



A Study on Gender Dynamics in Investment Decision Making

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ABSTARCT

This study delves into the influences of gender dynamics on investment decision-making, aiming to elucidate the disparities, behavioural biases, and decision processes among men, women, and non-binary individuals within the realm of financial investment. Through a quantitative methodology, data were collected from a sample of 150 respondents meeting specific investment criteria. The research encompasses chapters dedicated to Introduction, Review of Literature, Research Methodology, Data Analysis and Interpretation, and Recommendations. Key findings underscore significant gender-based disparities in investment preferences and decision-making approaches. Male investors predominantly lean towards stock investments, contrasting with female investors who exhibit a preference for safer options such as gold, often influenced by cultural factors and emotional responses. Non-binary individuals tend to prioritize conservative investment strategies, citing household responsibilities as a significant influence.

Moreover, the study unveils the role of gender-related behavioural biases in investment decision-making, with non-binary respondents exhibiting a heightened susceptibility to common gender beliefs compared to their male and female counterparts. Emotional reactions to investment losses are prevalent across all genders, impacting risk-taking behaviour. Recommendations stemming from these findings advocate for tailored investment strategies catering to diverse gender groups, portfolio diversification, and heightened awareness of gender biases within investment decision-making processes. Ultimately, this research underscores the imperative of incorporating gender dynamics into financial investment practices, offering valuable insights for investors, financial advisors, and policymakers to formulate more inclusive and effective investment strategies.

KEY WORDS: Gender dynamics, Investment decision-making, Behavioural biases, Gender disparities, Financial investment, Gender preferences, Risk-taking behaviour.

INTRODUCTION:

This study embarks on an exploration of the nuanced dynamics that shape investment decisions, with a pivotal emphasis on the influence of gender. Through an in-depth investigation into the disparities, behavioral biases, and decision-making processes among men, women, and non-binary individuals in the domain of financial investments, the research endeavors to unravel the complex interplay of societal expectations, cultural norms, and individual preferences.

In today's increasingly diverse society, understanding how gender influences investment choices is imperative for fostering inclusivity and informed decision-making. By delving into the multifaceted dimension of gender-specific attitudes toward various investment assets, including real estate, gold, stock exchange, cryptocurrency, and mutual funds, this study seeks to shed light on the diverse array of factors that shape financial decision-making processes.

Furthermore, this research aspires to go beyond mere identification of gender-based differences and to explore the underlying mechanisms driving these disparities. By examining the role of societal expectations, cultural norms, and individual preferences, this study aims to provide a comprehensive understanding of how gender influences investment behavior. Ultimately, the insights gleaned from this study are poised to contribute to a more inclusive and nuanced understanding of financial decision-making, transcending traditional gender norms and paving the way for more informed and equitable investment strategies.

RATIONALE OF THE STUDY

The study on gender dynamics in investment decision-making aims to address disparities, biases, and promote financial literacy. It informs policy, empowers investors, fosters diversity, and strengthens research in behavioral economics. Additionally, it impacts economic development and promotes sustainable investment practices.

BEHAVIOURAL BIASES

Gender-related behavioural biases refer to the systematic and often unconscious deviations from rational decision-making influenced by an individual's gender identity. These biases impact how individuals, based on their gender, perceive, evaluate, and act in financial and investment contexts.

- Overconfidence Bias:
- Risk Aversion/Aversion Bias
- Loss Aversion
- Herd Mentality

GENDERSPECIFIC FACTORS INFLUENCING INVESTMENT DECISION MAKING

1. Societal Expectations: Prescribed roles and norms influencing gendered behaviors and choices.
2. Cultural Stereotypes: Preconceived notions about gender influencing attitudes and preferences in financial decision-making.
3. Financial Literacy: Disparities in financial knowledge and skills due to unequal access to education and resources, impacting investment decisions.
4. Income Disparities: Variations in earnings based on gender, contributing to differential investment capabilities and risk tolerance levels.

OBJECTIVE OF THE STUDY

PRIMARY OBJECTIVE: To investigate the influences of gender dynamics on investment decision making examining disparities, behavioral biases and decision-making process among men, women and non-binary in context of financial investment.

SECONDARY OBJECTIVE:

- ⇒ To examine gender related behavioural biases and their implication for investment choices.
- ⇒ To understand gender difference in risk preferences, perception of gain/loss and priorities.
- ⇒ To examine how gender specific factor influence the decision making process of investors in selecting investment options.

RELATED WORKS:

This section provides an overview of existing literature concerning the influence of behavioral finance on investment decision-making.

Muhammad Atif Sattar, Muhammad Toseef, Muhammad Fahad Sattar (2020) " *Behavioural finance biases in investment decision making*" - The aim of this research paper is to explore how behavioural biases affect investment decision making under uncertainty. This study examines the impact of behavioural finance in the decision-making process. Empirical results concluded investment decision making influenced by heuristic behaviours more than prospects and personality characteristics.

MD Zohir Raihan, MD Sohel Hossain, Naimur Rahman, Osama Bin Sajjad, Mahabuba Fatema Mou (2021) " *Factors affecting individual investors decision making behavior*" - In this study, it was aimed to investigate the factors that influence individual investor decision making behavior. The findings of the study reflect that the factors such as Accounting Information, Advocate Recommendation, Personal Financial Needs, Neutral Information and Self-Image have a significant impact on investor's investment decision makings.

Olunmi Edward Ogunlusi, Olalekan Obademi (2021) " *The Impact of behavioural finance on investment decision-making: A study of selected investment banks in Nigeria*" - This study Investigate the impact of behavioral finance on investment decision-making in selected investment banks. The tools used in this study is questionnaires. Positive evidence of behavioral finance's influence on investment decisions, with a notable negative relationship found between heuristics and investment choices.

HYPOTHESIS FOR THE STUDY:

To test the association between gender-related behavioral biases and investment decision-making preferences among gender groups, the following null and alternative hypotheses are proposed:

NULL HYPOTHESIS (H0): There is no significant association between gender-related behavioural biases and investment decision-making preferences among gender groups.

ALTERNATIVE HYPOTHESIS (H1): There is a significant association between gender-related behavioural biases and investment decision-making preferences among gender groups.

LIMITATIONS OF THE STUDY:

- **Cultural Variability:** The study may not capture the full spectrum of cultural nuances, potentially limiting the applicability of findings to specific regions.
- **Sample Representation:** The study's generalizability may be constrained by the representativeness of the sample.
- **Data Availability:** The study relies on the availability of accurate and comprehensive data. Limitations may arise if certain data points are inaccessible or if there are gaps in the available information.

RESEARCH METHODOLOGY

In the research methodology, a quantitative approach was adopted, employing descriptive and correlation research designs. The study utilized convenience sampling from a population of 150 individuals actively engaged in investing across five categories: Stocks, Real estate, Mutual funds, Gold, and Cryptocurrency. Each investment category was proportionally represented, with 20% of the population allocated to each, resulting in a sample size of 120 participants for analysis. Data collection was facilitated through a structured survey designed to gather relevant information.

DATA COLLECTION METHODS: This study utilized QUESTIONNAIRE as its research instruments for data collection methods.

DATA ANALYSIS:

→ Preliminary Analysis:

Data examination begins with preliminary analysis, which entails frequency analysis and visual representations such as pie charts and histograms to grasp data patterns and characteristics. This phase serves to identify trends and initial insights, laying the groundwork for further exploration.

STATISTICAL ANALYSIS:

→ Detailed Analysis:

In detailed analysis, statistical tools like the **chi-square test** was used to find the significant associations between categorical variables. Additionally, correlation analysis, utilizing methods like the **Karl Pearson coefficient**, explores relationships between continuous variables, such as risk perception and investment priorities. This phase enables a thorough investigation of the data, validating hypotheses and uncovering nuanced insights.

ANALYSIS AND INTERPRETATION OF DATA

TABLE1: DEMOGRAPHIC PROFILE

| DEMOGRAPHIC FEATURES | PARTICULARS | NO. OF RESPONDENTS | PERCENTAGE ANALYSIS |
|----------------------|--------------------|--------------------|---------------------|
| GENDER | Male | 45 | 38% |
| | Female | 40 | 33% |
| | Non-binary | 35 | 29% |
| AGE | 18-24 | 49 | 40.80% |
| | 25-34 | 46 | 38.30% |
| | 35-44 | 19 | 15.80% |
| | 45-54 | 5 | 4.20% |
| | 55-64 | 1 | 0.80% |
| EMPLOYMENT STATUS | Employed full-time | 60 | 50% |
| | Employed part-time | 16 | 13.30% |
| | Self-employed | 2 | 1.70% |

| | | | |
|--|------------|----|--------|
| | Unemployed | 8 | 6.70% |
| | Student | 34 | 28.30% |

INTERPRETATION: The analysis reveals diverse gender representation with 38% male, 33% female, and 29% non-binary respondents, notably with a majority of male investors. Majority of responses come from the 18-24 age group (40.8%) and 25-34 age group (38.3%), while those aged 55-64 are least represented. Full-time employees comprise 50% of respondents, with students at 28% and part-time employees at 13%, emphasizing significant engagement in investment among the employed youth.

TABLE 2: TYPES OF INVESTMENT OPTIONS FOR EACH GENDER

| GENDER | STOCKS | REAL ESTATE | GOLD | MUTUAL FUNDS | CRYPTOCURRENCY |
|--------------|-----------|-------------|-----------|--------------|----------------|
| Male | 16 | 10 | 8 | 6 | 5 |
| Female | 9 | 2 | 14 | 10 | 5 |
| Non-binary | 12 | 12 | 1 | 8 | 2 |
| Total | 37 | 24 | 23 | 24 | 12 |

INTERPRETATION: The above table shows a distinct investment preferences among genders: 36% males choose stocks, 35% females prefer gold, and 34% non-binary individuals opt for real estate, indicating varied risk appetites. Male investors lean towards riskier options like stocks, which typically yield higher returns.

TABLE 3: INVESTMENT DECISION RISK PREFERENCES AMONG GENDER

| S.NO | PREFERENCES | MALE | FEMALE | NON-BINARY |
|------|--------------------------|------|--------|------------|
| 1 | Safer option | 9 | 15 | 13 |
| 2 | Somewhat safer option | 14 | 11 | 14 |
| 3 | Neutral | 19 | 12 | 4 |
| 4 | Somewhat riskier options | 3 | 1 | 4 |
| 5 | Riskier option | 0 | 1 | 0 |
| | Total | 45 | 40 | 35 |

INTERPRETATION: Male respondents predominantly favor somewhat riskier options, with 19 responses, while females prefer safer choices, with 14 responses. Fairly even distribution is observed among somewhat safer and safer options, with 13 and 14 respondents respectively. These findings underscore the significance of acknowledging gender differences in risk preferences for informed investment decisions.

TABLE 4: ASSESSMENT OF RISK LEVEL IN INVESTMENT DECISION MAKING

| S.NO | AGREEMENT | MALE | FEMALE | NON-BINARY |
|------|-------------------|------|--------|------------|
| 1 | Strongly Agree | 12 | 11 | 11 |
| 2 | Agree | 20 | 22 | 14 |
| 3 | Neutral | 12 | 6 | 8 |
| 4 | Disagree | 1 | 1 | 2 |
| 5 | Strongly Disagree | 0 | 0 | 0 |
| | Total | 45 | 40 | 35 |

INTERPRETATION: Male (12 strongly agree, 20 agree), female (11 strongly agree, 22 agree), and non-binary (11 strongly agree) respondents prioritize evaluating investment risks, highlighting the importance of risk assessment across genders.

TABLE 5: INVESTMENT DECISION-MAKING PRIORITY AMONG GENDER

| S.NO | PRIORITY | MALE | FEMALE | NON-BINARY |
|------|---|------|--------|------------|
| 1 | Strongly prioritize long term stability | 11 | 12 | 9 |
| 2 | Prioritize long term stability | 25 | 17 | 12 |
| 3 | Neutral | 5 | 8 | 11 |
| 4 | Prioritize short term gains | 4 | 3 | 3 |
| 5 | Strongly prioritize short term gains | 0 | 0 | 0 |
| | Total | 45 | 40 | 35 |

INTERPRETATION: Male respondents (56%) prioritize long-term stability, with few opting for short-term gains. Females (42%) and non-binary individuals (34%) show similar preferences, with 30% of females strongly prioritizing long-term stability. Overall, there are gender variations in prioritizing long-term stability, with a minority favoring short-term gains.

ANALYSIS USING STATISTICAL TOOLS

A. TOOL APPLIED: CHI SQUARE (using Excel)

NEED FOR THE ANALYSIS: Used to test whether there is a relationship between the gender-related behavioural biases (such as loss aversion, risk tolerance etc) and investment decision-making preferences among Genders.

HYPOTHESIS

NULL HYPOTHESIS (H0): There is no significant association between gender-related behavioural biases and investment decision-making preferences among gender groups.

ALTERNATIVE HYPOTHESIS (H1): There is a significant association between gender-related behavioural biases and investment decision-making preferences among gender groups.

STEP 1: OBSERVED VALUE(O):

| MALE | FEMALE | NON-BINARY | Total |
|-----------|-----------|------------|------------|
| 9 | 15 | 13 | 37 |
| 14 | 11 | 14 | 39 |
| 19 | 12 | 4 | 35 |
| 3 | 1 | 4 | 8 |
| 0 | 1 | 0 | 1 |
| 45 | 40 | 35 | 120 |

STPE 2: EXPECTED VALUE (E):

| | | |
|--------|--------|--------|
| 13.875 | 12.333 | 10.792 |
| 14.625 | 13 | 11.375 |
| 13.125 | 11.66 | 10.208 |

| | | |
|-------|-------|--------|
| 3 | 2.667 | 2.33 |
| 0.375 | 0.333 | 0.2917 |

STEP 3: (O-E)²/E:

| | | |
|--------|---------|--------|
| 1.7128 | 0.5765 | 0.4518 |
| 0.0267 | 0.3076 | 0.6057 |
| 2.629 | 0.0095 | 3.7756 |
| 0 | 1.04166 | 1.190 |
| 0 | 0 | 0 |

$$\chi^2 = 12.3285$$

(χ^2 refers to sum of (O-E)²/E)

STEP 4: Degrees of freedom= (r-1) *(c-1) = 8 P- value= 0.13713

P-value > 0.05 So, Accept H0 and Reject H1

RESULT: Chi-square analysis (12.3285, p=0.13713) shows no significant relationship between gender and investment decision-making preferences. Accepting the Null Hypothesis (H0), it suggests observed differences may be due to random chance rather than gender dynamics.

B. TOOL APPLIED: KARL PEARSON COEFFICIENT OF CORRELATION

NEED FOR THE ANALYSIS: Pearson coefficient of correlation was calculated to analyze the relationship between priority and risk level. This analysis included responses from male, female and non-binary respondents.

■ **CALCULATING OVERALL CORRELATION FOR PRIORITY(X) AND RISK LEVEL(Y):**

| PRIORITY (X) | X ² | RISK (Y) | Y ² | XY |
|--------------|----------------|--------------|----------------|---------------|
| 32 | 1024 | 34 | 1156 | 1088 |
| 54 | 2916 | 56 | 3136 | 3024 |
| 24 | 576 | 26 | 676 | 624 |
| 10 | 100 | 4 | 16 | 40 |
| 0 | 0 | 0 | 0 | 0 |
| Σ=120 | Σ=4616 | Σ=120 | Σ=4984 | Σ=4776 |

$$r = \frac{N\sum XY - \sum X \sum Y}{\sqrt{N\sum X^2 - (\sum X)^2} \sqrt{N\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{(5*4776) - (120*120)}{\sqrt{(5*4616) - (120)^2} \sqrt{(5*4984) - (120)^2}}$$

$$= 9480 \div \sqrt{8680} \sqrt{10520}$$

$$r = 0.9920$$

RESULTS: Correlation coefficient (r = 0.9920) indicates a very strong positive correlation between priority and risk. As individuals prioritize long-term stability more, they tend to perceive higher levels of risk in their investment decisions.

▪ **COEFFICIENT OF CORRELATION (r) FOR PRIORITY(X) AND RISK LEVEL(Y) AMONG MALE**

| PRIORITY (X) | X ² | RISK (Y) | Y ² | XY |
|--------------|----------------|-------------|----------------|--------------|
| 11 | 121 | 12 | 144 | 132 |
| 25 | 625 | 20 | 400 | 500 |
| 5 | 25 | 12 | 144 | 60 |
| 4 | 16 | 1 | 1 | 4 |
| 0 | 0 | 0 | 0 | 0 |
| Σ=45 | Σ=787 | Σ=45 | Σ=689 | Σ=696 |

$$r = \frac{N\sum XY - \sum X\sum Y}{\sqrt{N\sum X^2 - (\sum X)^2} \sqrt{N\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{(5*696)-(45*45)}{\sqrt{(5*787)-(45)^2} \sqrt{(5*689)-(45)^2}}$$

r = 0.883491

RESULT: The coefficient correlation r = 0.883491. There is a positive linear relationship between two variables. This implies that among male investors, there is a clear pattern where those who prioritize stability are more likely to perceive greater risk in their investment choices.

▪ **CORRELATION COEFFICIENT(r) FOR PRIORITY (X)AND RISK LEVEL(Y) AMONG FEMALE:**

| PRIORITY (X) | X ² | RISK (Y) | Y ² | XY |
|--------------|----------------|-------------|----------------|--------------|
| 12 | 144 | 11 | 121 | 132 |
| 17 | 289 | 22 | 484 | 374 |
| 8 | 64 | 6 | 36 | 48 |
| 3 | 9 | 1 | 1 | 3 |
| 0 | 0 | 0 | 0 | 0 |
| Σ=40 | Σ=506 | Σ=40 | Σ=642 | Σ=557 |

$$r = \frac{N\sum XY - \sum X\sum Y}{\sqrt{N\sum X^2 - (\sum X)^2} \sqrt{N\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{(5*557)-(40*40)}{\sqrt{(5*506)-(40)^2} \sqrt{(5*642)-(40)^2}}$$

r = 0.96842

RESULT: Correlation coefficient (r = 0.96842) indicates a positive correlation between investment priority and perceived risk. Female investors prioritizing long-term stability may be more willing to accept higher risks to achieve their investment goals.

▪ **CORRELATION COEFFICIENT(r) FOR PRIORITY(X) AND RISK LEVEL AMONG NON-BINARY:**

| PRIORITY (X) | X ² | RISK (Y) | Y ² | XY |
|--------------|----------------|----------|----------------|-----|
| 9 | 81 | 11 | 121 | 99 |
| 12 | 144 | 14 | 196 | 168 |
| 11 | 121 | 8 | 64 | 88 |

| | | | | |
|-------------|--------------|-------------|--------------|--------------|
| 3 | 9 | 2 | 4 | 6 |
| 0 | 0 | 0 | 0 | 0 |
| $\Sigma=35$ | $\Sigma=355$ | $\Sigma=35$ | $\Sigma=385$ | $\Sigma=361$ |

$$r = \frac{N\sum XY - \sum X \sum Y}{\sqrt{N\sum X^2 - (\sum X)^2} \sqrt{N\sum Y^2 - (\sum Y)^2}}$$

$$= \frac{(5*361)-(35*35)}{\sqrt{(5*355)-(35)^2} \sqrt{(5*385)-(35)^2}}$$

$$r = 0.934$$

RESULT: The coefficient correlation $r = 0.934$. There is a positive linear relationship between two variables. This implies that among non-binary investors, there is a clear pattern where those who prioritize stability are more likely to perceive greater risk in their investment choices.

KEY FINDINGS

- Male investors, despite being comfortable with risks, might hesitate to take them due to the fear of loss affecting their investment decisions, especially when driven by potential gains.
- Emotional responses towards investment losses play a significant role in influencing investment decisions among female investors
- Non-binary investors prioritize conservative investment strategies due to responsibilities, indicating a preference for lower-risk investment options.
- Perceived risk influences investment decisions across genders, underscoring the need to assess and manage risk perceptions effectively in investment strategies.
- Life expectations and family responsibilities significantly impact investment behaviour across gender groups.
- All investors demonstrate equal motivation by gains and losses, emphasizing the importance of considering both potential returns and risks in investment decision-making.

RECOMMENDATIONS

⇒ For Male Investors:

- ✓ Consider ESG-focused investments for diversification aligned with values and long-term goals. They typically offer lower risk and growth opportunities.
- ✓ Though male investors are often comfortable with risk, acknowledging the impact of loss fears is crucial. Employ risk management strategies like stop-loss orders or diversification to mitigate losses while pursuing gains.

⇒ For Female Investors:

- ✓ Acknowledge cultural influences on investment decisions as a female investor. Seek opportunities aligning with your cultural values for better investment choices.
- ✓ Manage emotional responses to investment losses by developing coping mechanisms or seeking guidance from financial advisors for rational decisions.
- ✓ Consider stable, low-volatility assets to align with long-term financial goals while managing household responsibilities.

⇒ For Non-Binary Investors:

- ✓ Non-binary investors may prefer conservative strategies, considering responsibilities. Explore options with steady returns and low risk like fixed-income securities.
- ✓ Adopt a balanced approach to investing, considering both gains and losses. Focus on potential returns and risk management strategies.
- ✓ Acknowledge life expectations and family responsibilities' impact on investment behavior. Seek financial guidance for effective decision-making.

CONCLUSION:

The research delved into gender dynamics in investment decision-making, revealing varied behaviors and attitudes. Male investors showed risk-taking tendencies, while females leaned towards caution, influenced by cultural beliefs and responsibilities. Non-binary respondents displayed diverse perceptions, favoring conservative strategies. Understanding these dynamics is crucial for developing inclusive investment strategies. Targeted interventions can empower investors to make informed decisions, fostering a more equitable investment landscape.

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