The Seybold Report

ISSN 1533-9211

DOI 10.17605/OSF.IO/4T8Z7

"BEHAVIORAL FINANCE: DELINEATION AND COALESCENCE OF HUMAN BEHAVIOR & INVESTMENT DECISIONS"

Dr. MANISHA

Assistant Professor, School of Business, Mody University of Science and Technology.
Email: manishagera1425@gmail.com, Manisha.sob@modyuniversity.ac.in

Dr. MANISH DIDWANIA

Professor, School of Business, Mody University of Science and Technology.
Email: Manishdidwania.sob@modyuniversity.ac.in

Dr. MEENA SHARMA

Assistant Professor, School of Business. Email: Meenasharma.sob@modyuniversity.ac.in

Abstract

While the traditional academics in finance accentuate theories such as modern portfolio theory and the efficient market hypothesis, behavioral finance emanates the psychological and sociological issues that influence the decision- making process of individuals, groups and organizations. The convergence between human behavior and investment decision making has since evolved as "behavioral finance". A large number of researchers have indicated that the investment decision-making process is more human than logical because of human biases. The paper discusses the history of behavioral finance, traditional financial theories and concepts of behavioral finance. This paper throws light on the importance of behavioral finance and its origin & evolution, a brief history of this new unconventional form of finance and the theories related to it. In the words of, **Olsen R. (1998)** "behavioral finance seeks to understand and predict systematic financial market implications of psychological decision process."

Keywords: Behavioral Finance; Behavioral Anomalies; History of Behavioral Finance, Traditional Finance Theories; Decision Making

BEHAVIORAL FINANCE

"People in standard finance are rational. People in behavioral finance are normal."
-Meir Statman

Paul Slovic once said: "A full understanding of human limitations will ultimately benefit the decision-maker more than will naive faith in the infallibility of his intellect." I'll quote him exactly since I can't put it as eloquently as he did in 1972. That financial and economic instincts are weak may anger conventional economists, but it seems more reasonable than the contrary point of view —namely, that investors, their financial consultants, bankers, and corporate management know perfectly well what to do.

There are several approaches to investigating the psychology of financial decision-making. The focus back then was mostly on cognition. Considering the heuristics and biases literature, which Amos Tversky and Daniel Kahneman helped to create? How do individuals think? How are decisions made? Although cognitive research is still the most popular method, interest is also growing in the study of emotion (mood; affect) and social psychology, particularly herding

The Seybold Report
ISSN 1533-9211
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behaviour. Behavioral finance has been referred by Thaler as "open-minded finance," i.e., finance that is sufficiently unprejudiced to work with a variety of research techniques. First, using a controlled setting like a lab to investigate decision-making is optimal. As each reader who does not agree with what is written is free to repeat an experiment "at home," experimental procedures discipline theory. Second, the integration of field research, surveys, and observation of people's actions (such record trading) in a natural setting. Finally, the use of market-level volume and pricing aggregates.

The foundation of behavioral finance can be traced back over 150 years. Over the past three decades, behavioral finance has grown significantly in the fields of economics and finance (Hirshleifer, 2015). The results of either rational or irrational aspects of human decision-making have been studied by a number of academics. The well-known work by Mackay, "The Extraordinary Popular Delusions and the Madness of Crowds," is a ballet of all the historical panics and tactics.

The field of behavioral economics includes behavioral finance. Research in the areas of academic and business-related behavioral finance is expanding very quickly. According to behavioral research, psychological biases and influences have an impact on how investors and financial professionals behave in regards to money. These impacts and biases can be used to explain a variety of market anomalies, particularly those that occur in the stock market, such as sharp increases or decreases in stock prices.

We can examine behavioral finance from a variety of angles. Although it is sometimes considered that stock market returns affect market outcomes and returns, there are numerous other ways to look at the situation. Thus, behavioral finance is a very recent and important subject right now, especially in India where investing in the stock market is a growing trend.

The rationale behind this behavioral finance dichotomy makes it easier to comprehend why people make distinct financial decisions and how those decisions can shape markets. In behavioral finance, it is thought that financial participants have psychological influences that result in relatively normal and self-controlling tendencies rather than being totally rational and self-controlled.

Behavioral finance is concerned with the psychology of investors and how it affects the choice to make an investment. The well-known occurrence of "The Dutch Tulip Bubble," generally referred to as "Tulip Mania," is the earliest evidence of investor irrationality. The incident transpired when the tulip plant was originally introduced to the Netherlands during the "Dutch Golden Age." The Dutch began investing their money in the plant since they found the exotic blossom to be so alluring.

Tulip plant investments started to wane over time, and as a result, prices began to rise to higher levels. And when consumers realised that a substantial portion of their income was flowing toward a flower bulb which really otherwise had a high value, the market eventually began to wane. Then, as a result of consumers selling their tulips, their price dropped, leading to a significant decline in the market. Such occurrences as tulip mania cast doubt on investors' sense of reason.

The Seybold Report
ISSN 1533-9211
DOI 10.17605/OSF.IO/4T8Z7

These are some aspects that influence an individual's behavior since behavioral finance indicates how a person will act while making investing decisions:

Bounded Rationality

Individuals are said to act in accordance with their knowledge under the theory of bounded rationality. Sadly, the availability of information or the individual's lack of experience frequently limits this information. In terms of money and investment, everyone has access to the same public information, but investors might not be aware of the real conditions around what is occurring within a corporation.

Cognitive Bias

Everyone's decisions are impacted by cognitive bias, whether they are conscious of it or not. Think about the decision between two firms to invest in. According to behavioral economics, factors such as the color of a company's logo, the CEO's name, or the location of its headquarters may arouse an unconscious bias that leads us to pick the rival organization.

Confirmation Bias or Discrimination

Prejudice is frequently linked to behavioral finance. Individuals view objects, events, or other people through the prisms of their own experiences, which may lead them to judge others unfairly because they prefer an alternative. The alternative, however, is not inevitably a superior choice, despite this.

BEHAVIORAL FINANCE: THE EXIGENCY OF THE NEW EXEMPLAR IN FINANCE

Many financial and economic theories attempted to explain how investors formed decisions and how financial markets operated before the notion of behavioral finance emerged. With regard to how investors make decisions, the theory of expected utility has drawn a lot of attention. Von Neumann and Morgenstern (1944) employed this theory to investigate how people behave in unpredictable situations and came to the conclusion that people assess risk rationally by always attempting to maximize their utility.

Fama (1970) reinforced the efficient market hypothesis by suggesting that an efficient market is one in which prices completely communicate all of the relevant information and that, in some circumstances, markets may not be fully efficient. The efficient market hypothesis asserts that, if people were rational, markets would be efficient by definition, which can be said to be a development of the expected utility theory (Shleifer, 2000). These paradigms came under fire over time, and behavioral finance, a new financial theory, was born. According to this strategy, Tversky and Kahneman (1974) showed that the presence of heuristics and cognitive biases influences people's decision-making in uncertain situations; as a result, people won't act rationally as suggested by earlier theories.

In addition to serving as a mechanism of financing investment, the stock market also aids corporate governance by acting as a signaling mechanism for management regarding asset allocation. (Samuel, 1996, p.1). But the stock market is known primarily for being the most

ISSN 1533-9211

DOI 10.17605/OSF.IO/4T8Z7

successful avenue for raising funds for businesses (Zuravicky, 2005, p.6). Because of the "long-term growth of capital, dividends, and a hedging against the inflationary erosion of purchasing power," people are interested in stocks (Teweles & Bradley, 1998, p.8).

If we forsake the conventional notions of expected utility theory and efficient markets, behavioral finance—the study of psychological processes and the rationale of financial decision-making—emerges. What research on how investing decisions are made demonstrates the various market anomalies caused by human behavior?

Traditional financial theories have been crucial in explicating how investors make decisions, but the fundamental issue was that these ideas couldn't account for investors' irrational conduct. Various market bubbles have been witnessed by investigators who studied the stock market, and these bubbles were challenging for conventional financial theories to account for. As a result of all these investor dilemmas and market abnormalities, behavioral finance as a new branch of finance has emerged.

Figure 1.1: Evolution of Behavioral Finance

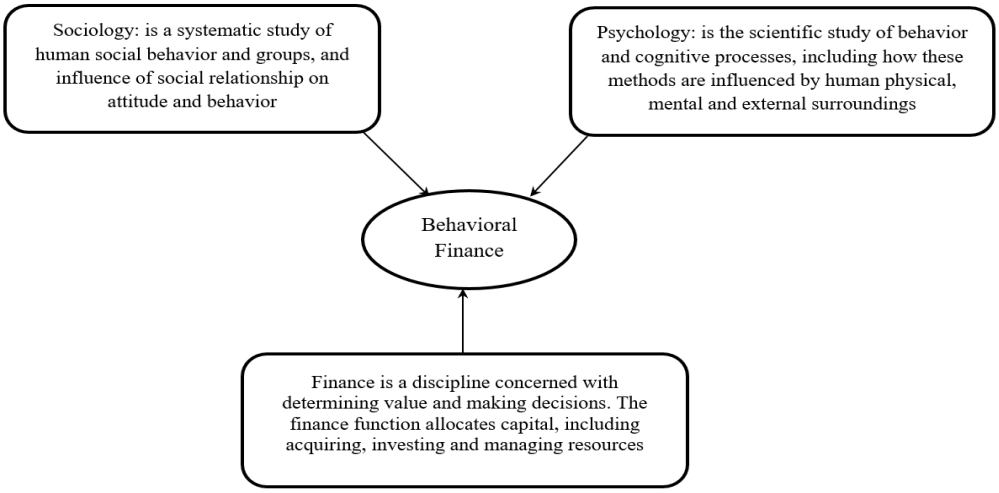
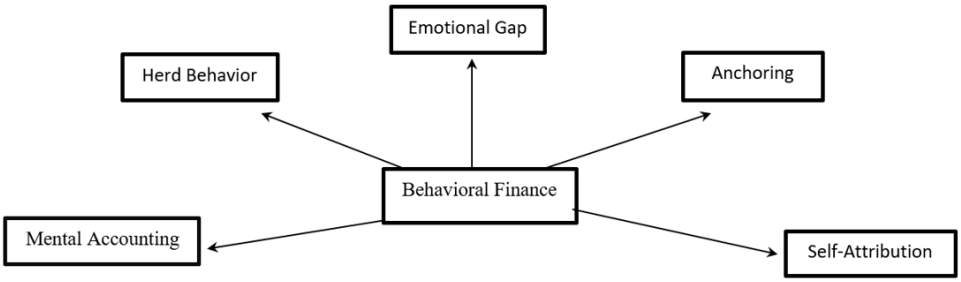


Figure 1.2: Concepts of Behavioral Finance:



- **Mental Accounting:** it means the proneness of people to allocate money for a defined purpose. Mental accounting describes the various valuations a person assigns to the same

The Seybold Report
ISSN 1533-9211
DOI 10.17605/OSF.IO/4T8Z7

quantity of money depending on arbitrary standards, frequently with unfavourable outcomes. The discipline of behavioral economics includes the idea of mental accounting. It was developed by economist Richard H. Thaler, who argues that since people categorise finances differently, they are more likely to make illogical decisions about their spending and investing.

- **Herd Behavior:** herd behavior says that people try to impersonate the financial behaviors of majority of the herd. Herding is really notorious and it creates major dramatic rallies and sell-offs in the stock market.
- **Emotional Gap:** An investor's emotional response to market conditions differs from their rational decision-making process, which is referred to as the emotional gap. Due to such a gap, investors may make awful investment choices that lead to financial losses.
- **Anchoring:** The cognitive bias known as "anchoring" interferes with our ability to make choices by causing us to place undue weight on the initial bit of data we are presented with. An investor may become attached on a specific price or value and fail to modify their expectations depending on new data. This can have a substantial influence on investment decisions in behavioral finance.
- **Self –** Attribution: Self-attribution is the inclination to base decisions upon one's own knowledge or competences. Self-attribution generally results from an innate ability in a certain field. Even when their knowledge is minimal, people usually consider it higher than others' in this domain.

Problem Statement

Since the economy and stock market are positively correlated, both the growth momentum and the stock market's ascent will benefit one another. As a corollary, stock market investor decisions have a substantial impact on the market movements, which in turn affects the economy. It is crucial to investigate the behavioral aspects influencing individual investors' decisions and how these factors affect their investment success in order to comprehend and formulate a proper justification for these investors' choices. Understanding typical habits would be advantageous to investors because it will help them to justify their actions so as to get higher returns. In order to anticipate more correctly and provide better recommendations, security companies may also use this information to gain a greater understanding of investors. The stock market then provides as a yardstick of the economy's wealth and facilitates businesses in raising funds for expansion and development. Stock prices will therefore represent their genuine value.

OBJECTIVE OF THE STUDY

The study's goal is to analyze the behavioral finance theory, including its genesis and evolution. Particularly, this research sheds insight on the influence of human behavior on investment decisions.

The Seybold Report
ISSN 1533-9211
DOI 10.17605/OSF.IO/4T8Z7

A Short Note on History and Evolution of the Major Theories of Behavioral Finance: In order to truly understand behavioral finance, it becomes important to explain the development of the theories of behavioral finance from the beginning to never ending development of the subject.

Sr. No	Author's Name	Year	Theory/Concept/Model
1.	Mackay	1841	Extraordinary Popular Delusions And The Madness of Crowds
2.	Gustave Le Bon	1896	The Crowd: A Study of the Popular Mind
3.	Selden	1912	Psychology of The Stock Market
4.	Herbert Simon	1955	"Models of Bounded Rationality"
5.	Festinger, Recken, and Schachter	1956	"Theory of Cognitive Dissonance"
6.	Raiffa	1968	
7.	Tversky and Kahneman	1973, 1974	"Introduced Heuristic Biases: availability, Representativeness, Anchoring, and Adjustment"
8.	Kahneman and Tversky	1979	"The Prospect Theory Introduced Loss aversion bias "
9.	Tversky and Kahneman	1981	"Introduced framing Bias"
10.	Richard Thaler	1985	"Introduced mental accounting bias"
11.	De Bondt and Thaler	1985	"Theory of overreaction in stock markets"
12.	Statman	1994	Behavioral asset pricing theory
13.	Barberis, Shleifer, and Vishny	1998	"Investor sentiment model for under reaction and overreaction of stock prices"
14.	Meir Statman	1999	"Behavioral asset pricing theory and behavioral portfolio theory"
15.	Andrei Shleifer	2000	"Linkage of behavioral finance with the Efficient Market Hypothesis to find that stock markets are inefficient"
16.	Barberis, Huang, and Santos	2001	"Incorporation of prospect theory in asset prices"
17.	Grinblatt and Keloharju	2001	"Role of behavioral factors in determining trading behavior"
18.	Hubert Fromlet	2001	"Importance of behavioral finance, emphasis on departure from homo economics' or traditional paradigm to more realistic paradigm"
19.	Barberis and Thaler	2003	"Survey of behavioral finance"
20.	Coval and Shumway	2006	"Effects of behavioral biases on stock prices. The price reversal for biased investors is quicker than unbiased investors"
21.	Avanidhar Subhrahmanyam	2008	Normative implications of behavioral finance on individual investors and CEO's
22.	Richard Thaler	2008	Impact of mental accounting on consumer choice behavior
23.	Robert Bloomfield	2010	Compares the behavioral and traditional finance approach in explaining market inefficiencies

Source: Authors

The Seybold Report
ISSN 1533-9211
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REVIEW OF LITERATURE

Behavioral factors impact the process of investors' decision-making

According to Ritter (2003, p.429), the psychology that forms the basis of behavioral finance contends that a number of cognitive illusions can influence the way individuals make decisions. These illusions are separated into two categories: heuristic decision-making illusions and prospect theory illusions originating from the application of mental frames. (Waweru et al., 2008, p.27). Waweru et al. (2008, p. 37) list the stock investment choices that an investor can be influenced by the others: purchasing, selling, selecting the stock, holding the stock for how long, and trading a large amount of stock. According to Waweru et al., an investor's buying and selling decisions are significantly impacted by the decisions of others, and herding behavior encourages investors to exhibit regret toward their choices. Raiffa and Raiffa (1968), Kahneman and Tversky (1979) studied that the behavior of the individual while making investment or financial decisions, in theory differs from practice, and classic financial models cannot explain or predict all the financial decisions.

Consequently, earlier and now the economic rationality of human beings in its behavior finance is criticized reasonably. Thaler (1985) there exists only two cases: basic gains and basic losses. Every investor wants to pick out the gains such that every increase is related with its own quality. According to a survey conducted by SEBI (1998) investment objectives of the investors, their risk appetite, income or funds available for investment puts huge influences on investment behavior in securities market across different levels. Odean(1988) has concluded that investors have a tendency to exaggerate their capacity, unreasonably about the future events and are very positive about their self-assessments. Shiller (1998) stated that mental accounting depicts the inclination of individuals to take place specific occasions into distinctive mental accounts in light of external characteristics. Shefrin (2001) behavioral finance studies how psychology affects the financial decision making process of investors and ultimately affect financial markets. As we know, psychology explores human judgment, behavior and welfare; it can also provide important facts about how human actions differ from traditional economic assumptions and according to market situations. Schindler, (2007) stated that behavioral finance is a blend of theories of finance; psychology and sociology (see Figure 1.1). The model of behavioral finance explains people's sentiments and market anomalies. De Bondt et. al., (2010) defined behavioral finance as a sub theme of behavioral economics in which consolidated outcomes from psychology and sociology takes the shape of behavioral finance models and theories. Hershfield & John (2018) rightly studied that because many financial decisions of human beings involve a trade-off between present and future selves, with the present self often being prioritized, this review highlighted interventions that makes the future self-more vivid to decision makers. The researcher has discussed the theoretical background underlying such interpose.

Heuristic Theory

The notion of heuristics is characterized by Kahneman (2011) as a research method based on the incremental approximation of a problem, such that each step is believed to be temporary,

ISSN 1533-9211

DOI 10.17605/OSF.IO/4T8Z7

while biases are described as systematic errors that replicate itself in a predictable manner in certain settings. Heuristics are guidelines that simplify decision-making, notably in convoluted and unpredictable contexts. (Ritter, 2003, p.431) These heuristics are generally highly helpful, especially when time is short, although they can occasionally result in prejudices. (Waweru et al., 2008, p.27 (Kahneman & Tversky, 1974, p.1124; Ritter, 2003, p.431). Kahneman and Tversky while establishing three factors, namely representativeness, availability bias, and anchoring, they tend to be among the first authors studying the factors which are heuristics. The degree of similarity between an event and its parent population is termed as representativeness. (DeBondt & Thaler, 1995, p.390). Additionally, when people attempt to draw conclusions from too few samples, it is known as "sample size neglect" and is caused by lack of representativeness. (Barberis & Thaler, 2003, p.1065). When investors purchase "hot" stocks on the stock market instead of lagging ones, representativeness is applied. This attitude indicates why investors reacted unreasonably. (DeBondt and Thaler, 1995, p.390).

Prospect Theory

Prospect theory is a behavioral finance theory that explains how individuals choose among hazardous or ambiguous choices. It implies that people are more risk-averse when there are benefits and more risk-seeking when there are losses. The Nobel Prize-winning economists Daniel Kahneman and Amos Tversky initially put out the idea in 1979, and other behavioral finance scholars have since extended and improved it. The theory implies that individuals value profits more highly than losses and that they're more willing to take risks when the prospective payoff is great.

Prospect theory and Expected Utility Theory (EUT) are viewed as two distinct decision-making methodologies. While EUT focuses on investors' rational expectations, prospect theory emphasizes subjective decision-making driven by the investors' value system. (Filbeck, Hatfield & Horvath, 2005, p.170-171). The analysis of decision-making under risk is governed by the EUT, a normative model of rational choice and descriptive model of economic behavior. People tend to understate probable outcomes in comparison to certain ones, and depending on the context of losses or benefits in which they are presented, people react to comparable situations differently. (Kahneman & Tversky, 1979, p.263). Regret aversion, loss aversion, and mental accounting are some of the mental states which have an impact on a person's judgement call processes, according to the prospect theory. (Waweru et al., 2003, p.28). Regret is a sentiment that people encounter after committing mistakes. By being willing to sell growing shares while refusing to sell declining ones, investors are capable of avoiding regret. Additionally, investors regret holding losing equities for a longer period of time than they regret selling winning stocks too quickly. (Forgel & Berry, 2006, p.107; Lehenkari & Perttunen, 2004, p.116). When referring to a similar-sized loss or gain, people's different levels of mental punishment are referred to as loss aversion. (Barberis & Huang, 2001, p.1248). Evidence suggests that people are less happy with equal gains than they are with the threat of losses. (Barberis & Thaler, 2003, p.1077).

The Seybold Report
ISSN 1533-9211
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Market factors

DeBondt and Thaler (1995, p.396) cite research showing that behavioral finance-inspired investor behaviour has an influence on financial markets. According to behavioral finance theories, investors may overreact or underreact to price movements or news, extrapolate previous trends into the future, pay insufficient attention to a stock's underlying fundamentals, and rely on popular stocks and seasonal price cycles. Usually, over- or under-reaction to price changes can result from changes in market information, the fundamentals of the underlying stock, and stock price. Empirically, it has been revealed that these variations have a significant impact on how investors make decisions. Investigators are persuaded that investors' trading methods (DeBondt & Thaler, 1985, p.804 & Lai, 2001, p.215) Waweru et al. (2008, p.36) and, as a result, their investment decisions may alter depending on whether they overreact or underreact to news. Moreover, Barber and Odean (2000, p.800) underline that even when investors are skeptical of whether certain stock market occurrences will lead to successful investment returns in the future, investors are nevertheless affected by them. Additionally, Caparrelli et al. (2004, p.223) contend that when prices shift, investors are influenced by the herding effect and tend to follow suit with the crowd.

Odean (1999, p.1296) suggests that the majority of the time, investors will pick the stocks that strike their attention. Additionally, the choice of stocks is influenced by the tastes of the investors. While reasonable investors seek to sell the past losers and this may allow them to delay taxes, momentum investors may choose equities that have had strong recent success. The remorse associated with a loss, on the other hand, is something that behavioral investors desire to delay while making stock trading decisions. Market considerations are typically excluded from behavioral factors because they are outside influences on investors' behaviour. When examining the behavioral elements influencing investing decisions, it is not sufficient to ignore market dynamics because they have different effects on behavioral investors (as indicated above) and rational investors. This study fairly considers market variables as behavioral elements affecting stock market investors' choices Waweru et al. (2008)

Herding Effect

In the financial market, the herding effect is defined as the propensity of investor behaviour to imitate that of other investors. Since investors tend to lean more on communal advice than on private information, the occurrence of herding is typically carefully considered by professionals. As a result, many promising investment opportunities at the moment may be negatively impacted. Herding can lead to several emotional biases in terms of behaviour, such as conformity, congruity, and cognitive conflict, the home bias, and gossip. Financial professionals' performances, such as those of fund managers or financial analysts, are typically assessed subjectively on a regular basis and in comparison to their peers. Because low-ability individuals may imitate the behaviour of their high-ability colleagues in order to establish their professional reputation, herding can help with the appraisal of professional performance in this situation. (Kallinterakis, Munir & Markovic, 2010, p.306).

The Seybold Report
ISSN 1533-9211
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Herding, on the other hand, results in an inefficient market condition that is typically identified by speculative booms. Generally speaking, herding investors behave in significantly the same way as early humans, who had little understanding of the world around them and banded together to support fellow humans and find safety. (Caparrelli et al., 2004, p.223). An investor's tendency to herd is influenced by a variety of variables, including overconfidence, the value of money spent, and others. An investor's reliance on their personal knowledge increases as their level of confidence grows. A variety of factors, such as overconfidence, the value of the money invested, and others, have an impact on an investor's herding behavior. The more confident an investor is, the more they rely upon their personal information to arrive at investment decisions. The effect of herding, however, can diminish after a certain point because it becomes more expensive to follow the herd in order to receive growing abnormal returns.

SIGNIFICANCES OF THE RESEARCH

For Individual Investors: The investigation is a useful resource for investors to consider when analyzing the stock market trends and making judgments about which investments to invest.

For Security Organizations: They have a solid foundation from the research to predict future stock market fluctuations and deliver investors more credible consultant information.

For the Field of Behavioral Finance: In comparison to other financial theories, behavioral finance notions are relatively recent. Though behavioral finance has a limited number of applications in less developed security markets, it is commonly used in developed security markets to explore the behaviours of investors that influences their investment decisions. The purpose of this study is to ensure that applying behavioral finance is appropriate for all kinds of stock markets.

For the researchers: The research provides to authors a fantastic chance to discover, both theoretically and practically, about the stock market and behavioral finance theories.

CONCLUSION

Behavioral finance deals with the study of investor’s psychology and its role in making financial decisions or decisions related to investment. It augments the traditional finance theories that dominated the realm of academics, which assumed speculators behave safely and efficiently. Behavioral finance has key remarks about both cerebral and practitioners. Behavioral finance provides the groundwork for evolving theories for an intense apprehension of the psychological process involved in financial decision making. The efficacy and envisions of the investors in making financial decisions can only be refined through the expeditious enlargement of behavioral finance. It is through the rapid developments and improvements in behavioral finance in the coming years the efficacy and foretelling power of investors can be improved. The behavioral biases of the investors have been and will always continue to affect human choices while making investment decisions. Therefore more intense analysis of this field is required in today’s time.

The Seybold Report
ISSN 1533-9211
DOI 10.17605/OSF.IO/4T8Z7

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