

# Identifying the Factors Affecting Investment Behaviour of Investors from Gandhinagar District

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**Abstract:** *Decision making is crucial problem in recent days in all types of situation. People do consider so many things before jumping to any decision. Just like other problems, investment is also one of the major problems faced by different investors. People actually don't know what their important attributes are in deciding anything. Here, problem is to check relationship between Saving, Age, No of earning persons and Income on investment decision, relation of different attributes on risk taking capacity of rural and urban investors, to examine the importance of different investment attributes among rural and urban investors and to study demographic profile of rural and urban investors. In this paper attempt has been made to examine investment behavior of 200 investors from Gandhinagar District. The study is based upon primary data collected through a structured questionnaire administered to 100 rural and 100 urban investors, drawn through quota sampling according to their various occupation categories. Analysis has been carried out by applying Discriminant Analysis and Regression model and found that investors' decision is focused more on no of earning members in their family and least on income of family.*

**Keywords:** Demographic details, Importance of Attributes, Factors of Investment Behaviour, Financial Knowledge Score, Investment avenues

## 1. Introduction

In developing countries where agriculture holds a key position savings have been accepted as one of the crucial factors affecting the process of economic development. The three variables that measure the growth of an economy are Income, Savings and Investment. While investment is the single most factors for the development of an economy, it is savings which provides the basis for investment. The determinants and patterns of saving differ from rural to urban region. . If a person has more money than his/her current needs can be deposited their surplus money in the bank account to earn a fixed rate of interest or buy gold or purchase shares. One cannot take any random decision before analysis. It should be based on the broader perspective of his/her surroundings from which they are coming and to where they want to proceed and why. Investment is an interesting activity that attracts all people irrespective of their occupation, education and social status. People do apply logic behind everything they do. Investors behavior includes how much they are earning, how much they are saving, how much they are investing, type of risk taker, importance to different investment attributes, how much they are investing in any specific investment avenues.

## 2. Objective

Main objectives of analysis are as follows,

- To study demographic profile of rural and urban investors.
- To examine the importance of different investment attributes among rural and urban investors.
- To compare the Investment behavior of rural and urban investors.
- To analysis the financial knowledge score of investors.
- To compare relationship between saving, investment, income and investment decision.
- To study relation of different attributes on risk taking capacity of rural and urban investors.

- To find out reason of not investing in any investment avenues.

## 3. Research Methodology

### Sampling and Research Tools

The study is based upon primary data collected through a structured questionnaire administered to 100 rural and 100 urban investors from Gandhinagar district through Quota sampling method. Evaluation is based on importance of different investment attribute, demographic details, risk taking capacity of investors, and it is measured by using Weighted mean score, multiple regression model and discriminant analysis.

## 4. Literature Review

**Dr. Aparna Samudra, Dr. M. A. Burghate (2012)** studied on investment behavior of middle class households in Nagpur to find out the difference in choice of investment avenues in different age-groups & income classes of the middle income class segment in Nagpur. For research 300 respondents were selected and data was gathered by using graphs, charts and percentage and summarized that the bank deposits remain the most popular instrument of investment in followed by insurance with maximum number of respondents investing in these fixed income bearing option.

**Dr. Ananthapadmanabha Achar (2012)** investigated on saving & investment patterns of primary, high school, college and university teachers in Udupi District of Karnataka State focusing on the prime determinants of investment behavior of an individual like: sociological factors, psychological factors and perceived investment-related benefits. Data for the study was collected by administering comprehensive, structured and pre-tested questionnaire to 535 teachers in Udupi District and analyzed through Chi-square test and multiple regression. Result concluded that monthly family income, stage of family life

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cycle, and upbringing status were the main determinants of their savings and investment behavior.

**Subhashree Nayak (2013)** examined Determinants and Pattern of Saving Behavior in Rural Households of Western Odisha by using Cross-sectional primary of 300 households of rural villages of Sundergarh distraction through interview method and found that there has been a significant change in the levels and density of savings pattern of the rural households because of the increase in saving opportunities available with a convenient bar. The increase in the financial institutions like banks, micro finance institutions, SHGs and other local banks provided an opportunity to the rural people to save more. The increase in awareness among the people for their future security as through the unforeseen cases like sudden death of a family member, medical emergency and any other financial crisis, education of their children, marriage of a family member has made people inclined to save and found that most of the rural communities or the rural households are subjected to no savings at all.

**Dr. Bhawana Bhardwaj, Dr. Nisha Sharma, Dr. Dipanker Sharma (2013)** researched on Income, Saving and Investment Pattern of Employees of Bahra University, Solan by using 50 samples and questions had been asked regarding that and concluded with the result that majority of the employees have knowledge about the industrial securities, cross-tabulation of knowledge about securities and income level reveals that as the income of the employee's increases, awareness about securities also increases and gave remark that most of the employees are aware of investments in securities but they are not investing in it as they consider it as an unsafe investment.

**Dr. N. Dharani, Dr. M. Inbalakshmi, J. Murugapandi (2014)** researched on Investment Pattern of Working Women in Dindigul District to analyze the level of awareness of the respondents, to analyze the factors influencing particular investment channel, to analyze the significant relationship between awareness about various investment avenues and level of benefit to the investors. Data have been collected from 300 working women in Dindigul district and found that most of the respondents save and invest to avail tax relief where as Investors describe safety of funds as their priority for choosing an investment.

## 5. Data Analysis

### 5.1 Demographic Analysis

Out of 200 investors, 147 are male and 53 are female, out of them 65.5% investors are from 18-30 & 41-50 age group. It is found that 71% investors are married from 200 investors. More than 50% investors have more than 4 persons in their house but out of them only 2.5% have all 4 persons working. 40.5% investors said that they are the only bread earner in their house. As far as education level is concerned, 34.5% investors are graduate which is highest followed by masters, higher secondary, primary, diploma holders and 13.5% being lowest with combined investors from professionals, doctorates and other degree holders. It is found that investors are working in different areas where majority of them are from government sector with 32% investors followed by

agriculture area, business, private sector, professionals, others (animal catering, seasonal business) and semi-government sector. Annual income family of 54% investors are from 1 lakh -5 lakh, only 6% investors have more than 15 lakh salary.

Majority of the of rural investors belong to 18-30 and 41-50 years age groups while in case of urban investors, maximum investors belong to 18-30 years age group. Education level is more in case of urban investors. Professionals and doctorate degree holders are very less among rural investors. High income holder investors are found among urban investors.

### 5.2 Importance of Different Investment Attributes Among Rural and Urban Investors

**Table 1:** Weighted mean score of investment attributes

	Rural	Urban	Total
Risk	2.58	3.06	2.82
Return	3.5	3.94	3.72
Duration	3.33	3.47	3.4
Interest rate	3.24	3.88	3.56
Safety	3.82	4.32	4.07
Liquidity	2.12	3.25	2.685
Profitability	3.6	3.87	3.735
Marketability	2.88	3.44	3.16
Tax benefit	2.86	3.12	2.99
Goodwill	2.64	3.14	2.89

Safety, profitability and return parameter are more influential among rural investors with weighted average mean score of 3.82, 3.6 and 3.5. Among urban investors safety, return and interest rate are more influential factors with 4.32, 3.98 and 3.88 mean score. Liquidity factor is least influential among rural investors and risk factor in case of urban investors.

### 5.3 Perception of investors towards Investment

**Table 2:** Weighted Mean Score of Investment Options of Rural & Urban Investors

Options/Mean	Rural-Weighted Mean	Urban-Weighted Mean
Post office	47.27	42.37
Equity Shares	20.31	24.19
Preference shares	19.14	19.64
Debentures	19.53	21.92
IPOs	21.09	26.46
Insurance policy	50	40.75
Mutual funds	28.13	35.88
Saving account	49.61	50.49
Fixed deposit	51.95	50.49
PPF	33.59	42.05
Bond	22.27	27.11
Gold, Silver, Diamond	41.41	47.56
Real Estate	45.7	54.38
KisanVikasPatra	31.64	35.23
National Saving Certificate	23.83	31.01
Commodity market	16.02	22.89
Forex Market	14.45	20.62

By Rural investors' major investment found in FD, Insurance and saving account with 51.96%, 50% and 49.61% and lowest investment in Preference shares,

Commodity Market and Forex Market with 19.14%, 16.02% and 14.45%. Urban investors are investing their income in Land, Building and construction, Saving account, FD, Gold, Silver and Diamond with 54.38%, 50.49%, 50.49% and 47.56 respectively and lowest in case of Debentures, Forex Market and preference shares with 21.92%, 20.62% and 19.64% respectively. It is derived that rural investors are investing in secure and moderate return avenues other than investing in high risk and high return giving avenues just like urban investors.

**5.4 Analysis of Financial Knowledge Score of Investors**

On the basis of 15 important financial terms like FD, Insurance, Equity Shares, PrefShares, PPF etc. Financial Knowledge Score (FKS) is calculated which is 93.33% among rural investors .which is highest and 6.67% which is

lowest which shows Large rang of variation in FKS score. Highest FKS among urban investors is 100% and lowest with 6.67%. Large variation in FKS score is indicated in results. Among 100 rural investors average mean score is 38% and 51.6% in case of 100 urban investors. Combined FKS of all investors is 44.8% which is very low.

**5.5 Relationship between Saving, Age, No of Earning Persons and Income on Investment Decision**

64% rural investors are investing their money in any investment avenues where as it is 77% for urban investors. Total 70.5% investors are investing in any investment avenues available to them. Regression model has been developed for investors who are actually investing their money in investment avenues.

**Table 3: Multiple Regression Model**

	Rural		Urban		Total	
	b	p- Value	b	p- Value	b	p- Value
(Constant)	47.054	0.000	25.798	0.002	36.574	.000
Percentage of Saving	0.006	0.962	0.220	0.027	0.110	.141
Age	-0.246	0.203	-0.038	0.802	-0.163	.155
No of Earning Persons	-2.939	0.266	3.003	0.176	0.133	.937
Income	8.043e-008	0.990	-4.919e-006	0.204	-1.352E-006	.662
R Square	0.052		0.082		0.032	

Here,

Dependent variable:

Y= Percentage of investment

Independent variables:

X<sub>1</sub>= Percentage of Saving

X<sub>2</sub>= Age

X<sub>3</sub>= No of Earning Persons

X<sub>4</sub>= Income

Regression model of investors

Rural

$$Y = 47.054 + 0.006X_1 - 0.246X_2 - 2.939X_3 + 8.043e-008X_4$$

Urban

$$Y = 25.798 + 0.220X_1 - 0.038X_2 + 3.003X_3 - 4.919e-006X_4$$

Total

$$Y = 36.574 + 0.110X_1 - 0.163X_2 + 0.133X_3 - 1.352E-006X_4$$

Among rural investors no of earning person in family is highly influential variable and income variable is not influencing the investors decision. Decision of urban investors is also more influenced due to no. of earning persons and least in case of effect of income variable. Second more influencing variable in case of rural investors is age and for urban investors it is percentage of saving. By total regression model it is found that age factor of investor is highly influencing their decision followed by no of earning persons, percentage of saving and income. All variables in rural and urban investors are insignificant which more than 0.05 in all cases. R square value of urban investors shows 0.082 and 0.052 for rural investors which is very less. Among all investors R value is 0.032 which is again very less.

**5.6 Examining Relation of Different Attributes on Risk Taking Capacity of Rural and Urban Investors**

**5.6.1. Group Statistics**

**Table 4: Group Statistics**

Variables	Rural			Urban		
	Mean	S.D	C.V.	Mean	S.D.	C.V.
Risk	2.58	2.08496	123.7434	3.4762	1.6006	46.04453
Return	3.5	1.74946	200.0617	3.9048	1.70014	43.53975
Period	3.33	1.7411	191.2584	2.3333	1.74165	74.64321
Interest Rate	3.24	1.78727	181.2821	3.2857	1.79284	54.56493
Safety	3.82	1.83336	208.3606	3.1429	1.62129	51.5858
Liquidity	2.12	1.72492	122.9043	2.9524	1.62715	55.11279
Profitability	3.6	1.74657	206.1183	2.619	1.90987	72.92363
Resale Value	2.88	1.90841	150.911	3.06	1.87929	61.41471
Tax Benefit	2.86	1.9281	148.3326	3.94	1.31671	33.41904
Goodwill	2.64	2.08176	126.8158	3.47	1.3518	38.95677

In case of rural investors liquidity and risk attributes with lowest Coefficient of variation (C.V.) with 122.90 & 123.74 shows consistent responses of rural investors whereas safety and profitability attributes are highly inconsistent attributes with 208.36 & 206.12 C.V. Responses of urban investors are consistent in case of tax benefit and return attributes with 33.42 and 43.54 C.V. and highly inconsistent in case of period attribute and profitability attribute with 74.64 and 72.92 C.V.

5.6.2. Test of Equality of Group Means

Table 5: Tests of Equality of Group Means

Attributes	Rural			Urban		
	Wilks Lambda	F	Sig.	Wilks Lambda	F	Sig.
Risk	.786	6.484	0	.821	5.170	0.001
Return	.886	3.049	0.021	.853	4.106	0.004
Period	.858	3.945	0.005	.929	1.802	0.135
Interest rate	.892	2.886	0.026	.955	1.115	0.354
Safety	.908	2.401	0.055	.938	1.568	0.189
Liquidity	.922	2.001	0.101	.877	3.345	0.013
Profitability	.903	2.554	0.044	.916	2.177	0.077
Resale value	.905	2.496	0.048	.964	.896	0.470
Tax benefit	.895	2.800	0.03	.972	.693	0.599
Goodwill	.925	1.925	0.113	.945	1.394	0.242

Importance of attributes of safety, liquidity and goodwill shows higher p value at 5% significance level in rural investors which is insignificant. In case of urban investors significant attributes are very less like risk, return and liquidity with 0.001, 0.004 and 0.013 sign value.

5.6.3 Canonical Discriminant Function Coefficients

Table 6: Canonical Discriminant Function Coefficients

Attributes	Functions							
	Rural				Urban			
	1	2	3	4	1	2	3	4
Risk	0.422	0.092	0.006	0.198	0.381	0.086	0.062	-0.045
Return	-0.194	0.4	-0.126	0.089	0.150	-0.631	-0.594	-0.160
Period	-0.117	0.179	0.239	0.206	0.060	0.196	-0.533	-0.244
Interest rate	-0.128	-0.475	0.298	0.111	-0.263	0.253	0.774	-0.084
Safety	-0.163	-0.005	-0.197	0.191	0.224	0.064	0.218	-0.112
Liquidity	-0.032	0.276	-0.045	-0.122	0.301	0.172	0.312	-0.199
Profitability	0.355	0.076	0.106	-0.044	0.081	-0.111	0.277	0.633
Resale value	-0.016	0.233	0.036	-0.423	-0.068	0.146	-0.372	0.006
Tax benefit	-0.149	-0.11	0.226	-0.111	-0.124	-0.393	0.156	0.064
Goodwill	0.078	-0.176	0.154	0.093	0.242	0.347	-0.117	0.223
(Constant)	0.077	-1.425	-2.021	-0.891	-3.333	-0.220	-0.835	-0.298

Function 1 shows result of high risk taker and opportunist risk taker

Function 2 shows result of middle risk taker

Function 3 shows result of least risk taker

Function 4 shows result of no risk taker

Rural

While taking investment decision risk takers give highest importance to interest rate and profitability with 0.422 and 0.355 coefficients. Middle risk takers' decision is mainly based on interest rate and return which shows negative coefficient -0.475 indicating that higher risk is negatively effecting decision of investors. Second highest influential

attribute is return with 0.400 coefficient. Decision of less risk takers decisions is highly influenced by interest rate and time period with 0.298 and 0.239 coefficients which shows positive result of interest rate on investment decision. Investors who are not willing to take risk says that resale value and time period are the attributes which has influenced their investment decision to not take any risk.

Urban

Risk takers of urban investors give more importance to risk and liquidity with 0.381 and 0.301 coefficient respectively. Amongst middle risk takers, attributes like Return and tax benefit are negatively correlated with -0.631 and -0.393 coefficients. Less risk takers decision is positively influenced by interest rate with 0.774 and negatively by return attributes with -0.594 coefficients. No risk takers are 0.633 and -0.244 Profitability and period are highly responsible attributes which has influenced investors to not take any risk.

5.6.4 Case wise Statistics

Out of 100 rural investors, it shows changes in actual output given by investors and predicted output of 26 investors in terms of type of risk taker they are. Analysis will be based on 74% of responses which shows correct classification of investors. From 100 urban investors only 46% responses are same as per predicted response which shows 54% responses are not as per predicted responses. Hence question of reliability arises.

5.6.5 Wilks' Lambda

Table 7: Wilks' Lambda

Test of Function(s)	Rural				Urban			
	Wilks' Lambda	Chi-square	df	Sig.	Wilks' Lambda	Chi-square	df	Sig.
1 through 4	0.423	78.831	40	0	0.585	49.032	40	0.155
2 through 4	0.635	41.587	27	0.036	0.832	16.835	27	0.935
3 through 4	0.774	23.484	16	0.101	.934	6.296	16	0.985
4	0.934	6.245	7	0.511	0.996	.366	7	1.000

By calculating Wilks' Lambda Out of 4 functions, result of high risk takers, opportunist and middle risk takers are significant with 0.000 and 0.036 at 5% significant level and insignificant in case of least risk takers and no risk taker with 0.101 and 0.511 significance level. Out of all 4 functions, function 4 is highly insignificant than function 3. Thus it can be said that function 1 and 2 are more reliable than function 3 and 4. Analysis is influenced on risk takers and middle risk takers. In case of urban investors, all 4 functions are insignificant at 5% significance level.

5.6.6 Eigenvalues

Table 8: Eigenvalues

Function	Rural				Urban			
	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.502 <sup>a</sup>	50.3	50.3	0.578	.422 <sup>a</sup>	68.6	68.6	0.545
2	.219 <sup>a</sup>	21.9	72.2	0.424	.122 <sup>a</sup>	19.9	88.5	0.330
3	.207 <sup>a</sup>	20.8	92.9	0.414	.067 <sup>a</sup>	10.9	99.3	0.250
4	.071 <sup>a</sup>	7.1	100	0.257	.004 <sup>a</sup>	0.7	100.0	0.063

Among rural investors, Result of function 1 indicates result of  $(0.578)^2$  which is 33.41% of risk takers including high risk takers and opportunist.

Function 2 indicates result of  $(0.424)^2$  which is 17.98% indicator of middle risk takers.

Function 3 focuses on  $(0.414)^2$  with 17.14% of least risk takers decision.

Function 4 indicates result of 6.60% which is very least compare to other functions.

Among urban investors,

Result of function 1 indicates result of  $(0.545)^2$  which is 29.70% of risk takers including high risk takers and opportunist.

Function 2 indicates result of  $(0.330)^2$  which is 10.89% indicator of middle risk takers.

Function 3 focuses on  $(0.250)^2$  with 6.25% of least risk takers decision.

Function 4 indicates result of 0.40% which is very least compare to other functions.

### 5.7 Reasons of not investing in any Investment Avenues

36% rural investors are not investing anywhere because of not having money, out of confusing and not having trust on advice of others. 23% urban investors are not willing to invest their saving because they give more priority to liquidity. Risk associated with investment options, lack of sufficient money and not having trust on advice of others are another major factors which are forcing them not to invest.

## 6. Findings

Analysis shows that result is more focused on young and middle age group investors with graduation level education and working in government sector having income from 1 lakhs -5 lakhs. It is found that FKS Variation between rural and urban investors is less and more within the rural and urban investors. Investors from rural and urban investors prefer safety and interest rate. On the basis of rank given by rural investors, goodwill factor is highly influential and risk factor in case of urban investors. Less preferred factors among rural investors are interest rate whereas safety and profitability factors in case of urban investors. Urban respondents are more aware about new financial options available in the market than rural respondents still investment is more in convention investment avenues. After no of earning persons in family, rural investors are considering age variable and percentage of saving in case of urban investors. Variability in perception of investors in respect of different variables is found in the regression model. Result from model is not accurate because of low R square value among rural and urban investors. Consistent variables in decision are different among all investors. Responses on profitability attributes are insignificant among all investors which shows same direction of responses on profitability. While taking investment decision, importance of liquidity attribute is opposite to rural and urban investors which is insignificant among rural investors and significant among urban investors. Return, interest rate and profitability are the attributes which are majorly common among all risk takers. 74% and 46% investors' responses on risk taking

capacity of investors are same as predicted risk taker category. Reliability of rural investors' analysis will be higher than urban investors. From Wilks Lambda, it can be said that functions risk taker and opportunist risk takers of rural investors are significant whereas not a single function is significant in case of urban investors. Influence of opinion of relative and friends is high in case of both rural and urban investors. Insufficient money, no trust on advice of others and liquidity are the major reasons among all rural and urban investors which are influencing them to not invest anywhere.

## 7. Conclusion

Knowledge of different financial terms is very less though majority of investors are graduates. Decisions of rural investors are more inclined towards less risky and moderate return avenues like Insurance, FD and saving account. Investors from urban area are more interested towards high risky and high return giving avenues like land, building and Gold, Silver, diamonds. It can be identified that rural and urban investors have difference of opinion for insurance. Investors are focusing more on no of earning persons in family while deciding their investment plan other than focusing on income of family which shows more focus is there on surety of future income of family. Investors' perception on different variables while deciding investment plan is different. Investors' importance on different attribute is different between rural and urban investors but it is same within rural and urban investors. Analysis of 200 investors focuses more on risk takers and middle risk takers group of rural investors. Investors are taking enough risk but still they prefer safer and profitable investment avenues other than exploring new risk involved investment avenues. Strong need to increase the knowledge of investor's regarding attributes of different investment avenues especially among the rural investors.

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