A Theoretical Study on the Effect of Behavioural Biases on Investment Decisions of Individual Investors

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Abstract

Behavioural Finance was developed after the researchers realized that humans' beings are not rational in their decision making. The decisions of an individual are influenced by their emotions, intuition, surroundings, etc. The field of behavioural finance emerged with this realization. Behavioural finance is the study of psychological aspects that affect the financial and investment decision making of an individual. In this study, concepts like Behavioural Biases, Herd Instinct, Overconfidence, Anchoring, Investment Decision Making, Behavioural Biases and Investor Decision and Individual Investors have been study. An attempt has been made to build a theoretical background relating to these aspects.

Keywords: Behaviour, finance, investment, etc.

Introduction

In the years gone by it was assumed that the investors were rational and someone who made rational decisions. This lead everyone to believe that the traditional finance theories to be true. Future studies showed that human decisions are often influenced by their nature, habits, intuitions, emotions, etc. This lead to the development of a new discipline known as Behavioural Finance. It is a study of human behaviour and its effect on the the investement decision making on individual. Shefrin (2011) defined behavioural finance as the effect of psychology on financial decision making and financial markets. This also provided an comparison between traditional economic assumptions and the modern economic assumptions.

It has become unrealistic to take investment decisions on the basis of the knowledge of participants of market and forecasting. Researchers found that human psychology has an effect on the investment related decision making of individuals (Berber & Odean(1999); Huberman (2001); Pompian (2008) & Shefrin (2011)). Factors such as variations in economy, price volatility have an impact on the investors' decision making. Investors actively react to fluctuation

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in the market, affecting their long term financial and investment goals. They often are influenced by the views and opinions of experts and doubt their original decision.

The irregularity of the human nature leads to bad investment decisions, which leads to the fall in the number of investors in the market. Behavioural finance analyzes the behaviour of market participants to reveal the irrational behaviour in decision making. It can help to avoid the effect of bad investment decisions and attract more investors to the market.

Behavioural Biases

According to Pompian (2012), behavioral biases in economics and finance refer to the propensity for decision-making to lead to erroneous financial decisions brought on by flawed cognitive reasoning and/or reasoning impacted by emotions. The fascination with biases resulting from flawed cognitive reasons and influence of emotions.

The notion of behavioral finance has gained traction in studies due to the impact of logic or emotions on personal financial results. According to Sewell (2005), behavioral finance is the study of how psychology affects the actions of financial advisors and how that affects markets. According to Schinckus (2011), behavioral finance is the study of how psychology influences finance, specifically how human behavior affects asset prices by taking into consideration the needs and motivations of individuals. According to Singh (2010), both market outcomes and individual investors' decisions are consistently influenced by the information structure and characteristics of market participants.

Behavioural finance was originally named behavioural economics by Belsky & Gilovich (1999). The authors argue that in order to explain why and how people make seemingly irrational or illogical decisions when they spend, invest, save, and borrow money, behavioral economics integrates the twin sciences of psychology and economics. A large number of financial and economic theories assume that individuals make informed investing decisions by acting logically and taking into account all relevant information. But according to Bernstein (1996), there is proof that humans consistently exhibit irrationality, inconsistency, and ineptitude when making decisions and choices in the face of ambiguity. Thus, behavioral finance examines how an investor's actions influence their choice of investments (Rattner, 2009).

Because psychology methodically examines human judgment, behavior, and well-being, Rabin (1998) contends that psychology can impart valuable knowledge about how people differ from conventional economic presumptions.

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According to standard economic theory, agents rationally maximize each person's stable, well-defined preferences. According to Singh (2010), the foundation of the idea of behavioral finance is psychology and arbitrage. In the context of economics and finance, arbitrage, according to the author, is the act of profiting from a price difference that exists between two or more markets. It is a risk-free profit transaction since there is no negative cash flow at any probabilistic or temporal condition and at least one positive cash flow. Arbitrage is constrained by the fact that, in accordance with the efficient market theory, rational traders would always correct price deviations from the fundamental price made by less rational traders.

According to Brown and Reilly (2004), behavioral finance examines how different psychological characteristics impact how people or groups perform as analysts, investors, and portfolio managers. Heuristics are described as the application of knowledge and hands-on work to provide answers to problems or enhance performance. According to Raines & Leathers (2011), humans subjectively evaluate the risks of alternatives when faced with ambiguity by using heuristics, or rules of thumb, which simplifies the difficult processes of estimating values and evaluating probability.

Herd Instinct

As information continues to spread rapidly, the lives of decision makers in financial markets have become more complex (Fromlet, 2001). Johnson et al. (2002) suggest that interpreting new information may require the use of heuristic decision making rules. Research indicates that a herd mentality plays a significant role in both institutional decision making and investor behavior (Gounaris & Prout, 2009). Keynes (1936) argues that professional investors are primarily concerned with how the market will value an asset in the next three months to a year, influenced by mass psychology. In the realm of professional money managers, Hong et al. (2005) discovered that mutual fund managers are more likely to purchase stocks that other managers in the same city are buying, indicating the influence of word-of-mouth and social interaction among money managers on portfolio decisions. Gounaris & Prout (2009) contend that there are situations in financial planning where herd investment is entirely appropriate. While making investment decisions in isolation would be unwise, Gounaris & Prout (2009) argue that financial professionals should also exercise a healthy level of skepticism when the herd is clearly moving in a particular direction. Investors without access to insider information (Thaler, 2005) often act irrationally on noise, mistaking it for valuable information that could give them an advantage.

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Overconfidence

Various studies on the calibration of subjective probabilities have shown that individuals have a tendency to overestimate the accuracy of their own knowledge. This overconfidence is commonly seen in professions like investment banking and management. Ross (1987) suggests that this overconfidence stems from a general challenge in acknowledging the uncertainty in one's own perspective. It is this overconfidence that leads investment professionals to believe they can successfully select winning portfolios. Managers, especially those who consider themselves experts, often overestimate the likelihood of success. Ritter (2003) notes that overconfidence becomes apparent when there is limited diversification due to an inclination to invest heavily in familiar areas. The task of selecting individual stocks that outperform the market is complex, with low predictability and noisy feedback. Consequently, people tend to be overly confident in their abilities in this area. This overconfidence is also evident in the high trading activity of portfolio managers, the hiring of active equity managers by pension funds, and the tendency of financial economists to maintain actively managed portfolios. Odean (1998) has developed models illustrating how overconfident investors exaggerate the precision of their knowledge regarding the value of financial securities, leading them to believe that their assessments are more accurate than those of others.

Anchoring

Tversky & Kahneman (1974) have identified the systematic biases in judgment and their applied implications associated with three common biases: representativeness, availability and adjustment, and anchoring. Anchoring occurs when investors assume that current prices are about right, giving too much weight to recent experiences (Raines and Leathers, 2011). Gwily (2009) noted that heterogeneous agents make portfolio choices based on expectations that are not rational in the conventional sense, but rather on one or two simple heuristical rules. Agents tend to switch between these rules depending on the profitability of the rule in the preceding period. This suggests a form of status quo bias as proposed by Tversky & Kahneman (1974). Investors often neglect thorough research due to the overwhelming amount of data to collect and analyze. Instead, they make decisions based on a single factor that may not be relevant, while disregarding more crucial information (Chandran, 2008).

Investment Decision Making

Neuman & Morgensten (1947) expected utility theory is extensively studied in traditional finance, positing that decision makers tend to choose options that

appear most beneficial to them personally. However, individuals exhibit unique behaviors in behavioral finance and make decisions in their own manner, often deviating from traditional financial norms. This notion was supported by behavioral finance proponents Tversky & Kahneman (1979), who introduced the prospect theory, suggesting that individuals behave differently under risk and uncertainty based on their perception of "gains" or "losses". Simon (1957) proposed a bounded rationality theory, contending that individuals have limitations in terms of information processing, cognitive abilities, and decision-making capabilities. Studies have shown that individuals gather available information, use heuristics for simplified analysis, and settle for satisfactory outcomes rather than optimal solutions. Instead of exploring various alternatives, individuals tend to narrow down their choices to meet their specific needs. Fischer & Gerhardt (2007) conducted research on the intricacies of decision-making among individual investors, identifying key behavioral factors that influence investors, such as fear of financial loss, emotional attachment to certain investments, greed leading to impulsive decisions, excessive optimism in the market, herd mentality, recency bias, and overconfidence.

The theory of financial behavior demonstrates that in complex situations, individuals tend to rely on standard decision-making strategies. For instance, many people hesitate to invest in the stock market due to recent negative events that have occurred. This indicates that decisions are often influenced by surface-level characteristics rather than a thorough evaluation of reality. In other words, decisions are often made based on stereotypes. For example, past events that have impacted future investment decisions should not be the sole basis for decision-making.

Berber & Odean (1999) have observed that investment decision-making is also influenced by gender, with men tending to choose riskier portfolios and engage in more trading compared to women. However, it is important to note that gender alone cannot be considered as the sole significant genetic factor. External factors such as personal experiences, family or social experiences, and financial knowledge also need to be taken into account. The lack of financial knowledge is a major obstacle to investment. However, rational investment requires not only financial knowledge but also psychological understanding. As Shefrin (2011) suggests, investors should not only learn from their own investment mistakes but also from the mistakes of others, as one investor's error can become another investor's gain. Examining irrational decisions serves as a reminder to avoid repeating the same mistakes. Therefore, successful investing relies not only on financial knowledge but also on the identification and mitigation of psychological errors.

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Behavioural Biases and Investors' Decisions

Brahmana et al. (2012) developed a framework connecting various psychological biases, such as attention bias, heuristic bias, regret bias, and cognitive bias, to the decisions made by individual investors. Chandra & Sharma (2010) conducted a study in Delhi and the National Capital Region to identify the key psychological biases influencing individual investors' behavior, potentially leading to a momentum effect in stock returns. Their research revealed that factors like conservatism, under-confidence, opportunism, representativeness, and informational inferiority complex drive the behavior of individual investors. On the other hand, Alghalith et al. (2012) tested prevailing theories in behavioral finance using data from the S&P 500 index, concluding that variations in psychological biases do not dictate investment preferences. Shafran et al. (2009) experimentally analyzed investors' behavior in stock transactions, finding no disposition effect in their results. However, Fogel & Berry (2006) surveyed individual investors and discovered that more participants regretted holding onto losing stocks for too long rather than selling winning stocks too soon, confirming the disposition effect. Mittal & Vyas (2010) explored the differences in investment decisions and susceptibility to behavioral biases between salaried and business class investors in Indore. Their study, based on a sample survey of 428 investors, indicated that business class investors are more inclined towards cognitive biases, while salaried class investors are more susceptible to biases stemming from framing effect and prospect theory.

Numerous scholars consider the concept of behavioural finance to be a new paradigm in the financial world. According to Agrawal (2012), behavioural finance has emerged in response to the increasing number of stock market anomalies that cannot be explained by traditional asset pricing models, such as undervaluation or overvaluation. Schinckus (2011) views behavioural finance as a new approach that takes into account the psychological dimension of investment when studying the financial reality.

Baker & Nofsinger (2010) point out that behaviouralists will face significant challenges in convincing the larger traditionalist community to adopt their perspective, as the sociological perspective suggests. Thaler (2005), often referred to as the father of behavioural finance, has presented works that Baker & Nofsinger (2010) argue have provided controversial evidence of market inefficiency. They also express doubt about whether modelers will ever be able to meet Fama's (1998) demand for a simple and refutable theory, given the inherent complexity of individual behavior.

Proponents of behavioural finance, such as Subrahmanyan (2007), argue that a

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"normative" theory based on rational utility maximizers cannot be considered a superior alternative to behavioural approaches simply because it discusses how people should behave. Razek (2011), in defense of behavioural finance theory, asserts that the methodology of behavioural finance does not require a theory to be simple, contrary to the expectations of traditional financial scholars. However, Fama (1998) disagrees and states that the standard scientific rule dictates that market efficiency can only be replaced by a better scientific model of price formation, which itself can be potentially rejected by empirical tests. Li (2004) emphasizes the importance of testing whether documented anomalies can be explained by behavioural theory. According to the author, the success of the behavioural model in explaining anomalies is crucial.

Individual Investors

Individual investors often encounter challenges when making rational decisions about their investments compared to larger entities, as noted by Jing Chen (2011). Large investors have greater access to resources that provide them with crucial information necessary for their investment objectives. Small investors, on the other hand, struggle with processing financial information, leading to difficulties in decision-making. This lack of relevant data hinders their ability to make quick and logical decisions. The vast amount of data related to financial instruments, as highlighted by Lu (2010:485), further complicates the situation. Finkelstein & Greenwald (2009:48) point out that the impatience of uneducated investors has increased over time, resulting in a decline in the fund holding period of American citizens. This behavior, known as "chasing returns," deviates investors from their original investment plans and prompts them to make hasty decisions in popular market sectors.

Experience plays a significant role in shaping the decision-making processes of individual investors, according to Chang and Wei (2010:139). Experienced investors tend to prioritize corporate governance when assessing a company's future prospects, while less-experienced investors rely heavily on financial information. Polak (2012:55) argues that some financial theories overlook the efficiency with which experienced investors utilize information compared to beginners. He also raises concerns about individual investors being misled by inaccurate information.

Conclusion

Through the review of the existing studies, we can observe that investors decisions are affected by several behavioural biases. The studies showed that humans are not rational being, as which was assumed in the traditional theories. Individual investors are affected by behaviours like representativeness bias,

overconfidence, herd instinct, etc.

Literature suggests that the investors are also affected by cognitive dissonance as parting with their investment is viewed as painful by them. Through this paper a theoretical background has been built to study the effect of behavioural biases on investors.

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