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ORIGINAL RESEARCH PAPER

Behavioral finance: A systematic literature review

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Abstract

Purpose: The goal of this research is to identify the various behavioral biases that influence individual investors' investment decisions in order to create a conceptual model of behavioral biases and a historical framework of behavioral biases. These efforts will also serve to provide future directions for behavioral finance and behavioral bias research.

Design/Methodology: This study's foundation is an analysis of pertinent behavioral finance research papers published between 2011 and 2023 as well as behavioral biases. Google Scholar, Research Gate, Emerald Inside, Taylor and Francis, Shodh Ganga, Science Direct Etc. are the core sources of the papers reviewed in this study. The tabular form is used for Discussing reviews of the present paper.

Findings: The present paper describes the literature review on behavioral finance and biases from 2011 to 2023 and it is still continuous in underdeveloped and developed nations. Also, find out that the study on behavioral finance increased in the past few years.

Originality/Value: The present paper caters to different types of classification and review of behavioral finance and behavioral biases and also presents the collection in the form of a systematic review matrix of behavioral finance, this will help students, Researchers, academicians for next level research on the topic of behavioral finance.

Keywords: Behavioral Finance, Equity investors, Behavioral Biases, Investment Decision Making.

Introduction

Finance is an inherent part of every Individual, firm or huge corporate house. As said 'finance is the lifeblood of the economy '. The term Finance stands for making decisions regarding money viz. Decisions regarding Procurement of funds, investment of funds and Decisions regarding payment of dividends in most companies and the concept of finance for households to earn money, payment of expenses and savings and investing in some fields which give handsome returns. (Upadhyay & Shah, 2019) An investment is a decision that includes risk in either short-term or long-term return on investment. That's why before taking a risk in any investment decision first of all the information regarding the calculation of return must be taken into consideration. The plus point of the financial market is that there is tremendous information related to financial decisions but the minus point of this market is an investor cannot get exact information that where to invest and where not to invest to get a handsome return. So, the estimation of Risk and return is difficult for the investors. In this situation, investors are not always rational while making investment decisions. (Krishna Deshmukh Pt Ravishankar, 2016) An individual investor has lots more options for investing their funds like Gold, Fixed Deposits, Mutual funds, SIP (Small Investment Plan), Equity market Etc. but when they are supposed to invest in any kind of avenue they are affected by some factors and those behavioral factors are called Behavioral Biases. Behavioral biases are an integral part of behavioral finance and it believes that in behavioral finance the investors are not always rational to make investment decisions. To understand Behavioral finance must clear the concepts of Traditional finance and Behavioral finance.

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Traditional Finance and Behavioral finance

The concept of traditional finance

The concept of traditional finance includes the decisions regarding investments of investors or assumptions about any investment that is rational in manner. It means all the investors behave relational while investing in stocks or any kind of investment avenue(K. BHATT, 2014) also, investors are not confused about old or new information provided by investor managers and are not affected by their emotions(Kandpal & Mehrotra, 2018) but the actual condition does not match with traditional theory and a new approach namely behavioral finance emerged.

The Concept of Behavioral Finance

The concept of Behavioral finance reveals that the investors are not rational in making an investment decision regarding the stock market or any kind of investors because while making any investment decision always some behavioral and psychological factors affect the mental ability of decision-makers and these factors influence the investment decision. The factors that affect decisions regarding investment are called behavioral biases viz. Overconfidence, Anchoring, Familiarity, Conformation, Regret aversion, Mental accounting, Narrow framing, Shadow of the past, Loss aversion, heard instincts etc. all biases play a salient role in making investment decisions so both the investor and investment broker or manager have to take extra care. Then it can be said that Behavioral finance is the combination of three disciplines viz. Psychology, sociology and finance(K. BHATT, 2014)

Behavioral Biases

Overconfidence

People are generally overconfident in taking any decision hence overestimating the precision of their assumptions. Overconfidence normally emerges from the illusion of information and knowledge regarding the matter. Overconfidence is such a kind of bias in which people do not gather complete information regarding decision matters but use their illusion of knowledge and make decision. (Upadhyay & Shah, 2019)

Anchoring

In an anchoring bias once an investor fixes his investment opinion, he does not agree to change it. Even getting some relevant investment information instead of applying it they only stick to their opinion. (Upadhyay & Shah, 2019)

Familiarity

This bias includes that while an investor wants to invest their funds first of all he considers only known investment options and does not rely on any other options which provide good returns.

Conformation

Conformation Bias includes investors ignoring the information which is opposite to their opinion and considering the information which conforms to their opinion. In this kind of bias financial decision makers always see what they want to see. (Upadhyay & Shah, 2019)

Regret aversion

Regret aversion bias consists of the feeling of sorrow or regret while making an investment decision, which causes poor decision-making. In simple words in regret aversion, an investor is not prepared to accept that he made a mistake in the investment they dislike to accept their mistake and they don't sell their investments but hold in it only to avoid regret that he or she made a mistake while investing. (K. BHATT, 2014)

Mental accounting

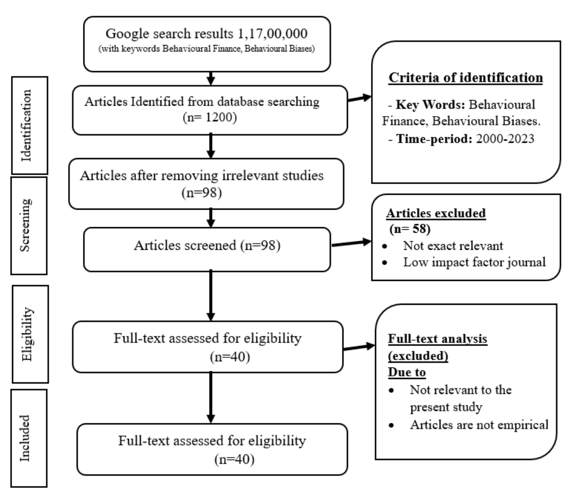
Mental accounting is one of the behavioral biases which shows that investor tends to keep their investment or money in different – different accounts means keeping their investment separate from one another.

Shadow of the past

As per the name of the bias shadow of the past it consists that while an investor gets more profit from any investment then he or she made more investment in that avenue and takes more risk in a contradictory while, an investor incurs loss he does not prepare to take risk and invest in those avenues. (Upadhyay & Shah, 2019)

Heard instincts

Herd Instinct bias considers that an Investor listens to some information from friends, colleagues and groups regarding



Source: Author's creation.

Figure 1: PRISMA (Preferred Reporting Items for Systematic Reviews) Framework

Table 1: A Systematic Literature Review of Behavioural Finance from 2013 to 2023.

S No.	*Author(s), year and countries of the study*	*Title of the study*	*Journal name*	*Primary or secondary study*	*Sample size*	*Variables of the study*	*Methodology/ tools utilised for data analysis*	*Findings and conclusion*
1	Egidijus Bikas, Davia Jureviciene, Petras Dubinskas, Lina Novickyte - 2013 (Vilnius, Lithuania)	Behavioral Finance: The Emergence and Development Trends	Procedia - Social and Behavioral Sciences.	Secondary		Non-professional investors' psychological effects		This paper describes the psychological effect on the financial aspects and financial incidents and elaborates that financial market investors are not rational and their decisions are biased and also shows the difference between traditional and behavioral finances. (Bikas et al., 2013)
2	MISAL D.M. - 2013 (India)	A Study of Behavioral Finance and Investor's Emotion in Indian Capital Market	International Journal of Economics and Business Modelling	Secondary				In this paper, he has studied that Judgments can be systematically wrong in various ways. Systematic errors of judgment are called biases and financial decisions are made in situations of high complexity and high uncertainty that preclude reliance on fixed rules and compel the decision-maker to rely on intuition. (Misal DM, 2013)
3	Dr. Deepak Sahni-2013 (India)	Behavioral Finance: Testing Applicability on Indian Investors	(SSIJMAR) International Journal of Multidisciplinary and Academic Research	Primary	135	Behavioral Finance and Investors	Chi-square Analysis	This paper depicted that Most investors prefer stable returns, without knowing the fact that they may be lower and the investors like to prefer gamble and hold the losing stock in the hope that the prices will increase which means the investors are risk takers as well as the investors sold a profitable stock early it means some investors are risk averse. (Sahni, 2013)
4	Dr. Vikram Bisen, Madhulika Pandey - 2013 (India)	Applying Behavioral Finance by Analysing Investor Behavior In Lucknow City	INDIAN JOURNAL OF APPLIED RESEARCH	Primary	195	Demographic variables and behavioral biases	Chi-square Analysis	In this descriptive research, Applying Behavioral Finance by Analysing Investor Behavior in Lucknow City, they defined that Investors like to analyse market sentiments and trends before investment by this they can understand the financial situation of the market and make good investment decisions and lots investors said that after active participation in the investment they are addicted to market analysis and they take active participation. ('Dr. Vikram Bisen, 2013)
5	DR. BABARAJU K. BHATT, MS. APURVA A. CHAUHAN - 2014 (India)	Behavioral Finance: A New Paradigm of Finance	International Journal of Application or Innovation in Engineering & Management (IJAIEM)	Secondary		Behavioral factors and Investment Behavior		The paper describes that every time investors are not rational because of cognitive and psychological errors. Behavioral factors are crucial in the equity as well as the financial field since they influence the investors who make the financial decisions. (K. BHATT, 2014)
6	Priya Kansal, Dr. Seema Sing - 2015 (India)	Anchoring Effect in Investment Decision-Making- A Systematic Literature Review	Asia Pacific Journal of Research	Secondary		anchoring bias and Investment decision.	regression such as panel regression, cross-sectional, combination of regression analysis, decomposition analysis, t-test	In this paper, she has taken published articles in the last 15 years and a total of 16 articles were selected based on defined criteria and concluded that Irrelevant anchors affect the judgment and lead to higher losses and additional regret of not selling/ buying at time and also Anchors works in short term only. (Kansal & Sing Head, 2015)

7	Dr. G. K. Deshmukh, Dr. Sanskrity Joseph. -2016 (India)	Behavioral Finance An Introspection of Investors Psychology	Indian Journal of Commerce & Management Studies	Primary	300	perception, incentive potential, and investment decisions	structural equation modelling (SEM)	The study depicted some factors that mean behavioral biases play a major impact in influencing investors in Raipur to decide on investment mutual funds. (Krishna Deshmukh Pt Ravishankar, 2016)
8	Gulnur Muradoglu, Nigel Harvey - 2016 (London-UK)	Behavioral finance: the role of psychological factors in financial decisions	Emerald insight	Secondary		Behavioral finance And Decision making		In this paper, they elaborated that Methods like surveys, interviews, observation, and focus groups have not had the same degree of influence and also these methods are more costly than experimental methods so, there may be the possibility for their lack of effect. (Muradoglu & Harvey, 2012)
9	Jeet Singh, Preeti Yadav - 2016 (India)	A Study on the Factors Influencing Investor's Decision in Investing in Equity Shares in Jaipur and Moradabad with Special Reference to Gender	Amity Journal of Finance	Primary	100	Factor affecting Investment and equity investment decisions concerning gender	Independent t-test, mean scores	In this paper, they have selected 60 male investors and 40 female investors from Jaipur and Moradabad cities as a sample and found out that Males analyse the current financial situation of the company like profitability, liquidity and performance while female investors due to less knowledge of financial literacy are not so convenient with financial data and also Male investors study daily reports published by stock exchanges on gainers and losers before investing in the equity shares as compared to female investors(Singh & Yadav, 2016)
10	A. Charles[1] and R. Kasilingam[2] - 2016 (India)	Impact of Selected Behavioral Bias Factors on Investment Decisions of Equity Investors	ICTACT JOURNAL ON MANAGEMENT STUDIES	Primary	780	Mood, Emotions, Heuristics, Frames, Gambling and Personality with Investment Decision	multistage random sampling, Cronbach's alpha, and Structural Equation Modeling (SEM).	In this paper, They collect data from the Tamil Nadu state by considering six behavioral biases like personality, mood, emotions, frames, heuristics, and gambling to find out their effect on Equity investor's decisions. The descriptive research method is considered primary and secondary data- Primary data was collected through structured questionnaire at Tamil Nadu. Cronbach's alpha technique is used for reliability testing and SEM conceptual model and finds out that these Six biases significant effect on equity investors' Decisions. (A & R, 2016)
11	H. Kent Baker, Greg Filbeck, and Victor Ricciardi - 2017 (Europe)	How Behavioral Biases Affect Finance Professionals	European Financial Management	Secondary		Herding Behavior, Debiasing the Biases, Confirmation Bias, Gender Differences, Overconfidence, Framing, Loss Aversion and the Disposition Effect on Professionals		This research paper Expresses How Behavioral Biases Affect Finance Professionals and Finds that Behavioral biases affect financial behavior for all types of finance professionals moreover Understanding fundamental human psychology can assist financial planners and advisors in identifying behaviors that may prevent their clients from achieving their short-term and long-term financial objectives and in addition Although financial professionals cannot avoid all cognitive and emotional issues, they can advise their clients how to reduce these biases during the financial planning process with this they can get more stable clients. (Kent Baker & Ricciardi, n.d.)

12	Raja Rehan1 l Imran Umer2 - 2017 (Pakistan)	Behavioral Biases and Investor Decisions	Market Forces College of Management Sciences	Primary	385	Anchoring Representativeness Mental accounting Availability Risk aversion Overconfidence Regret Aversion with Investment Decision	5-point Likert scale. Correlations Multiple Regression	This study found that anchoring, risk aversion, overconfidence, representativeness and regret aversion have a great impact on investors' decisions. (Rehan & Umer, 2017)
13	Ione Cruz, Graça Azevedo, Anabela Silva, Angelica Chiau - 2017 (Brazil)	Mental Accounting: A Systematic Review	ESTUDOS DO ISCA	Secondary		Mental Accounting and Investment Decision	systematic review of literature (SLR).	The study shows that the «Mental Accounting» construct in the period 1900 to 2015 and the results suggest the need for accounting research in the Mental Accounting area, although in recent years gradual progress and greater interest in it have been seen. (Chiau et al., n.d.)
14	Sujata Kapoora* and Jaya M. Prosadb - 2017 (India)	Behavioral Finance: A Review	Elsevier Procedia Computer Science International Conference on Information Technology and Quantitative Management, ITQM	Secondary		Behavioral Biases and Investment Decisions	Systematic review of literature (SLR).	This study Presents really good ideas about Behavioral finance and investment decisions for this paper they consider past research papers from Herbert Simon's 1955 Models of Bounded Rationality to Uzar and Akkaya's 2013 Explores the evolution of behavioral finance from traditional finance. They assume rationality gives an in standard finance theories and pursue those real investors imposed by their psychological biases. (Kapoor & Prosad, 2017)
15	Shashi Bhushan Mishra, Richa Darshan- 2018 (India)	Behavioral Finance: Investors Self Attribution and Overconfidence	International Journal of Management Sciences and Business Research	Secondary		self-attribution, Age, Gender Investment		This paper shows that an investor is affected by overconfidence bias, more than self-attribution bias and, Various social elements like knowledge, education, economic status, and gender also affect the investor's behavior. (Mishra & Abdul, 2018)
16	Z. Dickason-Koekemoer & S.J. Ferreira - 2018 (South Africa)	The Influence of Behavioral Finance Biases on South African Investors' Life Satisfaction	Gender & Behavior (G&B) 16(3), 2018	Primary	170	South African Investor and gambler's fallacy bias, regret aversion, Representativeness, Loss aversion, Self-control	Descriptive statistics, scale and frequencies,	This paper describes how behavioral finance biases affect investors' life satisfaction and reveals that the gambler's fallacy is more prevalent than regret aversion among investors in South Africa (Ferreira et al., 2018).
17	Zamri Ahmad1*, Haslindar Ibrahim1 and Jasman Tuyon2 - 2018 (Malasia)	Governance of Behavioral Biases in Asset Management Industry: Insights from Fund Managers in Malaysia	AAMJ-Accounting and Finance	Primary	30	Anchoring Availability bias Confirmation bias Disposition effect Emotion Gambler's fallacy Gut feelings Herding Hot hand fallacy House money effect Inconsistence in risk tolerance Loss aversion Mental accounting Optimism Overconfidence Reflection effect Representativeness Sentiment Social influence and Fund Managers	survey and Delphi	The study discusses the potential behavioral biases of professional investors in Malaysia, emphasising the importance of governing these biases in the asset management industry, and concludes that they affect all decisions (Ahmad et al., 2018).

18	Sanaz Aghazadeh1 · Lili Sun2 · Qian Wang3 · Rong Yang4 - 2018 (USA)	Investors' perception of CEO overconfidence: evidence from the cost of equity capital	Springer Science Plus Business Media.	Secondary		Over-confidence and Accounting Decisions	OLS regression Pearson correlations	This paper concludes that empirical evidence suggests a nonlinear relationship between CEO overconfidence and the cost of equity, indicating that the lowest cost of equity capital occurs when the CEO has a moderate level of overconfidence (Aghazadeh et al., 2018).
19	Ritika and Himanshu - 2019 (India)	Irrational Investors and Behavioral Biases: A Literature Review	UGC Journal. No. 45489	Secondary		Investors and Familiarity, Optimism, Regret Aversion		This paper reviewed that when individuals are acquainted with behavioral biases, then automatically they are less biased in an investment decision. (Ritika & Himanshu, 2019)
20	Kirera, F.K. and Mburugu- 2019 (Nairobi)	Impact Of Heuristic Biases On Individual Investor Decision-Making Process At Nairobi Securities Exchange: A Survey of Individual Investors in Meru County	J. Env. Sust. Adv. Res	Primary	144	overconfidence, information availability, representativeness, anchoring, gamblers fallacy and Investment Decision.	Kobo Collect Toolbox Factor Analysis Cronbach's alpha	The study highlights how an investor's decision-making process can be influenced by different behavioral biases, specifically heuristic biases. It emphasizes that understanding these biases is crucial as they have varying degrees of impact on decision-making, with availability bias being identified as having the most significant effect on investment decisions. (Kirera & Mburugu, n.d.).
21	Victor Alberto Pena, Alina Gomez, Mejia. - 2019 (Chile, Colombia, Peru)	Effect of the anchoring and adjustment heuristic and optimism bias in the stock market forecasts	Finanz. policy. econ	Primary	670	heuristic, anchoring and optimism bias and Investment Decision	Ordinary least squares method (OLS)	The findings were assessed through the least squares technique, and the data panel verified that the anchoring and adjustment heuristic impacts the prediction of the financial index examined in the research. Likewise, it was deduced that there is a presence of optimism bias in the cognitive process of financial forecasting.(Peña & Gómez-Mejía, 2020)
22	R. Renu Isidore and P. Chri stie - 2019 (India)	Model to Predict the Actual Annual Return of the Investor with the Investors' Behavioral Biases as the Independent Variables	The Fall 2019	Primary	436	Representativeness, gambler's fallacy, mental accounting, Overconfidence, optimism, availability with secondary equity investors	Likert scale, ANOVA	This study describes that biases were adverse implying that they harmed the actual return, which means when the impact of biases is greater return will be lower. The negative biases included M.A., G.F., L.A., availability etc. The anchoring, overconfidence, and optimism biases were positive, indicating that higher levels lead to higher actual returns.(ChRIstle & Renu IsIdoRe, 2019)
23	R. Renu Isidore and P. Christie - 2019 (India)	The Impact of Behavioral Biases on Investors' Decision-Making Tools in the Secondary Equity Market: A Pearson Correlation Analysis	The Fall 2019 Journal of Private Equity	Primary	436	Loss aversion, representativeness, overconfidence, optimism, Regret aversion with investment decision	Pearson Correlation Analysis	This study found the most significant for the high-actual-return group, with actual returns above 15.01%. Knowledge of the biases exhibited when employing each decision-making tool can offer useful guidance for investors and for financial advisors or wealth managers seeking to advise their clients appropriately. (ChRIstle & Renu IsIdoRe, n.d.-b)
24	*ManikaSharmaa, and*Mohammad Firozb - 2020 (India)	Behavioral Finance- Review and Synthesis Of Behavioral Biases	Journal Of Critical Reviews	Secondary		Overconfidence Anchoring Disposition effect Herding bias and Equity investors		This thorough analysis highlights the existence and influence of four behavioral biases, clearly indicating that while herd bias is not predominant in the overall market, overconfidence bias and disposition bias are significantly more prevalent. (Firoz, n.d.)

25	Dr Bhavna Sharma Shushila - 2020 (India)	Do Equity Investors Behave Rationally: Literature Review	Pacific Business Review International	Secondary		Overconfidence, Representativeness, Loss-Aversion, Cognitive, Availability, Self-attribution, Anchoring, Mental accounting, Hindsight, Framing, Conservation, Herding, Optimism, Endowment effect, Sunk cost fallacy,	conceptual model of behavioral biases is used	The paper addresses the nuanced factors contributing to the biases of individual equity investors, encompassing their personality, demographic factors, behavioral forces, cognitive forces, emotional forces and financial literacy levels. These factors collectively influence errors that may lead to irrational investment decisions, as discussed by Sharma (2020).
26	Mani Chidambarana and Guha - 2020 (India)	Can Behavioral Biases Improve The Financial Capability Of Microfinance Clients In The Tribal States of India?	wileyonlinelibrary.com/journal/jsc	Primary	387	Behavioral biases and microfinance clients in the tribal states	Pearson correlation coefficient, Cronbach's alpha, Kaiser–Meyer–Olkin [KMO], Bartlett's.	This study found that things like how much money people have and the way they behave with money affect how good they are with finance if they're doing microfinance stuff. (Chidambaranathan & Guha, 2020).
27	Miljan Leković - 2020 (India)	Cognitive biases as an integral part of behavioral finance	Economic Times	Secondary		cognition		This research, employing qualitative methodology, highlights the challenge of precisely delineating the boundaries between different cognitive biases when summarizing them. Put differently, discerning the endpoint of one cognitive bias and the starting point of another proves to be a complex task. It is suggested that a more realistic approach involves considering the combined impact of cognitive biases on the process of financial decision-making, rather than focusing solely on their individual and isolated effects. (Leković, 2020)
28	Calzadillaa, Bordonado-Bermejob and Gonzalez-Rodrigob - 2021 (Spain)	A systematic review of ordinary people, behavioral financial biases	Ekonomska Istraživanja	Secondary		Disposition, Herding, Confirmation bias, Home money effect, Representativeness, Loss aversion, Regret aversion, Discounting, Preference reversal, Conservativism bias.	Meta-analysis	This review paper describes those behavioral biases play an important role in financial models as well as financial decisions. (Calzadilla et al., 2021)
29	Antonella Francesca Francesca Cicchiello Amirreza Kazemikhasragh - 2021 (Latin America Brazil, Chile and Mexico)	Tackling gender bias in equity crowdfunding: an exploratory study of investment behavior of Latin American investors.	European Business Review Emerald Publishing Limited	Secondary		Behavioral Bias and Gender Bias	Poisson regression	This study reveals that investor funding decisions for a company are influenced by gender bias. Investors tend to favour companies led by entrepreneurs who share the same gender as them. Additionally, the study provides evidence that both female and male investors tend to be risk-averse. (Cicchiello & Kazemikhasragh, 2022)

30	Rangapriya Saivasan Madhavi Lokhande - 2022 (Europe and Asia)	Influence of risk propensity, behavioral biases and demographic factors on equity investors' risk perception	Asian Journal of Economics and Banking Emerald Publishing Limited	Primary	315	Demographic Factors 1. Age 2. Gender 3. Country 4. Employment Type 5. Expertise Behavioral Bias Factors 1. Overconfidence 2. Dispassion 3. Experimental 4. Familiarity	Multiple regression	This study strongly emphasizes the critical need for investment managers to develop inclusive risk management strategies. These strategies play a pivotal role in evaluating and incorporating affective, cognitive, and demographic factors that profoundly influence the latest trends (Saivasan & Lokhande, 2022).
31	Deepak Kumar1* and Devendra Jarwal2 - 2022 (India)	Herding Behavior in Equity Market: A Systematic Literature Review	Journal of Commerce Orissa	Secondary		Herding Behavior and Investment Decision	systematic review of literature (SLR).	This paper delved into 76 empirical studies spanning from 1991 to 2022, aiming to shed light on herding behavior in equity markets. It sought to uncover any instances of herding behavior, explore its nature, and unravel the underlying reasons. Moreover, it emphasized that herding behavior is a phenomenon limited to the short run, rather than the medium and long term. (D. Kumar & Jarwal, 2022)
32	Ravi Sankar Jetti Dr.N.Udaya Bhaskar - 2022 (India)	An exploratory approach in identifying behavioral biases on investment decision-making towards capital markets	UGC Care List G-1	Primary	465	(Constant), Community Forums, Functional Fixedness, Risk Seeking, Directional Trading, Excessive Optimism, Uniformity	Factor analysis and multiple regression tools Cronbach's alpha	This study demonstrates the presence of certain noteworthy behavioral biases that impact the decision-making of investors. Additionally, social media platforms such as WhatsApp, Telegram, and others influence the decision-making processes of investors in Vijayawada, Visakhapatnam, and Tirupati in Andhra Pradesh. (Sankar, 2022)
33	Yin Wang - 2022 (China)	Research on Psychological Deviation of Young Investors Based on Questionnaire	Journal of EHSS	Primary	632	Representative heuristic bias Affective heuristic bias Framing dependency deviation	proportion	This study indicates that Chinese youth investors were surveyed using a questionnaire to examine cognitive, psychological, and behavioral biases. The results show that young investors, most of whom are college students, exhibit general cognitive process biases, particularly evident emotional heuristic biases. Additionally, they demonstrate a certain level of self-assurance or even inadequacy regarding their investment proficiency. (Wang, 2023)

34	Faisal Alnori1*, Moid U. Ahmad2 - 2022 (Saudi Arabia)	Herd Mentality Amongst Equity Investors During COVID-19: Evidences from Saudi Arabia	International Journal of Economics and Financial Issues	Primary	326	herd bias and equity investors	Cronbach's alpha, regression	The study examines the phenomenon of herd behavior among stock market investors in Saudi Arabia during the COVID-19 pandemic. It demonstrates that individual investors tend to exhibit herd behavior and that certain demographic factors such as gender, education level, marital status, and age are closely linked to this behavior. The analysis indicates that male investors are more likely to engage in herd behavior compared to their female counterparts during the COVID-19 crisis. (Alnori & Ahmad, 2022)
35	Syed Zain, Fiza Qureshi, Jawad Iqbal, Sultana- 2022 (Pakistan)	Overconfidence bias and investment performance: A mediating effect of risk propensity	Borsa Istanbul Review-Journal	Primary	Questionnaire 378 Interview 15	Overconfidence, and cognitive.	nonprobability sampling technique for Quantitative Data and purposive sampling For Qualitative Data Factor analysis	This study looked at what makes people overly confident, which then affects how well they make investments through their willingness to take risks. Cognitive biases also play a part in how willing people are to take risks when making investment decisions.(ul Abdin et al., 2022)
36	Jitender Kumar, Neha Prince - 2022 (India)	Overconfidence bias in the Indian stock market in diverse market situations: an empirical study	International Journal of System Assurance and Management (December 2022	Secondary		Overconfidence and Investment Decision	Vector Auto Regression (VAR), Impulse Response Function (IRF)	This study has revealed that market conditions have a notable impact on investors' sentiments. Furthermore, abrupt and dramatic market fluctuations have the potential to prompt investors to reassess their convictions and alter their perspectives. The study suggests that overconfidence prevails before a market crash, while a lack of confidence is evident in the aftermath of a crash. (J. Kumar & Prince, 2022)
37	Garima Goela, Saumya Ranjan Dasha, Robert Brooksb, and Sowmya Subramaniam - 2022 (India)	The asymmetric effect of FEARS Sentiment on Stock Returns: Short-sale constraints, limits to arbitrage, and behavioral biases	EMFT	Secondary		FEARS sentiment and stock returns	Robustness test	The research shows that when people are feeling pessimistic (as shown by the FEARS index), they tend to follow the crowd when making investment decisions, and this can have a negative impact. It also suggests that constraints on short-selling and arbitrage can lessen the effect of this pessimism on how investments perform. Additionally, the study indicates that FEARS sentiment affects how people behave and make trades in the market. (Goel et al., 2022)
38	Hasan, Athota, Maturin, Pereira- 2023 (France)	Can Artificial Intelligence (AI) Manage Behavioral Biases Among Financial Planners?	Journal of GIM	Secondary		AI and Behavioral Biases		The paper talks about how AI can help financial planners deal with the biases that affect decision-making. It confirms that these biases present a significant challenge to making the best decisions for clients, but with new technologies, we can reduce these biases. (Hasan et al., 2023).

39	Iram, Raza Bilal, Ahmad and Latif- 2023 (Pakistan)	Does Financial Mindfulness Make a Difference? A Nexus of Financial Literacy and Behavioral Biases in Women Entrepreneurs	IIM Kozhikode Review-Journal	Primary	346	Herding, Anchoring, and mental accounting	structural equation modelling (SEM)	This paper demonstrates that possessing financial knowledge alongside mindfulness is consistently beneficial for obtaining accurate and trustworthy market data, understanding customer sentiments, and identifying trends. This supports prudent entrepreneurs in mitigating behavioral biases and making rational investment decisions. Additionally, it suggests that financial literacy is significantly associated with anchoring and herding biases, while the impact of mental accounting on financial literacy remains inconclusive. (Iram et al., 2023)
40	BASTIAN SCHULZ - 2023 (Germany)	Behavioral Finance and How It's Behavioral Biases Affect German Investors	ACTA VŠFS,	Primary	342	Overconfidence bias Herding bias Anchoring Bias with Investment Decision	Average and Percentage	The study sets the objective to consider behavioral factors on investments of German investors to get information about biases prepare a questionnaire and collect data from 342 investors in Germany with regards to three behavioral biases anchoring, overconfidence, and herding, and found out that Males are greater affected than female. Also, male investors are less affected by herding bias. With this finding, all the investors are affected by behavioral biases whether male or female. (Schulz, 2023)

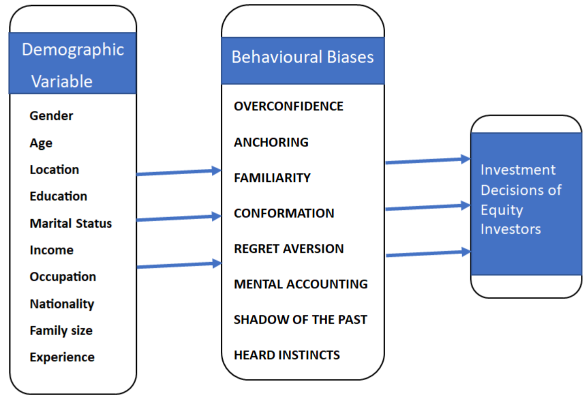


Figure 2: Conceptual Model Based on Review of Literature. (Sharma, 2020)

an investment and this information affects the decision of an Investor. They do not focus on rational investment decisions. (Upadhyay & Shah, 2019)

Objectives

- To Identify the different behavioral biases affecting an investment decision of an Individual Investors.
- To develop a conceptual model of behavioral biases.
- To develop a historical framework of behavioral biases to provide further research direction.

Research Methodology

This study is based on a review of relevant research studies in the field of behavioral finance and behavioral biases. Google Scholar, Research Gate, Emerald Inside, Taylor and Francis, Shodh Ganga, Science Direct, etc., are the crucial sources of the papers reviewed in this study. Also, personally visits IIMA (Indian Institute of Management Ahmedabad) Vikram Sarabhai Library for the study of articles and research papers on behavioral finance and behavioral biases. The tabular form is used for discussing reviews of the present paper. This study reveals that different- different effects of behavioral biases on an individual Equity investor from 2011 to 2023.

In this paper, I have considered 98 papers from 2011 to 2023, studied them and after analysis, removed 58 papers because those articles are not consistent with the present study and the articles are not empirical. Therefore, I have considered 40 papers for full-text evaluation and based on this review, the whole literature is classified by using a systematic review matrix.

The literature review of behavioral finance can be classified into to following categories:

- Author(s), year and countries
- Title
- Journal name
- Primary or secondary study or sample size
- Variables
- Methodology/tools utilised for data analysis
- Findings of the study

Behavioral Biases Identification and Conceptual Model

When making any form of financial choice, investors are influenced by behavioral biases, which are these kinds of emotional and logical mistakes. During this study different-different behavioral biases are identified from the articles and papers of various countries. All these articles and papers were written with the use of various statical analysis tools and techniques like factor analysis conformity and exploratory), structural equation model (SEM), regression, etc., and found out that equity investment decisions or any kind of financial decision and behavioral biases are interconnected because behavioral biases affect investment decision of an investor. Furthermore, depending on factors like gender, location, education, marital status, income, occupation, age, nationality, family size, experience, etc., these prejudices have an impact on financial decisions. Below is a conceptual model of behavioral biases and investment decision-making based on the literature evaluation of all studies.

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