A Review On Paradigm Shift From Conventional Finance To Behavioral Finance

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ABSTRACT
People often make investment decisions involving behavioral dimensions. The era of conventional finance evolved around investor being rational and profit maximisers. Naturally, every individual think that they take decisions in a rational manner. But being emotional, we really fall prey to different psychological biases knowingly or unknowingly. The objective of this paper is to gain a deeper understanding of different behavioral biases through the overview of emerging literatures in the field with special reference to Herding bias, Overconfidence bias and Risk Tolerance bias. From the paper, the conclusion is that the emergence of the field of behavioral finance took place due to the limitations of conventional finance. This paper shall have a significant impact on different investors, practitioners, fund managers, investment analysts, financial experts and broking firms which will help in creating awareness and expanding knowledge about these dimensions across the financial industry.

Keywords: Investment Decisions, Conventional Finance, Behavioral Finance, Herding bias, Overconfidence bias, Risk tolerance bias.

JEL Classification: G11, G14

INTRODUCTION
In the conventional finance era, investors were assumed to be rational and economic evaluators of their investments with the objective of profit maximisation. Given different levels of expected risk and return, the investors would be indifferent. Some of the theories that are associated with conventional finance are: Markowitz Portfolio Selection Model, Capital Asset Pricing Model (CAPM) and Efficient Market Hypothesis (EMH) mentioned by Riccardi & Simon (2000). According to these theories, stock market follows a random walk and investors want to gain maximum utility at any given level of risk. Fromlet (2001) says the origin of term ‘rational man’ was found in way back to 19th century where ‘Homo Economicus’ was defined as “all human are rational and being capable of subjectively evaluating their judgements”. From this, the conventional finance theories have been emerged.

Despite the application of conventional finance models, the investment decision making was always a complex structure. Economics was never away from the human psychology. This was the time when a new school of thought took its birth, called as “Behavioral Finance”. The disciplines of Sociology, Economics, Psychology and Finance have underpinned the discipline of Behavioral finance. Every investor is different in his approach and it is the psychology that makes them irrational in taking investment decisions. Based on the premise of psychology, behavioral finance seeks to explain how and what aspects of the investment decision making. We are often surrounded by the notion of greed or fear, overconfidence or under confidence, emotional biases and its various dimensions as identified by Barber & Odean (2001), Jaiswal & Kamil (2012). They overdo our rationality and we fall prey to those dimensions.

Behavioral finance studies the inefficiency and anomaly in the market and tries to find answers for the kind of behavior that an investor displays while doing investment.

Growing evidence of market volatility, bubbles, anomalies and inefficiencies of the market shows that behavioral finance is the upgrowing field of finance (Redhead, 2008). And this has to be studied differently to get an insight towards this field of finance.

In these changing circumstances and market turbulence, the way an investor behaves is totally accounted by the situations under uncertainty. In the subsequent sections; we would check several theories and concepts of conventional finance as well as behavioral finance and would explain three types of biases i.e.; herding bias, overconfidence bias and risk tolerance bias in detail which affects investment decision making.
RATIONALE OF THE STUDY
In the backdrop of the background presented, it becomes essential to find out the rationale behind the emergence of behavioral finance. The various theories of behavioral finance works on the assumption of rationality. However, in practice we find many instances that state the deviation from rational decision making framework. The financial market has seen various anomalies and inefficiencies caused by asset bubble, market crash and uncertain events. If these would not have existed, the investor behavior would have been effectively rational. This brings into mind the drivers of behavioral finance. Conventional finance talks about how investors should behave but behavioral finance mentions how investors actually behave. Empirical result that stems from behavioral finance takes a shape of a greater perspective than that of the conventional finance. The pricing puzzle deviates the arguments of market efficiency to behavioral approach. Under conventional finance, the investors utilise all the information properly and maximises the profit, takes a risk averser approach and chooses the best efficient portfolio, whereas decisions based on behavioral finance approach are suboptimal as compared to conventional finance. The third party viz; media, financial intermediaries, other sources of information etc. creates narrow framing in the mind of investors, influences the interpretation process and act as a contradiction to the rational preference. Hence, contrary to the assumptions of rationality, individuals rely on heuristics leading to suboptimal outcomes and errors in decision making. This brings the need to look at the paradigm shift towards behavioral approach from a different perspective.

CONVENTIONAL FINANCE
Parashar (2012) finds financial market is a wide spread market where the information processing is very fast and speedy. Uncertainties and chances of risk are the core aspects of investment. Such a diverged field demands much attention of financial researchers, academicians, practitioners and last but not the least, the investors. Taking this fact into account we start with the traditional form of finance i.e. conventional or mainstream finance and would look into theories and concepts which have emerged in that field.

Looking back to the Conventional Finance theories, it revolved around investors as being rational, subjective evaluators and profit maximizers by the study of Fama (1970). Harry Markowitz (1952) introduced Modern Portfolio Theory (MPT) in his paper “Portfolio Selection”, which was published by Journal of Finance in 1952. Curtis (2004) says that investor attempts to maximise portfolio expected returns with the given level of risk. Modern Portfolio Theory argues that diversification is an integral part of investment.

The expected return of investors could be biased based on different psychological dimensions. However, Eugene Fama and Kenneth French developed Fama – French three - factor model where they took three variables into consideration instead of one variable that was used in CAPM to determine the return of the stock studied by Fama (1998).

Now we shift our attention to the most happening theory of conventional finance which is the “Market Efficiency” theory. Eugene Fama developed this theory in early 1970 and further added more to it during the later years.

Let’s look into the three forms of market efficiency: Weak Form, Strong Form and Semi Strong Form. **Weak Form:** This form of market efficiency says that the past security prices have no relationship with the future security prices. We cannot predict the future prices based on the historic information of security prices. Gitman & Joenk (2012) assumes there is no dependency of future data on past data because the current prices are the true reflector of all the available information.

**Semi Strong Form:** This state of market efficiency states that one cannot earn any kind of abnormal profit because the public information like dividend, corporate announcement etc; is already locked away by the security prices. Based on fundamental or technical analysis there is no way to find out the undervalued stock or overvalued stock, Geoffrey & Stanley (2003).
**Strong Form:** There is no public or private information that an investor uses to make any abnormal returns. The stock price immediately absorbs all the information very quickly which hardly provides the investor any scope of insider trading. Only the corporate insiders that have an access to companies information can avail the inside information. But that type of information is sometimes obtained illegally.

There seem to be several anomalies in the market, which act against any form of efficient market. Anomalies such as: excessive volatility, calendar effects, risk premium puzzle, close end fund discount, small-firm effect, earnings announcement, price-to-earning effect, neglected stocks and reversals hold true in certain circumstances for a certain pattern and contradicts the assumptions of EMH by Bondt et al. (2008). Let’s discuss how did behavioral finance emerged and what are the concepts in support of that.

**Behavioral Finance: An Emerging Field**
It is a body of research which relies on cognitive and emotional factors that drive the investment decisions. Chira et al. (2008) finds behavioral finance originated from the branch of psychology which says that human psychology plays an important role in decision making and one ends up making perplexed decisions. Redhead (2008) suggests the role of information in market and how different individuals perceive information differently as per their psychology or mental frame. Every investor has different objective and time horizon for their investment. One can look for either growth or preservation of capital, can invest in equity or mutual fund, and may have long term or short term horizon. All of these objectives are based on individual’s characteristics and their ability to take decisions under risk and uncertainty.

This field of finance has found its base some 150 years ago. Daniel Kahneman and Amos Tversky are considered to be the father of behavioral finance. In 2002, Kahneman received the Nobel Memorial prize for his contribution in the field of economic or behavioral economics. Kahneman & Tversky (1979) in their work on “Judgement under uncertainty: Heuristics and Biases”, 1974 developed a new theory called prospect theory. In the book “Thinking, Fast and Slow”, Kahneman (2011) explains about the two systems of our brain that influences the way we think and take decisions. System 1 is fast, operates automatically, intuitive and emotional. System 2 is slower, focuses on mental calculations, takes choices with concentration and more logical. This stream is a blend of psychology, economics, sociology and finance and tries to seek answers for such irrational behavior which affects the decision making.

Barberis & Thaler (2002) talks about two major building blocks: cognitive bias and limits to arbitrage. Limits to arbitrage states that rational investors out of any imposition on the stocks are unable to take away price differential known as arbitrage. Surveys and experiments are the preferred tool of data collection for behavioral parameters. The dot-com bubble of early 2000 and sub-prime crisis of 2008 are the examples of investors’ exhibiting emotional biases during crisis and risk. It is likely to link the concept of value investing with the theory of behavioral finance mentioned by Parikh (2009). The point of irrationality comes here under the picture. A circle of probability is always drawn by human mind when faced with uncertainty. According to Barberis et al. (1998), short term arbitrage pricing done by investors ruins the mispricing badly. Pompian & Longo (2004) describes two major factors attributing to the theory of behavioral finance—anomalies and individual bias. Shefrin (2009) assumes that subprime crisis of 2008 which took a toll to the entire world market happened due to the psychological factors of investors and not related to the market specific factors. Here, individual determinants like: attitude and personality plays an important role in shaping up the behavior cited by Ali, (2011). In the event of uncertainty, investors hope for better returns following any of analysis.

Dreman, Johnson, MacGregor & Slovic (2001) analysed behavioral models to show the tendency of overreaction and underreaction. Further, demographic factors also affect the investment pattern of the client: gender, age, level of education, financial knowledge, experience and disposable income are also important for decision making.

In the remainder sections we will go through various biases and their implications on investment decision.
Behavioral biases affecting investment decisions

Out of the literatures studied, we are basically going to focus on three behavioral biases namely: herding bias, overconfidence bias and risk tolerance bias.

Herd bias:
Under this bias, an investor mimics the crowd psychology without evaluating on self basis. This phenomenon is fairly evident in stock market trading and mutual funds. It means when others buy and sell or have bullish and bearish strategy, rest of the crowd follow them. Nofsinger & Sias (1999), in their paper mentions the presence of herd behavior both for the institutional and individual investor. Using the Lakonishok, Shleifer and Vishny (LSV) herding measure, the test was conducted on the UK fund managers which states that the herding increases both for large and small stocks (Wylie, 2005). From the work of Scharfeist & Stein (1990), there are many factors accounting for herding behavior apart from manager’s own reputation. In their paper, Bikhchandani & Sharma (2000) assumes about the requirement of the empirical work to be done in emerging markets. In the paper of Welch (2000), recommendations of buy-sell given by research analysts have the influence on the other analysts. Wermers (1999) took the data for 1975-1994 to analyse the impact of herd behavior on stocks and concluded that in the case of small stocks and high growth potential stocks, herd behavior is prevalent. Hong, Kubik & Solomon (2000) talks about career motivated herd behavior that the inexperienced analysts exhibit while doing earnings forecasts. The sense of conformity drives them to follow the herd. Analysts, investors, fund managers follow this kind of behavior, Sias (2004). With the idea of wealth maximization for their clients, fund managers follow what is prevalent in the market. There are chances that they might also lose the game but they take risks in anticipation of gains. For example, investors like to take a bet on the stocks which is herding these days. Let’s say that during corporate earnings season, analysts are recommending going for technology stocks, then investors would like to have a strategy to buy those stocks and gain with the momentum. They might enter late to this, but it makes them feel happy that they are not left behind the crowd.

Overconfidence bias:
Overconfidence bias is a kind of bias in which a person's subjective self reliance in his or her judgments is unfailingly greater than the objective precision of those judgments, especially when confidence is relatively high, Pallier et al. (2002). This overconfidence bias is quite prevalent in the stock market trading. When an investor overvalues the assets he or she trades with is termed as overconfidence.

There are basically three tenets of overconfidence in financial literatures which are as follows:
Overestimation: It’s a tendency to overestimate one’s own standing on a dimension of judgement or performance. When confronted with hard tasks, risky tasks and new tasks where there is likely a chance of failure, this tendency occurs.
Illusion of control and Planning Fallacy comes under overestimation. When people have an illusion that they have some control over the situation when they actually don’t, they are likely to have Illusion of control, Langer (1975). When people overrate or underrate their work, they have planning fallacy, Buehler (1994).

Overplacement: It is the most important facet of overconfidence bias. When an individual judges his own performance with others and thinks that he is better than others, this bias occurs. This is also termed as better-than-average effect, Moore & Healy (2008).

Overprecision: Is that level of confidence when one thinks that he or she knows everything. For measuring this tendency, the most used method is to specify 90 percent confidence interval around estimates quantified, Alpert & Raiffa (1982).

Kahneman (2011), in one of his article published in newspaper talked about the traders actions for buying and selling stocks frequently. He found that the traders are confident about which stocks they are dealing with.

In their work, Barber & Odean (2000) have mentioned that active trading is risky for high volume traders. High trading leads to poor performance levels of individual investors. Overconfident investors
always try to overvalue the information privately known which pushes them to trade more frequently leading to below than average returns. To get the relationship between overconfidence, overreaction and personality, the study took place in an experimental foreign exchange market. The results showed that personality is related to overreaction and overconfidence, Durand et al. (2013).

A study done on checking the level of overconfidence amongst professional investors in their expert domain knowledge area states that the subjects were overconfident in probability calibrations, better-than-average belief and unproven confidence. Further the author came up with the suggestion that bankers should be aware of the risks involved in client’s overconfidence and suggest strategies according to that, Kaustia & Pertulla (2012).

Daniel (1998) , in their paper developed a theory based on investors’ confidence which is due to self attribution of their investment and concluded that investors overreact to private information and underreact to public information. Different factors of overconfidence: miscalibration, volatility estimates, better-than-average effect were measured by administering the questionnaire from 215 respondents. It says that investors who have more confidence on their skills than others trade more frequently, Glaser (2003). Frequent trading leads to more churning and high volume of transactions.

**Risk Tolerance Bias:**

It is an important feature of investing. It is important to know about the level of risk taking ability and willingness for that risk. ‘Investopedia’ defines risk as “The degree of variability in investment returns that an investor is willing to withstand. Each and every individual has different risk taking capacity and different choice for investing in asset classes. One could go for debt scheme, another for equity scheme or diversified scheme in case of mutual funds. How much loss a person is willing to take is a tough task to analyse. It’s a job of fund manager or professional analyst to know about the risk profile of clients to make them aware of the dangers of risk involved in dealing with different asset classes.

Gilliam et al., (2010) have compared two measures of risk tolerance i.e.; Survey of consumer finance (SCF) risk measures and Grable Lytton Risk Tolerance Scale (GL-RTS) measure. The results from both the measures are quite similar and both are the good indicator of risk tolerance. Grable & Lytton (1999) developed a 13-item risk assessment instrument which acted as an index for measuring risk tolerance. In one of the studies done by Guillemette & Nanigian (2014), loss aversion and sentiment proxies accounts for higher variation in risk tolerance.

Sung & Hanna (1996) and Wang & Hanna (1997) explains the difference in the risk level is due to the difference in the understanding of the nature of risk by the subjects. Hence, it becomes essential on the part of financial planner to understand the risk tolerance of their clientele. The proportion of risky assets in the investment portfolio increases with the increase in age. Therefore, age is considerably related to investment in risky assets. Hallahan, Faff & Mckenzie (2004) relates demographic variables with the risk tolerance scores. Variables like: age, gender, number of dependents, marital status and income are very much related to risk tolerance scores. However, risk is a subjective term which is different for different person. Keeping this factor in mind, financial manager has to be aware of the risk taking capacity of a client and suggest strategy accordingly.

**Conclusion, Implications and Directions for Future Research**

As per conventional finance concepts, all agents are rational and markets are efficient. But due to the existence of various kinds of biases and anomalies, there exists irrationality in behavior. The paper focuses on bringing about the deeper understanding of the development of behavioral finance, the shortcomings of conventional finance and biases involved in decision making. The three biases mentioned namely - Herding bias, Overconfidence bias and Risk Tolerance bias reflect emerging drivers of investment decisions.

Investors, professional traders and even analysts fall into the trap of these biases. Being overconfident, traders do excessive trading which results in poor performance. Even stocks markets volatility and correction is accounted by herding behavior of market. Risk taking capacity of investors are different and diversified in nature. Risk is a multidisciplinary phenomenon and requires attention by different financial advisors to determine their client’s risk appetite.
The discussion provides some room for rationale behind deviation from conventional finance and bridging the gap between the market and investors sentiment. What needs to be done is to take into account the aggregate individual behavior by using more experimentation and empirical work based on psychology.

In this overview, the analysis presented in this paper is going to be relevant for institutions, practitioners, corporate fund managers, investors and students as every individual tends to exhibit these biases. To conclude, identification of these biases and designing of customised financial products to cater the needs and objectives of different individual investors is an imperative idea. Further research can be done related to few other behavioural dimensions and their implications on the investment decisions.

References


