Original Article

IMPACT OF PERSONALITY TRAITS ON STOCK MARKET INVESTORS WITH REGARD TO RISK TOLERANCE

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Abstract

The study examines the impact of personality traits on investment decisions based on the big-five model. A total of 100 responses from Cochin were collected using the convenience sampling technique. The five-point Likert scale questionnaire was used alongside the Smart-PLS software for data analysis. The results suggest that personality traits did have a significant effect on investment decisions through agreeableness, conscientiousness and extraversion. However, risk tolerance has a significant negative impact on investment decisions through openness to experience and a significant positive impact through neuroticism. The study helps improve our understanding of investor behaviour by considering the mediating role of big five personality traits on the relationship between risk tolerance and investment decisions. It is recommended that financial institutions should provide investment counselling services to prospective investors using the consumer profile technique.

Introduction

A nation's productive capacity depends on a healthy capital formation. Robust savings rate coupled with good capital mobilization are the key macro economic variables with micro foundations, which play a significant role in economic growth. Since the domestic saving rate is directly related to the investment rate and the lending capacity of the banking system, it is also an important indicator of economic development. A nation's savings and investment propensities also play a key role in achieving dynamic stability in the capital market. Stock is a term used to symbolize an investor's ownership in a company. Those who own stock are commonly called stockholders or shareholders. As a shareholder, an investor theoretically owns a percentage of everything the company owns or owes. The company's profitability or lack thereof, determines whether its stock is traded at a higher or lower price. While trading of debt and commodities has its origins in middle ages, the modern concepts of a stock market began in the late 16th century. However, empirical investigation on the effect of individual behaviors on stock market anomalies is primarily limited in the context of emerging and frontier markets. In this study, the researcher examine the effect of the big five personality traits on stock investment decisions. Personality is regarded as a critical driver of human behavior. The personality directly reflects upon the attitude, behaviour as well as their overall decision making with regard to every aspects of life. In uncertain circumstances, personality traits are found to guide individuals' decision-making behavior. Personality is often termed as the way an individual interacts, reacts and behaves with others and is often exhibited through measurable traits. Investor personality has a considerable role and effect on his/her psychology which may influence on decisions. The five-factor theory on personality is considered a prototype for the new generation of personality theories. The five-factor theory model

describes personality in five dimensions of extraversion, neuroticism, agreeableness, consciousness, and openness to Experience. An extraverted individual would possess pleasant, assertiveness, energetic, excitement seeking, positive emotions, warm and are not restricted by rationality. They are optimistic and make positive decisions. These characteristics would lead to a loss in the financial market due to the overestimation of forward-looking. The main characteristics of neurotic individuals include impulsiveness, depression, anxiety, and anger. They are self-centered and are on the lookout for superior goals. Investors with this personality tend to be nervous, anxious and emotionally unstable, and scared to make a decision. Individuals who are low agreeable generally tend to follow peer recommendations in investment decision-making, resulting in herding effects. A conscientious person would be depicting characteristics of competence, organization, achievement striving, self discipline, and deliberation. Individuals possessing a high openness to experience are adjustable and succumb to novel ideas and unique values.

Objectives of the study

1. To study the effect of personality traits on stock market investors.

Research methodology

The study is both descriptive and analytical in nature. The data have been collected through primary and secondary sources. The primary data have been collected through a well-structured questionnaire using convenience sampling technique. Primary data were collected through pre-determined set of questions in the form of structured and well-designed questionnaire among the respondents. A self-administered questionnaire is being used for gathering the inital primary data for research. For this purpose, a survey has been conducted via online to the registered individual investors at Cochin stock exchange . Out of this population, 145 questionnaires are distributed randomly from May to July 2022 through stock brokering companies as online survey web links. Only 114 questionnaires are received, and a total of 100 valid questionnaires are considered for analysis after removing the incomplete questionnaires.

Variables under study

Dependent variable

It comprises of a set of questions (7 questions) for assessing the dependent variable, which is stock investment decision making by investors with considering the risk, return, and social benefit considered by investors in their stock investment decision making.

Independent variables

The section comprises of questions for assessing that big five personality dimension namely, extraversion, neuroticism, agreeableness, conscientiousness and open to experience. Questions are adopted from the big five personality model have been subject to cross validation across cultures and situations.

Results and discussions

The following section deals with the testing of hypotheses.

Hypothesis 1

There is no significant difference between Age and personality traits.

ANOVA

Age of respondents

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	12.932	4	3.233	14.415	.000
Within Groups	21.308	95	.224		
Total	34.240	99			

Since the value obtained is less than 0.05 we accept the alternative hypothesis that there is significance of difference between age and personality traits.

Hypothesis 2

There is no significant difference between Monthly Income and personality traits.

ANOVA

Monthly Income

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	24.179	4	6.045	115.295	.000
Within Groups	4.981	95	.052		
Total	29.160	99			

Since the value obtained is less than 0.05 we accept the alternative hypothesis that there is significance difference between monthly income and personality traits.

Hypothesis 3

There is no significant difference between Risk Perception and personality traits.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate

1	.041[a]	.002	-.009	.52769

a. Predictors: (Constant), risk perception

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.738	.539		8.793	.000
	risk perception	-.056	.138	-.041	-.406	.686

a. Dependent Variable: personality traits

Since the value obtained is less than 0.05 we accept the alternative hypothesis that there is significance difference between personality traits and risk perception.

Hypothesis 4

There is no significant difference between Personality Traits and Investment Decisions.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.100[a]	.010	.000	.02000

a. Predictors: (Constant), personality traits

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.781	.017		274.651	.000
	personality traits	.004	.004	.100	.995	.322

a. Dependent Variable: Investment Decisions

Since value obtained is less than 0.05 we accept the alternative hypothesis that there is significant difference between personality traits and investment decisions.

Hypothesis 5:

H_0: There is no significant relationship between financial experience , personality traits and risk behaviour in investor's decision in Mutual funds.

Table 1 below shows that Correlation between the dependent and independent variable (0.764) reveals that these variables are positively correlated, indicating that they are moving in the same direction. R square is .586 which shows that 58.86% variation in Investment decision is caused by the other three variables under study.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.764[a]	.586	.549	.19462	1.393

a. Predictors: (Constant), Financial experience , Personality traits and Risk behaviour

Table 2 shows the results of ANOVA statistics. It is shown that value of F-significance is .000 which is less than 0.05. This shows that overall regression model is significant.

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.234	3	.871	20.987	.000[b]
	Residual	1.730	96	.039		
	Total	4.964	99			

a. Dependent Variable: Investment Decision

b. Predictors: (Constant), Financial experience , Personality traits and Risk behaviour

The value of regression coefficient for optimism bias is 0.00 which is significant at p value less than 0.05. Thus it can be said that there is positive and significant impact of financial experience on investment decision. Similarly for personality traits the value of coefficient is positive and significant at p value less than 0.05 which shows that this bias has also positive and significant impact on investment decisions.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.438	.484		7.104	.496
	Financial experience	.076	.111	.075	.683	.000

Personality traits	-.258	.144	-.197	-1.792	.076
Risk behaviour	.119	.081	.159	1.470	.035

a. Dependent Variable: Investment Decision

Correlation matrix between personality traits and investment decision making

Correlation analysis would aim to test the relationship between the big five personality traits (agreeableness, extra version, consciousness, neuroticism, and openness to experience) and investment decision-making of individual investors at CSE. By observing the matrix below in the table, all correlation values are less than 0.8 and can be inferred that there is no problem of multicollinearity with the data. Further Variance inflation factor (VIF) values prove the non-existence of multi colliniearity.

IDM	AGR	EXT	CON	NEU	OPEN
IDM	1				
AGR	-0.355	1			
EXT	0.327	-0.656	1		
CON	0.141	-0.041	0.250	1	
NEU	-0.21	0.442	-0.14	-0.118	1
OPEN	0.111	-0.319	0.322	0.09	-0.144

Hypothesis 6

Risk behaviour possessed by the stock market investors in Kerala is at average level.

One sample t test for measuring the extent of risk behaviour possessed by the stock market investors in Kerala

SI No	**Factor**	**Mean**	**Standard Deviation**	**Mean difference**	**T value**	**P Value**
1	Risk Behavior	4.41	0.826	1.41	42.26	<0.001**

*** denotes significant at 1% level*

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean

Risk Behaviour	100	4.4118	.82636	.03340

One-Sample Test

	Test Value = 3				
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference
					Lower
Risk Behaviour	42.264	611	.000	1.41176	1.3462

One-Sample Test

	Test Value = 3
	95% Confidence Interval of the Difference
	Upper
Risk Behaviour	1.4774

Since the P value is less than 0.01, the null hypothesis is rejected at 1% level. It suggests that investors in the stock market in Kerala have risk behaviours that are significantly higher than average.

Hypotheses 7:

H_0: There is no significant difference in Investment decisions of investors based on Risk appetite of investors.

H_0: There is no significant difference in Investment decisions of investors based on personality traits of investors.

H_0: There is no significant difference in Investment decisions of investors based on experience of investors with mutual fund schemes.

Three way ANOVA

Tests of Between-Subjects Effects

Investment decisions based on Financial decision maker, Risk appetite and Financial Experience in stock market

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Risk appetite	.852	2	.623	.496	.047
Personality traits	1.082	2	.191	1.077	.346
Financial Experience	3.1331	3	1.444	2.502	.009
Error	12.059	68	.177		
Corrected Total	15.472	99			

Three way ANOVA conducted using “Investment decisions” as the dependent variable and Risk value appetite as independent variable shown a P-value of 0.047 which is less than 0.05. Statistically this made the researcher to reject null hypothesis. Therefore there is a significant difference in Investment decisions of investors based on Risk appetite of investors. Furthermore keeping Personality traits as independent variable showed P-value of 0.346 which is greater than 0.05. Therefore it is found that there is no significant difference in Investment decisions of investors based on the variable Personality traits of investors. Finally testing the hypothesis on the basis of keeping financial experience of respondents as the independent variable showed a significance value of .009 shows that there is a significant difference in investment decisions of respondents based on their experience with stock market investment schemes.

Conclusion

The study attempts identify the influence of personality traits on investment decisions. The study shown that personality traits significantly influence the investment decisions of the respondents. The study also states that the age of respondents do influence the risk investment decisions of the respondents. The study also found that risk perception among stock market investors do influence the decision making capacity of respondents with regard to stock market investments. The study also shows that there is no positive relationship between personality traits on investment decision making of the respondents.

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