Decision Making in Insurance: The Behavioral Finance Perspective

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Abstract: *Examining how behavioral finance has affected the insurance industry from a supply and demand perspective is the primary goal of this research. On the demand side, it looks at how heuristics like availability, overconfidence, and loss aversion impact policyholder decisions including insurance product choice, premium willingness, and risk perception. It looks at the supply side by looking at how behavioral characteristics impact pricing strategies, risk assessment, and product creation from the perspective of insurers. This study aims to discover important patterns of behavior that impact market efficiency and consumer happiness through the use of quantitative analysis, case studies, and surveys. In addition, the study delves into how insurers may benefit from a better grasp of behavioral finance by creating policies that prioritize customers and by enhancing their decision-making frameworks for better risk management and profitability. The results of this study shed light on the significance of mental processes in making sound financial decisions and provide ways to lessen the impact of cognitive biases. The insurance business can strengthen the financial ecosystem and better match products with consumer demands by tackling these behavioral aspects.*

1. INTRODUCTION

Investors use emotional filters and shortcuts to analyze information since they are human. This process affects financial decision makers in a way that makes them act irrationally, make less-than-ideal choices, and go against the rationality claim made by traditional finance. This less-than-ideal financial choice has consequences for individual wealth, corporate performance, and the effectiveness of capital markets. Erroneous information processing or inconsistent interpretation might result in irrational judgments. The study of behavior finance focuses on how investors process and respond to data in order to make wise investment choices. The mathematical models show that investors do not always act in a logical, predictable, and objective way. The focus of behavioral finance is on how different market oddities are caused by investor behavior. Behavioral finance integrates knowledge from economics and psychology to explain why individuals frequently make illogical financial decisions. Conventional finance theories, such as the Efficient Market Hypothesis (EMH), make the assumptions that markets are efficient and investors are logical. This is challenged by behavioral finance, which demonstrates how psychological factors, emotions, and cognitive biases may cause investors to act irrationally and frequently result in inefficient markets. An outline of how behavioral finance acknowledges the impact of psychological variables and biases, whereas traditional finance presumes logical decision-making. Risk aversion, framing effects, and overconfidence are some of the behavioral traits that might impact the insurance industry's reliance on risk perception and long-term decision-making. Transferring risk is at the heart of insurance. According to behavioral finance, people may over insure or underinsure depending on how they perceive risk rather than how much risk they actually face. Risks that are easier to remember or that have recently happened are likely to be overestimated by people (e.g., obtaining flood insurance after a storm). Under-insurance may result from people's propensity to think they are less likely than others to encounter unfavorable circumstances. Prospect theory states that people are more likely to avoid losses than to pursue comparable rewards. This may help to explain why, even in cases when they are statistically implausible, people may purchase certain insurance policies that they believe are required to protect themselves against potentially significant losses. Consumer choices may be influenced by the way insurance products are presented (for example, monthly versus annual rates,

high-deductible versus low-deductible). Instead of carefully evaluating plans, people frequently make poor decisions solely on the way information is presented. Customers may make bad policy decisions if they overestimate their capacity to evaluate insurance goods or the likelihood that events will occur. Due to inertia and the pain of change, customers frequently choose to remain with their current insurance policies, even if they are not cost-effective. Customers may become fixated on particular premiums or policy elements (such as the deductible amount), which causes them to focus their choices more on first impressions than on the whole worth of the insurance. Managing client behavior after a policy is issued presents difficulties for insurers. Once insured, customers may take up riskier activities (moral hazard), or people who are more vulnerable are more inclined to get insurance (adverse selection). Understanding the behavioral and psychological causes of these problems is made easier with the aid of behavioral finance. Purchase decisions can be significantly impacted by the way insurance firms present risk and policy advantages. According to behavioral finance, customers' biased decision-making may be lessened via open and honest communication. Biases can still affect insurance businesses itself.

Statement of the Problem: Significant inefficiencies may result from this, such as under- or over-insuring against important risks (such as health or life insurance) or unlikely occurrences (such as specific travel or device insurance). Better policy designs can result from an understanding of how cognitive biases affect these judgments. A research in this area can assist in determining methods that insurers can employ to help customers make better decisions, such as education, behavioural nudges, or tailored recommendations. Insurers can, for example, create plans that provide customers more transparent default alternatives, which reduces decision overload and enhances their long-term financial stability. To enhance risk assessment and pricing models, insurance companies must have a solid grasp of behavioural finance. Actuarial data has historically been used by insurers to determine policy prices based on statistical probability of claims. Human nature, however, might result in unanticipated trends in claims and policy violations.

Objectives of the Study
- To study about the Behavioural Finance
- To identify the factors affecting the Investors behaviours while investing in Insurance
- To analyse the impact of Behavioural biases on Consumer Decision – Making in Insurance
- To Investigate the Role of Emotional factors in Insurance Decisions
- To make suggestions on the findings made in the study

2. RESEARCH METHODOLOGY

To accomplish the goals that have been established, the research technique that will be used for the study on claims management with reference to Birla Sun life will consist of a mix of qualitative and quantitative methodologies. The data is collected from the Primary Source of Data and Secondary Source of Data.
- Primary Data: The data is collected from the primary source through structured Questionnaire and Observations
- Research Design: Exploratory Design
- Sampling Design: Convenience Sampling
- Sampling Procedure: Simple Random Sampling
- Sample Size: 162
- Tool for Analysis: Structured Questionnaire
- Secondary Data: The data is collected from the various secondary sources like Textbooks, Journals, Websites etc.

Limitations of the Study
- The data is gathered from the selected area of the people
- The data collected for the analysis may or may not provide accurate results
- The analysed data may not provide to take accurate decision making
- The sample collected for the analysis is very small

3. LITERATURE REVIEW

Impact of Behavioral Finance on Financial Decision Making by Guruuansh Singh, (Oct 2024):
The research shows that behavioral finance has a disproportionate impact on investors' choices. Emotions and thoughts can quickly cloud one's judgment when it comes to money. The following factors influence an investor's decisions: prior experiences, opportunities for herd behavior, personal judgment, overconfidence in one's abilities, reluctance to feel regret, dependence on expert advice, and, finally, a phenomenon called the disposition effect. This effect causes investors to hold on to losing investments and sell profitable ones too soon. In a recent study, we used a questionnaire to gather important data on the influence of behavioral finance on investment choices from 187 participants. To what extent does behavioral finance influence monetary decision-making was the major goal of the interview questions. The other goal was to provide strategies for being more self-aware in order to make more rational investing decisions and less prone to acting on impulse.

Behavioral Finance: Several Key Effects of Investor Decision – Making by Shicheng Yi, (Jan 2024): The study of behavioral finance is the subject of this article. To begin, the most important results and hypotheses in behavioral finance will be outlined in a literature survey of this subject. In addition to addressing cognitive biases and improving investing decisions, this paper will also cover the practical applications of behavioral finance. This paper will examine behavioral finance through the lenses of loss aversion, market anomalies, framing effect, and endowment effect. By doing so, it will shed light on the cognitive and psychological biases that people bring to bear when making financial decisions and offer fresh insights into how investment strategies and the financial market work.

A Behavioral Finance Approach to Decision Making in Entrepreneurial Finance by Rassoul Yazdipour, (Oct 2010): This article presents a case for using behavioral finance theories and concepts to better understand the decision-making processes involved in three key decisions in entrepreneurial finance: entry/seed funding, financing/investment, and growth/exit. The goal is to help venture capitalists and entrepreneurs make better decisions. Since conventional finance has said nothing about the first problem and the one theory that may theoretically address entrepreneurial finance concerns—the Agency Theory (financial contracting)—has yielded contradictory empirical findings, the behavioral finance approach is crucial. If you want to know why entrepreneurs tend to have such a significant percentage of ownership, you should read Bitler et al. (2009). Evaluation of agency theory via the lens of entrepreneurial wealth and effort. Report prepared for the University of Chicago's Graduate School of Business. Additionally, this chapter aims to present a preliminary behavioral risk framework, the ideas of "Perception Asymmetry" and "Resident Risk," which, when combined with the current constructs, might enhance debates on decision making in the face of risk and uncertainty.

Implication of Behavioral Finance in Investment Decision-making Process by Agha Jahanzeb, Saif-Ur-Rehman, (Oct 2012): A framework that both augments and supersedes some aspects of conventional finance is behavioral finance. It shows how managers and investors respond while making decisions, and it shows how relationships between these parties play out in the capital and financial markets. Investors often make illogical judgments when it comes to their investments, and decision-making is an art form in and of itself when dealing with complicated scenarios. Selecting one option from a pool of viable ones is, thus, a distinct art form. While behavioral finance doesn't assert that all investors experience this illusion, it does provide insight into how to avoid these biases and how they impact decision-making, especially when it comes to investing.

Artificial Intelligence in Behavioral Finance for Investment Decision-making by Asheetu Bhatia Sarin, Shivangi Sharma, (Sep 2023): The evolution of artificial intelligence in the minds of investors is discussed in this chapter. Machines' capabilities have grown in recent years, thanks to technological advancements. This will be useful for predicting market moves by analyzing investor behavior. Additionally, there are ethical concerns about utilizing AI to make investment choices, problems with obtaining high-quality data, and the possibility of bias in AI systems. Additionally, this chapter delves into how these obstacles will influence the process of making investment decisions. Additionally, the chapter discusses how behavioral finance and artificial intelligence work together to help investors make better decisions with less prejudice and more efficiency in the future.

4. DATA ANALYSIS & INTERPRETATION

TABLE 1. Gender, a) Male, b) Female

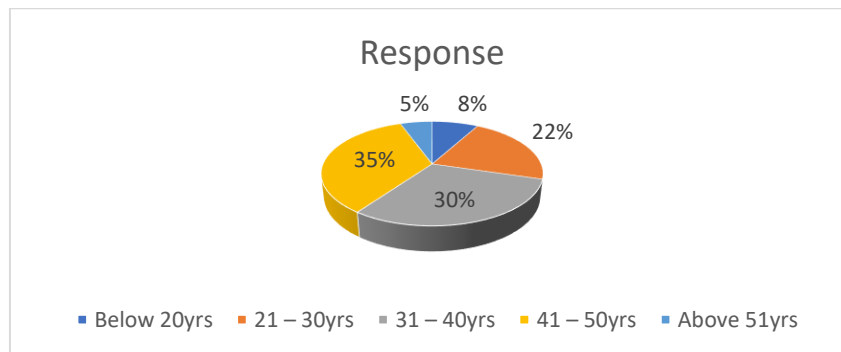| Gender	Response	Percentage
Male	93	57
Female	69	43
Total	162	100
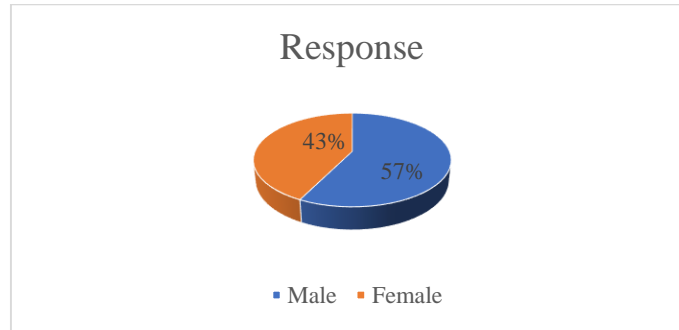
FIGURE 1. Interpretation

The above table and graph state that, 57% of the response by Male, 43% of the response by female.

TABLE 2. Age, a) Below 20yrs, b) 21 – 30yrs, c) 31 – 40yrs, d) 41 – 50yrs, e) Above 51yrs

| Age	Response	Percentage
Below 20yrs	13	8
21 – 30yrs	35	22
31 – 40yrs	49	30
41 – 50yrs	56	35
Above 51yrs	9	6
Total	162	100

FIGURE 2. Interpretation

From the above table and graph we can state that, 8% of the response age is below 20yrs, 22% of the response is 21-30yrs age, 30% of the response is 31-40yrs age, 35% of the response is 41-50yrs age, 6% of the response is above 50yrs age.

Have you ever experienced difficulty in making a decision when selecting an Insurance Product due to too many choices or Information?

TABLE 3. a) Yes, b) Often, c) Occasionally, d) Rarely, e) Never

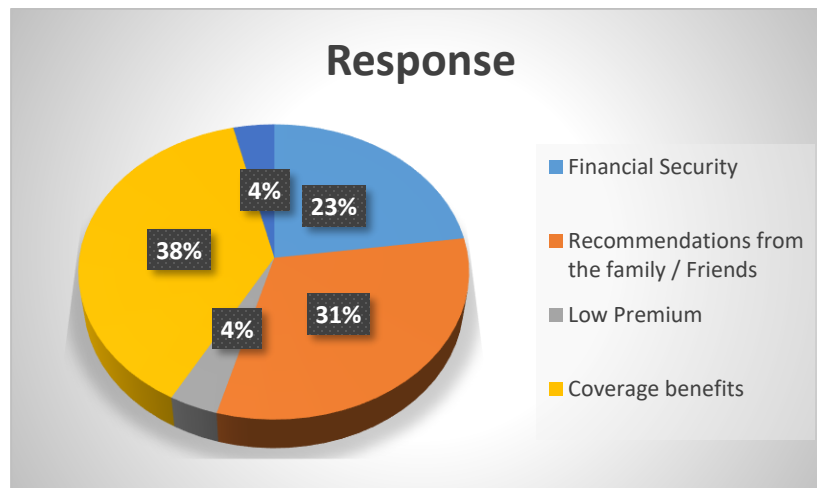| Particulars	Responses	Percentage
Yes	49	30
Often	38	23
Occasionally	54	33
Rarely	21	13
Total	162	100
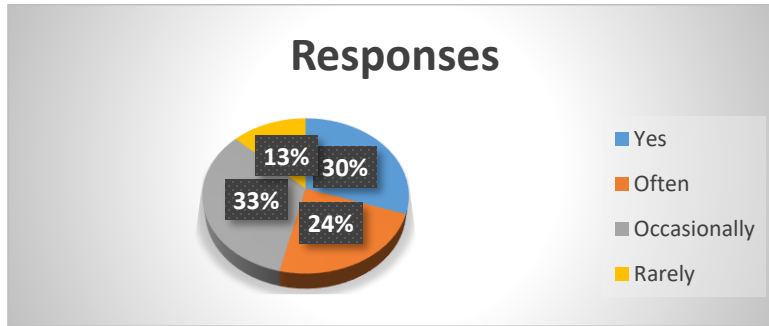
FIGURE 3. Interpretation

From the above table and graph we can state that, 30% of the responses says Yes for ever experienced difficulty in making a decision when selecting an Insurance Product due to too many choices or Information, 23% of the responses says Often, 33% of the responses says Occasionally, 13% of the responses says Rarely.
What are the factors most influenced while purchasing the Insurance policy?

TABLE 4. Financial Security, b) Recommendations from the family / Friends, c) Low Premium, d) Coverage Benefits, e) Trust in the Insurance Company / Brand

| Particulars	Response	Percentage
Financial Security	37	23
Recommendations from the family / Friends	51	31
Low Premium	6	4
Coverage benefits	62	38
Trut in the Insurance Company / Brand	6	4
Total	162	100

FIGURE 4. Interpretation

From the above table and graph we can sate that, 23% of the response says Financial Security influenced while purchasing Insurance Policy, 31% says Recommendations of the friends / Family, 4% says Low Premium, 38% says Coverage Benefits, 4% says Trust in the Insurance Companies.

Which of the following do you consider when making an insurance purchase decision?

TABLE 5. a) The availability of Recent Positive Testimonials, b) The Size or Reputation of the Insurance Company, c) The coverage mentioned in the policy, d) Recent market Trends or News about Insurance

Particulars	Responses	Percentage
The viability of Recent Positive Testimonials	21	13
The size or Reputations of the Insurance Company	32	20
The coverage mentioned in the policy	63	39
Recent market Trends	46	28
Total	162	100
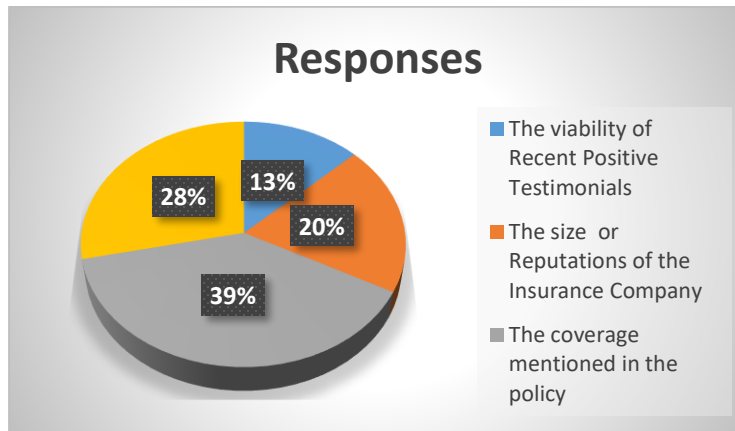
FIGURE 5. Interpretation

From the above table and graph we can state that, 13% of the responses prefer while investing in Insurance the variability of recent Positive testimonials, 20% of the responses says the size or reputation of the Insurance companies, 39% of the responses says the coverage mentioned in the policy, 28% says Recent Market trends.

5. CHI-SQUAR TEST

HYPOTHESIS:
Hypothesis – I
H0: There is no Significance difference between the gender and difficulty in making a decision when selecting an Insurance Product due to too many choices or Information.
H1: H0: There is a Significance difference between the gender and difficulty in making a decision when selecting an Insurance Product due to too many choices or Information.

TABLE 6. Observed Values

Gender	Yes	Often	Occasionally	Rarely	Total
Male	27	22	32	12	93
Female	22	16	22	9	69
Total	49	38	54	21	

TABLE 7. Expected Values

Gender	Yes	Often	Occasionally	Rarely	Total
Male	28	22	31	12	93
Female	21	16	23	9	69
Total	49	38	54	21	

Chi – Square Test = $\dfrac{\sum (O V - E V)^2}{E V}$

O V = Observed Values

E V = Expected Values

Degree of Freedom = (R-1) (C-1) = (2-1) (4-1) = 1 x 3 = 3

Level of Significance is 5% i.e. 0.05

Tabular Value is = 7.815

Chi – Sqaure Test value is 0.9797

Interpretation

From the above data we can state that, calculated chi-square value is less than the tabular value (i.e 0.9797 < 7.815). So we accept the Null Hypothesis and Reject the Alternative Hypothesis.

Hypothesis – II

H0: There is no Significance difference between the Age and difficulty in making a decision when selecting an Insurance Product due to too many choices or Information.

H1: H0: There is a Significance difference between the Age and difficulty in making a decision when selecting an Insurance Product due to too many choices or Information

TABLE 8. Observed Values

Age	Yes	Often	Occasionally	Rarely	Total
Below 20yrs	4	2	6	1	13
21 – 30yrs	7	15	12	1	35
31 – 40yrs	15	7	15	12	49
41 – 50yrs	21	12	17	6	56
Above 51yrs	2	2	4	1	9
Total	49	38	54	21	162

TABLE 9. Expected Values

Age	Yes	Often	Occasionally	Rarely	Total
Below 20yrs	4	3	4	2	13
21 – 30yrs	11	8	12	5	35
31 – 40yrs	15	11	16	6	49
41 – 50yrs	17	13	19	7	56
Above 51yrs	3	2	3	1	9
Total	49	38	54	21	162

Chi – Square Test = $\sum \dfrac{(O V - E V)^2}{E V}$

O V = Observed Values

E V = Expected Values

Degree of Freedom = (R-1) (C-1) = (5-1)(4-1) = 4 x 3 = 12

Level of Significance is 5% i.e. 0.05

Tabular Value is = 21.026

Chi – Sqaure Test value is 0.071

Interpretation: From the above data we can state that, calculated chi-square value is less than the tabular value (i.e 0.071 < 21.026). So we accept the Null Hypothesis and Reject the Alternative Hypothesis.

Findings

- 57% of the response by Male, 43% of the response by female.
- 8% of the response age is below 20yrs, 22% of the response is 21-30yrs age, 30% of the response is 31-40yrs age, 35% of the response is 41-50yrs age, 6% of the response is above 50yrs age.

- 6% of the response Educational Qualification is SSC, 7% response is 10+2, 25% response is Degre, 59% response is PG, 3% of e response is Doctorate.
- 16% of the responses are students, 28% of the responses are Pvt Employee, 35% of the responses is Self Employed, 16% of the response are Govt Employee, 4% are Retired.
- 22% of the response annual Income is Less than 300000, 30% of the response is 300001 – 500000,38% of the response income is 500001 – 700000, 10% of the response income is above 700001
- 91% of the response has invested in the Insurance Policies and 9% of the response has not invested in the insurance policy.
- 40% of the responses invested in the Life Insurance, 60% of the responses invested in general Insurance.
- 9% of the response says they review the Insurance Policy by weekly, 16% of their response says Monthly, 30% says Quarterly, 44% says Yearly.
- 43% of the response know about the insurance product by Insurance Agent / advisor, 23% of the response knows by Family / Friends, 6% of the response says by Online research, 29% of the response says Employer.
- 23% of the response says Financial Security influenced while purchasing Insurance Policy, 31% says Recommendations of the friends / Family, 4% says Low Premium, 38% says Coverage Benefits, 4% says Trust in the Insurance Companies.
- 25% of the responses says Yes, I delay due to financial Reasons while purchasing the Insurance even when it is Important, 18% of the responses says Yes, I delay due to lack of time or information, 35% says No, I purchase when it is necessary, 22% says No, I don't see it as a Priority.
- 31% of the responses are fully trust on the Insurance companies in terms of paying out claims, 40% of the responses are somewhat Trust, 13% of the responses are Neutral, 12% of the responses are Distrust, 4% of the responses are Strongly Distrust
- 30% of the responses says Yes for ever experienced difficulty in making a decision when selecting an Insurance Product due to too many choices or Information, 23% of the responses says Often, 33% of the responses says Occasionally, 13% of the responses says Rarely.
- 31% of the responses says not having insurance is very Risky, 39% of the responses says somewhat risky, 10% says Neutral, 19% says Not Risky at all.
- 43% of the responses says Yes for Insurance is considered for cost of Investment for future risk, 57% says No.
- 36% of the responses feel while investing in Insurance as Investment for the future, 40% of the responses feel as Expenses, 23% are Unsure.
- 17% of the responses are Mostly Likely to choose a policy based on the Initial Premium, 30% of the responses are Somewhat Likely, 24% of the responses are Likely, 28% of the responses are Not Likely
- 13% of the responses prefer while investing in Insurance the variability of recent Positive testimonials, 20% of the responses says the size or reputation of the Insurance companies, 39% of the responses says the coverage mentioned in the policy, 28% says Recent Market trends.
- 58% of the responses have bought the Insurance for the fear or pressure, 42% of the responses have bought Insurance without fear
- 41% of the responses feel for the insurance policy is secure and safe, 18% of the responses feel that stressed is anxious about the cost, 10% fee confused or overwhelmed, 22% of the responses feel Indifferent, 9% feel Doubtful

Suggestions:
- Make tools (like risk models or simulators) that show customers what will really happen if they underestimate risks.
- If someone is too sure of themselves, give them help based on facts. This is especially important when selling complicated insurance policies like health or long-term care.
- Instead of just talking about gains or benefits, think about insurance products in terms of how they could help you avoid losses.
- Focus on situations where not having coverage could cost you a lot of money, which will show how important it is to be protected.
- Give people default insurance plans that cover basic or necessary things and let them choose not to get them.
- For extra benefits like life insurance or personal injury protection, use "opt-out" programs. In these, customers are automatically signed up unless they choose not to be.

- Do not confuse customers with high price numbers at first. Before you offer luxury plans, you should offer cheaper or mid-level plans.
- Customers will be less likely to make decisions based only on price if you let them compare service benefits side by side.
- Make it easier for people to make decisions by giving them fewer, better-organized insurance choices.
- Use advice systems that are based on customer profiles to find the best policies and make things easier to understand.
- Bring up the perks that you can get right away, like no-claim bonuses, health rewards, or discounts for signing up early.
- If you want to get people who are focused on short-term costs to pay their insurance bills, offer payment plans or monthly plans.

6. CONCLUSION

The field of behavioral finance offers significant understanding of the mental aspects impacting insurance policy decisions. Better product design, marketing tactics, and customer experiences may be achieved if insurers get a better knowledge of biases like as overconfidence, loss aversion, present bias, and decision paralysis. In order to combat these biases and promote better-informed choices, it is helpful to employ strategies like framing, social proof, streamlining choice architecture, and guiding consumers through default selections. Higher adoption rates, improved risk management, and stronger customer loyalty may be achieved when insurers apply these behavioral concepts to build a customer journey that is more tailored, engaging, and effective.

REFERENCE

[1]. Atif Sattar, M., Toseef, M., & Fahad Sattar, M. (2020). Behavioral Finance Biases in Investment Decision Making. International Journal of Accounting, Finance and Risk Management, 5(2), 69. https://doi.org/10.11648/j.ijafrm.20200502.11
[2]. Singh, G. (2024). Impact of behavioral finance on financial decision making. World Journal of Advanced Research and Reviews, 24(1), 1548–1554. https://doi.org/10.30574/wjarr.2024.24.1.3135
[3]. Yi, S. (2024). Behavioral Finance: Several Key Effects of Investor Decision-Making. SHS Web of Conferences, 188, 01017. https://doi.org/10.1051/shsconf/202418801017
[4]. Yazdipour, R. (2010). A Behavioral Finance Approach to Decision Making in Entrepreneurial Finance (pp. 11–29). springer new york. https://doi.org/10.1007/978-1-4419-7527-0_2
[5]. Jahanzeb, A., & Saif-Ur-Rehman, S.-U.-R. (2012). Implication of Behavioral Finance in Investment Decision-making Process. Information Management and Business Review, 4(10), 532–536. https://doi.org/10.22610/imbr.v4i10.1009
[6]. Sarin, A. B., & Sharma, S. (2023). Artificial Intelligence in Behavioral Finance for Investment Decision-making (pp. 194–212). igi global. https://doi.org/10.4018/979-8-3693-0418-1.ch013
[7]. Cui, J. (2024). Behavioral Finance: The Impact of Investor Expectation on Financial Decision-Making. Advances in Economics, Management and Political Sciences, 79(1), 39–43. https://doi.org/10.54254/2754-1169/79/20241874
[8]. Kapor, P. (2014). Behavioral finance. Megatrend Revija, 11(2), 73–94. https://doi.org/10.5937/megrev1402073k
[9]. Pei, X. (2024). Behavioral Finance: The Impact of Investor Expectation on the Financial Decision-Making. Advances in Economics, Management and Political Sciences, 83(1), 248–254. https://doi.org/10.54254/2754-1169/83/20240755
[10]. Ghalayini, Pr. L., & Alkees, S. Z. (2021). The Impact of Behavioral Finance on Lebanese Investors' Decision Making. International Journal of Progressive Sciences and Technologies, 25(1), 112. https://doi.org/10.52155/ijpsat.v25.1.2758

Webliography:

https://www.sciencepublishinggroup.com/article/10.11648/j.ijafrm.20200502.11
https://wjarr.com/content/impact-behavioral-finance-financial-decision-making
https://www.shs-conferences.org/articles/shsconf/abs/2024/08/shsconf_icdde2024_01017/shsconf_icdde2024_01017.html
https://link.springer.com/chapter/10.1007/978-1-4419-7527-0_2
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