Socio-Economic Determinants of Stock Market Behaviour: A Comprehensive Analysis of Investment Pattern and Decision-Making

Mrs. Sarla¹, Dr. Ram Kirti Arora²

¹Research Scholar, Department of Commerce, Faculty of Management and commerce, Baba Mastnath University, Asthal bohar, Rohtak, Haryana (India)
²Professor, Department of Commerce, Faculty of Management and commerce, Baba Mastnath University, Asthal bohar, Rohtak, Haryana (India)

Abstract
Investor's investment decisions and market outcomes are thought to be systematically influenced by both market dynamics and information structure. Therefore, the study’s main purpose was to identify the factors influencing the investment decision of stock market investors of India. The study also identified the effect of investors' socioeconomic profiles on their stock market investing behaviour. The study was conducted on 151 individual stock market investors of Haryana state. To collect the data a structured questionnaire was used. The data were analysed using frequency, percentage, crosstab, chi-square, KMO test, Bartlett's test of sphericity and factor analyses. The reliability of data was tested using Cronbach's Alpha. Hypothesis was set to know whether there is any relationship between demographic variable and investment pattern of investors. This study found three major factors which influence the investment decisions of stock market investors. The factors that were discovered were the investing goal, liquidity, and risk attitude. The hypothesis's outcome demonstrated a favourable correlation between investors' investing patterns and demographic characteristics.

Keywords: Influence, Socioeconomic, Sphericity, Liquidity, Structured, Reliability.

Introduction
Investments are often defined as the distribution of saved assets across alternatives that have the potential to yield better returns in the future. Today's population is far more sophisticated and aware of the existence of investment possibilities thanks to the advancements in the media and economic world, but they lack the necessary understanding to handle them effectively (Dash, 2010). The number of options for investing in both financial and tangible assets is growing daily. In order to help investors allocate their resources wisely, more kinds of securities and instruments are entering the market that meet their diverse risk-return needs (Khan et al., 2015). The stock market is a greatest instrument of capital market which provides higher return of investments. Numerous scholars frequently declare that changes in the stock market have a direct impact on a country's economic growth. The stock market plays a crucial function in an economy by enabling trade between investors and stock issuers, who are the deficit and surplus fund units, respectively. The millennial generation and other younger buyers and sellers are contributing to the growth of the Indian stock market. The stock exchange has evolved into a useful instrument for a flourishing economy.
markets is a crucial source of cash required for conducting business and industry in the modern economy. Through the sale of shares, it raises money from domestic and international people and organisations to finance the corporation. The process by which individual investors make decisions is of interest to many researchers. Investors examine qualitative as well as quantitative data when assessing the variables impacting stock performance. Each investor makes investing decisions based on a variety of behavioural, economic, and demographic factors (Patil & Bagodi, 2021). Even though the process of making decisions by investors is critical to their return, diverse socioeconomic and psychological factors affect it differently in different people. The rules and laws regulating stock market investing do not apply to several situations that have an influence on investors' investment decisions (Kumar Painoli, 2019).

A person's socioeconomic background also has a big impact on how they perceive their investments in the stock market. Gaining knowledge about how social and economic issues interact might help you better understand how different investor groups invest. Understanding the socioeconomic characteristics of stock market investors is crucial for financial institutions, legislators, and market analysts. It provides useful insights into the diverse needs and preferences of investors, which facilitates the development of financial products and regulatory frameworks that meet their needs. As the stock market evolves, the relationship between social and economic factors will remain an essential perspective for analysing and comprehending investment patterns.

Therefore, the goal of the present investigation is to critically diagnose the major variables affecting investing behaviour and the manner in which these variables affect the trading-decision-making process among individuals with varying various ages, levels of academic achievement, and occupations, with a focus only on the stock market.

Review of literature

The return on investment are heavily depends on the process of investment decision making and it is a complicated process which is influenced by different factors because of a variety of psychological and socioeconomic factors (Sachdeva & Lehal, 2023a). The factors which influence the decisions of the investors are also related to their socio-economic treaties. (Kengatharan, 2019.) stated that stability of the firms, dividend payments, company image, goodwill, previous performance of the stock, and projected revenues are the most important factors which affects the investment decisions of the investors. the findings of the study also revealed that individual investor's investing decision-making are significantly influenced by their socioeconomic features, including age, gender, marital status, educational attainment and monthly income. (Hesniati, 2020) investigated the behavioural variables which influence the investment decisions of investors of gold instruments. It was found that Knowledge asymmetry and availability bias have a significant influence on investment decisions. (Jain, 2021) tried to understand investors' viewpoints while making stock market investments, as well as their decision-making processes and the efficacy of "investor awareness and education programmes." The findings of the study revealed that investors relied heavily on quick fixes, such as consulting friends and family, then conducting independent research using the firms' financial statements. It was found that company's history and Earnings as well as the demand of its goods are the most often researched aspects for investing in initial public offerings and trading. (Abdul kareem et al., 2023) identified the factors influencing the decisions of investors. findings revealed that instead of internal factors external factors such as nature of the
information, public disclosure outside influences, technological innovation, and interpretation has significant impact on investors decision making. (Kumar Painoli, 2019) examined how social, psychological, and economic variables affects the decisions of stock investors. The results showed that all three elements significantly strengthened decision-making processes, with economic considerations having the greatest impact. (Sachdeva & Lehal, 2023) found that the process of making investment decisions is significantly influenced by the variables such as advocate endorsement, neutral information, reputation of the company, accounting data, and individual financial demands. Advocate endorsement is the least significant variable, whereas the corporate image is the most significant. (Deepan M et al., 2020) revealed that investor decision-making is significantly impacted by previous outcomes and the image of the firm. (Khan et al., 2015) indicated that the investors are most influenced by the examples of persons who have invested in shares and become financially secure. Decisions about investments are more influenced by market, hedge trading, and economic variables. The finding also demonstrates how investors' stock market decision-making is influenced by the usage of business annual reports that provide financial statistics. (Joshi 2017) investigated investors' perceptions of the several elements influencing the stock market. It was discovered that variables such as market share, corporate reputation, and liquidity are not as important as Price Earnings Ratio and Earnings Per Share. Additionally, government initiatives and the speed of economic development bear far greater significance when taking into account industrial considerations. When making stock market investments, investors must consider the global economic climate and the movement of foreign institutional money.

Objectives

- To examine the impact of socio-economic profile on investment pattern of stock market investors.
- To identify the factors influencing investment decisions of stock market investors.

Hypothesis

1. There is no significant association between the age of the respondents and their motive to invest.
2. There is no significant association between the gender of the respondents and their primary source of information.
3. There is no significant association between the occupation of the respondents and the sector of investment they prefer.

Research Methodology

Research methodology refers to the precise procedures or approaches utilised to find, select, handle, and assess data relevant to the study issue. The current study examines the variables that affect stock market investors' decision-making. The nature of the current study is empirical and descriptive. In order to ensure the appropriate conduct of this study, 151 investors in the state of Haryana were surveyed.

Data collection source: Primary sources have provided the majority of the data needed for this investigation.

Method of Data Collection: A structured questionnaire consisting of three subsections was used to gather the essential information from the investors. The initial section included inquiries to determine their demographics, and the other two sections asked questions about the specific investment aspects of various options based on various factors. It includes a few closed-ended questions that must be answered on a five-point Likert scale with the idea that the higher the score, always implies the factor effects the response.
A response scale ranging from 1 (Always) to 5 (Never) was used to quantify the degree to which each aspect has affected stock investing decisions.

**Statistical Tools and Techniques:** The measurements of statistical significance were calculated using frequency, percentage, chi-square, and the table and graph representation was made using SPSS Statistics 25. The reliability of the data was utilized through Cronbach's Alpha. Factors influencing investment decision was identified using KMO test, Bartlett's test of sphericity and factor analyses.

**Data Analysis**
The data analysis portion of a research study is the aspect that is most important. In connection with the survey’s questions and answers, the following has been observed and interpreted:

**Age of the Respondents**

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 18</td>
<td>5</td>
<td>3.3</td>
</tr>
<tr>
<td>18-30</td>
<td>28</td>
<td>18.5</td>
</tr>
<tr>
<td>31-40</td>
<td>48</td>
<td>31.8</td>
</tr>
<tr>
<td>41-50</td>
<td>38</td>
<td>25.2</td>
</tr>
<tr>
<td>51-60</td>
<td>27</td>
<td>17.9</td>
</tr>
<tr>
<td>Above 60</td>
<td>5</td>
<td>3.3</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Graph 1: Age of the Respondents**

As shown by Table 1 and Graph 1, 3.3% of respondents are under the age of 18, 18.5% are between the ages of 18 and 30, 31.5% are between the ages of 31 and 40, 25.2% are between the ages of 41 and 50, 17.9% are between the ages of 51 and 60, and the remaining 3.3% are over the age of 60.
Gender of the Respondents
The gender distribution of respondents was covered by the survey, taking into account both the number of male and female participants. Table given below displays the percentage and frequency of replies to the questionnaire from each gender.

Table 2: Gender of Respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>125</td>
<td>82.8</td>
</tr>
<tr>
<td>Female</td>
<td>26</td>
<td>17.2</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Graph 2: Gender of Respondents

The replies are displayed graphically in graph 2 and Table 2 along with their respective percentages. It shows that 82.8% of respondents are male and 17.2% of respondents are female.

Annual Income of the Respondents:

Table 3: Annual Income of the Respondents

<table>
<thead>
<tr>
<th>Annual Income</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 3 lakhs</td>
<td>17</td>
<td>11.3</td>
</tr>
<tr>
<td>3 to 5 lakhs</td>
<td>25</td>
<td>16.6</td>
</tr>
<tr>
<td>5-10 lakh</td>
<td>56</td>
<td>37.1</td>
</tr>
<tr>
<td>10-20 lakh</td>
<td>41</td>
<td>27.2</td>
</tr>
<tr>
<td>more than 20 lakhs</td>
<td>12</td>
<td>7.9</td>
</tr>
<tr>
<td>Total</td>
<td>151</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The respondents' annual income is displayed in Table 3. As can be observed, 11.3% of respondents have an annual income of less than three lakhs, 16.6% have an annual income of between three and five lakhs, 37.1% have an annual income of between five and ten lakhs, 27.2% have an annual income of between ten and twenty lakhs, and the remaining 7.9% have an annual income of more than twenty lakhs.
Age of the respondents and their purpose of investment:
Null Hypothesis: There is no significant association between the age of the respondents and their motive to invest.
Alternate Hypothesis: There is significant association between the age of the respondents and their motive to invest.

Table 4: Crosstabulation

<table>
<thead>
<tr>
<th>Age of the respondents</th>
<th>Short term profits</th>
<th>Financial stability</th>
<th>Portfolio diversification</th>
<th>Financial security</th>
<th>Long term investment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>above 60</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>51-60</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>41-50</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>27</td>
<td>0</td>
<td>38</td>
</tr>
<tr>
<td>31-40</td>
<td>0</td>
<td>24</td>
<td>24</td>
<td>0</td>
<td>0</td>
<td>48</td>
</tr>
<tr>
<td>18-30</td>
<td>26</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>28</td>
</tr>
<tr>
<td>Below 18</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>26</td>
<td>35</td>
<td>27</td>
<td>32</td>
<td>151</td>
</tr>
</tbody>
</table>

Table 4 shows that the investment motive of the respondents below the age of 18 is to earn short term profits, the motive of the respondents between the age of 18 to 30 is financial stability and short-term profits, the purpose of the respondents between the age of 31 to 40 is financial stability and portfolio diversification, respondents between the age of 41 to 50 invest for the purpose of portfolio diversification and financial security, respondents between the age of 51 to 60 and above the age of 60 invest for the purpose long term investment.

When considering that the p value is .000, or less than 0.05, the alternative hypothesis is accepted, and the Null hypothesis is rejected. The age of the respondents and their desire to invest are significantly correlated.

Table 5: Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymptotic Significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>385.274&lt;sup&gt;a&lt;/sup&gt;</td>
<td>20</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>357.554</td>
<td>20</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc.</td>
<td>133.881</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>151</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> 13 cells (43.3%) have expected count less than 5. The minimum expected count is .86.
Gender of the Respondents and Source of Information:
Null Hypothesis: There is no significant association between the gender of the respondents and their primary source of information.
Alternate Hypothesis: There is significant association between the gender of the respondents and their primary source of information.

Table 6: Crosstabulation

<table>
<thead>
<tr>
<th>Gender of the respondents</th>
<th>Experts</th>
<th>Internet</th>
<th>Media</th>
<th>Family and friends</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>46</td>
<td>13</td>
<td>18</td>
<td>48</td>
<td>0</td>
<td>125</td>
</tr>
<tr>
<td>Female</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>13</td>
<td>18</td>
<td>61</td>
<td>13</td>
<td>151</td>
</tr>
</tbody>
</table>

Table 6 shows that the majority of male respondents seem to rely on experts, family, and friends as their main knowledge sources. Additional information sources for them include the media and the internet. The majority of female respondents get information from friends and family. As the alternative hypothesis is accepted and the null hypothesis is rejected, the p value is .000, which is less than 0.05. The gender of the respondents and their primary sources of information are significantly correlated.

Table 7: Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymptotic Significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>79.233a</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>75.516</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>40.123</td>
<td>1</td>
<td>.000</td>
</tr>
</tbody>
</table>

N of Valid Cases = 151

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is 2.24.

Occupation of the respondents and preferred sector of investment:
Null Hypothesis: There is no significant association between the occupation of the respondents and the sector of investment they prefer.
Alternate Hypothesis: There is no significant association between the occupation of the respondents and the sector of investment they prefer.

Table 8: Crosstabulation

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Banking</th>
<th>Information Technology</th>
<th>Manufacturing</th>
<th>Pharmaceuticals</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaried Person</td>
<td>33</td>
<td>13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>46</td>
</tr>
<tr>
<td>Professional</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>0</td>
<td>0</td>
<td>38</td>
</tr>
<tr>
<td>Business class</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>22</td>
<td>35</td>
<td>62</td>
</tr>
</tbody>
</table>
Table 8 represents that salaried person preferred to invest in banking and information technology, professional prefer to invest in manufacturing and Information Technology, business class investors prefer to invest in Pharmaceuticals, Manufacturing and other sectors and retired personnel preferred other investment sectors.

Since the p value is smaller than 0.05 (.000), the alternative hypothesis is accepted and the null hypothesis is rejected. A notable correlation has been seen between the respondents' preferred investment sector and where they worked.

Table 9: Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymptotic Significance (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>236.349(a)</td>
<td>12</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>265.449</td>
<td>12</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>128.207</td>
<td>1</td>
<td>.000</td>
</tr>
</tbody>
</table>

N of Valid Cases 151

a. 5 cells (25.0%) have expected count less than 5. The minimum expected count is .73.

Identifying the contributing factors:
In order to figure out the factors which influence the investment decisions of stock market investors, eighteen statements were found. A single feature about the variables that influence investment decisions is described in each statement. The opinions of investors were gathered using five-point Likert scales. Examining all 18 assertions would have been time-consuming and unnecessary as well. In order to simplify the variables into a more manageable quantity, factor analysis was utilised to examine the common dimensions that existed between the variables. Under one common factor, the variables with strong correlation and a common response were aggregated. The variables that had no discernible impact were suppressed. The decreased components have to be unique from one another.

The first step was determining if the data were eligible for factor analysis using two tests: the KMO test and Bartlett's test of sphericity. The Kaiser-Mayer-Olkin Measure of Sampling Adequacy is a statistic that indicates how much of the variance in the variables may be attributable to new causes. Elevated figures frequently imply that factor analysis might be beneficial for interpreting the information.

Table 10: KMO and Bartlett’s Test.

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</th>
<th>.472</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>7.502E3</td>
</tr>
<tr>
<td>df</td>
<td>153</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
</tr>
</tbody>
</table>
This section provides a concise explanation of the results of a thorough analysis of data collected from 151 respondents. The Kaiser-Mayer-Olkin (KMO) measurement of sample adequacy was used to examine the degree of relationship between the variables. The appropriateness of factor analysis was assessed by computing the KMO measure of sample adequacy. It attests to the suitability of the data for factor analysis. Testing adequacy is indicated by a KMO score of .472.

### Table 11: Reliability Statistics

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>Number of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.768</td>
<td>18</td>
</tr>
</tbody>
</table>

According to Kerlinger (1986), the most used statistic for evaluating internal consistency is the Cronbach alpha. Nunnally (1978) states that Cronbach’s Alpha should be greater than 0.6. Alpha coefficients in the current survey were higher than 0.6, and the total alpha value for the questionnaire was 0.768. A high alpha coefficient indicates a sufficient level of reliability and confirms the consistency of the constituent parts.

### Table 12: Factor Analysis

<table>
<thead>
<tr>
<th>Factors</th>
<th>Statement</th>
<th>Loadings</th>
<th>% Variance</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk-Tolerance</td>
<td>To optimise returns on investment, I'm prepared to assume more risk throughout my whole financial portfolio.</td>
<td>.908</td>
<td>28.951</td>
<td>28.951</td>
</tr>
<tr>
<td></td>
<td>It seems that trading too much will increase the risk and expense of the deal.</td>
<td>.858</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Risk-taking is encouraged by novel and intricate investment opportunities.</td>
<td>.834</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquidity</td>
<td>When conversion rates are high, I invest.</td>
<td>.925</td>
<td>25.191</td>
<td>54.142</td>
</tr>
<tr>
<td></td>
<td>I select assets that have a high level of liquidity.</td>
<td>.915</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goal of Investment</td>
<td>Benefits of taxes</td>
<td>.865</td>
<td>23.610</td>
<td>77.751</td>
</tr>
<tr>
<td></td>
<td>Dealing with stocks is my passion.</td>
<td>.810</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>It is my belief to increase extra income in order to invest.</td>
<td>.632</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Principal component analysis (PCA) was used using SPSS to investigate the underlying components related to 18 factors. The table shown above indicates that the top three components account for 77.751% of the impacts level. Three significant factors have been found in this study, and their names have been assigned based on the variables that grouped under each component. The initial component identified was the investors' risk-tolerance. This element had an impact on the investors' decisions. It was found that this specific factor's
variance was 28.951. The second factor identified was liquidity. The variance of this factor was 25.191. The last component which identified was goal of investment and variance of this component was 23.610. These factors influence the decision making of stock market investors.

Conclusion
The purpose of this study was to identify the factors which influence the investment decisions of stock market investors and to test the hypothesis that there could be relationships between investor investment behaviours and demographic characteristics. The study's conclusions, which were arrived at using a chi-square test and a sample of 151 investors, show a positive association between the demographic characteristics of investors and their investing pattern and behaviour. The survey discovered that men made up the majority of the study's responses. Additionally, it was discovered that most respondents—who are between the ages of 31 and 40 and 41 and 50—invest their money with the intention of achieving financial stability, portfolio diversification, and financial security. The results showed that friends and family members were the primary information sources for female respondents and experts and family/friends for male respondents. According to the findings of the factor analysis, three important factors are impacting the investment decisions of stock market participants. Investment aim, liquidity, and risk tolerance were the factors that were found. Based on the hypothesis, the findings indicated a favourable correlation between investors' investing behaviours and their demographic attributes.

References
