

# The Battles of Behavioral Finance: An Emerging Discipline

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## Abstract

*Behavioral Finance is a growing field that sparks novel and innovative approaches in the research of finance, having potential for development of new managerial tools for investment decision making. However, obtaining this is not as seamless as it may seem, hence, the current study aims to unearth and highlight the challenges faced by the investors and market. Data collection techniques used in this study is the documentation method, which uses secondary data including the research paper, journal, article, books, website documents or any other relevant source for the purpose of research. Some of the prominent challenges include determining behavior, lack of profound understanding of behavioral finance approaches, obtaining data from individuals, unavailability of alternatives to classical finance theories, the behavioral finance surrounded by noise, assumption of irrationality, lack of effective applications, and lack of customization to fit into the problem. The results showed that there are numerals of challenges of behavioral finance that need to be undertaken while taking investment decisions by individual investors. Present research provides some suggestions for individual investors to be clear about some factors before investing and adopt scientific bases in making stock investment decisions, and recommends conducting future researchers to conduct study on the social aspects of behavioral finance on different grounds.*

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## INTRODUCTION

Behavioral Finance as an area of research has gathered the interest across the researchers, it has emerged as a significant discipline (Statman, 1999) over the years. Over the Past three decades a surge of behavioral finance can be witnessed (Hirshleifer, 2015). The novel phenomenon of behavioral finance as highlighted by (Olsen, 1998) may be seen as an improvement in the behaviorally incomplete theory of standard or traditional finance. It studies the application of psychology to finance, with a focus on individual-level cognitive biases (Hirshleifer, 2015). In addition to the psychological aspect, the application of finance and economic principles is focused for the improvement of financial decision making (Olsen, 1998) (Ricciardi, 2005). Behavioral finance as a discipline has been in the discussion for a period now trying to criticize traditional finance on the aspects of non - inclusion of behavioral aspects. As a modern discipline, behavioral finance might seem fancy to researchers. However, one must not forget that behavioral finance involves

### Keywords:

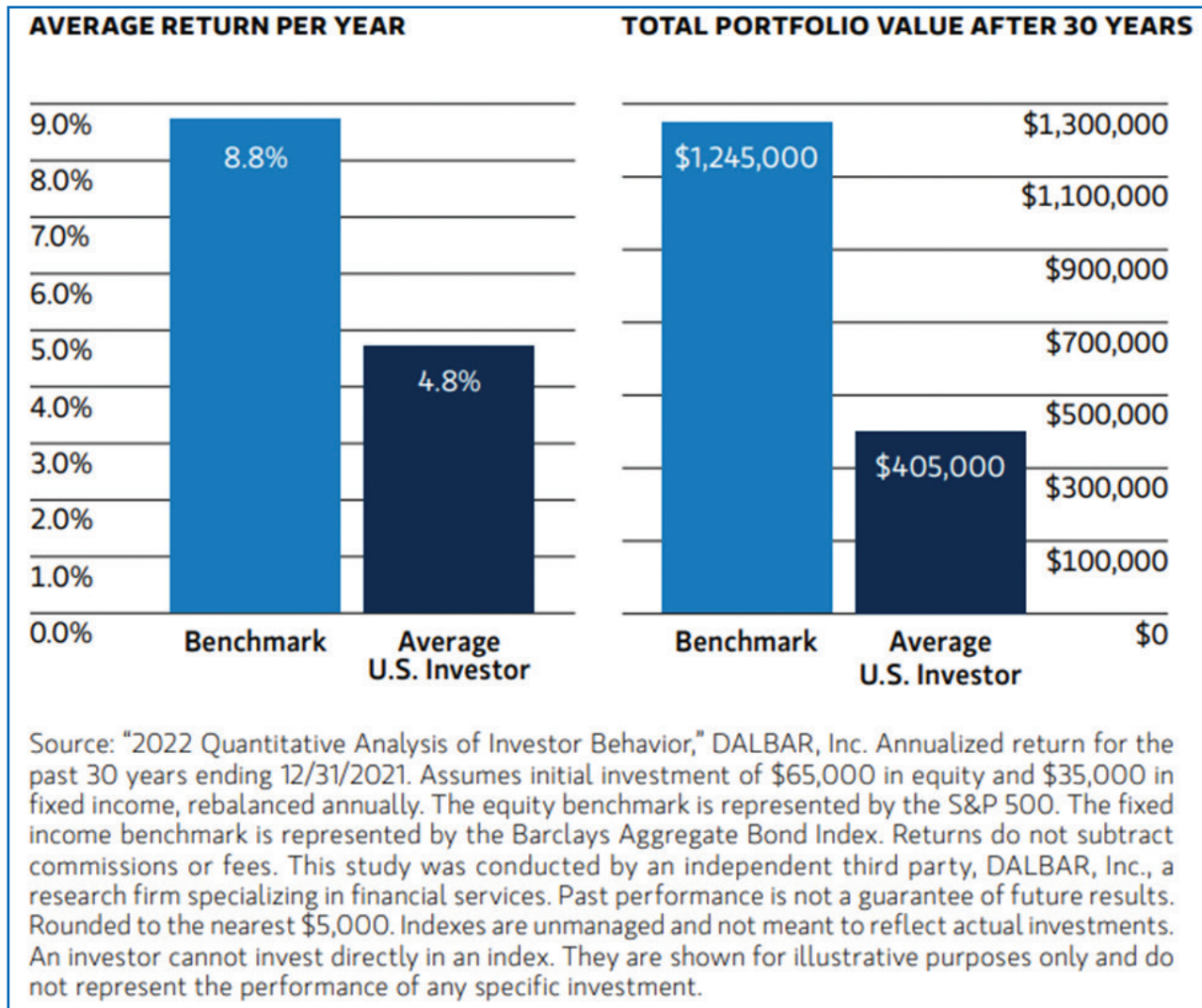
*Behavioral Finance, Mental Accounting, Cognitive Dissonance, Prospect Theory, Traditional Finance*

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psychological factors that influence individuals' financial decision making and complexity of human behavior makes it an uphill task to understand and predict the same with accuracy. Thus, the innovative aspects of this study stem from the fact that it aims to discuss the challenges of behavioral finance rather than only discussing impacts of behavioral finance. Therefore, this study will enrich awareness in this domain and give better understanding of the field.

In a document by Morgan Stanley (2023) titled - "Behavioral Finance - Understanding its impact on you" highlighted how the investing behavior can lead to poor performance as stated in image below. It has also been observed even though the difference wasn't simply 4 percentage points a year but based on the compounding power it means as much as \$840,000 over 30 years.



Source: <https://www.morganstanley.com/cs/pdf/619598-3174306-MSVA-Behavioral-Guide-7.pdf>

## LITERATURE REVIEW

Traditional economic theory stated that individuals are rational (Shefrin, 2000) and even irrationality in decision making will not affect the final outcome of the collective human actions of the field; the new paradigm behavioral

finance theories hypothesize irrationality otherwise (Henker, 2006), (Barberis & Thaler, 2002). Traditional finance theories are composed of many experimental theories and mathematical models of investment behavior. Even that can be mathematically proven, such as mathematics.

(Ritter, 2003) Unlike the case with behavioral finance theories, there are certain findings that can be explained theoretically but difficult to prove mathematically. The special concern is to bring all behavioral aspects together on papers with the evidence. Another problem in the fields is defining the subset of methodologies to be used in attributing the behavioral data of individuals in true field settings. However, it seems too small to solve but while considering in commercial worlds it will lead to giant issues. The research paper by (De Bondt & Thaler, 1985), explains overreaction, named as "Does the stock market overreact?". In the findings, the concept of overreaction was examined by taking thirty-five best and worst performing stocks in the (NYSE) New York Stock Exchange over a small duration of three-years. They basically invented two portfolios, the first one for the "winners," i.e. those who invest in the respected portfolio, they will end with profit and one for the "losers," i.e. the return are not sure with certainty and track both the portfolios against a market index for constantly three years. The results show the difference of twenty five percent in cumulative returns between the two portfolios, but surprisingly not in the direction of expectation. The former portfolio turned out to be the lowest performing, while the latter portfolio consistently outperformed the benchmark (market index) (Waymire, 2016). This is strongly represented as the long-term reversal anomaly, which the authors explained by the term overreaction (De Bondt & Thaler, 1985). It has been witnessed by (Hirshleifer, 2015), researchers have been ready to address the outcomes of human judgements either rational or irrational amid the debate regarding the effects of the psychological bias on price determination in the markets. (Huang & Kao, 2016) has acknowledged that classical financial theories are generally based on the assumptions of rationality, efficient markets and profit-maximization. However, current era popular theories such as investor trading behavior, limit to arbitrage, the cross section of returns, noise trading, and money management have been derived from psychological factors (Hirshleifer, 2015). Thus, deep digging in psychological aspects related to finance and economics might become a contributor in better understanding of the modern finance era. It is noted that all the biases that are discussed in this phenomenon seem quite relatable and applied in the real world, and individuals have been victims of these biases at one point of time and the investors are easily convinced about the

effectiveness of these theories (Sharma & Kumar, 2020). Therefore, it is of utmost importance to address challenges that are aligned with this emerging field.

## RESEARCH OBJECTIVES

The focus of the current study is to conceptually highlight the challenges of the upcoming discipline of behavioral finance. In order to achieve the main objective of the study other underlined objectives include:

- To study and highlight the evolution and concept of behavioral finance.
- To study the three psychological strands of behavioral finance.
- To highlight the major challenges of behavioral finance.

## RESEARCH METHODOLOGY

The research is based on theoretical research design. This research design approach is selected based on the nature of the research problem that is to conceptually analyze challenges of the novel phenomenon of behavioral finance. This proposed research paper is based on secondary data, which uses data sources that are already available in form of articles, journals, books etc. considering their relevance to the purpose of the study.

The paper's structural framework entails an initial focus on delving into the conceptual underpinnings and historical origins of behavioral finance, aligned with the first objective. Subsequently, it proceeds to elucidation of the three strands of psychology, thereby fulfilling the second point of research objective. Finally, it sheds some light on the challenges within the realm of behavioral finance, serving as the third purpose of the study.

## Behavioral Finance: Evolution and Concept

The beginning of behavioral finance can be witnessed in the 1960s and 1970s as a result of innovative research conducted by several theorists in finance, investing behavior, cognitive psychology, and behavioral economics (Ricciardi, 2005). However, (Waymire, 2016) stated that the unpremeditated origin of behavioral finance can be seen dated back Selden's - Psychology of the Stock Market

(1912), Festinger's - Study of Cognitive dissonance (1956) and Pratt's discussion of risk aversion and the utility function (1964). The release of Prospect Theory (Kahneman & Tversky, 1979) has been debated as an official start of behavioral finance in 1979 (Waymire, 2016).

In a document by Morgan Stanley (2023) titled - "Behavioral Finance - Understanding its impact on you" stated that - "Behavioral finance is the field of psychology that studies how and why human biases influence financial markets". In simple terms it may be understood as a field of finance trying to understand the investor's behavior as (Welch, 2001) stated that the usual meaning of "behavioral finance" is really "imperfect rationality" finance. Behavioral finance in the words of several authors are:

"Behavioral finance explains many reactions on financial markets that appear to be contrary to conventional theory and can thus make an important contribution to avoidance of serious mistakes and to finding investment strategies". (Fromlet, 2001) Behavioral Finance - "studies how people actually behave in a financial setting. Specifically, it is the study of how psychology affects financial decisions, corporations, and the financial markets." (Nofsinger, 2001) "Behavioral finance argues that some financial phenomena can plausibly be understood using models in which some agents are not fully rational". (Barberis & Thaler, 2002) "Behavioral finance is the study of the influence of psychological factors on an individual's behavior. This new approach of financial research advocates that investment decisions are affected by psychological and emotional factors". (Kandpal & Mehrotra, 2018)

## **Psychological Strands (cognitive, emotional and social)**

Behavioral finance is the application of scientific ways to explore psychological factors which includes cognitive, emotional and social factors to make contributions to various subjects such as market participants, financial system and market price trends.

As per the findings of various researches and studies by different psychologists, (DeBondt et al., 2010) behavioral finance is classified by three strands of psychology. Cognitive, this feature basically attempts to show how our minds undertake the requisite calculations required to make optimal decisions and maximize wealth. Behavioral

finance has shown an area of research where it attempts to understand and explain how cognitive errors influence individual investment decisions and stock market prices. Leon Festinger defined cognitive dissonance, as a state of mental tension that occurs due to individuals holding two beliefs that are probably inconsistent. (Olsen, 2008) and (Tueanrat & Alamanos, 2023) addressed that those cognitions can be relevant or irrelevant. The second is emotional factors, which are considered or defined as biases in the work of behavioral finance findings. It shows emotional strains affect the decision making. (Upadhyay & Shah, 2019) stated that "emotions have a bearing on risk tolerance" and selection of portfolio seems influenced by risk tolerance. It responds to the propensity of trading, where the focus is more on decision-making being strictly on calculative processes (DeBondt et al., 2010). Third, social psychology, social status could be one of the critical factors that influence the decision as (Olsen, 2008) stated that people seem instinctively predisposed to imitate others. Sometimes investment may be made for recognition in the society, which recognizes the need to find acceptance not from within but from community and these social factors even encourage to act in a particular way, even individuals may prefer to "fail conventionally" rather than expose themselves socially. Behavioral finance tries to explain and progress people's awareness regarding the emotional factors, social factors, cognitive factors and psychological processes of individuals. (Thakur, 2017)

(Simonova, 2015) When it comes to investing, buying, selling, trading or making financial decisions, an individual is not always as responsive or thinks rational as he reflects he is. The final observation is that consideration of various behavioral biases and traits can assist an individual to make sound financial decisions which is probably the key of efficacious investing (Ricciardi & Simon, 2002). In general, it has positive as well as negative setbacks. The following section discussed the challenges of behavioral finance and talked about the third objective.

## **BEHAVIORAL FINANCE - THE CHALLENGES**

### **Determining behavior**

The major challenge of studying behavioral fields lies in accurately measuring behavior with precision (Larkin et al., 2021). This challenge gives rise to two main issues.



Firstly, measuring behavior seems inherently imprecise, with low observability rates across conditions and financial subjects. If observability is generated randomly without being correctly measured, it only creates noise in an empirical model. Consequently, the observation of behavior with respect to any domain often reflects low ability to control an individual's emotions. This limitation stems from the fact that how someone acts to certain events are rarely randomly detected. Secondly, the actual detection of an individual's response seems internally hard. Data collected to measure behavior may reflect numerous instances of false negatives, which certainly reflect psychological, social, and economic processes.

### **Superficial Approach**

The other major challenge with behavioral finance is that it may not be effective if applied superficially. Often, people grasp this concept apparently. While defining the biases inherent in behavioral finance may seem like a solution to enhance informed decision-making and investor awareness, in practice, these findings rarely address flaws in investors' decision-making processes if not carefully applied.

Crucial behavioral concepts like loss aversion or prospect theory, without truly understanding the opportunity and criticism may seem more prone to being misunderstood and misstated, both within as well as outside academia. While there are exceptions, some effective practitioners lack comprehensive knowledge due to a superficial approach (Davies et al., 2017).

### **The behavioral finance surrounded by Noise**

Due to the growing recognition of behavioral finance, many organizations now employ practitioners specifically trained in this field, commonly referred to as "experts," with the aim of fostering a deeper understanding of the concept within the company. However, (Mooreland, 2020) suggests that while some of these practitioners may have only superficial knowledge acquired through reading books on behavioral finance, another set of practitioners holds doctoral degrees in the field of economics or finance. Consequently, this diversity leads to a variety of perspectives on when and how to apply behavioral finance in commercial settings.

While some of these opinions seem to be valuable and effective, surprisingly much of the discourse may be dismissed as mere 'noise,' carrying a negative connotation. Despite this, research conducted in behavioral finance within doctoral programs or institutions dedicated to this concept, often considered valuable and eye opening. However, it has been seen that these noises often represent the gap when it comes to applying the research findings. This gap is further compounded by the complex interplay of biases. It has been seen that rarely biases do operate independently; controlling one bias may interrupt the other biases. Biases such as regret aversion, recency, availability, representativeness, anchoring, overconfidence contribute to this 'noise' (Mooreland, 2020).

### **Lack of customization to adjust to the Problem**

Reaching a specific standard at any level poses a consistent challenge, often failing at various stages of the process – from definition and data collection to generalization and implementation. However, the implementation of the theoretical concept seems frequently unsuccessful due to a lack of alignment with established norms (Davies et al., 2017). Gaining acceptance at a large scale requires effective behavioral implementation and that needs to be tailored to the precise environment. Customizing the design may be required for optimal deployment, with the core element of this modification process ensuring that the design intimately links with the needs of decision-makers. Widespread acceptance and continued usage demands tailoring at mass level, so that it can integrate with existing structure. However, modifying at a higher level may not yield reliable results. Modifying the theories of behavioral finance seems itself a big deal (Davies et al., 2017).

### **Not effective Applications of behavioral finance**

While applying the concept of behavioral finance may present numerous obstacles, it necessitates the thorough reinforcement and management of classified behavioral biases before dampening in real markets. Currently, there's a noticeable dearth of real application. This may happen because of a lack of appropriate credentials to navigate the complexities involved. Whenever theories are developed, they rely heavily on assumptions

which include manipulation and controlling of some of the factors, raising significant questions about their effectiveness in dynamic environments. It is imperative to explore methods for actually managing and measuring behavioral biases rooted in psychological aspects. Such endeavors require individuals with high training and a deep learning of this complex phenomenon. The main purpose of discussing this factor is to shed light on the notion that an endeavor to pen down behavioral finance is possible but practical implication witnessed the most challenging deal because of biases, miscalculations, errors and emotions (Mooreland, 2020).

### **Behavioral finance theories/ model seems hard to Apply on Institutions**

In the realm of behavioral finance, studies are primarily based on observing the biases in financial decision-making and examining the influence of psychology on investors' behavior. As per (Brooke, 2010) behavioral finance predominantly operates at the individual level. (Rezaei & Elmi, 2018) defined behavioral finance, "studying the interpretation of individuals from information to make conscious investment decisions". New concept discussed the notion of irrationality in decision whereas (Schmeling, 2007) addressed that institutions typically embody the rational facet of the market i.e. use the relevant data rationally and fundamentally strong investors. Unlike individuals, institutions are not susceptible to emotional biases, as they represent a collective entity and invest on behalf of others. It is noteworthy that most of the psychological aspects and biases discussed in the behavioral finance studies are commonly applicable on people's investment decisions. Institutions manage funds on behalf of others, thus mitigating certain biases and managing communal investment pools. Consequently, implementing behavioral finance theories in institutional settings poses challenges, particularly concerning regulatory compliance. (Thaler, 1999) suggested that applying the behavioral model to institutions may be arduous but seems worth doing by integrating institutions more directly into the behavioral model.

### **Top managerial body's Reluctance to implement**

One significant issue associated with behavioral finance

theory extend to the perceptions and attitudes of many top executives, who often underestimate the complexity of implementing behavioral ideas. This tendency to trivialize the field and adopt a superficial approach seems to be an indicative of overconfidence, leading to the mistaken belief that behavioral theories can be easily grasped through casual reading or discussion. However, this mindset is not conducive to understanding and utilizing this concept, it shows lack of conviction. In reality, successful implementation of behavioral finance principles requires deep knowledge and expertise. Without a thorough understanding and command of the subject matter, it becomes highly challenging to navigate the complexities inherent in behavioral theory. The main concern of executive reluctance is a seldomly unwillingness to engage with experimentation of theoretical concepts. A concern with behavioral theories seems practical implementation that makes many top administrative bodies reluctant to fully embrace behaviorally grounded approaches in organization. This reluctance may often be fueled by perceptions of myths considered in behavioral finance theories. Unfortunately, another problem lies with it, overlooking the potentiality of behavioral theories to broader organizational objectives, with some viewing them as solely relevant to trivial issues. This can be overcome by more inclined learning through reading sophisticated and popular texts and articles in the field. The superficial approaches deliberately hinder progress and prevent others from moving forward effectively (Davies et al., 2017).

### **Obtaining data from individuals: A Field Research**

(Kandpal & Mehrotra, 2018) delineate behavioral finance involves studying the influence of psychological factors on an individual's behavior. Data collection from individual perspectives is commonly facilitated through field research, entailing the acquisition of raw data outside laboratory settings. Additionally, (Van de Ven & Poole, 2017) elucidate various parameters utilized in field research, including clinical research, participant observation, case studies, and ethnography. Ethical considerations are paramount in field research, necessitating participants' informed consent regarding the associated risks and benefits, as emphasized by (Kelman, 1972) and (Wood, 2006). Collaboration with reputable organizations often

proves essential for data acquisition and analysis, as highlighted across multiple studies. Despite concerns regarding the feasibility of obtaining true field data due to reluctance among individuals and organizations, efforts have been made to address these challenges. Indeed, firms, researchers, and other organizations have exhibited a willingness to engage in respectful collaboration with investors and individuals to procure accurate samples for study purposes, thereby mitigating potential flaws.

## DISCUSSION

The proposed research has focussed on drawing attention towards the challenges of behavioral finance with respect to many subjects such as practical implementation, fail to apply on institution, superficial approach, lack of empirical evidence, unwilling approach of management, limited predicted power and discussed many more in the above sections. Now, the question arises how these challenges will benefit individual investors, institutions, stock market, financial markets and most importantly, how it serves the society at macro level. Over the past decade giant organizations, industry and various policy makers have become more eyeopener towards behavioral insights not only theoretically but doing wonders while implementing and processing behavioral design as per the required circumstances. These challenges will benefit to overcome the mistakes while applying as the consequences will improve the working. Based on the discussion and findings of this present research, it is recommended that the individual investors firstly analyze the investment factors and then carefully think about the objective and risk-return that suits the perception of the individual using the reasonable business strategy before making an investment decision. If someone is considering to applying behavioral finance theories in practice, one should have answers to the respected questions such as first identify which aspects of theories to look for, content and support materials authenticity, in what manner biases will communicate and how to convince not to overreact or underreact in order to make sure that social factors don't have an impetus on decisions. However, this seems not an easy endeavor but requires to be done to implement behavioral concepts in effective and efficient ways.

When investors sold and purchased portfolios out of fear

and greed, they drove the stock prices down and up, respectively. It has been seen that investors, both untrained and professionals, make their choices of investment in a way that it cannot be considered absolutely rational. Thus, behavioral finance in the long run combines principles from the perception of individual and social psychology with traditional financial theory to understand the performance of stock markets. It has been suggested that behavioral finance as an academic discipline is in danger of trivialization because it has become locked into a general conceptual scheme rather than some specific empirical and conceptual scheme (Illiasenko, 2017). Without being in any dilemma, the collaboration between economics, finance and behavior brought finance into prominence and has been productive.

## CONCLUSION

Present research unearths the various aspects of behavioral finance and has majorly focussed on challenges that influence the financial decision of investors. It claimed that the behavior of people shows irrationality in the commercial market. Behavioral finance (Kandpal & Mehrotra, 2018) tends to study the effect of psychological factors involved in the financial market, providing explanations for effective decision making and deep digging of behavior of investors and the market efficiency. Behavioral finance represents a revolution in classical financial theories. The collaboration of financial theory with other social appearances and social sciences resulted in the development of behavioral finance (Shiller, 2003). Relatively young and promising area of modern and neoclassical finance which has registered outstanding progress in the last few decades, (Ritter, 2003) mentioned that studies of most renowned researchers includes Barberis and Thaler (2003), Shiller (2000), and Hirshliefier (2001) shows extensive analysis and substantial studies in the respected field. Although this brief introduction to behavioral finance has only touched on a few points, it does not reject economic and financial concepts.

The bottom line may be that behavioral finance seems to be one of the vast fields of study, which creates ambience with implications for individual investors, financial advisors, organization and their clients. However, (Sharma & Kumar, 2020) understanding this paradigm in a broader landscape

and with an eye opener perspective will definitely allow the new scholar to see it as a bigger picture when they tend to pen down some of the specific behavioral aspects in the coming years. Also, behavioral finance stated various subjective judgments which includes biases, emotions and honestly talking about the persistence of behavioral biases can give an explanation to the market irrationality and inefficiency. Moreover, the financial market stands as an integral component of contemporary finance, warranting examination of the progression of behavioral finance within the stock market. The new insights of behavioral finance intersect with traditional theory and it provides supplement to classical theories and reflect on how this body of knowledge applies to a wide range of practical problems and decision environments.

## IMPLICATION OF STUDY

The present research contributes substantially to the advancement of knowledge within the realm of behavioral finance and draw attention towards elucidating significant challenges align with behavioral finance. Portfolio managers, financial institutions, and market investors may derive benefits from the insights of the paper. Various issues devoted to the topic of behavioral finance in the present study, have contributed to the enhancement of the field of behavioral finance both nationally and internationally.

## LIMITATIONS

The study acknowledges certain limitations. Specifically, this paper has addressed only eight challenges, recognizing the possibility of additional hurdles not covered within this scope. Furthermore, it is important to note that the present paper emphasizes theoretical aspects rather than practical applications. It is suggested that by addressing these limitations, future researchers could potentially enhance the present study.

## FUTURE SCOPE

By studying this novel concern, it is found that social aspects are not yet explored as compared to other factors. Therefore, it is assumed that future research will fill the

gap by analyzing the social factors in behavioral finance. Behavioral finance is still seen as an emerging field in developing economies, as only a handful of studies are available in emerging economies compared to developed economies. Consequently, future studies in developing economies may explore this domain, strengthening the behavioral finance concept. Through the analysis, it has been observed that certain areas can be explored with behavioral finance, such as artificial intelligence, neuroplasticity and cryptocurrency, which are available in a trickle of studies. Future scholars may consider all these suggestions for future research.

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