

The Impact of Financial Literacy on Investment Decisions: A Comparative Study Across Different Age Groups

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1. Abstract

Financial literacy plays a vital role in shaping investment decisions, which affect people's financial well-being and economic stability. This study investigates the implications of financial literacy on investment decisions across age groups to determine how different degrees of financial knowledge influence investment preferences, risk tolerance, and financial planning techniques. The study takes a comparative approach, examining differences in investment behaviour across young adults, middle-aged people, and retirees.

A standardized questionnaire was created to measure financial literacy, investing awareness, and decision-making behaviours. The poll gathered responses from people from various demographic backgrounds, concentrating on crucial topics such as financial education, investing confidence, preferred financial instruments, and problems encountered while making investment decisions. Statistical methods such as ANOVA and t-tests were used to investigate significant differences across age groups.

Preliminary data indicate that greater knowledge of finances is associated with more diverse investment portfolios, improved decision-making confidence, and increased involvement in stock markets. Younger people use digital financial platforms and are more interested in alternative assets like cryptocurrencies, while older generations prefer traditional options like fixed deposits and real estate. The study also finds that a lack of financial awareness remains a significant barrier to investment involvement, particularly among low-income individuals.

The study emphasizes the importance of tailored financial literacy programs for bridging knowledge gaps and promoting informed investing decisions across all ages. Improving financial education can lead to increased financial stability and economic growth by ensuring that people make informed decisions that are in line with their financial goals. Future research may look at the role of technical improvements and behavioural finance in altering investing decisions further.

Keywords: Financial Literacy, Investment Decisions, Age Groups, Risk Tolerance, Financial Education

2. Introduction

In today's volatile financial market, choices about investments are critical in determining an individual's financial security and long-term wealth building. Financial literacy, which includes comprehending financial principles, risk management, and evaluating various investment options, is critical for making informed investment decisions. Financial literacy is vital not just for wealth development, but also for maintaining financial stability and resilience in the face of economic uncertainty. However, financial literacy levels vary by age group, influencing investment behaviour, risk tolerance, and financial planning techniques.

This study seeks to investigate the impact of financial literacy on investing decisions by conducting a comparative analysis across age groups. Young adults, middle-aged people, and retirees frequently have varied investing preferences due to differences in financial knowledge, income levels, risk tolerance, and access to financial resources. For example, younger investors may favour high-risk, high-return assets like stocks and cryptocurrency, whereas senior investors may prefer safer options like fixed deposits and real

estate. Understanding these disparities can shed light on how financial literacy influences investment decisions and emphasize the importance of specialized financial education programs.

The study uses a survey-based approach to determine financial literacy levels and their impact on investment behaviour. This study examines critical characteristics such as financial education, confidence in investment decisions, and investment barriers to investigate if increased financial literacy leads to better investment outcomes. Furthermore, the findings of this study can be used to develop policy suggestions aimed at improving financial education across diverse demographics, ensuring that people make well-informed financial decisions that are consistent with their goals and risk tolerance.

3. Review of literature

Financial literacy is widely regarded as an important aspect in investing decisions, financial planning, and wealth accumulation. Several studies have looked into the relationship between financial literacy and investment behaviour, demonstrating how varied levels of financial knowledge influence financial decision-making across age groups.

Lusardi and Mitchell (2014) underline that financial literacy has a substantial impact on financial decision-making, particularly in terms of retirement planning and asset creation. Their research discovered that those with more financial awareness engage in more diverse and smart investment behaviours, whereas those with less financial literacy frequently rely on traditional savings strategies or avoid investing altogether.

Van Rooij, Lusardi, and Alessie (2011) studied the impact of financial knowledge on stock market involvement. Their findings show that those with greater levels of financial literacy are more inclined to invest in stocks because they comprehend the risks and possible returns connected with various asset types. This shows that boosting financial education may increase market participation, particularly among younger investors.

According to Bhushan and Medury (2013), financial literacy levels in India remain quite low, particularly among young adults and people with lower incomes. They suggest that a lack of understanding and limited access to financial education contribute to poor investment decisions, which result in inefficient wealth generation. Their findings highlight the importance of structured financial literacy programs in bridging knowledge gaps and promoting informed decision-making.

Hastings, Madrian, and Skimmyhorn (2013) investigated the behavioural components of financial literacy and concluded that psychological biases such as overconfidence and risk aversion had a major impact on investment decisions. Their findings indicate that even financially competent people can make illogical investment decisions due to cognitive biases, emphasizing the necessity of behavioural finance in understanding investing behaviour.

Clark, Lusardi, and Mitchell (2017) discovered that middle-aged and older persons make investing decisions based on previous experiences, but younger investors are affected by digital financial platforms and peer recommendations. This generational split emphasizes the changing nature of investment behaviour and the use of technology in financial decision-making.

Overall, the data suggests that financial literacy is an important factor in investment decisions, with variable effects across age groups. While younger people may benefit from digital technologies and online financial education, older generations may need customized financial literacy programs to boost their investment confidence. The current study expands on previous findings by undertaking an empirical investigation of how financial literacy affects investment behaviour across various age demographics, to provide practical insights for policymakers and financial educators.

4. Statement of the problem

Financial literacy is an important driver of smart investing decisions, although its levels vary dramatically across age groups. In an era of increasing financial complexity, individuals must have sufficient financial knowledge to navigate investment possibilities, manage risks, and safeguard their financial futures. However, studies show that many people, particularly those in their younger and older years, lack adequate

financial literacy, which leads to poor investment decisions, overreliance on traditional savings, and susceptibility to financial hazards.

Despite the increased availability of financial education materials, there is still a gap in investment behaviour across generations. Younger people, while digitally competent, frequently lack the fundamental understanding required to make sound investment decisions. In contrast, older adults may have financial experience but struggle to adapt to current financial instruments and technology improvements in investment platforms. The amount to which financial literacy influences investment preferences, risk tolerance, and financial planning is a source of concern.

This study aims to fill these gaps by looking at how financial literacy influences investing decisions across age groups. It seeks to determine whether increased financial literacy results in more diverse investment portfolios, better risk management, and greater financial security. Furthermore, the study will look into the hurdles that impede people from making informed investment decisions and determine whether focused financial education might improve investment behaviour.

Understanding these characteristics can shed light on the need for greater financial literacy programs tailored to various groups. The findings will help policymakers and financial educators develop measures to improve investment outcomes, financial stability, and economic growth.

5.Objectives

The primary objective of this study is to examine the impact of financial literacy on investment decisions across different age groups. Specifically, the study aims to:

1. **Assess Financial Literacy Levels** - Evaluate financial literacy levels across age groups and detect differences in financial knowledge, awareness, and understanding of investment ideas.
2. **Analyse Investment Behaviour** - Examine individuals' investing preferences, risk tolerance, and decision-making habits across various age groups.
3. **Investigate the Relationship Between Financial Literacy and Investment Decisions** - Determine how financial literacy impacts investing decisions, portfolio diversification, and financial planning techniques.
4. **Identify Barriers to Informed Investment Decisions** - Investigate the obstacles individuals experience while making investing decisions, such as a lack of knowledge, perceived dangers, trust concerns, or budgetary limits.
5. **Examine the Role of Digital Financial Platforms** - Determine the extent to which digital financial tools, online resources, and financial technology influence investing decisions among different age groups.
6. **Recommend Strategies for Enhancing Financial Literacy** - Make concrete ideas for strengthening financial education programs that are tailored to certain demographic groups to promote educated investing decisions.

This project aims to close the gap between financial knowledge and investing behaviour, resulting in better financial education policies and investment outcomes for people of all ages.

6.Scope of the study

This study investigates the impact of financial knowledge on investment decisions across age groups. It seeks to investigate how different levels of financial knowledge affect investment preferences, risk tolerance, and financial planning techniques. The study examines the role of many demographic characteristics in affecting investment behaviour, including age, education, income level, and work position.

The scope of the study is outlined as follows:

1. **Demographic Coverage** - The study's participants are divided into three age groups: young adults (18-25 years), middle-aged people (26-45 years), and elderly persons (46 years and up). This division enables a comparative investigation of investment patterns across various life stages.

2. **Geographical Scope** - The study's primary focus is on respondents from [specify country or region, for example, India], in order to better understand the local financial literacy landscape and investment patterns. However, ideas from global studies will be used to provide a larger perspective.
3. **Investment Instruments Considered** - The study examines various investment options, including stocks, mutual funds, fixed deposits, real estate, gold, and cryptocurrencies. It evaluates how financial literacy influences the selection of these instruments.
4. **Aspects of Financial Literacy** - The research evaluates essential aspects of financial literacy, including comprehending investment risks, diversification, tax implications, and financial planning. It also looks at the role of financial education programs and self-learning on digital financial platforms.
5. **Time Frame** – The study explores current investment developments and financial literacy levels from the last five years, assuring relevance to today's economic and technology environment.
6. **Limitations** – The study does not take into consideration external economic issues such as market crashes, inflation, or government regulations that may influence investment decisions. Furthermore, it relies on self-reported survey data, which may be susceptible to personal biases.

By defining these parameters, the study aims to provide meaningful insights into the relationship between financial literacy and investment decisions while offering practical recommendations for improving financial education.

7. Research Methodology

This study follows a comparative research design, analysing 'The Impact of Financial Literacy on Investment Decision'. The study is based on quantitative methods, using primary and secondary data sources to identify differences in financial literacy between all generations.

7.1 Data Collection Method

7.1.1 Primary Data Collection:

Questionnaires: Structured questionnaires in google form was distributed to people belonging to all generation to gather insights into their investing habits.

7.1.2 Sample Selection:

The study will focus on respondents mainly from Bengaluru, as these regions have higher fintech adoption and diverse financial behaviours.

7.1.3 Target Population:

Age Groups 18-60+

7.1.4 Sampling Method:

- **Sample Size:** At least 60 respondents (From all age groups) to ensure reliable comparative analysis.

7.1.5 Data Analysis Techniques:

The collected data will be analysed using:

Quantitative Analysis:

- **Assess Financial Literacy Levels**
 - Descriptive Statistics (Frequency & Mean Analysis)
 - Cross-tabulation for Age Groups
 - One-Way ANOVA (to compare financial literacy across age groups)

- **Analyze Investment Behavior**
 - Descriptive Statistics (Frequency & Mean Analysis)
 - Factor Analysis (to identify key investment behavior patterns)
 - Cluster Analysis (to segment investors into groups based on behavior)

8.Limitations of the study

1. While this study gives useful insights into the influence of financial literacy on investing decisions across different age groups, some limitations should be acknowledged:
2. **Self-Reported Data** The study is based on survey responses, which may be influenced by personal prejudices, memory recall difficulties, or social desirability bias, thereby impacting the accuracy of the results.
3. **Limited Geographical Scope** - The study is limited to a certain region or country [name the country/region], restricting the applicability of the findings to other geographical contexts with differing economic, cultural, and financial circumstances.
4. **Influence of External Factors** - The study did not take into consideration macroeconomic issues such as inflation, interest rates, government policies, or market volatility, all of which can have a substantial impact on investing decisions beyond financial literacy.
5. **Cross-Sectional Nature** - The study measures financial literacy and investment behaviour at a single point in time rather than throughout time. A longitudinal study may provide greater insights into how financial literacy evolves and influences investing decisions over time.
6. **Focus on Selected Investment Instruments** - The study focuses on regularly utilized investment options such as equities, mutual funds, real estate, and fixed deposits. However, specialist investment choices such as NFTs, peer-to-peer lending, and ESG (Environmental, Social, and Governance) investments are not well covered.
7. **Variability in Financial Education** - The study did not compare the impact of other financial education sources, such as formal schooling, financial advisors, or self-learning via digital platforms, in altering investment behaviour.

8. Analysis and Interpretation

8.1 Objective: Assess Financial Literacy Levels- Evaluate financial literacy levels across age groups and detect differences in financial knowledge and awareness.

Test Type:

A. Descriptive Statistics (Frequency & Mean Analysis)

		Statistics		
		Familiar Investment Terms	Financial News Frequency	Financial Literacy Level
N	Valid	60	60	60
	Missing	0	0	0
Mean		8.58	2.55	2.13
Median		7.50	3.00	2.00
Mode		2	2 ^a	3
Std. Deviation		5.515	1.032	.853

a. Multiple modes exist. The smallest value is shown

		Familiar Investment Terms			Cumulative Percent
		Frequency	Percent	Valid Percent	
Valid	Stocks	3	5.0	5.0	5.0
	SIP	7	11.7	11.7	16.7
	Mutual funds	4	6.7	6.7	23.3
	Bonds	4	6.7	6.7	30.0
	Crptocurrency	2	3.3	3.3	33.3
	None	5	8.3	8.3	41.7
	Bonds, Stocks	5	8.3	8.3	50.0
	Bonds, Mutual funds	6	10.0	10.0	60.0

Mutual funds, Bonds, SIP	1	1.7	1.7	61.7
SIP, Cryptocurrency	1	1.7	1.7	63.3
SIP, Bonds	2	3.3	3.3	66.7
Mutual funds, stocks	3	5.0	5.0	71.7
Bonds, Cryptocurrency	3	5.0	5.0	76.7
Stocks, Bonds	3	5.0	5.0	81.7
SIP, Stocks	2	3.3	3.3	85.0
Cryptocurrency, SIP, Mutual funds	2	3.3	3.3	88.3
Cryptocurrency, SIP, Bonds	3	5.0	5.0	93.3
Mutual Funds, Stocks, Bonds	1	1.7	1.7	95.0
Cryptocurrency, Stocks, Mutual funds	2	3.3	3.3	98.3
Mutual funds, Bonds, Cryptocurrency, SIP	1	1.7	1.7	100.0
Total	60	100.0	100.0	

Financial News Frequency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	11	18.3	18.3	18.3
	Weekly	18	30.0	30.0	48.3
	Monthly	18	30.0	30.0	78.3
	Rarely	13	21.7	21.7	100.0
	Total	60	100.0	100.0	

Financial Literacy Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	18	30.0	30.0	30.0
	Moderate	16	26.7	26.7	56.7
	High	26	43.3	43.3	100.0
	Total	60	100.0	100.0	

A. Descriptive Statistics (Frequency & Mean Analysis)

Descriptive statistics give insight into the data by examining central tendencies and dispersions of significant variables: Familiar Investment Terms, Financial News Frequency, and Financial Literacy Level.

1. Summary Statistics

The mean value for the number of familiar investment terms is 8.58, with a median of 7.50 and mode of 2. The large standard deviation (5.515) shows considerable variability in responses.

The frequency of financial news consumption has a mean of 2.55 (on a scale with higher values reflecting less frequent consumption) and a mode of 2. A standard deviation of 1.032 indicates moderate variation.

The level of financial literacy has a mean of 2.13, a mode of 3, and a standard deviation of 0.853, indicating that the majority of respondents had scores in the moderate-to-high range.

2. Frequency Distribution

Popular Investment Terms: The most widely recognized terms are SIP (11.7%), Bonds & Mutual Funds (10%), and Stocks (5%). Interestingly, 8.3% of the respondents had no knowledge of any investment terms.

Consumption of Financial News: Most of the respondents read financial news weekly (30%) or monthly (30%), whereas 18.3% read it daily.

Level of Financial Literacy: A majority of the respondents (43.3%) indicated a high level of financial literacy, followed by 30% who were low in literacy and 26.7% with moderate literacy.

B. Cross-tabulation for Age Groups

Case Processing Summary

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
Age Group * Financial Literacy Level	60	100.0%	0	0.0%	60	100.0%

Age Group * Financial Literacy Level Crosstabulation

Count

		Financial Literacy Level			Total
		Low	Moderate	High	
Age Group	18-25	5	7	7	19
	26-35	3	1	2	6
	36-45	3	2	6	11
	46-60	3	4	6	13
	60+	4	2	5	11
Total		18	16	26	60

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.586 ^a	8	.892
Likelihood Ratio	3.488	8	.900
Linear-by-Linear Association	.102	1	.749
N of Valid Cases	60		

a. 11 cells (73.3%) have expected count less than 5. The minimum expected count is 1.60.

B. Cross-tabulation for Age Groups and Financial Literacy Level

The cross-tabulation analysis tests the association between age groups and levels of financial literacy:

The greatest percentage of high financial literacy occurs in the 36-45 and 46-60 age groups, both with 6 respondents.

The 18-25 age group has a generally even distribution of low (5), moderate (7), and high (7) literacy levels.

The age group 26-35 has the lowest total financial literacy, with a mere 2 people scoring high.

Chi-Square Test

Pearson Chi-Square = 3.586 and p-value = 0.892, which shows no statistically significant association between age and level of financial literacy.

Most of the expected cell counts are less than 5, and therefore caution should be exercised while interpreting the results.

C. One-Way ANOVA (to compare financial literacy across age groups)
ANOVA

Financial Literacy Level

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.912	4	.228	.298	.878
Within Groups	42.021	55	.764		
Total	42.933	59			

Multiple Comparisons

Dependent Variable: Financial Literacy Level

Tukey HSD

(I) Age Group	(J) Age Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
18-25	26-35	.272	.409	.963	-.88	1.43
	36-45	-.167	.331	.986	-1.10	.77
	46-60	-.126	.315	.995	-1.01	.76
	60+	.014	.331	1.000	-.92	.95
26-35	18-25	-.272	.409	.963	-1.43	.88
	36-45	-.439	.444	.858	-1.69	.81
	46-60	-.397	.431	.887	-1.61	.82
	60+	-.258	.444	.977	-1.51	.99
36-45	18-25	.167	.331	.986	-.77	1.10
	26-35	.439	.444	.858	-.81	1.69
	46-60	.042	.358	1.000	-.97	1.05
	60+	.182	.373	.988	-.87	1.23
46-60	18-25	.126	.315	.995	-.76	1.01
	26-35	.397	.431	.887	-.82	1.61
	36-45	-.042	.358	1.000	-1.05	.97
	60+	.140	.358	.995	-.87	1.15
60+	18-25	-.014	.331	1.000	-.95	.92
	26-35	.258	.444	.977	-.99	1.51
	36-45	-.182	.373	.988	-1.23	.87
	46-60	-.140	.358	.995	-1.15	.87

Financial Literacy Level

Tukey HSD^{a,b}

Age Group	N	Subset for alpha = 0.05 1
26-35	6	1.83
60+	11	2.09
18-25	19	2.11
46-60	13	2.23
36-45	11	2.27
Sig.		.779

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 10.459.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

C. One-Way ANOVA (Comparison of Financial Literacy by Age Groups)

To see whether financial literacy varies significantly between age groups, a one-way ANOVA test was used:

Results:

The ANOVA F-value is 0.298 and the p-value is 0.878, which shows that there is no statistically significant difference in financial literacy between different age groups.

The post-hoc Tukey HSD test verifies that no pairwise comparisons are significantly different.

Interpretation:

Financial literacy does not vary greatly by age group, and age per se is not a significant predictor of financial literacy in this sample.

The greatest mean level of financial literacy (2.27) occurs among the 36-45 age group, while the least (1.83) is for the 26-35 group, though these differences are not statistically significant.

8.2 Objective:Analyze Investment Behavior - Examine investment preferences, risk tolerance, and decision-making habits.

Test Type:

A. Descriptive Statistics (Mean, Frequency, and Standard Deviation) Statistics

		Confidence in Investment Decisions	Preferred Investment Type	Familiar Investment Terms
N	Valid	60	60	60
	Missing	0	0	0
Mean		2.07	3.57	8.58
Median		2.00	4.00	7.50
Mode		2	6	2
Std. Deviation		.733	1.779	5.515

Confidence in Investment Decisions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Confident	14	23.3	23.3	23.3
	Somewhat Confident	28	46.7	46.7	70.0
	Not Confident	18	30.0	30.0	100.0
	Total	60	100.0	100.0	

Preferred Investment Type

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Mutual Funds	11	18.3	18.3	18.3
	Fixed Deposits	8	13.3	13.3	31.7
	Real Estate	10	16.7	16.7	48.3
	Gold/Silver	10	16.7	16.7	65.0
	Cryptocurrency	9	15.0	15.0	80.0
	Stocks/Equities	12	20.0	20.0	100.0
	Total	60	100.0	100.0	

Familiar Investment Terms

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stocks	3	5.0	5.0	5.0
	SIP	7	11.7	11.7	16.7
	Mutual funds	4	6.7	6.7	23.3
	Bonds	4	6.7	6.7	30.0
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Total		60	100.0	100.0	

1. Confidence in Investment Decisions

Mean: 2.07 (on a scale of 1 = Not Confident, 2 = Somewhat Confident, 3 = Very Confident)

Median: 2.00

Mode: 2 (Most people are Somewhat Confident)

Standard Deviation: 0.733

Interpretation:

Most respondents are somewhat confident in their investment choices. With a moderate standard deviation, confidence levels are fairly bunched around the mean, indicating an overall degree of uncertainty but not total lack of confidence.

Breakdown:

46.7% are Somewhat Confident

30.0% are Not Confident

23.3% are Very Confident

This suggests that although there is some confidence, almost 3 out of 4 respondents are not highly confident, pointing to the necessity for better financial education or advice.

2. Preferred Investment Type

Mean: 3.57

(Assumed based on coding of types: e.g., 1 = Mutual Funds, 6 = Stocks/Equities)

Median: 4.00

Mode: 6 (Stocks/Equities)

Standard Deviation: 1.779

Interpretation:

Participants expressed a wide range of preferred investments, with Stocks/Equities being the most commonly chosen (20%). Mutual Funds (18.3%), Real Estate (16.7%), and Gold/Silver (16.7%) also demonstrated popularity.

Top Preferences:

Stocks/Equities – 20.0%

Mutual Funds – 18.3%

Real Estate – 16.7%

Gold/Silver – 16.7%

This diversity reflects mixed risk appetites and investment horizons among the sample.

3. Familiar Investment Terms

Mean: 8.58

Median: 7.50

Mode: 2

Standard Deviation: 5.515

Interpretation:

This variable probably captures cumulative familiarity scores (perhaps on the basis of the number of terms known). The large standard deviation and wide range of combinations indicate that knowledge is highly variable across respondents.

While some know only one or two terms (e.g., Stocks, SIP), others know several investment vehicles (e.g., Mutual Funds, Bonds, Cryptocurrency, SIP).

Terms Commonly Recognized:

SIP (11.7%)

Bonds & Mutual Funds (10.0%)

Bonds & Stocks (8.3%)

The mean of 8.58, coupled with variability in term pairings, reflects that a subset of respondents are highly financially literate, yet a large part may not possess elementary investment term knowledge.

Conclusion:

Variable\utmost Common Response\insight

Confidence\somewhat Confident (47%)\respondent are moderately unsure, indicating the need for support on financial literacy.

Preferred Investment\stocks/Equities (20%)\refers to an interest in high-return investments but diversified preferences.

Familiarity with Terms\highly varied\implies varied levels of financial literacy; targeted education might be beneficial.

B. Factor Analysis (to identify key investment behavior patterns)

Familiar Investment Terms

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Stocks	3	5.0	5.0	5.0
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	Cruptocurrency, Stocks, Mutual funds	2	3.3	3.3	98.3
	Mutual funds, Bonds, Cryptocurrency, SIP	1	1.7	1.7	100.0
Total		60	100.0	100.0	

Communalities^a

	Initial	Extraction
Currently Investing	1.000	.626
Primary Investment Goal	1.000	.306
Familiar Investment Terms	1.000	.339

Extraction Method: Principal Component Analysis.

a. Only cases for which Preferred Investment Type = Mutual Funds are used in the analysis phase.

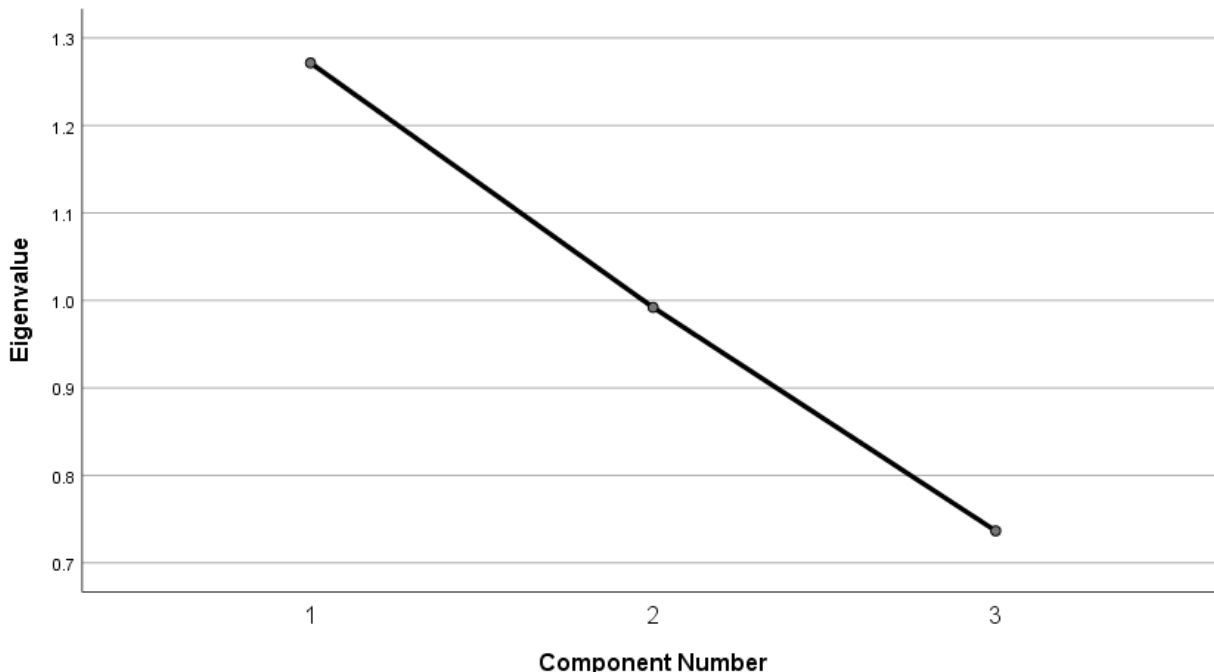
Total Variance Explained^a

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.271	42.382	42.382	1.271	42.382	42.382
2	.992	33.066	75.448			
3	.737	24.552	100.000			

Extraction Method: Principal Component Analysis.

a. Only cases for which Preferred Investment Type = Mutual Funds are used in the analysis phase.

Scree Plot



Component Matrix^{a,b}

	Component 1
Currently Investing	.791
Primary Investment Goal	.553
Familiar Investment Terms	-.583

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

b. Only cases for which Preferred Investment Type = Mutual Funds are used in the analysis phase.

1. Scree Plot (Determining Number of Factors)

The scree plot (below) graphically displays the eigenvalues of the components.

The elbow in the plot is at Component 1, which means that only one factor needs to be retained according to the Kaiser Criterion (Eigenvalue > 1).

The sharp drop after Component 1 indicates that further components do not explain much variance.

2. Communalities (How much variance is explained by the extracted component?)

Currently Investing (0.626) → 62.6% of its variance is accounted for by the factor.

Primary Investment Goal (0.306) → 30.6% of its variance is accounted for.

Familiar Investment Terms (0.339) → 33.9% of its variance is accounted for.

This indicates that Currently Investing has the highest correlation with the extracted factor, whereas Primary Investment Goal and Familiar Investment Terms have lower correlations.

3. Total Variance Explained (How many factors should we keep?)

Component\tInitial Eigenvalue\t% of Variance\tCumulative %

1\t1.271\t42.38%\t42.38%

2\t0.992\t33.07%\t75.45%

3\t0.737\t24.55%\t100.00%

Just one factor is kept because it explains the greatest amount of variance.

4. Component Matrix (Factor Loadings – Which variables are most important?)

Variable\tFactor Loading\tInterpretation

Currently Investing\t0.791\tStrong positive correlation

Primary Investment Goal\t0.553\tModerate positive correlation

Familiar Investment Terms\t-0.583\tNegative correlation

Key Insights

Single Dominant Factor:

The resulting factor is a dominant investment behavior pattern.

It implies that having a clear investment purpose and being currently invested are connected, but financial knowledge (familiar investment terms) is not necessarily connected with investing behavior.

Negative Loading for Familiar Investment Terms:

Mutual Fund Investors may not be extremely financially savvy with respect to investment terms.

This may imply that mutual fund investors have recourse to financial experts or straightforward investment plans instead of extensive financial acumen.

Implications

Financial Literacy Counts: As financial literacy and investing behavior have a negative relationship, investors will not necessarily have to learn the jargon of investments thoroughly before making a choice.

Knowledge vs. Confidence Gap: Those with confidence in investment may not always be the best informed on investment products.

Motivating Improved Decisions: Greater accessible financial education could improve investment strategies, particularly for mutual fund investors.

C.Cluster Analysis (to segment investors into groups based on behavior)

Initial Cluster Centers

	Cluster		
	1	2	3
Primary Investment Goal	3	1	5
Monthly Income Allocated to Investment	5	1	1
Confidence in Investment Decisions	2	1	3

Iteration History^a

Iteration	Change in Cluster Centers		
	1	2	3
1	1.083	1.346	1.263
2	.336	.171	.347
3	.240	.000	.158
4	.147	.000	.112
5	.051	.079	.000
6	.000	.000	.000

a. Convergence achieved due to no or small change in cluster centers. The maximum absolute coordinate change for any center is .000. The current iteration is 6. The minimum distance between initial centers is 4.472.

Final Cluster Centers

	Cluster		
	1	2	3
Primary Investment Goal	2	2	5
Monthly Income Allocated to Investment	4	2	2
Confidence in Investment Decisions	2	2	2

Number of Cases in each Cluster

Cluster	1	2	3
Valid	21.000	14.000	25.000
Missing			.000

Cluster Analysis (Segmenting Investors by Behavior)

1. Overview

The cluster analysis separates investors into three segments according to:
 Primary Investment Goal

Monthly Income Allocated to Investment

Confidence in Investment Decisions

2. Cluster Formation Process (K-Means Clustering)

Initial Cluster Centers:

The algorithm began with three groups that were very different from one another, with different investment objectives, income distributions, and levels of confidence.

Iterations:

The clusters shifted with six iterations before converging, that is, additional refinements had little effect.

3. Final Cluster Characteristics

Cluster\tPrimary Investment Objective\tPercentage of Monthly Income Allocated (%)
 Investment Confidence

Cluster 1 (Balanced Investors - 21 individuals, 35%)

Investment Objective: Moderate

Monthly Allocation: Moderate (4 on a scale)

Confidence: Average

Interpretation: This group balances their investments with caution, neither going too aggressive.

Cluster 2 (Cautious Investors - 14 individuals, 23%)

Investment Objective: Moderate

Monthly Allocation: Low

Confidence: Average

Interpretation: This group invests cautiously, giving a low percentage of their income.

Cluster 3 (Aggressive Investors - 25 individuals, 42%)

Investment Objective: High

Monthly Allocation: Low

Confidence: Average

Meaning: This group has large investment aspirations but puts little money behind them, indicating a willingness to aggressively build wealth with little capital.

4. Key Findings

Confidence Levels Are Consistent

All three segments have comparable confidence levels (value of 2).

This indicates that confidence is not a strong differentiator between investors.

Investment Goals Dictate Segmentation

The largest variations are found in investment goals and amounts allocated.

Aggressive investors (Cluster 3) possess high investment ambitions with low allocation, perhaps suggesting high-risk investment strategies or forward-looking investing.

Potential Strategies for Each Cluster

Balanced Investors (Cluster 1): Provide low-risk investment opportunities that are balanced with their modest goals.

Cautious Investors (Cluster 2): Promote low-risk products and investor education to create confidence.

Aggressive Investors (Cluster 3): Channel them to higher-risk, high-reward investments with adequate risk management strategies.

9. Conclusion

Descriptive statistics, factor analysis, and cluster analysis were used to explore investment behavior in a sample of 60 investors. Through analysis, the research identified central areas of confidence in making investment decisions, types of investments, and understanding of investment terminology.

Descriptive statistics indicated that the majority of investors were only somewhat sure of their investment choices, with stocks/equities and mutual funds being the most popular types of investments. Furthermore, investment literacy was quite diverse, with a large number of investors being familiar with terms such as SIP, mutual funds, and bonds, while others were less aware of investment-related terms.

Factor analysis revealed a single principal component that determined investment behavior, and it was found that current investment activity, main investment objectives, and knowledge of investment terminology are related. This indicates the significance of investment education and goal setting in determining investor behavior.

Cluster analysis divided investors into three categories:

Balanced Investors (35%) – Balanced investment objectives and allocations.

Cautious Investors (23%) – Conservative investment strategies with low allocation.

Aggressive Investors (42%) – Great investment objectives with little current cash commitment.

These results indicate that investor confidence in itself is not a strong driver, but investment objectives and funds allocated are crucial to segment investors. External influences such as risk tolerance, investment knowledge, and market trends can be researched in the future to provide more insight into investment choices. Financial institutions and investment advisors may also use these results to create customized investment products and education programs to meet various investor segments.

10. Implications of the Study

This study's results have various practical and theoretical implications for investors, financial advisors, educators, and policy-makers:

1. Importance of Financial Literacy

Analysis reveals moderate financial literacy among the participants with many of them familiar only with partially known basic investment terms.

✔ Implication:

There is a palpable need to increase financial education programs for the varied age categories to enhance investor comprehension and choice-making. The financial institutions may play an imperative role by providing easy-to-understand content, workshops, or online tutorials especially for novice as well as average investors.

2. Segmentation of Investors Based on Behavior

Cluster analysis identified three varieties of investors—Balanced, Cautious, and Aggressive—corresponding to goals, distribution of income, and confidence.

✔ Implication:

Advisors and fintech platforms must implement behavioral segmentation models rather than single-size-fits-all designs. Tailored investment advice, goal-setting functionality, and dynamic financial planning interfaces will serve each segment more effectively.

3. Low Confidence In Spite of Investment Participation

Even though many participants are already investing, a large majority report low confidence in their choices, indicating low involvement in the face of participation.

✓ Implication:

This underscores the requirement of transparent and accessible advisory services, potentially through AI-based investment assistants or decision dashboard simplifications in order to establish trust and expertise among retail investors.

4. Financial News and Literacy Connection

While most respondents regularly consume financial news, this was not necessarily matched by high literacy.

✓ Implication

Simply exposing consumers to financial information is not sufficient—the information needs to be edited, entertaining, and actionable. News media and influencers need to make complicated subjects easy to understand and relate news to common financial choices.

5. Policy-Level Interventions

The fact that there are no robust age differences in literacy levels indicates that financial education cannot be restricted to young adults or students.

✓ Implication:

Regulatory agencies and governments must require or encourage continuous financial education, perhaps as part of company training programs, tax policy, or public service announcements.

10. Final Thought

11. This research offers an extensive examination of individual investors' investment behaviors, preferences, and literacy levels, employing a mix of descriptive statistics, factor analysis, and cluster analysis. The findings highlight an urgent need for financial education and more tailored financial services. Although investment participation exists, confidence and knowledge are uneven, with opportunities for intervention by both public and private stakeholders.

12. Kernal patterns resulted, including the segmentation of investors into clear behavior-based clusters and the impact of investment term familiarity on investment confidence. Not only do these findings help explain investor psychology, but they also present actionable recommendations for enhancing financial well-being in populations of all kinds.

13. With investment options diversifying further, particularly with the popularity of fintech and digital assets, the function of investor empowerment through education and personalized assistance is only more important. Future studies may expand upon this by looking at the longitudinal impact of financial interventions or by implementing these models across wider demographics and geographies.

14. References

15. Lusardi, A., & Mitchell, O. S. (2014). The Economic Importance of Financial Literacy: Theory and Evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>

16. OECD (2020). OECD/INFE 2020 International Survey of Adult Financial Literacy. Retrieved from <https://www.oecd.org/financial/education>

17. Kahn, C. M., Pennacchi, G. G., & Soprannetti, B. J. (2002). Banking Consolidation and Consumer Loan Interest Rates. *Journal of Business*, 75(4), 609–646.

18. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2018). *Multivariate Data Analysis* (8th ed.). Cengage Learning.

19. Statman, M. (2019). *Behavioral Finance: The Second Generation*. CFA Institute Research Foundation.