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Trends in Behavioral Finance: A Literature Survey

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Abstract

Purpose: The paper aims at systematic and critical evaluation of the research papers for the past 21 years and to analyze the year-wise contribution of different journals and countries' contributions in the domain of behavioral finance.

Methodology: The research was based on searching keywords like behavioral finance, psychological biases, investors' behavior, behavioral biases, and investors' decision making in the electronic databases of Emerald, Scopus, and Taylor & Francis Online. The survey covers a period of 21 years from 2000 to 2020 and with a total of 86 articles.

Findings: The survey shows that there is an increase in research in this newly emerging field of study. Moreover, there is an upward trend so far as the contribution is concerned by different researchers in this new domain and the maximum contribution is by Indian researchers. Initially, in the early years, researchers focused on the conceptual research paper and systematic review of behavioral finance and later on researchers focused on more empirical research paper evidence to underpin behavioral finance as a separate field of study.

Originality: The domain of behavioral finance is in a very nascent stage. The scholars in this domain need a clear view of the direction of research in behavioral finance. This review paper provides a background and evolution of behavioral finance over a period of time and also suggests the prospective future research scope.

Keywords: *behavioral finance, behavioral biases, expected utility, efficient market.*

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1. Introduction

Managing finance is one of the important aspects of wealth management. Wealth management is the art of managing finance (Zahera & Bansal, 2018). Academicians and scholars explain the management of finance by explaining the different models of finance. The underpinning of such a financial model started with Harry Markowitz's portfolio selection model in 1952. Later on William Sharpe (1964), John Lintner (1965), and Jan Mossin (1966) introduced the Capital Asset Pricing Model. However, Eugene F. Fama (1970) introduced one of the most influential models in finance, the Efficient Market Hypothesis (EMH). EMH gave a new dimension to the modern finance theories as EMH states that all the public information is reflected in the stock prices. EMH is based on some fundamental assumptions and the two prominent such assumptions are the rationality of the investor and market efficiency (Godoi et al., 2005).

In the financial market, the terms trading and investing are used interchangeably. Trading is involved in the short-term return while investing is involved in the long-run return in terms of both the cash flows and capital gains (Zahera & Bansal, 2018). When an investor is involved in investing, they are often encountered by the complexity caused by the stock market. The reason for such complexity related to investment decisions is because of the market participants and their behavioral and emotional patterns while taking any investment decisions.

The traditional finance theories like 'Modern Portfolio Theory', 'Efficient Market Hypothesis', 'Capital Asset Pricing Model' are based on the assumption that investors are rational and the financial market is efficient. The efficiency of the financial market is debatable because if the financial market is efficient then arbitrage opportunities in the financial market would have been discarded. But the different market events in the financial market support the fact that the financial market is inefficient because we experience different anomalies in the financial market like bubbles, crashes, etc. The reason for such bubbles in the financial market is unanswered as the standard or traditional finance theories were unable to explain the reason for anomalies in the financial market.

If the psychology of the market participants is studied and understood properly then the different questions that the standard finance theories cannot explain can be understood (Zahera & Bansal, 2018). As an alternative to the standard finance theories, in the late 1980s, a new field of finance emerged known as behavioral finance. Behavioral finance provides all the answers that the standard finance theories cannot provide. Behavioral finance is a sub-discipline of behavioral economics that has taken the attention of psychologists and academicians to understand the psychology of the investor i.e. how investors make their investment decision and why they behave differently when they take the financial decision (DeBondt et al. 2010). Behavioral finance with its root

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in the psychological study of human decision making has taken into consideration different psychological biases that human possesses (Shefrin, 2001). All these biases eventually lead to irrational decisions. The pattern of investment or the behavioral factor that affect the investment include fear, love, greed, optimism, and herd instinct (Fischer and Gerhardt, 2007). Behavioral finance considers the theories based on psychology to elucidate the anomalies in the financial markets.

Several inherent factors guide investors in making an investment decision. These factors are not taken into consideration but still, have the power to affect the investment. Markets involve highly financial and social stakes and hence subjective emotions have more dominance over the objective and logical approach. Behavioral finance considers the human emotion associated with any financial decision-making. Since, it is a new field of modern finance and assertion that along with motivation and feeling, emotion is indispensable in any human decision-making criteria. (Mitroi and Oproiu, 2014).

The remaining of the article is arranged as, in section 2 review of literature is covered, in section 3 research methods is discussed, in section 4 research result is analyzed followed by discussion in section 5 and limitation of the study and future research scope is in section 6.

2. Review of Literature.

Zeynep Copre (2015) opined that "Expected Utility Theory, Markowitz Portfolio Model, Capital Asset Pricing Model (CAPM) and the Efficient Market Hypothesis (EMH) are the pillars of the traditional finance theories" and the two major assumptions of these traditional finance theories are: investors are rational and the market is efficient. But when the investors are involved in the money management phenomena, they often tend to be nervous and behave irrationally, and hence these traditional finance theories do not fit in the modern world of complex decision making. Moreover, Hayat (2016) argued that there is no such concept like the efficient market as mentioned in traditional finance as all investors have the same information and since the investors are literate and hence they all make their investment decision based on their past expectations and not mere on the market information available. All these arguments result in the development of a new branch of study in finance known as behavioral finance. Boda and Sunitha (2018) stated that behavioral finance identified the reasons for the irrational decision of investors and also focused on the behavioral bias of the investors that influence the investor's decision-making process.

Lubis et. al (2015) stated the three major components that influence the investors' risk-taking behavior include emotional intelligence, defense mechanism, and personality trait. Investors' investment decisions are affected by several psychological factors while making an investment decision. These factors are identified as overconfidence

and optimism, heuristic, faith, pessimism, herd behavior, and confirmation biases. Among these biases, heuristic, confirmation and pessimism make the investor more rational while the biases like faith, overconfidence, optimism, and herd behavior vary from investor to investor and these biases are responsible for the irrational behavior of the investor. Jayaraman et al. (2012) pointed out that an investor's investment decision is driven by investor sentiment and investor sentiment is based on the psychology of the investor, expectation of the investor, optimism of the investor, and the ability and confidence of the investor. Such factors affect the market which leads to bullish and bearish market conditions.

Kiyilar and Acar (2009) stated that since humans are social creatures and have a separate value system for each one of us and the values are driven by the emotion and behavior of the individual. The authors also stated that behavioral finance is a new way of looking at those areas that traditional finance has failed to explain. It is nothing but an expansion of traditional finance. According to Bikas et. al. (2013), financial market decisions are based not only based on available information from the financial markets rather on the psychological factors that also influence the investment decision process. DeBondt et. al. (2010), opined the three key psychological factors that work behind behavioral finance are cognitive, emotional response, and social psychology. Brahmana et. al. (2012) in their study identified two major psychological biases. These two biases are affection biases and cognitive biases. They have identified that both the affection biases and the cognitive biases are the two major determinants of the 'Day of the Week Anomaly' (DOWA). As the assumptions of the rationality of the investor by the traditional finance are contradicted by the DOWA. It is also said that investor causes an anomaly in the market and such anomaly results in irrational behavior of the investors.

Mitroi and Oproiu (2014) stated when the investors are involved in the financial decision making, then it is not the rationality that works behind the investor decision making but the psychological factors that influence such decisions. In the concluding comment, the authors have also added that if the investors can understand the errors that they tend to make while investing or managing their portfolio and by doing so they can allocate their assets to better alternatives so that their profit can maximize.

3. Research Methods

A systematic literature review approach has been employed to review the research papers available in the public domain on behavioral finance, investors' psychology, investors' behavior, behavioral biases, and its influence on investment decision-making. To find out the related available literature in the domain of behavioral finance, we have used Emerald, Scopus, and Taylor & Francis Online databases. To search the research paper for review, key terms like behavioral finance, psychological biases,

investors' behavior, behavioral biases, and investors' decision making were searched in the databases mentioned above and only those papers included which were open accessed and also in the English language.

Behavioral finance though emerged in the late 20th century but gained popularity at the beginning of the 21st century. Post-2000 evidenced increased dynamic exploration of research in the area of behavioral finance. Hence for review, the period covers 2000-2020 and for selecting the paper the following criteria were set:

- Paper published in the different journals available in the electronic databases mentioned above.
- Paper published only in English.
- Paper having full content.
- The paper includes different types of research papers like conceptual papers, case studies, literature reviews, empirical papers, and working papers.

After a thorough search of the articles in the databases based on the above yardsticks, a total of 86 papers were selected for review.

4. Research results.

This section covers a comprehensive review and trend of behavioral finance literature considering different criteria like journal name, type of research, year of publication, country, development of different behavioral biases, and publication house. The main aim is to highlight the previous research work in the area of behavioral finance and to develop a framework for future research scope in the area of behavioral finance.

4.1 Recurrence of behavioral finance research in journals and countries.

Figure I shows all academic journals publishing articles in behavioral finance for a period of 21 years i.e. from 2000 to 2020. Only those articles were included for review which was open accessed. From the review, it can be seen that initially, the 21st century attracted comparatively less concentration but article publication increases as time passes which indicates that behavioral finance attracted researchers.

4.2 Years of publication of different types of research papers in the domain of behavioral finance.

Table 1 shows the year-wise distribution of different types of research papers published in different journals mentioned above during the study period.

From the table, it can be seen that the research in the domain of behavioral finance especially the empirical research increased after 2011. Researchers initially

focused on conceptual research and the same trend continued till 2011. From 2000 to 2011, very few researchers focused on empirical research but after 2011, researchers tried to empirically examine the different phenomena in the stock market.

4.3 Contribution of different journals in behavioral finance.

Table 2 shows the contribution of different journals in the area of behavioral finance for a period of 21 years (i.e. from 2000 to 2020). From the table, it can be seen that the top five journals published 54 articles comprising 62.79% of the total number of journals published. The contribution of these five journals is Qualitative Research in Financial Markets (19 research papers or 22.09%), Review of Behavioral Finance (12 research papers or 13.95%), Journal of Behavioral Finance (10 research papers or 11.63%), Financial Analyst Journal (7 research paper or 8.14%) and Studies in Economics and Finance (6 research paper or 6.98%).

Table I: Year vs published different types of research papers

	Conceptual	Case Study	Lit. Review	Empirical	Total
2000	3			1	4
2001	2				2
2002					0
2003	1			1	2
2004	1				1
2005	1				1
2006				1	1
2007	0				0
2008	1				1
2009	2				2
2010	3		1		4
2011					0
2012	2		1	2	5
2013	1			2	3
2014			1	2	3
2015	1		2	2	5
2016	2		3	2	7
2017	1		1	4	6
2018	3		2	3	8
2019	4		6	7	17
2020	5		4	5	14
Total	33		21	32	86

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4.4 Contribution of different countries in behavioral finance.

Table 3 shows the cross-country contribution of different journals in the domain of behavioral finance. From the table, it can be seen that 53 research papers out of 86 are published by the top five countries i.e. India (21 research articles or 24.41%), the UK (15 research articles or 17.44%), the USA (12 research articles or 13.95%), Malaysia (3 research articles or 3.49%) and Australia (2 research articles or 2.41%).

Table 2: Contribution of top five journals in behavioral finance

Name of Journals	% of contribution
Qualitative Research in Financial Markets	22.09%
Review of Behavioral Finance	13.95%
Journal of Behavioral Finance	11.63%
Financial Analyst Journal	8.14%
Studies in Economics and Finance	6.98%

Table 3: Contribution of top five countries in behavioral finance

Country	No. of Articles	Percentage of Articles
India	21	24.41
UK	15	17.44
USA	12	13.95
Malaysia	3	3.49
Australia	2	2.41

5. Discussion

The present research tries to evaluate the contribution of different researchers and countries' contributions to the development of behavioral finance from 2000 to 2020. We (the authors) have evaluated the contribution of different journals in behavioral finance.

Before the development of behavioral finance, the standard finance theories dominated the financial market. But in the 1980s, there is a drastic change in the standard finance theories and hence a new model developed related to human psychological factors affecting the financial decision popularly known as behavioral finance. Behavioral finance emerged from behavioral economics. Researchers in behavioral finance have identified many biases that affect investor decision behavior. Biases are categorized into heuristic bias and cognitive bias. Heuristic biases include representativeness, availability, Gambler's fallacy, and anchoring while cognitive biases are overconfidence, herding, regret aversion, and over-reaction. While factors that influence the investor in investment decisions can be categorized into four

different factors. These factors are heuristic, prospect factors, market factors, and herding factors (Boda and Sunitha, 2018).

From the extensive literature, there are some other biases apart from the above-mentioned two categorized biases. These are hindsight bias, black swan, conjunction fallacy, confirmation biases, scope neglect, bystander apathy (Brahmana et al., 2012). All these psychological based biases have a major impact on the investment behavior of the investor. This will lead to irrational investment behavior of the investor.

Behavioral finance is a very emerging area of finance taking an interest by different researchers and academicians not only from the finance domain but also from other disciplines like psychology, sociology, and neuroscience. Post-2000 evidenced the development of behavioral finance in different ways like psychologists tried to understand different psychological factors' (like emotion, mood, feeling, and gut-feeling) role in the investment decision making and neuroscientists tried to understand human behavior and investment decision-making process with the help of neuroscience.

6. Limitations and future research scope.

The present study has certain limitations. Firstly, the study period ranges from 2000 to 2020. Research articles before 2000 are ignored in the study although many important concepts were developed by different researchers, psychologists, and academicians before 2000.

Secondly, in the study, only 86 articles/research papers have taken into consideration after the screening of research articles based on certain criteria discussed in the methodology section. Though more numbers of articles could have been reviewed by searching keywords other than behavioral finance, psychological biases, investors' behavior, behavioral biases, and investors' decision making. Lastly, the study is based on a few databases like Emerald, Scopus, and Taylor & Francis Online.

Behavioral finance is in a very nascent stage and ample future research scope is there to further explore this domain. First, to review the existing research in the domain of behavioral finance bibliometric analysis or meta-analyses can be used and research papers can be extracted from different electronic databases like the web of science to include high indexed research papers in the study. Second, different areas of behavioral finance in itself can be explored like investigation of the personality of investors, the mood of investors, cultural differences of investors, and different psychological factors on investors' investment decision making empirically in the Indian context or emerging markets.

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