

OPEN ACCESS

Volume: 9

Special Issue: 1

Month: March

Year: 2022

P-ISSN: 2321-4643

E-ISSN: 2581-9402

Impact Factor: 3.122

Received: 18.01.2022

Accepted: 07.03.2022

Published: 19.03.2022

Citation:

N, Sindhu A., and Dharmendra H. “A Moderating Role of Risk Perception on the Relationship Between Financial Literacy and Financial Knowledge on Investment Decision.” *Shanlax International Journal of Management*, vol. 9, no. S1, 2022, pp. 20–29.

DOI:

<https://doi.org/10.34293/management.v9iS1-Mar.4887>

A Moderating Role of Risk Perception on the Relationship Between Financial Literacy and Financial Knowledge on Investment Decision

Dr. Sindhu .AN

*Assistant Professor, PG Department of Commerce
Mount Carmel College (Autonomous), Bengaluru*

Dr. Dharmendra .H

*Assistant Professor, Department of Management Studies
Acharya Institute of Graduate Studies, Bengaluru*

Abstract

Financial literacy is a knowledge of money and financial products that people may apply to their financial decisions in order to make well-informed judgments about their finances. The goal of this study is to see how financial literacy, financial knowledge, and risk perception affect investment decisions, as well as to see if risk perception has a moderating impact. The study is descriptive in nature, and a cross-sectional survey was used as part of the methodology. Hypotheses were established and tested after constructing a systematic questionnaire with 14 items. The information was gathered from 424 individual investors using a convenience sampling method, with 416 replies qualifying for the study and the remaining responses being discarded owing to insufficient information. Partial least square (PLS) regression was used to analyse the data. Financial literacy, financial awareness, and risk perception all had a beneficial impact on investment decisions, according to the study's findings. The moderator risk perception has a modest effect on the association between financial knowledge and investment, but it has a poor effect on the relationship between financial literacy and investment decisions.

Keywords: Financial Literacy Financial Knowledge, Investment Decisions, Risk Perception

Introduction

Investment Decisions play a most prominent role in the complex financial market system. Thus identifying the factors that significantly influences the investment decisions is the need of the hour and is one of the most vital issue for an Individual and economic development.

Financial Literacy can be defined as ‘A combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing’. (OECD: Organization for Economic Co-operation and Development, 2011). To measure financial literacy various approaches have been developed among them one such study reports

that Investment planning, financial planning, retirement planning, mutual funds and Risk return constitute financial literacy (Dam & Hotwani, 2018).

Financial literacy is an individual ability to understand how money operates in the world. How it can be earned or made, how it is managed by an individual & how it is invested. Financial Literacy is the key success in achieving an effective investment decisions. In a complex financial market system one should have financial literacy which is recognized as a core skill (Adele Atkinson, 2010). Financial literacy has an effective impact on wealth accumulation and domestic savings (Jappelli & Padula, 2011). Financial literacy is the ability to understand the basic concepts of finance such as inflation, compounding, diversification and Investment returns (Hastings & Mitchell, 2011). Financial literacy accumulated in the early stage of life will have a positive impact on the individual wealth portfolio allocations in the later stage of life. Financial Behaviour and Income are the key attributes required for an Individual to make an Investment Decision (Arianti, 2018).

Review of Literature

Financial Literacy and Investment Decisions

It is evident from the past research that financial literacy is the ability to understand numeracy and the use of financial terms. High financial literacy was found among people aged between 50-60 years, professionals, business, farm owners and college/university graduates. Low literacy was found among unemployed, female respondents and those with low level of education (Worthington, 2011). Financial literacy is the mixture of awareness, attitude, behavior, knowledge, and skill required to make an effective investment decision and as a result, accomplish economic wellbeing (Adele Atkinson, 2010). Financial literacy affects significantly the investment decisions of the individual investors. Particularly, financial literacy had a negative effect on each of the five categories i.e., Self-image/firm image coincidence, Neutral information, Advocate information and Personal financial needs that affect the investment decision, with the exception of the accounting information category. The influence of financial literacy on the accounting information category was positive but statistically insignificant (Hassan et al., 2015). The possession of the financial literacy proficiency enables the investors to make informed judgements and it limits the chances of investors being misled on financial matters (Akims & Jagongo, 2017). Financial literacy has associated with retirement savings. However it is less sensitive with respect to Investment decisions (Hastings & Mitchell, 2011). Investment decisions is influenced by many factors few among them are Investment decisions personally, revision of the investment, maintaining the investment portfolio

Financial Knowledge and Investment Decision

Financial knowledge is the basic knowledge of key financial concepts and the ability to apply numeracy skills in financial situations (Adele Atkinson, 2010). According to (Huston, 2010), financial knowledge is an integral dimension of financial literacy. Financial Literacy is the stock of knowledge acquired through education and/or experience specifically related to essential personal finance concepts and Products. Financial knowledge is an essential tool one should have to manage their personal finance in everyday life which in turn helps to solve financial problems (Ikandari, 2016). The individual financial knowledge significantly influences the investment decisions. Higher the financial knowledge better the investment choices and vice versa (Akims & Jagongo, 2017). Consumers with basic financial knowledge expressed a higher likelihood to participate in retirement planning by taking sound financial decisions (Howlett, Kees, & Kemp, 2008). An adequate financial knowledge and skills will lead an investors in taking the optimal

investment decisions (Musundi A, 2014). Financial knowledge enables an individual to know more about the various financial instruments, level of interest and level of commitment, which play a significant role in investment decisions (Singh, 2016). Individual financial knowledge was found to be insignificant in predicting their financial management practices as well as financial satisfaction (Bir J B R Subarna, 2014).

Risk Perception and Investment Decisions

Past literature indicates that demographic factors such as age, education, income and wealth play a significant role in distinguishing risk tolerance among individuals. It was found that a positive relationship between risk tolerance and investors age, specifically states that risk aversion increases as age increases (Riley & Chow, 2006). Women tend to avoid risk than men. There exists a negative correlation between financial literacy and risk perception. Higher the level of financial knowledge, lower the perceived investment risk (Sachse, Jungermann, & Belting, 2012). Several studies reveals that there is strong correlation between risk and return (Donald GMacGregor, Paul Slovic, Michael Berry, 2011). The Uncertainty in the market conditions is the most influencing factor to be considered by an Investor in their resource allocation decisions (Tarasi, Bolton, & Hutt, 2011).

Research Questions

- Is there any Impact of Financial Literacy, Financial knowledge and Risk perception on Investment Decisions?
- Is there any moderating role of Risk perception in the relationship between financial literacy and Investment decisions?
- Is there any moderating role of Risk perception in the relationship between financial knowledge and Investment Decisions?

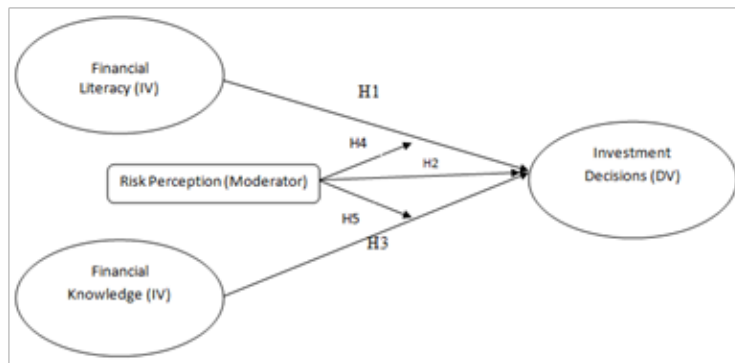


Figure 1 Conceptual Frame Work

To measure the constructs the following scale has been conceptualized:

Table 1 Conceptualization of Variables

Constructs	Code	Items
Risk Perception	RP1	Fear of loss in investing in stocks that had a negative performance in the recent past.
	RP2	I prefer investment where there is no loss in capital

Financial Literacy	FL1	Buying a company stock usually provides safer return than a stock mutual fund
	FL2	Bonds are riskier than stocks
	FL3	The risk of losing money decreases when investors spreads his investment among different assets
Financial knowledge	FK1	I do budgeting for my day to day expenses
	FK2	Before choosing financial products I do Market analysis
	FK3	I Save enough money for retirement
	FK4	I save enough money to meet future uncertainties
Investment Decisions	ID1	I invest to live a secure and safe life
	ID2	I Invest for future planning
	ID3	I invest to take the advantage of tax benefits
	ID4	I Invest in those assets which are risk free
	ID5	I Invest for risk coverage

Research Objectives

The research aims to achieve the following objectives:

- To analyse the impact of financial literacy on Investment Decisions
- To examine the impact of financial knowledge on Investment Decisions
- To study the impact of Risk perception on Investment Decisions
- To Investigate the moderator role of risk perception between Financial Literacy and Investment Decisions
- To Investigate the moderator role of risk perception between Financial knowledge and Investment Decisions

Hypotheses

On the basis of the above conceptual model the following hypotheses were developed and tested.

- H_1 : Financial Literacy has a positive impact on Investment Decisions
- H_2 : Risk perception has a positive impact on Investment Decisions
- H_3 : Financial Knowledge has a positive impact on Investment Decisions
- H_4 : Risk Perception Moderates the relationship between financial literacy and Investment Decisions
- H_5 : Risk perception Moderates the relationship between financial literacy and Investment Decisions

Research Methodology

The present study is of descriptive in nature and used survey method to collect the data through structured questionnaire. A cross sectional survey has been employed in the present study and the responses were obtained from the individual investors who are operating in National Stock Exchange. Questionnaire were distributed to 445 respondents via email as well as drop and pick method but the researcher could managed to collect only 424 responses of which, 416 responses has been used for the present study. Convenient sampling technique has been adopted. Research instruments were designed after extensive literature survey. The following variables were identified and used for the present study. Investment Decisions being Dependant variables with five items (Chavali & Mohanraj, 2016), Financial literacy being independent variable with three items (OECD

Toolkit et al., 2018), Financial Knowledge being independent variables with four items (Nguyen, Rózsa, Belás, & Belásová, 2017) and Risk perception being the moderator with two items (Arequat, Abu-rumman, Al-alani, & Alhorani, 2019). In order test the influence among variables an items with five point likert scales beginning from 1 (Strongly Disagree) to 5 (Strongly agree) was used under each construct. The collected data has been analysed by using Partial least square Regression.

Discussions and Results

Table 2 Respondents’ Characteristics

		N	%
Sex	Male	235	56.50
	Female	181	43.50
Age	18-25	24	05.77
	25-35	180	43.27
	35-45	156	37.50
	45 & ABOVE	56	13.46
Profession	Student	22	05.29
	Housewife	90	21.63
	Employed	230	55.29
	Self Employed	39	09.38
Martial Status	Professional	35	08.41
	Single	86	20.67
Education Qualification	Married	330	79.33
	Higher Secondary	08	01.92
	Graduate	186	44.77
Income	Post Graduate	222	53.37
	less than Rs.50000	20	04.81
	Rs.50,000-Rs.1,50,000	40	09.62
	Rs.1,50,000-Rs.2,50,000	86	20.67
	Rs.2,50,000-Rs.3,50,000	105	25.24
	Rs.3,50,000 and above	165	39.66

Table 2 presents the demographic details of the respondents. The male respondents are 56.50%, while female respondents constitute 43.50%. The proportion of female investors low compared to male investors. Majority of the respondents fall under the age group of 25-35 years i.e., 43.27% and least being student category who are under the 18-25 age group i.e., 5.29%, which is an indication of young investors are the major operators in the stock market. The distribution of the respondents on the basis of profession is majorly dominated by employed category i.e., 55.29%, Housewife group i.e., 21.63%, self-employed group i.e., 09.38%, professional i.e., 08.41% and students i.e., 05.29% respectively. Out of the total respondents 79.33% are married and 20.67% are not married. It is evident that from the above table the highest level of education employed by the respondents, where 53.37% are post graduates, 44.77% are graduates and 01.92% respondents have completed higher secondary education. With respect annual income it can be seen that the highest proportion

of respondents i.e., 39.66% earn annual income of Rs.3,50,000 and above, annual income of Rs.2,50,000-3,50,000 was earned by 25.24%, annual income of Rs.1,50,000-2,50,000 was earned by 86%, annual income of Rs.50000-150000 was earned by 09.62% and annual income of less than Rs. 50,000 being least earned by 04.81% of the total sample size which is mostly of the student category.

**Table 3 Evaluation of Measurement Model
Reliability and Validity (Measurement Model)**

	Items	Factor loadings ^a	AVE ^b	CR ^c	Rho A ^d
Financial Literacy	FL2	0.911	0.832	0.908	0.798
	FL3	0.913			
Risk Perception	RP1	0.935	0.866	0.928	0.848
	RP2	0.926			
Financial Knowledge	FK1	0.711	0.705	0.904	0.88
	FK2	0.904			
	FK3	0.915			
	FK4	0.813			
Investment Decisions	ID1	0.852	0.716	0.926	0.906
	ID2	0.873			
	ID3	0.813			
	ID4	0.823			
	ID5	0.868			

Table 3 Indicates the reliability and validity of the constructs used in the study. The reliability is an estimate of constructs internal consistency which is measured by the Composite Reliability, since the composite reliability coefficient is ≥ 0.70 as suggested by (Hair, Ringle, & Sarstedt, 2011) hence the model satisfies the reliability condition and all the indicators factor loadings is > 0.50 (G. David Garson, 2016). Except the FL1 indicator (Buying a company stock usually provides safer return than a stock mutual fund) loading is less than 0.50 therefore the indicator has been removed. Validity focuses on convergent validity and discriminant validity. Convergent validity is measured by the Average Variance Explained. AVE reflects the average communality for each latent factor in a reflective model. In adequate model the AVE should be > 0.50 (G. David Garson, 2016). Since the AVE is > 0.50 in the table it is evident that the factors are explaining at least half of the variance of their respective indicators. The study is extended by carrying discriminant validity checking through Fornell-larcker criterion in the below table.

Table 4 Fournell-Larcker Criterion

	Fin knowlege	Fin literacy	Investmnet decision	Risk perception
Fin knowlege	0.840			
Fin literacy	0.645	0.912		
Investmnet decision	0.757	0.591	0.846	
Risk perception	0.790	0.660	0.777	0.931

Table 4 explains the discriminant validity by using Fornell-larcker criterion: for any latent variable the square root of AVE should be higher than its correlation with any other latent variable (G. David Garson, 2016). Table 5 indicates that the square root AVE which is appeared diagonally in any factor is higher than the correlations below it. It is established that there is discriminant validity.

Table 5 Indicator Item Cross Loadings

	Fin knowlege	Fin literacy	Investmnet decision	Risk perception
FK1	0.756	0.472	0.511	0.549
FK2	0.904	0.600	0.734	0.770
FK3	0.915	0.604	0.681	0.720
FK4	0.813	0.475	0.593	0.588
FL2	0.516	0.911	0.536	0.538
FL3	0.659	0.913	0.542	0.665
ID1	0.719	0.540	0.850	0.687
ID2	0.674	0.570	0.870	0.669
ID3	0.531	0.379	0.812	0.593
ID4	0.544	0.524	0.826	0.648
ID5	0.708	0.473	0.870	0.683
RP1	0.741	0.619	0.747	0.935
RP2	0.729	0.609	0.697	0.926

Cross loading is an alternative to AVE as a method of assessing discriminant validity for reflective models. No indicator variable should have a higher correlation with another latent variable than with its own latent variable. Table 5 indicates the cross loadings of each indicator, which is >0.70 hence the model is appropriately specified. The study is subsequently tested the hypotheses of the study by analysing the partial least square regression by bootstrapping the sample 5000 times. The Risk perception has been included in the model as a moderator to examine its effect on the relationship between financial literacy and investment decisions and on the financial knowledge and Investment decisions.

Table 6 R Square Evaluation

Investment Decisions	R Square	R square Adjusted
	0.706	0.702

From the above table it is seen that the value of Adjusted R2 is 0.702 or 70.2%. This indicates that the predictor variables i.e., Financial Literacy, Financial knowledge and Risk perception explains the investment decisions to an extent of 70.2% jointly, while the remaining 29.8% are explained by other variables which are not incorporated in the present study.

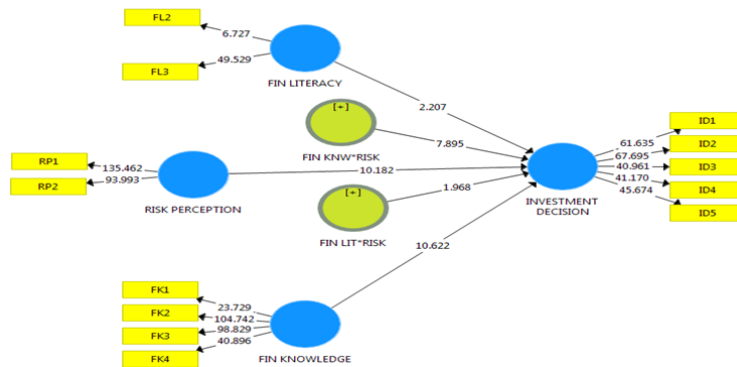


Figure 2 Analysis of Partial Least Square Regression

Figure 2 exhibits the effect of predictor variable on the criterion variable and also the moderator variable effect on the strength of the relationship between a predictor variable and a criterion variable. The results shows financial literacy, financial knowledge, Risk perception had significant effect on Investment Decisions since T statistics value is >1.96, however the effect of moderator risk perception on the strength of the relationship between financial literacy and Investment is insignificant. The level of influence between predictor variable and the criterion variable is explained in the following table:

Table 7 Path Coefficient

Hypotheses		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Results
	Fin Literacy -> Investment Decision	0.1860	0.1870	0.0840	2.2070	0.0270	Supported
H2	Risk Perception -> Investment Decision	1.0340	1.0270	0.1020	10.1820	0.0000	Supported
H3	Fin Knowledge -> Investment Decision	1.0270	1.0320	0.0970	10.6220	0.0000	Supported
H4	Fin Knw*Risk -> Investment Decision	0.1900	0.1900	0.0240	7.8950	0.0000	Supported
H5	Fin Lit*Risk -> Investment Decision	0.0390	0.0390	0.0200	1.9680	0.0590	Not Supported

The above table reveals that the results of the hypotheses testing which indicates that the hypotheses i.e., Financial Literacy has a positive impact on Investment Decision (H1) is supported

since significant value (p-value) is 0.0270 which is less than 0.05 and the path coefficient ($\beta=0.1860$), as financially literacy improves; the quality of the investment decision will improve. Risk perception has a positive impact on Investment Decision (H2) is supported since significant value (p-value) is 0.0000 which is less than 0.05 and the path coefficient ($\beta=1.0340$). As Risk perceived by the individual investors increases that will contribute significantly to the quality of the investment decision. Financial Knowledge has a positive impact on Investment Decision (H3) is supported since significant value (p-value) is 0.0000 which is less than 0.05 and the path coefficient ($\beta=1.0270$). This implies that an investor with sound financial knowledge will take an effective investment decision and vice versa. In the same line risk perception was found to be moderator in the relationship between financial knowledge and Investment decision, since significant value 0.0000 (p-value) is less than 0.05 and path coefficient ($\beta=0.1900$) Risk Perception Moderates the relationship between financial literacy and Investment Decision (H4) is supported. It signifies that combination of both the predictors i.e. Financial knowledge and Risk Perception will contribute to the decision of the investor positively and lastly risk perception was found to be moderator in the relationship between financial literacy and Investment decision, but significant value is 0.0590 (p-value) is greater than 0.05 and path coefficient ($\beta=0.0390$) H5: Risk perception Moderates the relationship between financial literacy and Investment Decision (H5) is not supported. It states that the combination of Risk perception and financial literacy contribute to investment decisions significantly.

Table 8 Effect Size

	Investment Decision (f2)	Effect Size
Fin Knowledge	0.277	Substantial
Fin Knw*Risk	0.148	Moderate
Fin Lit*Risk	0.011	Weak
Fin Literacy	0.013	Weak
Risk Perception	0.326	Substantial

The study further explored the strength of each predictor variable in explaining endogenous variables. According to Cohen (1998) f2 of 0.02, 0.15 and 0.35 for the significant variables represents weak, moderate and substantial effect respectively. Table exhibits that the of effect size (f2) of Financial knowledge and Risk perception on Investment Decisions are 0.277 and 0.326. This implies that financial knowledge and Risk perception has a substantial effect on Investment Decisions. The effect of financial knowledge and risk together on the investment decisions is moderate since the effect size (f2) value is 0.148. The effect of financial literacy on investment decisions, the effect of financial literacy and risk perception together on Investment decisions is weak since the effect size (f2) are value is 0.013 and 0.013 respectively.

Conclusions

The present study attempts to examine the effect of financial knowledge and financial literacy on Investment decision with a moderating role of risk perception. Out of the five hypotheses formulated and tested, Investment decision is affected by Financial Knowledge, Financial Literacy, Risk Moderation, and also it was found that there is a moderator effect of risk perception between financial knowledge and investment decision. The effect of financial knowledge, risk perception on investment is substantial, financial literacy is week.

References

1. Kamal Gupta and Jatinder Kaur, A study of Financial Literacy among Micro Entrepreneurs in District Kangra, IJRBM, Vol-2, Issue-2, February 2014, PP.63-70.
2. Lavanya Rekha Bahadur, Financial Literacy: The Indian Story, World Journal of Social Sciences, Vol-5, Issue-3, September 2015, PP.45-57.
3. KN Narendra, Financial Literacy: Are evolution waiting to happen, Proceeding of COFP Convention 2014.
4. ECD INFE (2011) Measuring Financial Literacy: Core Questionnaire in Measuring Financial Literacy: Questionnaire and Guidance Notes for conducting an Internationally Comparable Survey of Financial literacy. Paris: OECD.
5. Sumit Agarwal, Gene Amromin, Douglas DEvanoff, Financial Literacy and Financial Planning: Evidence from India, SSRN Electronic Journal• December 2010.
6. Ratna Achuta Paluri, Saloni Mehra, Financial attitude based segmentation of women in India: an exploratory study, Vol. 34 Issue 5, January 2016, PP. 670–689.
7. Puneet Bhushan, Yajulu Medury, Financial Literacy and its Determinants, International Journal of Engineering, Business and Enterprise Applications (IJEBEA), Vol. 4, Issue-2 May 2013, PP. 155-160.
8. V Mathavathani, Dr. MV elumani, A Study on Financial Literacy Among Rural Women in Tamilnadu, Indian Journal of Applied Research, Volme -4, Issue-12, December 2014, PP. 556-557.
9. Harsha V Jariwala, Analysis of Financial Literacy Level of Retail Individual Investors of Gujarat State and Its Effect on Investment Decision, Journal of Business & Finance Librarianship, November 2014, PP. 133-158.
10. Priyanka Agarwal, Dr. Suman Yadav, Radhika Kureel, International Journal of Advance Research in Science and Engineering, Vol-1, Issue-1, 2015, PP.54-61.