JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

THE ROLE OF DEMOGRAPHIC VARIABLES ON FINANCIAL RISK TOLERANCE OF INVESTORS IN KERALA

MUHSINA PT[1] and Dr. K. HALIMUNNISA[2]
[1]Ph.D (Full-Time Research Scholar), [2]Assistant Professor
[1]PG & Research Department of Commerce, Jamal Mohamed College (Autonomous), Affiliated to Bharathidasan University, Trichy, Tamilnadu, India.
[2]PG & Research Department of Commerce, Jamal Mohamed College (Autonomous), Affiliated to Bharathidasan University, Trichy, Tamilnadu, India.

Abstract: An individual does not desire to spend his entire earnings and instead saves a portion of it for investment purposes, with the primary goal of generating more money from it. Greater risk is linked to greater profit. Risk tolerance, or a person's willingness to take risk, is a crucial issue that affects both financial service providers and consumers. Risk tolerance refers to how much market risk an investor can take, such as volatility or market ups and downs. With this regard this empirical study explores the persistent difference in risk tolerance between different demographic characteristics. Individual investor respondents were selected based on multi-stage sampling technique and responses were collected by employing a questionnaire to the respondents. The study employed the scale proposed by Grable and Lytton to measure the financial risk tolerance of retail investors. Results of the study indicates that gender, age, education, occupation and income are significant in differentiating investors to different risk tolerance levels, although marital status has no significant effect on investor's risk tolerance levels.
Key words: *Financial risk tolerance, Investor, Demographic factors*

I. INTRODUCTION

Research on financial risk tolerance with emphasis on demographical factors is limited and yet vital to the financial industry. Many of the financial and investor researchers do not portray the actual risks that the investors face. Various characteristics of demographic variables are to be considered when researching financial risk tolerance such as years leading to retirement, high education levels, race, being self-employed, gender and non-investment income. Grable and Lytton[1](1998) found in their research that age and gender were the most important variables influencing risk tolerance along with other characteristics such as marital status, occupation, self-employment, income, race and education. The present study focuses on the effect of demographic characteristics in the risk taking behaviour of individual investors in Kerala.

II. REVIEW OF LITERATURE

Ferreira, S., and Dickason-Koekemoer, Z.[2] (2020) focused on how risk tolerance is influenced by demographics, life satisfaction, risk-taking behaviour, and perception in a variety of life domains. An electronic questionnaire was distributed to over 4000 investors throughout South Africa. Age and risk tolerance were found to be negatively correlated, suggesting that risk tolerance declines with age. It was also found that life satisfaction can be used in forecasting investor risk tolerance.

Pandya, Hetal.[3] (2020) explored the interplay between the two aspects of financial literacy and the risk tolerance of investors. Investing behaviour of women being the focus of this study, a comparison of investing behaviour of women with that of men is done. 800 samples were collected and analysed. The study found that a significant relationship was observed between financial literacy and age, income, gender, and occupation. Again, women take Less risk compared to men, both in rural and urban areas.

Fisher, P. J., & Yao, R.[4] (2017) studied gender differences in financial risk tolerance using a large, nationally representative dataset, the Survey of Consumer Finances and found that Gender differences in financial risk tolerance are due to the gender disparities in the individual determinants of financial risk tolerance and not by gender in and of itself. Income uncertainty and net worth are found to be the individual factors that act as moderators in the association between gender and high risk tolerance.

III. SCOPE OF THE STUDY

Risk is inseparable from return. Every investment involves some degree of risk, A solid understanding of risk in its different forms can help investors to better understand the opportunities, trade-offs, and costs involved with different investment approaches. It is imperative to study risk tolerance capacity of investors as it helps to plan their entire portfolio and will drive how they invest. The amount of risk an investor is willing to assume is influenced by a number of factors. The researcher has explored the level of financial risk tolerance and studied the effect of demographic characteristics in financial risk tolerance. The geographical area of research is confined to Kerala State (India).

IV. STATEMENT OF THE PROBLEM

Financial risk bearing behaviour is highly significant in financial decisions and analysing one's financial risk tolerance capacity through his/her demographic factors paves the way to an effective investment plan which provides higher returns. Previous research data proves that demographic factors can be used to differentiate investors into various risk tolerance categories but the results significantly varies from time to time. In this context, an attempt was made to study financial risk tolerance among individual investors and analyse the demographic differences specifically age, gender, marital status, education, occupation and income in bearing financial decisions.

V. OBJECTIVES OF THE STUDY

1. To explore the financial risk tolerance level of retail investors.
2. To study the role of various demographic variables in the financial risk tolerance of individual investors

VI. RESEARCH METHODOLOGY

An intensive study has been made on the risk bearing level of investors in Kerala state. The methodology adopted in the collection of data has been detailed below:

6.1. *Sample Design & Sample Size*

Based on the multi-stage sampling technique, data were collected by distributing a questionnaire having 34 questions. The selected sample includes 150 retail investors from Malappuram district of Kerala. Books and journals were used to gather secondary data.

6.2 *Tools of Analysis*

Statistics and analysis of various figures relating to the investor's financial risk tolerance are given in different statements. The information collected through the questionnaire has been used for analysing the data. This empirical study includes variables which are essentially qualitative in nature and is known as categorical variables, namely financial risk-tolerance, gender, age, education, job experience, income level, saving status, location, and employment status. Descriptive statistical tools such as frequency distribution, percentage analysis have been used to describe the profiles of respondents. Inferential analysis such as t-test and ANOVA were used for the analysis of data.

6.3 Measurement of Financial Risk Tolerance

To record the financial risk tolerance of retail investors, a well-structured questionnaire was used based on a risk scale originally developed by Grable and Lytton[5] (1999), commonly known as the Grable and Lytton risk-tolerance scale (G/L-RTS). To record the level of risk tolerance (FRT), five different groups were scaled as used in different studies (Beer and Wellman 2021)[6]. An individual will be considered a lower-risk tolerant if he/she falls in the risk tolerance score ranging from 0 to 17, a below-average risk-tolerant if he/she falls in the class ranging from 18 to 21, a moderate-risk tolerant if he/she falls in the category ranged from 22 to 27, an above-average risk-tolerant, if he/she lies in the category ranged from 28 to 31; and finally, an investor will show high tolerance for risk by taking investment decisions if he/she lies in the class ranged from 32 to 46.

VII. LIMITATIONS OF THE STUDY

The study was only confined to Kerala state and it cannot be generalized to other states. Further, only 150 respondents were randomly approached for the study. The results may vary based on the perception of the sample respondents.

VIII. ANALYSIS AND DISCUSSION

Reliability Statistics

The Cronbach's Alpha is used to test the reliability of the data. Cronbach's alpha was found to be 0.74 which is higher than 0.7. Hence, it shows a high level of reliability of these constructed scales.

TABLE 1: RELIABILITY OF THE QUESTIONNAIRE

Variable	Cronbach's alpha (α)	Number of items	N
Risk-tolerance scale	0.74	13	150

Source: Primary Data

The purpose of this study is to observe the financial risk tolerance level of investors in Kerala and analyse the effect of age and gender in the risk tolerance capacity of the investors.

TABLE 2 FREQUENCY SUMMARY OF DEMOGRAPHIC VARIABLES

Sl. No.	Demographic Characteristics	Frequency (150)	%
1.	**Gender:**		
	Men	105	70
	Women	45	30
2.	**Age:**		
	20-29 years	66	44
	30-39 years	60	40
	40-49 years	15	10
	50-59 years	9	6
3.	**Marital Status:**		
	Single	30	20
	Married	120	80

4.	**Educational Qualifications:**		
	Higher Secondary	9	6
	Under graduate	21	14
	Post graduate	54	36
	Diploma	66	44
5.	**Occupation:**		
	Govt.Employee	18	12
	Pvt.Employee	81	54
	Business	21	14
	Home maker	30	20
6.	**Income Level:**		
	Up to 300000	60	40
	300000-600000	39	26
	600000-1000000	27	18
	Above 1000000	24	16

Source: Primary Data

Table 2 shows the descriptive sample statistics. The largest proportion of respondents (i.e.,70%) are men. Married respondents account to 80%. The majority of respondents (44%) are in the age group of 20-29. Most of the respondents (44%) are Diploma graduates and 54% of the employees are private employees. Maximum respondents (40%) belongs to the income category of below 300000.

HYPOTHESIS TESTING

Relationship between gender and financial risk tolerance

H0.1: There is no significant difference between investors' gender and their Financial risk tolerance level.

TABLE 3 GENDER AND FINANCIAL RISK TOLERANCE LEVEL

Gender	Level of financial risk tolerance						Independent Sample t-test	
	Very small	Small	Medium	High	Very High	Total	Value	Sig.
Male	8	12	48	14	23	105	2.969	.005
Female	15	18	9	3	0	45		
Total	30	30	57	15	18	150		

Source: Primary Data

While applying t-test at 5 % level of significance, the two tailed p value (0.005) is less than 0.05. So the null hypothesis is rejected, and there is a significant relationship between gender and overall financial risk tolerance level. Out of 45 women, 33 women responded that they have taken a low risk for their investments. It is found that women tend to take fewer risks as compared to men when it comes to investments.

Relationship between age and financial risk tolerance

H0.2: There is no significant difference between investors' age and their Financial risk tolerance level.

TABLE 4 AGE AND FINANCIAL RISK TOLERANCE LEVEL

AGE	Level of financial risk tolerance						ANOVA	
	Very small	Small	Medium	High	Very High	Total	Value	Sig.
20-29	3	12	24	12	15	66	6.601	.001
30-39	9	15	33	0	3	60		
40-49	9	3	0	3	0	15		
50-59	9	0	0	0	0	9		
Total	30	30	57	15	18	150		

Source: Primary Data

It is clear from the above table that while applying Anova at 5 % level of significance, the p value (0.001) is less than 0.05. So the null hypothesis is rejected, and there is a significant relationship between age and overall financial risk bearing level. Young people tend to take more risk than older people.

Relationship between marital status and financial risk tolerance

H0.3: There is no significant difference between investors' marital status and their Financial risk tolerance level.

TABLE 5 MARITAL STATUS AND FINANCIAL RISK TOLERANCE LEVEL

MARITAL STATUS	Level of financial risk tolerance						Independent Sample t-test	
	Very small	Small	Medium	High	Very High	Total	Value	Sig.
Single	6	0	18	6	0	30	1.69	.086
Unmarried	24	30	39	9	18	120		
Total	30	30	57	15	18	150		

Source: Primary Data

While applying t- test at 5 % level of significance, the p value (0.086) is greater than 0.05. So the null hypothesis is accepted, and there is no significant relationship between marital status and overall financial risk bearing level. Thus marital status does not have any impact on the financial risk tolerance of the investor.

Relationship between education and financial risk tolerance

H0.4: There is no significant difference between investors' education and their Financial risk tolerance level.

TABLE 6 EDUCATION AND FINANCIAL RISK TOLERANCE LEVEL

EDUCATION	Level of financial risk tolerance						ANOVA	
	Very small	Small	Medium	High	Very High	Total	Value	Sig.
Higher Secondary	3	3	3	0	0	9	3.960	0.14
Diploma	12	6	3	0	0	21		
UG	9	3	21	9	12	54		
PG	6	18	30	6	6	66		
Total	30	30	57	15	18	150		

Source: Primary Data

It is observed from the table that the two tailed p value (0.14) is less than 0.05. So the null hypothesis is rejected, and there is a significant relationship between education and overall financial risk tolerance level. It is found that Under graduates and Post graduates tend to take more risks when it comes to investments.

Relationship between Occupation and financial risk tolerance

H0.5: There is no significant difference between investors' Occupation and their Financial risk tolerance level.

TABLE 7 OCCUPATION AND FINANCIAL RISK TOLERANCE LEVEL

OCCUPATION	Level of financial risk tolerance						ANOVA	
	Very small	Small	Medium	High	Very High	Total	Value	Sig.
Self Employed	3	3	12	0	0	18	5.555	.002
Private employees	24	21	24	6	6	81		
Govt. Employees	3	6	9	3	0	21		
Business	0	0	12	6	12	30		
Total	30	30	57	15	18	150		

Source: Primary Data

While applying Anova at 5 % level of significance, the two tailed p value (0.002) is less than 0.05. So the null hypothesis is rejected, and there is a significant relationship between Occupation and overall financial risk tolerance level. It is observed that business people wish to take more risk than people engaged in other occupations.

Relationship between Annual Income and financial risk tolerance

H0.6: There is no significant difference between investors' Annual Income and their Financial risk tolerance level.

TABLE 8 ANNUAL INCOME AND FINANCIAL RISK TOLERANCE LEVEL

ANNUAL INCOME	Level of financial risk tolerance						ANOVA	
	Very small	Small	Medium	High	Very High	Total	Value	Sig.
Up to 300000	9	9	30	9	3	60	3.345	.020
300000-600000	12	12	6	3	6	39		
600000 - 1000000	1	2	15	5	4	27		

Above 1000000	0	6	6	3	9	24		
Total	30	30	57	15	18	150		

Source: Primary Data

Table 8 depicts that while applying Anova at 5 % level of significance, the two tailed p value (0.02) is less than 0.05. So the null hypothesis is rejected, and there is a significant relationship between Annual income and overall financial risk tolerance level. It is observed that high income people wish to take more risk than people engaged in other income groups.

IX. FINDINGS

- Most of the respondents are men (70%) and married responsers accounts to 80%.
- Majority of the responders are in the age group of 20-29 and most of the informants (54%) have completed diploma.
- 40% of the employees are private employees and maximum respondents (40%) belong to the income category of below 300000.
- The analysis shows that financial risk capacity of the respondents vary according to their gender and women are likely to choose low risk avenues compared to men.
- Young people tend to take more risk than older people.
- Marital status does not have any impact on the financial risk tolerance of the investor.
- Under graduates and Post graduates tend to take more risks when it comes to investments.
- Business people wish to take more risk than people engaged in other occupations.
- High income people wish to take more risk than people engaged in other income groups.

X. RECOMMENDATION AND CONCLUSION

This study was designed to evaluate the relationship between financial risk tolerance and the demographic characteristics of individual investors in Kerala. The findings from the study show that demographic factors specifically age, gender, education, occupation, and income can be used to categorise investors into various risk tolerance levels. But an investor's marital status does not have a significant impact on his/her risk tolerance level. Financial intermediaries should have keen consideration into the personal information of the investors. The risk tolerance level of the individual clients can be evaluated using demographic features and personalised financial products can be developed to satisfy the specific requirements of the customers.

Financial risk tolerance refers to how much uncertainty a person is ready to endure while making a financial decision that involves the chance of a loss. It is inevitable to understand an Investor's financial risk tolerance level to frame an appropriate investment plan for better returns. The study concludes that demographic characteristics such as age, gender education, occupation, and income have a serious impact on the financial risk tolerance of investors. Such characteristics can be used to differentiate individual investors into different classes. But marital status does not affect the financial risk tolerance of investors. Financial advisors should frame investment portfolios to cater to the needs of each class of investors.

REFERENCES

1. Grable, J. E. & Lytton, R. H. (1998). Investor risk tolerance: testing the efficacy of demographics as differentiating and classifying factors, *Financial Counseling and Planning*, *9*(1), 61-73.
2. Ferreira, S., & Dickason-Koekemoer, Z.,"A structural equation model of financial risk tolerance in South Africa",Cogent Business & Management, Vol 7 No.1, 1811595, 2020.
3. Pandya,H., " A Study based on Gender Behavioural differences on Investment Decisions in State of Gujarat", (Doctoral thesis).Nirma University, Ahmedabad, 2020.
4. Fisher, P. J., & Yao, R., "Gender differences in financial risk tolerance", Journal of Economic Psychology, Vol 61, pp.191-202, 2017.
5. Grable, John E., and Ruth H. Lytton. 1999. "Financial Risk Tolerance Revisited: The Development of a Risk Assessment Instrument." Financial Services Review 8: 163– 181.
6. Beer, Francisca M., and Joseph D. Wellman. 2021. "Implication of Stigmatization on Investors Financial Risk Tolerance: The Case of Gay Men." Journal of Behavioral and Experimental Finance 31. https://doi. org/10.1016/j.jbef.2021.100513.