Siddhanta's International Journal of Advanced Research in Arts & Humanities
Impact Factor : 5.9, ISSN(O) : 2584-2692
Vol. 1, Issue 4, Mar.-Apr., 2024
Available online : https://sijarah.com/

# Exploring the Interplay of Economic, Social, Psychological, and Demographic Variables on Behavioral Biases in Investment Decision-Making: A Study of Public Bank Customers

*SUVIT SHARMA[1], NISHA RANI[2]*

*1. Research Scholar, Department of Commerce, CT University, Ludhiana, India*

*2. Assistant Professor, CT University, Ludhiana, India*

## ABSTRACT

Investor's irrationality is an inevitable reality that has been time and again highlighted by researchers (Statman, 2008). Therefore, this study is another effort to explore the Interplay of Economic, Social, Psychological, and Demographic Variables on Behavioral Biases in Investment decision making in Public Sector Banks. This study used an auto structured questionnaire to gather primary data from sample of 300 bank investors. Descriptive sampling approach and Purposive sampling technique was applied. Many factors are present, which affects the investment decisions and investment pattern; it includes various determinants like demographic factors consisting age, gender, income, education, etc. Financial determinants include corporate earnings, financial position, dividend paid etc. Market determinants include consumer preferences, market information. Risk bearing determinants include consistency of safety, Liquidity, capital appreciation, return and risk coverage, etc. Along with these behavioral determinants are also going to be affected .One sample statistics, T test, ANOVA is used to test influence of Economic, Social, Psychological, and Demographic Variables on Behavioral Biases in Investment decision making. The results show that all have significant positive impact on investment decision. Overall results conclude that much change in investment decision is due to interplay of variables on behavioral biases. This study will help financial advisors to better advice their clients.

## INTRODUCTION

Behavioral Finance is a concept developed with the inputs taken from the field of psychology and finance, which tries to understand various puzzling observations in stock markets with better explanations. Behavioral finance is a new area of financial research that explores the

Siddhanta's International Journal of Advanced Research in Arts & Humanities
Impact Factor : 5.9, ISSN(O) : 2584-2692
Vol. 1, Issue 4, Mar.-Apr., 2024
Available online : https://sijarah.com/

psychological factors affecting investment decisions. An underlying assumption of behavioral finance is that, the information structure and characteristics of market participants systematically influence the individual's investment decision as well as market outcomes. Investors exhibit irrational behavior in their decision making..The researchers have found that the investors decision making was adversely affected by the various psychological or behavioral factors. The study will be carried to identify the effect of behavioral factors affecting the investment decision of the investors. Behavioral factors namely overconfidence bias, representative bias, regret aversion, mental accounting, herd behavior are considered to study the behavioral biases of the investors. Successful investors are able to understand and balance the psychological influences. Investors identify the role of emotions in investment decision making, also the demographic factors influence investment decision making. Although some investors are risk takers while some are risk versus but every investor agrees on one common thing that is safe and Secure investment avenues.

Behavioral finance integration of various fields as explained in figure 1.1 as under:

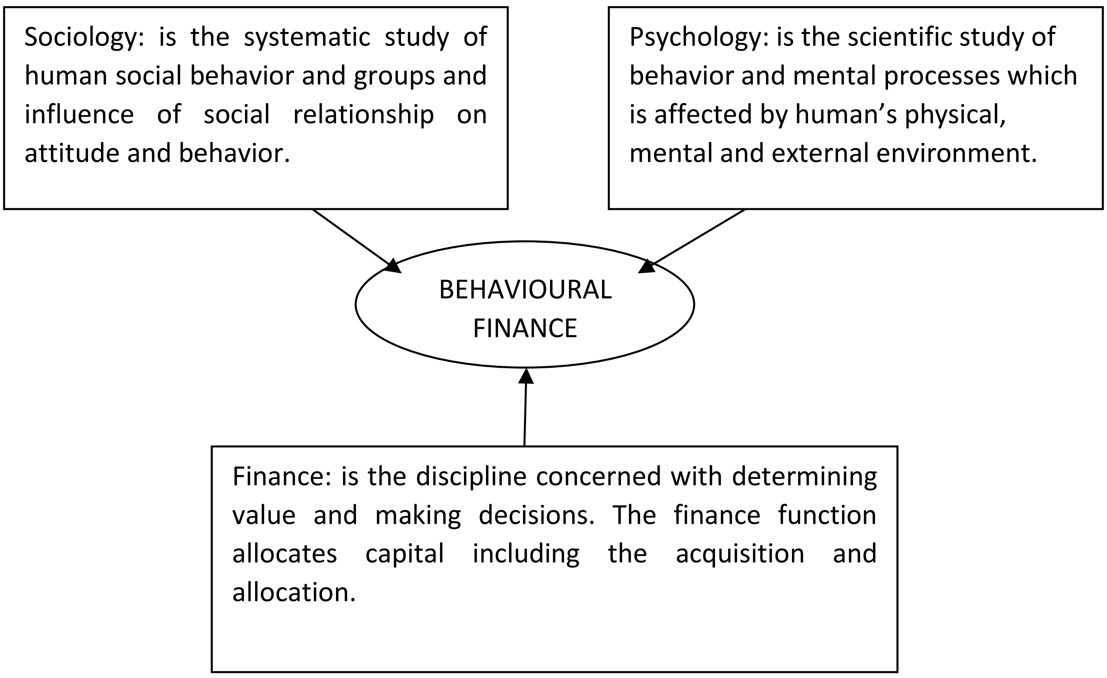


Fig. 1.1 Evolution of behavioral finance, Source: edited from Schindler, 2007

 

Behavioral finance is an area of study focused on how psychological influences can affect market outcomes. Behavioral finance can be analyzed to understand different outcomes across a variety of sectors and industries. One of the key aspects of behavioral finance studies is the influence of psychological biases. Behavioral science includes a range of behavioral insights from psychology. These anomalies are often referred as biases. There are various types of bias in the decision-making process which includes ambiguity, confirmation bias, hindsight bias and stereotypes. Behavioral Finance is an evolving field that studies how psychological factors affect decision making under uncertainty. In this context, it seems relevant to check whether the Economic, Social, Psychological, and Demographic Variables, behavioral factors have an influence on the decision making process of investors.

**Review of Literature**

The purpose of this research is to investigate several aspects of the Influence of Behavioral Biases on Investment Decisions. Numerous studies have looked at the many ways in which human psychology might affect financial decisions. In this section, we make an effort to provide a synopsis of the literature that has informed our study.

Prajapati**,** *Chauhan***,** **&** *Rai, (2022)* The research team wants to learn more about people's preferences while making purchases for various types of investments. The purpose of this research is to analyze the impact of demographic variables on investing behaviour. An person, faced with several investment options, would likely want to choose the one that will provide the best return.

*Kartini & Nahda, (2021)* Over the last two decades, there has been a change in focus from traditional finance to behavioral finance, which provides an explanation for the psychological and emotional factors at play in economic choice. The purpose of this research is to determine whether and how different mental states affect financial choices. Investigated psychological elements may be broken down into two categories: mental and sentimental processes.

*Shukla, Rushdi, & Katiyar, (2020)* The goal of this work is to evaluate research publications in the field of behavioral finance in order to examine and characterize a number of biases in investing decision making. Individual individuals, institutional investors, and financial

Siddhanta's International Journal of Advanced Research in Arts & Humanities
Impact Factor : 5.9, ISSN(O) : 2584-2692
Vol. 1, Issue 4, Mar.-Apr., 2024
Available online : https://sijarah.com/

counselors are all included in the analysis. Journal articles, conference proceedings, working papers, and other published books are assessed relevant to behavioral finance.

*A. Sharma & Kumar, (2019)* Through a thorough assessment of literature both in support of and in opposition to the long held idea of market efficiency, this study contributes to the debate on market efficiency and the optimal methodology for asset pricing. The goal of this study is to examine recent developments in the field of behavioral finance and to assess the feasibility of this approach as a viable alternative to the generally accepted theory of asset pricing.

*Zandi, Mansori, & Hai, (2019)* The study's overarching goal is to help credit card companies in Malaysia better understand the impact of individual demographic variables on credit card ownership and use so that they may craft more effective marketing strategies and grow their businesses. This study analyses how various demographic and property factors influence credit card use in Malaysia. Credit card ownership and use in Malaysia is influenced by four primary demographic factors: cardholders' ages, genders, educational attainment, and incomes.

*Raut & Kumar, (2018)* Cognitive biases (erroneous assumptions) and investor emotions are discussed in behavioral finance. Individuals' irrationality shouldn't be assumed, as behavioral finance argues. A number of cognitive biases influence their financial choices. This study seeks to answer the research question, "Is there a connection between demographics variable and investor behavioral biases?" The study's results indicate that the prevalence of optimistic bias and the extent to which people tend to follow the herd depend on demographic factors such as respondents' age, profession, and level of education.

**Hypothesis of the study**

The following are the hypotheses which were formulated for the purpose of undertaking this study:

H01: There is no significant impact of behavioral and demographic factors on individual investment decision making.

Ha1: There is significant impact of behavioral and demographic factors on individual investment decision making.

SIDDHANTA'S INTERNATIONAL JOURNAL OF ADVANCED RESEARCH IN ARTS & HUMANITIES

*Siddhanta's International Journal of Advanced Research in Arts & Humanities*
Impact Factor : 5.9, ISSN(O) : 2584-2692
Vol. 1, Issue 4, Mar.-Apr., 2024
Available online : https://sijarah.com/

## RESEARCH METHODOLOGY

This study used an auto structured questionnaire to gather primary data. Punjab's traditional method of communication has been used as face to face. The Primary data is collected from Bank Investors of four Public Sector Banks by survey method. The banks studied are:

**Public Sector Banks:**

1. State Bank of India
2. Punjab National Bank
3. Bank of Baroda
4. Canara Bank

### 3.9. Sampling design Process

| S.No. | Name of stage | Exhaustive description of stage |
|---|---|---|
| 1 | **Describe the target population** | Target population for the present study was investors. |
| 2 | **Fixing the sampling area** | Sampling area for the present study was Malwa, Majha and Doaba region and Amristsar, Jalandhar and Ludhiana in Punjab. |
| 3 | **Determine the sample size** | 300 investors in Punjab were selected out of 345 questionnaires for survey. |
| 4 | **Determining sampling approach** | Descriptive approach was applied |
| 5 | **Choice of a sampling technique** | Purposive sampling technique was applied is the present study. |
| 6 | **Implementation of the sampling process** | For implementation, SPSS was used and statistical tools applied to obtain findings, namely, One sample statistics, T test, ANOVA, |

## RESULTS AND FINDINGS

**Table 1: Reliability Statistics (Public Banks)**

| Reliability Statistics (Public Banks) | |
|---|---|
| Cronbach's Alpha | N of Items |
| .942 | 24 |

SIDDHANTA'S INTERNATIONAL JOURNAL OF ADVANCED RESEARCH IN ARTS & HUMANITIES

*Siddhanta's International Journal of Advanced Research in Arts & Humanities*
Impact Factor : 5.9, ISSN(O) : 2584-2692
Vol. 1, Issue 4, Mar.-Apr., 2024
Available online : https://sijarah.com/

Table 1 analyzed the reliability analysis of the study and documented that estimated value of Cronbach Alpha is .942 (N=24) which is greater than the acceptable threshold limit of .60. Therefore, internal consistency among the variables is present. Hence, further statistical test can be performed.

**Table 2:Descriptive Statistics(Public Banks)**

| Descriptive Statistics(Public Banks) | | | | | |
|---|---|---|---|---|---|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| Consumption Expenditure | 300 | 1 | 5 | 4.03 | .698 |
| Employment opportunities | 300 | 1 | 5 | 3.87 | .840 |
| Borrowing pattern | 300 | 1 | 5 | 4.37 | .566 |
| Respect in family and community | 300 | 1 | 5 | 4.20 | .763 |
| Children Education | 300 | 1 | 5 | 4.40 | .611 |
| Health | 300 | 1 | 5 | 4.12 | .731 |
| Literacy level | 300 | 1 | 5 | 4.35 | .596 |
| Age | 300 | 1 | 5 | 4.03 | .698 |
| Gender | 300 | 1 | 5 | 3.89 | .842 |
| Location | 300 | 1 | 5 | 4.04 | .681 |
| Education Level | 300 | 1 | 5 | 4.07 | .624 |
| Marital Status | 300 | 1 | 5 | 4.29 | .596 |
| Employment Level | 300 | 1 | 5 | 4.36 | .565 |
| Income Level | 300 | 1 | 5 | 4.20 | .763 |
| Valid N (list wise) | 300 | | | | |

Table 2 analyzed the descriptive statistics related to various variables and documented that Children education (Mean=4.40 and Standard deviation= .611) followed by borrowing pattern (Mean=4.37 and Standard deviation= .566) are the prime variables understudy.

**Table 3: One-Sample Statistics (Public Banks)**

| One-Sample Statistics (Public Banks) | | | | |
|---|---|---|---|---|
| | N | Mean | Std. Deviation | Std. Error Mean |
| Consumption Expenditure | 300 | 4.03 | .698 | .040 |
| Employment opportunities | 300 | 3.87 | .840 | .049 |
| Borrowing pattern | 300 | 4.37 | .566 | .033 |
| Respect in family and community | 300 | 4.20 | .763 | .044 |
| Children Education | 300 | 4.40 | .611 | .035 |
| Health | 300 | 4.12 | .731 | .042 |

Siddhanta's International Journal of Advanced Research in Arts & Humanities
Impact Factor : 5.9, ISSN(O) : 2584-2692
Vol. 1, Issue 4, Mar.-Apr., 2024
Available online : https://sijarah.com/

| | | | | |
|---|---|---|---|---|
| Literacy level | 300 | 4.35 | .596 | .034 |
| Age | 300 | 4.03 | .698 | .040 |
| Gender | 300 | 3.89 | .842 | .049 |
| Location | 300 | 4.04 | .681 | .039 |
| Education Level | 300 | 4.07 | .624 | .036 |
| Marital Status | 300 | 4.29 | .596 | .034 |
| Employment Level | 300 | 4.36 | .565 | .033 |
| Income Level | 300 | 4.20 | .763 | .044 |

Table 3 analyzed the one sample statistics related to various variables and documented that Children education (Mean=4.40 and Standard deviation= .611 and Standard error=.035) followed by borrowing pattern (Mean=4.37 and Standard deviation= .566 and Standard error=.033) are the prime variables understudy.

**Table 4: One-Sample Test (Public Banks)**

| One-Sample Test (Public Banks) | | | | | | |
|---|---|---|---|---|---|---|
| | Test Value = 0 | | | | | |
| | t | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference Lower | Upper |
| Consumption Expenditure | 100.088 | 299 | .000 | 4.033 | 3.95 | 4.11 |
| Employment opportunities | 78.920 | 299 | .000 | 3.887 | 3.79 | 3.98 |
| Borrowing pattern | 133.798 | 299 | .000 | 4.363 | 4.30 | 4.43 |
| Respect in family and community | 95.361 | 299 | .000 | 4.200 | 4.11 | 4.29 |
| Children Education | 136.539 | 299 | .000 | 4.397 | 4.33 | 4.47 |
| Health | 97.649 | 299 | .000 | 4.120 | 4.04 | 4.20 |
| Literacy level | 126.392 | 299 | .000 | 4.350 | 4.28 | 4.42 |
| Age | 100.088 | 299 | .000 | 4.033 | 3.95 | 4.11 |
| Gender | 79.920 | 299 | .000 | 3.887 | 3.79 | 3.98 |
| Location | 102.693 | 299 | .000 | 4.037 | 3.96 | 4.11 |
| Education Level | 113.082 | 299 | .000 | 4.073 | 4.00 | 4.14 |
| Marital Status | 124.783 | 299 | .000 | 4.293 | 4.23 | 4.36 |
| Employment Level | 133.798 | 299 | .000 | 4.363 | 4.30 | 4.43 |
| Income Level | 95.361 | 299 | .000 | 4.200 | 4.11 | 4.29 |

Table 4 analyzed the t test statistics related to various variables and documented that Children education (t=136.539) followed by borrowing pattern (t=133.798) are the prime variables understudy. Employment opportunities (t=78.920) found to be the least factor in the study.

 

Siddhanta's International Journal of Advanced Research in Arts & Humanities
Impact Factor : 5.9, ISSN(O) : 2584-2692
Vol. 1, Issue 4, Mar.-Apr., 2024
Available online : https://sijarah.com/

**Table 5: ANOVA (Public Banks)**

| ANOVA (Public Banks) | | | | | | |
|---|---|---|---|---|---|---|
| | | Sum of Squares | df | Mean Square | F | Sig. |
| Consumption Expenditure | Between Groups | 6.141 | 4 | 1.535 | 3.246 | .013 |
| | Within Groups | 139.526 | 295 | .473 | | |
| | Total | 145.667 | 299 | | | |
| Employment opportunities | Between Groups | 13.391 | 4 | 3.348 | 4.969 | .001 |
| | Within Groups | 198.756 | 295 | .674 | | |
| | Total | 212.147 | 299 | | | |
| Borrowing pattern | Between Groups | 29.051 | 4 | 7.263 | 32.293 | .000 |
| | Within Groups | 66.346 | 295 | .225 | | |
| | Total | 95.397 | 299 | | | |
| Respect in family and community | Between Groups | 174.000 | 4 | 43.500 | 30.293 | .000 |
| | Within Groups | .000 | 295 | .000 | | |
| | Total | 174.000 | 299 | | | |
| Children Education | Between Groups | 31.765 | 4 | 7.941 | 29.272 | .000 |
| | Within Groups | 80.031 | 295 | .271 | | |
| | Total | 111.797 | 299 | | | |
| Health | Between Groups | 36.125 | 4 | 9.031 | 21.563 | .000 |
| | Within Groups | 123.555 | 295 | .419 | | |
| | Total | 159.680 | 299 | | | |
| Literacy level | Between Groups | 7.530 | 4 | 1.883 | 5.626 | .000 |
| | Within Groups | 98.720 | 295 | .335 | | |
| | Total | 106.250 | 299 | | | |
| | Total | 106.187 | 299 | | | |
| Age | Between Groups | 6.141 | 4 | 1.535 | 3.246 | .000 |
| | Within Groups | 139.526 | 295 | .473 | | |
| | Total | 145.667 | 299 | | | |
| Gender | Between Groups | 13.391 | 4 | 3.348 | 4.969 | .001 |
| | Within Groups | 198.756 | 295 | .674 | | |
| | Total | 212.147 | 299 | | | |
| Location | Between Groups | 16.723 | 4 | 4.181 | 10.120 | .000 |
| | Within Groups | 121.873 | 295 | .413 | | |
| | Total | 138.597 | 299 | | | |
| Education Level | Between Groups | 19.871 | 4 | 4.968 | 15.184 | .000 |
| | Within Groups | 96.515 | 295 | .327 | | |
| | Total | 116.387 | 299 | | | |
| Marital Status | Between Groups | 16.762 | 4 | 4.190 | 13.824 | .000 |

Siddhanta's International Journal of Advanced Research in Arts & Humanities
Impact Factor : 5.9, ISSN(O) : 2584-2692
Vol. 1, Issue 4, Mar.-Apr., 2024
Available online : https://sijarah.com/

| | | | | | | |
|---|---|---|---|---|---|---|
| | Within Groups | 89.425 | 295 | .303 | | |
| | Total | 106.187 | 299 | | | |
| Employment Level | Between Groups | 29.051 | 4 | 7.263 | 32.293 | .000 |
| | Within Groups | 66.346 | 295 | .225 | | |
| | Total | 95.397 | 299 | | | |
| Income level | Between Groups | 16.762 | 4 | 4.190 | 13.824 | .000 |
| | Within Groups | 89.425 | 295 | .303 | | |
| | Total | 106.187 | 299 | | | |

Table 5 analyzed the ANOVA analysis and documented that besides consumption expenditure (Sig=.013), all other factors are the most preferred sector preferences by the respondents of public banks as significance value in all other cases is less than .005.

## FINDINGS OF THE STUDY

- Analyzed the reliability analysis of the study and documented that estimated value of Cronbach's Alpha is .942 (N=24) which is greater than the acceptable threshold limit of .60. Therefore, internal consistency among the variables is present. Hence, further statistical test can be performed.
- Analyzed the one sample statistics related to various variables in public banks and documented that Children education followed by borrowing pattern are the prime variables understudy.
- Analyzed the t test statistics related to various variables and documented that Children education followed by borrowing pattern are the prime variables understudy.
- Analyzed the ANOVA analysis and documented that besides consumption expenditure (Sig=.013), all other factors are the most preferred sector preferences by the respondents of public banks as significance value in all other cases is less than .005.

## Recommendations of the study

- The study recommends after discussion with banking employees that regulators need to elaborate certain concepts, namely, settlement cycle, margin requirements, load

*Siddhanta's International Journal of Advanced Research in Arts & Humanities*
**Impact Factor : 5.9, ISSN(O) : 2584-2692**
**Vol. 1, Issue 4, Mar.-Apr., 2024**
Available online : https://sijarah.com/

charges, hedge concept, swaps, and arbitrage process in a natural way so that banking employees easily understand those aspects.

- Financial experts and consultation found to have a high impact on overall preference for their investment options. The study recommends that banking employees should not rely merely on consultant's advice but also should try to gain knowledge about technical analysis. This helps investors to gain comprehensive knowledge before any investment.

## CONCLUSION

A lot many factors are present, which affects the investment decisions and investment pattern; it includes various determinants like demographic factors consisting age, gender, income, education, etc. Financial determinants include corporate earnings, financial position, Dividend paid, etc., Market determinants include consumer preferences, market information. Risk bearing determinants include consistency of safety, liquidity, capital appreciation, return and risk coverage, etc. Along with these behavioral determinants are also going to be affected.

## SCOPE FOR FURTHER STUDIES

- The present study restricted to three cities only, which may, to some extent, limit the generalizability of the resulting outcome. Future studies can be conducted by including all the banking employees nationwide. Investors have various motives to invest their funds in distinct investment avenues and differences in demographic, political, socio-cultural, economic determinants that may exquisitely differentiate the behavior of investors while making investment decisions related to different investment options.

- Future research can independently execute to study the financial awareness level of banking employees concerning their investment decisions.

## REFERENCES

***1. Journal Articles:***

1. Antoncic, M 2014, "Key lessons for banking risk management following the financial crisis". *Journal Of Risk Management In Financial Institutions*, 7, 4, pp. 314-318

*Siddhanta's International Journal of Advanced Research in Arts & Humanities*
**Impact Factor : 5.9, ISSN(O) : 2584-2692**
**Vol. 1, Issue 4, Mar.-Apr., 2024**
Available online : https://sijarah.com/

2. .Hyoyoun, P, & Wook, S 2013, "Behavioral Finance: A Survey of the Literature and Recent Development", *Seoul Journal of Business*, 19, 1, pp. 3-42,

3. Kahneman, D. and Tversky, A. (1979) "Prospect theory: an Analysis of decision under risk", *Econometrica*, (47), pp. 263-291.

4. Redhead, Keith(2008) "Personal Finance and Investments: A Behavioural Finance Perspective" *Taylor and Francis Group*.

5. Benzion, U., Krupalnik, L., & Shavit, T. (2013). "The effect of a high-risk stock fund on longterm investment: An Experimental Study". *Journal of Behavioral Finance*, 14, 53–64.

6. Chen, T.-C., & Lai, M.-Y. (2013). "Are investors rational? Evidence on the impact of industrial framing reclassification on stock market reaction". *Journal of Behavioral Finance*, 14, 1– 8.

7. 14 Corredor, P., Ferrer, E., & Santamaria, R. (2013). "Value of Analysts' Consensus Recommendations and Investor Sentiment". *Journal of Behavioral Finance*, 14, 213–229.

8. Daniel, K., Hirshleifer, D., & Subrahmanyam, A. (1998). "Investor psychology and security market under- and overreactions". *Journal of Finance*, 53, 1839–1885.

9. GIIN & Cambridge Associates. (2019). The Financial Performance of Impact Investing through Private Equity. Global Impact Investing Network and Cambridge Associates.

10. Harari, Y. N. (2014). Sapiens: A Brief History of Humankind. Harper.

11. The World Economic Forum. (2020). The Global Risks Report 2020. World Economic Forum.