reveal that certain psychological axes, such as conservatism and under-confidence, are consistent with the prior literature to some extent; but there are some contrary behavioral axes reported by the multivariate analysis such as prudence and pre-cautious attitude and informational asymmetry which are not yet considered in prior literature in growing economies,

particularly in Indian context.

Many recent studies in applied finance argue that individual investor behavior is often affected by a variety of psychological heuristics and biases. In general, the sentiment of individual and retail investors does affect stock prices, as their trading is systematically correlated (Barber, Odean and Zhu, 2005). Sentiment underlying individual investor behavior consists of many psychological factors. A combination of mental accounting (Thaler, 1985) and risk seeking in the domain of losses (Kahneman and Tversky, 1979) may lead investors to hold onto losing investments and sell winners (Shefrin and Statman, 1985; Odean, 1998; Weber and Camerer, 1998; Heath, Huddart, and Lang, 1999; Grinblatt and Keloharju, 2001; and Dhar and Zhu, 2006). The representativeness heuristic (Tversky and Kahneman, 1974) leads investors to buy securities with strong recent returns.

Overconfidence causes investors to trade too aggressively and, in combination with self-attribution bias, could contribute to momentum in stock returns (Kyle and Wang, 1997; Odean, 1998; Daniel, Hirshleifer, and Subrahmanyam, 1998, 2001; and Gervais and Odean, 2001). Limited attention may constrain the set of stocks which investors consider buying (Barber and Odean, 2005) thus concentrating purchases in attention grabbing stocks. And anticipated regret may dissuade investors from purchasing stocks that have risen since they were previously sold or purchased (Odean, Strahilevitz, and Barber, 2004).

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Many researchers are trying to address the behavioral issues in stock market through their own ways. The supporters of behavioral finance are trying to explain them through certain behavioral and psychological factors. Though exploring the aspects of investor behavior by analyzing data from stock market is widely applied, assessing individual investment behavior thorough questionnaire survey is also a well adopted approach in behavioral finance research. Behavioral finance researchers have adopted this approach to identify the significance of several cognitive and behavioral factors on individual behavior.

Nagy and Obenberger (1994) develop a questionnaire that included 34 factors influencing individual investors' behavior such as expected corporate earnings, diversification needs, feelings for firm's products and services, past performance of stocks, past performance of their own portfolio, stock broker recommendations to name a few. Their findings suggest that classical wealth-maximization criteria are important to investors, even though they employ diverse criteria when choosing stocks for investment.

THE ROAD AHEAD

Thus, traditional finance theory plays a limited role in understanding issues such as:

1. Why do individual investors trade?
2. How do they perform?
3. How do they choose their portfolios? and
4. Why do returns vary across for reasons other than risk?

During 1980s, the basic assumptions of the standard finance theory were questioned and it was observed that investors rarely behave within the premises of assumptions made in traditional finance theory and as such over last two decades behavioral researchers stated that finance theory should consider observed human behavior to analyze changes in the financial markets and the impact of various human biases on the decision-making behaviors of the agents of this environment. All this has resulted into new branch of finance namely Behavioral Finance, which mainly studies the psychology of financial decision making. In recent times "neuro-finance" has become the attraction of behavioral finance researches. The failures of various stock markets world over and perception of economists and consequently the theories they swear by on various occasions has put forward the questions: are people rational? or, are they swayed by bouts of emotions like fear, confirmation and greed, which could lead to bad decisions? Evidence reveal pattern of irrationality, inconsistency and incompetence in the way investors arrive at decisions and choices when faced with uncertainty Bernstein, 1998. Thus, assumption of EMH that investors take rational and unbiased decisions has been drubbed by psychologists for a long before Nofsinger (2001).

The theoretical and experimental work of two famous psychologists Daniel Kahneman and Amos Tversky made some remarkable contributions to psychology literature that served as a foundation and gave rise to this new paradigm. Thus, this new branch of financial economics was added in 1980s and then became part of standard finance theories during 1990s.

Normal people do not obediently follow that pattern. Thaler in his paper “Towards a Positive Theory of Consumer Choice” argued that the orthodox economic model of consumer behavior is a model of Robert-like experts and no human psychology/biases play any role in financial decision making (Thaler, 1980). The traditional finance researchers see financial settings populated not by the error prone and emotional ‘Homo Sapiens’, but by the awesome “Homo Economicus”. Behaviorists in finance seek to replace Homo Economicus with a more realistic model of the financial actor (Bloomfield, 2010). After all the market performance is determined by people and they cannot always be considered rational in all their investment decisions, especially during times of financial distress because one has to analyze how investors process information to reach decisions and preference regarding investments (Shefrin, 2000).

A paradigm shift has taken place in recent years in the study of stock market behavior and this shift has changed the direction of research from the study of ‘financial environment’ to the ‘agents of this environment’, all this has led to the development of a new field of financial research namely ‘behavioral finance’. Up to 1970s most of the research studies in the area of finance were directed towards the environment and its functioning. Financial environment includes different types of markets like bond markets, forex markets, stock markets, commodity markets, OTC (over the counter) markets, real estate markets and cash or spot markets. After this phase researchers realized that in order to understand the environment in itself it is necessary first to understand the psyche of the agents of the environment because these agents (people) are sine-quo-non-in the financial environment. These agents of environment are identified as new “subject of study” and they include individual investors, fund managers, analysts, broking firms and government. Another important factor that leads to the acceptance of individual agents rather than the collection of agents (i.e. market) as the subject matter of the study was the fact that a few individuals cannot be regarded as the representatives of all the population, as humans are the most diverse entities of the universe.

All this has culminated into the fact that the factors (agents) of environment are more important for the study of entire financial environment and as such a new field of study called ‘Behavioral Finance’ evolved.

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