

Determination of Factors Affecting Individual Investor Behaviors: A Study on Private Employees.

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ABSTRACT

Introduction: Private-sector workers' investment behavior is influenced by factors such as education, income, age, employment, psychological issues, and socio-economic status. Private employees tend to be more conservative in their investment decisions due to irregular income patterns, employment instability, and limited retirement benefits. Behavioral biases like overconfidence and herd mentality also play a role in investment decisions, as they may avoid speculative investments and focus on short-term goals.

Objectives: This research seeks to explore the determinants of investment decision making of private sector employees in Ahmedabad, which includes the impact of financial literacy on investment practice, risk tolerance and its influence on investment decision making, and the cognitive behavioral influences on investment decisions.

Methods: This research employed a quantitative research design, gathering data from 500 private sector workers in Ahmadabad through a structured questionnaire. The questionnaire captured demographic data, financial literacy, risk tolerance, and behavioral biases. The data was analyzed with multiple regression and factor analysis.

Results: The study analyzed the respondents' demographic profile and investment behavior using descriptive statistics, inferential statistics, correlation, and multiple regression analyses. Results indicated that there was a strong association between financial literacy, risk tolerance, and behavioral biases and more proactive investment behavior resulting from higher levels of these factors. The coefficients for some of the behavioral biases were negative, suggesting a negative impact on investment decisions. The regression analysis of investment depicted a significant link between the amount of income by respondents and investment, with total income, age, and gender's effect on investment being through the regression equation $\text{Investment} = (-) 1.105 \text{ lakhs} + 0.219 (\text{amount of income}) + 0.011 (\text{age}) + 0.321 (\text{gender})$. Factor analysis was performed to verify the appropriateness of the data for factor analysis through the use of KMO estimates as well as through Bartlett's test of sphericity. The study concluded that factors like safety, security, liquidity, tax benefit, good returns and stable income, knowledge of finance, risk tolerance, and behavioral biases are major determinants of investment choices.

Conclusions: The research points out the role of financial literacy and risk tolerance in shaping investment attitudes among private sector workers. The research recommends that financial education interventions be implemented to enhance decision-making skills. Criteria affecting investment choice are stability, growth, hazard, and ease. The research also emphasizes minimizing behavioral biases like overconfidence and herding in order to avert suboptimal investment choices.

Keywords: Investment Behavior, Financial Literacy, Risk Tolerance, Behavioral Biases, Private Sector Employees

INTRODUCTION

Investment Behavior on the Individual Level among Private-Sector Workers Understanding this behavior forms part of personal financial management, as it directly impacts the creation of wealth and a person's financial security over time. Investment is an integral part of an employee's life considering the irregular income patterns, employment instability, and limited retirement benefits associated with private employment compared to public jobs.

The individual's investment decision is determined by various factors including, levels of education, income, age, employment, psychological issues, and socio-economical status. Private employees are prone to a more conservative approach in making investments because they lack guaranteed pensions and their income prospects are not stable. On the hand, the need to offset low employment filled instability and increased exposure to financial risk.

There is no doubt that the broader understanding and education of finance influences investment decision-making. Speculative investments, short-term goals, and the mid to long-term measure are unlikely to be considered by those who have cadduriers. Meanwhile, decision making as well as the entire investment process is influenced by behavioral biases such as overconfidence, herd mentality, and fear of being succesful with aversion to loss.

LITERATURE REVIEW

Financial Literacy and Investment Decisions Adil, Singh, and Ansari (2022) noted that financial literacy can moderate the connection between behavioral biases and investment decisions, meaning that higher financial understanding results in wiser choices.

Banthia and Dey (2022) reported that the combination of financial knowledge, attitude, and behavior defines financial literacy and directly affects the investment preferences of individuals. Again, financial literacy is fundamental in determining the decision of investors.

Behavioral Biases and Risk Tolerance Pangaribuan and Bertuah (2022) studied private employees in Jabodetabek and found that overconfidence and regret aversion biases greatly impact investment decision-making. Putri and Hikmah (2022) also discuss risk tolerance, stating that those who have a higher tolerance for risks are likelier to invest in equities. Behavioral finance theories postulate that biases derived from reasoning impact the choice of investments.

Demographic and Psychological Influences Asdar et al. (2022) identified that financial behavior alongside income affects the willingness of private employees to invest in different financial instruments.

Kusawat and Rompho (2023) studied the impact of personal traits on financial performance and found that higher financial knowledge enables individuals to perform better financially.

OBJECTIVES

The primary objective of this study is to identify and analyze the factors influencing investment decisions among private sector employees in Ahmedabad. Specifically, the study aims to:

1. Assess the impact of financial literacy on investment behavior.
2. Evaluate the role of risk tolerance in shaping investment decisions.
3. Examine the influence of behavioral biases on investment choices.

METHODS

A quantitative research design was employed for this study. Data were collected through a structured questionnaire distributed to 500 private sector employees in Ahmadabad, selected using stratified random sampling to ensure representation across various industries and job levels. The questionnaire comprised sections on demographic information, financial literacy assessment, risk tolerance evaluation, and behavioral biases measurement. Responses were measured using a five-point Likert scale. Data that was gathered was tested with the help of

statistical instruments like multiple regression analysis and factor analysis. The Cronbach alpha test was utilized to check data reliability, which has provided a result of 0.780.

RESULTS

The collected data were analyzed using descriptive statistics to summarize the demographic profile of respondents and their investment behaviors. Inferential statistics, including correlation and multiple regression analyses, were conducted to examine the relationships between financial literacy, risk tolerance, behavioral biases, and investment decisions.

Regression Analysis

A multiple regression analysis was performed with investment decision as the dependent variable and financial literacy, risk tolerance, and behavioral biases as independent variables. The regression model was statistically significant ($p < 0.05$), indicating a strong relationship between the independent variables and investment decisions. Financial literacy and risk tolerance had positive coefficients, suggesting that higher levels of these factors lead to more proactive investment behaviors. Conversely, certain behavioral biases exhibited negative coefficients, implying a detrimental effect on investment choices.

In order to determine the connection between the independent variables (income, age, and gender) and the dependent variable.

Investment regression analysis is applied. The outcomes are as below:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.728 ^a	.565	.562	.89289

Predictors: (Constant), Gender, Age, Income Amount

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	358.921	4	127.315	163.123	.000 ^a
	Residual	318.819	378	.785		
	Total	668.630	389			

a. Predictors: (Constant), Gender, Age, Income Amount

b. Dependent Variable: Investment Amount

The above table shows that there is a strong relationship that exists between respondents' annual income and annual investment.

The following table shows the coefficient of the independent and dependent variables, such as investment and income, gender and age of the respondents.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.105	.313		-3.526	.000
	Income Amount	.219	.012	.765	18.945	.000

Age	.011	.005	.081	2.212	.028
Gender	.321	.104	.123	3.071	.002

1. Dependent Variable: Investment Amount

The common regression equation is $y = a + bx$.

The impact of total income, age, and gender on investment is represented by the regression equation Investment = (-) 1.105 lakhs + 0.219 (amount of income) + 0.011 (age) + 0.321 (gender).

Factors determining investment choice

Some of the factors that affect investment are safety, security, liquidity, tax advantage, good return and stable income, financial knowledge, risk appetite, and behavioral biases, which were taken into account for factor analysis.

To determine the suitability of data for factor analysis, KMO estimates the sample adequacy, and the Bartlett's test of sphericity was used. Kaiser suggests that KMO ranging from 0.7 to 0.8 was deemed as good, and the results are presented below.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.780
Bartlett's Test of Sphericity	Approx. Chi-Square	1.231E3
	Df	125
	Sig.	.000

From the above table, a high value for KMO (0.780 > 0.5) indicates that the factor analysis would be useful for the specified data used in this study, and also the test of sphericity is 0.000, indicating the existence of a significant relationship between the variables. This KMO score of 78% concludes that common variance was explained by the underlying factors.

The communalities show the variance of each variable that is contributed to the total variance of the influencing factors. The communality value of more than 0.50 is adequate for the factor analysis. Initial communalities help estimates of the variance in each variable accounted for by all components or factors that are unique to each variable; this uniqueness can be calculated by total variance explained by that variable minus the communality of that variable.

Communalities		
	Initial	Extraction
I am sure about all my investment will be completely safe and I will expect a fixed return	1.000	.567
I am confident that all my investment could be easily liquidated in the market.	1.000	.459
All investments made by me are sure of providing me regular income.	1.000	.587
I make investments for Tax planning.	1.000	.478
I invest only in risk free investment.	1.000	.565
In a period, I am confident that all my investments will grow substantially.	1.000	.537
I will aim for safety in investment though it may lead to lower returns.	1.000	.632
For all my investment, I look out that they all should grow above the Inflation rate.	1.000	.511
A portion of my income is regularly allocated for investment.	1.000	.565
I frequently guard my investment for return and growth.	1.000	.572
On account of loss I will withdraw my investment immediately.	1.000	.571

I make my investments to my convenience.	1.000	.478
I always consider Security is considered as an important aspect	1.000	.721
I opine all my investments will help for multiplying my income.	1.000	.612
In case of substantial returns, I am willing to substantial investment.	1.000	.411
Extraction Method: Principal Component Analysis.		

Total Variance Explained									
Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.323	24.073	24.073	3.611	24.065	24.073	2.770	18.466	18.466
2	2.111	14.274	38.346	2.141	14.274	38.312	2.428	16.187	34.654
3	1.208	9.203	47.550	1.380	9.203	47.550	1.611	10.738	45.392
4	1.056	7.107	54.657	1.066	7.107	54.657	1.390	9.265	54.657
5	.898	5.986	60.643						
6	.804	5.358	66.001						
7	.784	5.225	71.226						
8	.678	4.519	75.745						
9	.634	4.229	79.974						
10	.606	4.038	84.012						
11	.565	3.768	87.780						
12	.519	3.461	91.241						
13	.508	3.384	94.625						
14	.420	2.798	97.424						
15	.386	2.576	100.000						
Extraction Method: Principal Component Analysis.									

It could be observed from the above table an insight that only four components extracted from fromPrincipal Component Analysis are significant enough to retain for rotation and further interpretation. It is found that the variance proportion explained begins to decrease from the 4th component onwards. Each of the principal components was selected for rotation and interpretation. The total variance accounts for all four factors with an eigenvalue of greater than 1, which is 54.65%, which is sufficiently significant, and the remaining variance is explained by other variables.

After eliminating the factors with less than 0.50 value, four factors were extracted from 15 variables. The following table displays the factors that influence the investment decision-making of the investors.

Rotated Component Matrix ^a				
	Components			
	1	2	3	4
I invest only in risk free investment.	.753			
I am sure about all my investment will be completely safe and I will Expect a fixed return	.743			
All investments made by mearesure of providing me regular income.	.687			

I am confident that all my investment could be easily liquidated in the market	.643			
I make investments for Tax planning.	.557			
A portion of my income is regularly allocated for investment.		.721		
For all my investment,I look out that they all should grow above the Inflation rate.		.697		
I frequently guard my investment for return and growth.		.627		
In a period, I am confident that all my investments will grow substantially.		.606		
In case of substantial returns, I am willing to substantial investment.		.546		
I always consider Security is considered as an important aspect			.844	
I will aim for safety in investment though it may lead to lower returns.			.623	
I opine all my investments will help for multiplying my income.			.578	
I make my investments to my convenience.				.646
On account of loss I will with draw my investment immediately.				.618
Extraction Method: Principal Component Analysis.				
Rotation Method: Varimax with Kaiser Normalization.				
a.Rotation converged in 5 iterations.				

The table above shows the rotated component matrix, wherein the extracted factors were assigned a new name relating together. Factor 1 accounts for 24.07% of the variance, which comprises 5 variables loaded on this factor. The variables are (i) I invest only in risk-free investments. (0.753) (ii) I am sure all my investments will be completely safe, and I will expect a fixed return (0.743). (iii) All investments made by me are sure of providing me regular income. (0.687) (iv) I am confident that all my investments could be easily liquidated in the market (0.643). (v) I make investments for tax planning. (0.557) are highly correlated to each other. From these statements, it is clearly indicated that investment should be safe and risk-free with a reasonably fixed return, investment should provide regular income and easily liquidated, and also consider tax and easily liquidated and also consider fortax planning. Hence this segment of factors can be named the **Stability Factor**.

Factor 2 accounts for 14.27% of the variance, which comprises 5 for 14.27% of the variance which comprises of 5 variables loaded on this factor. The variables are (i) A portion of my income is regularly allocated for investment. (0.717) (ii) For all my investments, I look out that they all should grow above the inflation rate. (0.697) (iii) I frequently guard my investment for return and growth. (0.627) (iv) In a period, I am confident that all my investments will grow willgrowsubstantially.(0.606) (v) In case of substantial returns, I am willing to make a substantial investment. (0.546). From these statements, we can ascertain that investment helps in multiplying and growing substantially and above the inflation rate; also, the investment would always fetch a good return. Hence, this segment of factors can be named as **the growth factor**.

Factor 3 accounts for 9.20% of the variance, which comprises 3 variables loaded on this factor. The variables are (i) I always consider Security is considered an important aspect. (0.844) (ii) I will aim for safety in forsafetyininvestmentthoughitmayleadtolowerreturns.(0.623) (iii) I opine all my investments will help for multiplying my income. (0.573). From the above two statements, it can be decided that risk is inevitable in the investments and should be within tolerable limits, and also the higher the risk, the higher will be the return. Hence, this segment can be termed as **a threat factor**.

Factor 4 accounts for 7.11% of the variance, which comprises 2 variables loaded on this factor. The variables are (i) I make my investments at my convenience. (0.646) (ii) On account of loss, I will withdraw my investment withdrawmyinvestmentimmediately.(0.618). From the statements above, investments should be convenient for the investors, should be easily liquidated on the requirement, and should be safe and secure. Hence, this segment can be designated as **the Easiness Factor**.

FINDINGS AND CONCLUSION

This study underscores the critical role of financial literacy and risk tolerance in shaping effective investment behaviors among private sector employees. Addressing behavioral biases is equally important to prevent suboptimal investment decisions. Employers and policymakers should consider implementing targeted financial education programs and workshops to enhance employees' financial acumen and decision-making capabilities. The study has helped in extracting the factors that influence the investment decision-making behavior of the investors. There are four investment behavior factors analyzed, namely, stability factor, growth factor, hazard factor, and easiness factor. All these factors were found significant with the investment decision of the investors. The findings reveal that financial literacy and risk tolerance are significant positive predictors of sound investment decisions among private employees. This aligns with existing literature emphasizing the importance of financial knowledge and risk assessment in investment behavior. Behavioral biases, such as overconfidence and herding, negatively impact investment choices, leading to potential financial losses. These insights highlight the need for interventions aimed at mitigating the adverse effects of such biases.

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