

## **Impact of Demographic Factors on Investment Decision: an empirical study from South Gujarat Region**

<sup>1</sup>Ms Bhoomi Patel, <sup>2</sup>Dr Vasudev Modi

<sup>1</sup>Research Scholar, Mewar University, Gangrar

<sup>2</sup>Research Supervisor, Mewar University, Gangrar

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**Abstract:** Most of the theories in security market are based on the notion of rational investment decision behavior from investors. But it has been observed that it is not the case always. A new area of research has come up which recognizes the demographic element in financial decision making and thus challenging the traditional models.

The aim of this paper is to examine the impact of demographic factors, such as gender, age, marital status, education, income, and family members, and investor's risk tolerance as well as investment preference. The Descriptive research design is used. The primary Data collected using convenience sampling technique by filling structured questionnaire from 100 investors from south Gujarat region.

These results are important for managers to advise their clients about better area of investment and risk level according to their demographic profile. The study reveals that the demographic factors have a significant influence over some of the investment decision elements and insignificant in others elements too. The study also discloses a general view of investor's perception over various investment avenues. Investment decision is influenced by many factors like risk, return, market trends, past performance. Demographic factors like age, gender and income is having impact on investment decision making.

**Keywords:** Demographic factors, Investment Avenues, Investment, ANOVA, Independent sample T test

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### **I. INTRODUCTION**

Investment is the process of "sacrificing something now for the prospect of gaining something later". Investment may be defined as "the allocation of monetary resources to assets that are expected to yield some gain or positive return over a period of time." Investment means "the commitment of funds made in the expectation of some rate of return".

Investment is an act of placing funds in some opportunity or instrument with expectation that will be preserved or increase in value or generates positive returns. The overall investment process is the mechanism for bringing together suppliers (those who have extra funds) with demanders (those who need funds).suppliers and demanders are most often brought together through financial institutions, which act as financial intermediaries in the financial market.. Investment is the sacrifice of current money or other resources for future benefits. In the financial sense, "Investment is the commitment of a person's funds to derive income in the form of interest, dividend, premiums, pension, benefits or appreciation in the value of their capital, purchasing of shares, debentures, post office savings certificates, insurance policies are all investments in the financial sense" (Mishra, 2010).

In the current economic scenario, money is considered as the root cause of all happiness. People start investing for a secure life and a bright future. But the most important dilemma is that investors are confused with various avenues. There are many investment avenues available in the financial market for an investor. Investors can invest in bank deposits, corporate debentures and bonds, post office saving schemes etc. where, there is low risk together with low return. They may invest in stock of companies where the risk is high and sometimes the returns are also proportionately high. Equity, bonds, corporate debenture, company fixed, bank fixed, public provident fund, life insurance, post office-NSE, gold/silver, real estate, mutual fund

There are large numbers of investment avenues available to the investors to park their funds (Geetha& Ramesh, 2011). But the choice of investment avenues differs from investor to investor based on the level of financial literacy and expectations (Jain & Mandot, 2012). A large number of studies have been conducted to find out the preference of investment avenues among the investors and the factors that influences the investment behaviors (Chambers & Schlagenhauf, 2002; Gomes, et. al., 2004; Kesavan et. al., 2012). Lewellen et. al. (1977) found that age, gender, income and education affects investors' preferences and attitudes towards investment decision based on their investment objectives. Jamshidinavid, Chavoshani&Amiri (2012) found that "The investment prejudices in individual investors has relationship with personal characteristics meaningfully and with some of the demographic variables weakly."

## II. RESEARCH METHODOLOGY

### Objectives:

The objectives of the study include the following:

1. To know the factor on which investment decision is depending on.
2. To study the association between various demographic variables and objectives of investment
3. To find the most preferred investment avenues among the investor community.

**Research design:** Descriptive research design

**Sampling Techniques:** Non-Probabilistic Convenience sampling

**Sampling frame:** Retail investors

**Data collection:** Collection of primary data through questionnaires, Secondary data about investment avenues & Indian economy were taken from websites, books, journals, research papers etc.

## III. LITERATURE REVIEW

Headen and Lee (1974) studied the effects of financial market behavior and consumer expectations on purchase of ordinary life insurance and concluded that life insurance demand is inelastic and positively affected by the change in consumer sentiments; interest rates playing a role in the short run as well as in the long run. Truett et al. (1990) discussed the growth pattern of life insurance consumption in Mexico and United States in a comparative framework, during the period from 1964 to 1984. They concluded the existence of higher income inelasticity of demand for life insurance in Mexico with low income levels. Age, education and income were significant factors affecting demand for life insurance in both countries.

Jambodekar (1996) conducted a study to assess the awareness of Mutual Funds among investors, to identify the information sources influencing the buying decision and the factors influencing the choice of a particular fund. The study reveals among other things that income schemes and open ended schemes are more preferred than growth schemes and close ended schemes during the prevalent market conditions. Avinash Kumar Singh (2006) The study entitled "Investment Pattern of People" has been undertaken with the objective, to analyze the investment pattern of people in Bangalore city and Bhubaneswar analysis of the study was undertaken with the help of survey conducted. After analysis and interpretation of data it is concluded that in Bangalore investors are more aware about various investment avenues & the risk associated with that. All the age groups give more importance to invest in equity & except people those who are above 50 give importance to insurance, fixed deposits and tax saving benefits. Generally those investors who are invested in equity, are personally follow the stock market frequently i.e. in daily basis. But those who are invested in mutual funds are watch stock market weekly or fortnightly. In Bangalore, investors are more aware about various investment avenues and the risk associated with that. But in Bhubaneswar, investors are more conservative in nature and they prefer to invest in those avenues where risk is less like bank deposits, small savings, post office savings etc. Verma (2008) studied the effect of demographics and personality on investment choice among Indian investors and found that mutual funds were popular amongst professionals, students and the self-employed. Retirees displayed their risk aversion by not investing in mutual funds and equity shares. It was also found that higher the education, higher was the level of understanding of investment complexities. Graduates and above in qualification preferred to invest in equity shares as well as mutual funds.

Nagpal and Bodla (2009) studied the lifestyle characteristics of the respondents and their influence on investment preferences. The study concludes that investors' lifestyle predominantly decides the risk taking capacity of investors. The study found that in spite of the phenomenal growth in the security market, the individual investors prefer less risky investments, viz., life insurance policies, fixed deposits with banks and post office, PPF and NSC.

Gupta and Jain (2008) on the basis of an all-India survey of 1463 households found the preferences of investors among the major categories of financial assets, such as investment in shares, indirect investment through various types of mutual fund schemes, other investment types such as exchange traded gold fund, bank fixed deposits and government savings schemes. The study provides interesting

information about how the investors' attitude towards various investment types are related to their income and age, their portfolio diversification practices, and the over-all quality of market regulation as viewed by the investors themselves.

Puneet Bhushan and Yajulu Medury (2013) conducted study on "Gender Differences in Investment behavior among Employees" and found that Women are more conservative while investing and are unwilling to take risk. Thus women should be offered such financial products which are best suited for them in terms of risk and return characteristics. For this the developers and marketers of these financial products should understand the gender differences in investment behavior of individuals. Against this backdrop, the present study is an attempt to analyze the gender differences in investment behavior among employees. Survey method was

adopted in this research study to collect information from the respondents. Our results suggest that significant gender differences occur in investment preferences for health insurance, fixed deposits and market investments among employees.

Bhanusireesha & Sreelaxmi(2013) conducted study on “Impact of demographics on select investment avenues ”The study presents the results of empirical testing of impact of demographic factors on investment avenues selected by investors in the twin cities of Hyderabad and Secunderabad, India. It is found that gender, age and friends are mostly influencing the investment decisions of the respondents. It is concluded that the respondents of the study are conservative in nature and show less concern for money multiplication and liquidity.

Dr. D. Harikanth& B. Pragathi conducted study on “Role of behavioral finance in investment decision making - a study on select districts of Andhra Pradesh, India.” and concluded that Investors do not act wisely in taking decisions relating to investment. They have certain weaknesses like cognitive and emotional which take a predominating role in taking investment decision of individuals. They have behavioral biases in the event of taking investment decision. Investment decisions also depends on the types of investors, risk tolerance capacity, education, occupation, age, sex, income, marital status, family back ground, living area and environment and attachment with the financial advisor etc. Despite all the resources and infrastructure, investors adopt some avenues after analyzing different factors which are influenced by internal and external environments. Using the principles of behavioral finance the present study explores the psychological concept of individual attachment style, especially individual investors to different available investment avenues and their investment preference process. This study indicates that there is a significant role of income and occupation in investment avenue selection by the male and female investors. For this an organized analysis has been made by taking primary data collected through structured questionnaire and secondary data for consideration.

Saugat Das & Ritika Jain (2014) studied a title “A study on the influence of demographical variables on the factors of investment- a perspective on the Guwahati region”. Their study revealed that Among other objectives, demographic variables are one of the important objectives which influence financial decision making of investors. This paper focuses on the relationship between the four demographic variables i.e., age, gender, education and occupation with the four most important objectives of investment such as risk, return, retirement and tax which influences the buying behavior of the investors. A sample of 150 respondents was interviewed and analysis was done through SPSS. The study emphasizes the fact that demographic variables indeed play a role on the mindset of the investor community which is driven by age and educational qualification.

Geetha& M. Ramesh (2012) conducted study on A study on relevance of demographic factors in investment decisions .This study attempts to find out the significance of demographic factors of population such as gender, age, education, occupation, income, savings and family size over several elements of investment decisions like priorities based on characteristics of investments, period of investment, reach of information source, frequency of investment and analytical abilities. The study was made by conducting a survey in Nagapattinam district of Tamilnadu, South India and the statistical inferences were deduced using computer software tools. The study reveals that the demographic factors have a significant influence over some of the investment decision elements and insignificant in others elements too. The study also discloses a general view of investor’s perception over various investment avenues.

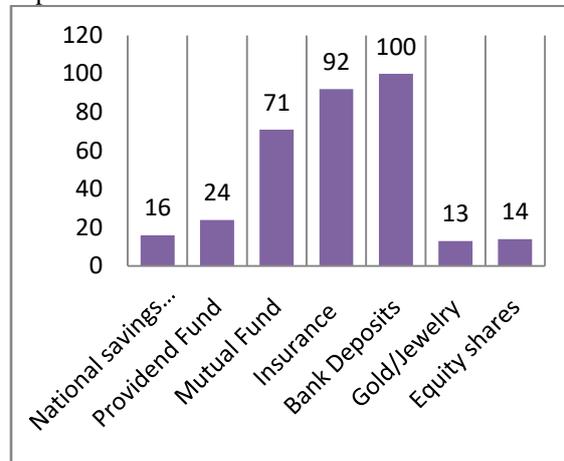
Dr. Taqadus Bashir et al (2013) conducted study on An Assessment Study on the “Factors Influencing the Individual Investor Decision Making Behavior”. This research paper aims at identifying the factors that influences the Pakistan’s individual investor behavior. Thirty four items under the five categories of variables were taken as independent that influences the individual investment decision making behavior that belongs to self-image/firm image, neutral information, accounting information, personal financial needs and advocate recommendations. Data collection is made with the help of structured questionnaires. Sample size of 125 was considered for the study out of which 40 were finance students of University of Gujarat, 30 were finance teachers from different colleges and 55 were bank employees of Sialkot, Gujranwala, Lahore and Gujarat. Results of the calculated mean shown that all the variables are somewhat affecting the decision making behavior of investor and accounting information category of variables is most influencing while advocate recommendation is the least influencing category. Frequency table of significantly influencing variables shown that out of the total 33 items the 6 most influencing items which belongs to the self-image/firm’s image and accounting information like dividend paid, reputation of firm, feelings for a firm’s products and services, get rich quick, firm's involvement in solving community problems, and firm’s status in industry On other side factors that were found to be least influencing with respect to order of importance were friend or coworker recommendations, opinions of the firm's majority stockholder, recent price movement in the firm's stock, Religious Reason, Family member opinion and Broker recommendation related to other variable categories.

**IV. DATA ANALYSIS AND DATA INTERPRETATION**

Awareness & Adoption of various investment avenues. Frequency distribution.

**Table: 01:** Frequency distribution about Awareness and Adoption of Investment avenues

Awareness and Adoption of Investment avenues	Number	Percentage
National savings Certificate	16	4.80%
Providend Fund	24	7.30%
Mutual Fund	71	21.5
Insurance	92	27.9
Bank Deposits	100	30.3
Gold/Jewelry	13	3.90%
Equity shares	14	4.20%



From the above chart it is interpreted that investors are investing more in avenues in which maximum return obtained rather than preferring traditional avenues like post office and gold. 100 investors are aware about bank deposit, 92 investors are aware about insurance .Only 13 investors are aware about equity shares.

**Reason for Saving**

**Table:02**

Reason for saving	Yes	No
Family protection	61	39
Retirement planning	73	27
Childs education	1	99
Childs wedding	6	94
Dream home/car	22	78

61 Investors are saving money for retirement and 73 investors are saving money for family protection and 22 investors are saving money for their dream car.

**Independent Samples T Test**

**H0** - There is no relationship between the investor’s investment objectives of getting return and gender.

**Ha** - There is relationship between the investor’s investment objectives of getting return and gender.

**Table: 03**

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Return	Male	92	4.99	0.104	0.011
	Female	8	4.88	0.354	0.125

**Table: 04**

Independent Samples Test		
Return	Levene's Test for Equality of Variances	t-test for Equality of Means

	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	19.504	.000	2.245	98	.027	.114	.051	.013	.215
Equal variances not assumed			.910	7.106	.393	.114	.125	-.182	.410

From the above table it is observed that significance value is 0.000 which is less than 0.05 (95% Confidence Interval) so null hypothesis is rejected and alternative hypothesis is accepted. So it is interpreted that there is relationship between the investor’s investment objectives of getting return and gender.

**H0** - There is no relationship between the investor’s investment objectives of speculative gain and gender.

**Ha** - There is relationship between the investor’s investment objectives of speculative gain and gender.

**Table: 05**

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Speculative gain	Male	92	4.07	0.248	0.026
	Female	8	4.25	0.463	0.164

**Table: 06**

Independent Samples Test									
Speculative gain	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	10.008	.002	-1.861	98	.066	-.185	.099	-.382	.012
Equal variances not assumed			-1.115	7.354	.300	-.185	.166	-.573	.203

From the above table it is observed that significance value is 0.002 which is less than 0.05 (95% Confidence Interval) so null hypothesis is rejected and alternative hypothesis is accepted. So it is interpreted that there is relationship between the investor’s investment objectives of speculative gain and gender.

**Chi-Square Tests**

**H0:** There is no relationship between Age and investor’s willingness to take risk.

**Ha:** There is relationship between Age and investor’s willingness to take risk.

**Table: 07**

Age *Willingness to take Risk cross tabulation			Value	Df	Asymp. Sig.(2-sided)	
	Low risk	Moderate Risk				
Below 25 years	0	3	Pearson Chi-Square	3.581 <sup>a</sup>	2	0.167
25 to 40 years	0	75	Likelihood Ratio	3.064	2	0.216
			Linear-by-Linear Association	3.067	1	0.08

40 to 55 years	1	21	N of Valid Cases	100		
Total	1	99				

The above tables represent the investors taking risk ability regarding their returns. Here the the t- value is 0.167 that is greater than the standard value 0.05 so the null hypothesis (H0) is accepted and rejected alternative hypothesis. It is interpreted that risk taking ability of all investors are same that is moderate.

**ANOVA Test**

H0: There is no difference among different age group for their preference of liquidity as one of the objective of investment.

H1 : There is difference among different age group for their preference of liquidity as one of the objective of investment.

**Table:08**

Descriptive								
Liquidity					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum
Below 25 years	3	4.33	.577	.333	2.90	5.77	4	5
25-40 years	75	4.08	.359	.041	4.00	4.16	3	5
40-55 years	22	4.23	.429	.091	4.04	4.42	4	5
Total	100	4.12	.383	.038	4.04	4.20	3	5

**Table: 09**

ANOVA					
Liquidity	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.510	2	.255	1.759	.178
Within Groups	14.050	97	.145		
Total	14.560	99			

From the above table it is observed that significance value is 0.178 which is more than 0.05 there was no statistically significant difference among different age group for their preference of liquidity as one of the objective of investment.

**ANOVA Test**

H0: There is no difference among different occupation and tax as one of the objective of investment.

H1: There is difference among different occupation and tax as one of the objective of investment.

**Table:10**

Descriptives								
Tax					95% Confidence Interval for Mean			
	N	Mean	Std. Deviation	Std. Error	Lower Bound	Upper Bound	Minimum	Maximum

Agriculture	12	4.67	.492	.142	4.35	4.98	4	5
Govt. employee	8	4.63	.518	.183	4.19	5.06	4	5
Private employee	53	4.38	.489	.067	4.24	4.51	4	5
Business & profession	27	4.41	.501	.096	4.21	4.61	4	5
Total	100	4.44	.499	.050	4.34	4.54	4	5

**Table: 11**

ANOVA					
Tax	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.127	3	.376	1.534	.211
Within Groups	23.513	96	.245		
Total	24.640	99			

From the above table it is observed that significance value is 0.211 which is more than 0.05 there is no statistically significant difference among different age group for their preference of liquidity as one of the objective of investment.

Investment decision is depending on following factors

**Table: 12**

Factors	Highly depended	Moderate
Existence of risk in avenues	98	0
Expectation on return	100	0
Lock in period	38	62
Time horizon	15	85
Past performance	92	8
Market trends	97	3

Investment decision is highly depended on existence of risk, return, past performance and market trends.

**Table: 13**

**Demographic Profile of Investors**

Age				Gender			
		Frequency	Percent			Frequency	Percent
Valid	Below 25 years	3	3.0	Valid	Male	92	92.0
	25-40 years	75	75.0		female	8	8.0
	40-55 years	22	22.0		Total	100	100.0
	Total	100	100.0				
Marital status				Educational qualification			
		Frequency	Percent			Frequency	Percent
Valid	Married	85	85.0	Valid	Graduation	51	51.0

	Unmarried	15	15.0		Post Graduation	49	49.0	
	Total	100	100.0		Total	100	100.0	
<b>Occupation</b>				<b>Income</b>				
		Frequency	Percent			Frequency	Percent	
Valid	Agriculture	12	12.0	Valid	Below 3 Lakh	2	2.0	
	Govt. employee	8	8.0			3-5 Lakh	63	63.0
	Private employee	53	53.0			5-10 lakh	35	35.0
		100	100			100	100	

### Findings:

- ✓ 100 investors are aware about bank deposit, 92 investors are aware about insurance .Only 13 investors are aware about equity shares. So investors are more aware about traditional investment avenues than others.
- ✓ 61 Investors are saving money for retirement and 73 investors are saving money for family protection and 22 investors are saving money for their dream car.
- ✓ From Independent Sample T test, it is found that there is relationship between the investor’s investment objectives of getting returns and gender. (Sig Value 0.000<0.05).Male and female are having different perspective for getting return from various investment avenues.
- ✓ From Independent Sample T test, it is interpreted that there is relationship between the investor’s investment objectives of speculative gain and gender. (Sig Value 0.002<0.05).Male are more risk taker as compared to female.
- ✓ From Chi Square test, it is observed that there is no significant difference among different age group in risk taking ability. (Sig Value 0.167 >0.05).
- ✓ Investment decision is highly depended on existence of risk, return, past performance and market trends.
- ✓ From ANOVA test, it is interpreted that there is no statistically significant difference among different age group for their preference of liquidity as one of the objective of investment. Sig Value 0.211>0.05)
- ✓ From ANOVA test, it is found that there is no statistically significant difference among different age group for their preference of liquidity as one of the objective of investment.

## V. CONCLUSION

Study concludes that investment decisions are majorly affected by risk, return, market trends, past performance. Gender is having very less impact on investment decision making. Male and female are different in risk taking ability. Majority of investors are investing money for family protection and for retirement. Investment decision is not only depended on demographic variables.

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