JOURNAL OF
GENERAL MANAGEMENT RESEARCH

THE IMPACT OF FINANCIAL LITERACY ON INVESTOR ATTITUDES AND DECISION-MAKING: AN EMPIRICAL ANALYSIS

Ishaan Singh
Kanishka Gupta

Symbiosis Centre for Management Studies, NOIDA

Abstract

This paper examines the relationship between financial literacy, investor's attitude and decision making. For the same purpose data was collected from 510 respondents through a structured questionnaire. The scales adopted from earlier research were verified using exploratory factor analysis (EFA), followed by two-step structural equation modelling (SEM) that comprised confirmatory factor analysis (CFA) followed by hypothesis testing in AMOS 22.0. The study concluded that there was a significant relationship between financial literacy and decision making, investor's attitude and decision making and investor's attitude and financial literacy. The finding of the results will help regulatory authorities to assist investors in avoiding financial losses by providing them adequate financial information.

Keywords: *India, Financial literacy, Decision Making, Investors Attitude, Financial Knowledge.*

INTRODUCTION

In today's modern era with such complex financial landscape financial literacy not only affects one's financial condition but also the well-being and socio-economic condition of an economy as a whole (Jariwala, 2013). *"Financial literacy is not only the knowledge and understanding of financial concepts and risks but also the skills, motivation, and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life"* (Lusardi, 2019). Financial literacy as simple as it sounds is not very common in the majority of individuals. But slowly and gradually this scenario is changing and more and more people understand the importance of financial literacy. Nowadays, people have started to take active participation in matters related to investing, finance and other decisions relating to their own money. People have started to put in more and more effort to understand and expand their knowledge about financial matters (Yadav *et al.,* 2020). Not only people but economies have started to realise the importance of financial literacy and are also making efforts to promote this cause by making people aware of the range of financial and investment activities. Increasingly individuals are putting in efforts to learn how to manage their own finance and understand how to invest money to get higher returns.

Financial literacy is affected due to a variety of factors some of them being education, income, gender etc. According to a survey done by S&P global in more than 140 countries with more than 150,000 adults, worldwide, 33 percent i.e., one in every three adults are financially literate. If seen based on gender 35 percent of men and 30 percent of women are financially literate (Lusardi, 2019). This gender gap is observed in both emerging and advanced economies. From a worldwide perspective, women tend to lack behind men in terms of financial literacy. In the majority of advanced economies, the number of literate adults is lowest between the ages 35 or younger. The scenario is different in the emerging economies with the lowest rates of financial literacy prevailing in people of ages 65 or older (Klapper, Lusardi and Oudheunsdun, 2015). The rates of financial literacy are highest in the people who are 35 or younger which is quite opposite as compared to advanced economies. Another factor that affects financial literacy to a greater extent is education. In the majority of the advanced economies 52 percent of individuals with primary education are financially literate. Among adults with primary education it is 31 percent. Adults having a minimum of 15 years of schooling have 73 percent financial literacy (Klapper *et al.,* 2015).

India's financial literacy rate is merely 27 percent according to the survey conducted by the financial express (Kumar and Seth, 2020). The Government of India with the help of the Reserve Bank of India (RBI) are making continuous efforts to improve this situation to increase the overall well-being of the economy. In early November 2007, a financial education site was launched with the sole purpose of developing children's interest in finance. In addition to this, the Securities and Exchange Board of India (SEBI) has also taken numerous workshops to generate curiosity among the youth about the different financial products and finance in general (Kamboj, 2014). The commercial banks, SEBI, Insurance Regulatory and Development Authority's (IRDA) initiatives on financial education, PFRDA (Interim Pension fund Regulatory and Development Authority) are some of the parties that are taking initiative to improve financial literacy in India (Kumar and Anees, 2013). Financial literacy plays a major role in determining an individual's financial decisions and choices.

A person who is not aware of the working of financial markets would still be looking for "tips" from learned investors and still base his/her financial decisions based on other's opinions. Whereas, the person who is aware of the financial markets and basic terms related to stock market such as equity shares, preference shares etc. would be able to make better and sound decisions as to where to invest his money and obviously has an upper hand over the other person. People feel more literate about financial matters than they really tend to be, people feel if they are aware about the some common terms related to finance etc. they are qualified enough to make a financial decision on their own, while the case is the exact opposite (Amisi, 2012). In a study conducted by Kefala (2010), the author proclaimed that individuals with higher financial literacy are less prone to matters related to increased debts etc. than people with less financial literacy.

Through the remainder of this study, researchers have tried to ascertain the effect of good financial condition on a person's attitude and the different choices individuals tend to make when they get their pay check or have a surplus in hand. It includes questions ranging from the choices one makes with money to how much prior does one plan his/her finances. In addition to that, the study has explored the different factors that affect the investment attitude of investors ranging from investment agency's review to interest rates and their implications on the decision making. Some of the major research questions that the present study attempts to answer are:

RQ1) How financially literate are individual investors?

RQ2) Does people's literacy or knowledge impact their investment attitudes?

RQ3) Does a person's attitude and financial literacy influence their financial decisions?

REVIEW OF LITERATURE

Financial Literacy

Financial terminology awareness and understanding has become a prominent word in financial research in recent years. Definitions vary depending on the field, the individual's experience, expertise, and preferences. Financial literacy is defined by some research as complete awareness of financial concerns, while others define it as a combination of numerous variables such as financial knowledge and competence (Yadav *et al.,* 2020). As stated by Australian researchers, women have fewer wages and, as a result, Males have more savings and total wealth than females. Not only do women earn less than males, but they also have a poorer rate of return when posed a basic compound interest question. In this domain, women have less expertise than males. According to the findings, "less than 20 percent of middle-aged college-educated women were able to respond to the query". Meanwhile, 35 percent of college-educated males were able to respond to the question (Danila, Shawan, Ali and Djalaluddin, 2019). In a research conducted by ANZ (Australian and New Zealand banking group) on Australian teenagers above the age of 18 years they found out that although most Australian individuals are financially educated, there are a number of subgroups who experience difficulties, and many American investors are unfamiliar with key aspects of money management. Also, as concluded by Hilgert after a telephonic survey, people with more financial knowledge tend to have more experience with financial products and services. In Zimbabwe, researchers found out that the more the people contribute towards financial decisions the more their financial knowledge tends to improve (Murendo and Mutsonziwa, 2017). Financially educated households save more than those who do not obtain financial education. On the other hand, households that are unable to calculate interest rates on loan instalments borrow more and accumulate less wealth (Danila, Shawan, Ali and Djalaluddin, 2019).

Financial Literacy and Investors' Attitude

Financial literacy plays a major role in moulding investors' attitude and exerting influence on an individual's investing decision. In a study conducted by (Ronaldo and Todesco, 2012) researchers found out that there is no remarkable difference between the investors' attitude based on gender (male and female). To increase financial literacy among future generations, the focus should be on fostering good financial attitudes among the country's population (Bhushan and Mercury, 2013). A person's financial education and attitude are also important factors in making important investment decisions (Gale and Levine, 2011). A study was done on individual investors in India to examine the relationship between individual investment behaviour and investment risk preferences that investors should consider when making investment decisions in various instruments. Individual knowledge and behaviour have been shown to have no correlation (Yadav *et al.,* 2020).

In industrialised countries, such as Australia, Japan, Korea, and West European countries, financial literacy is strong (Danila, Shawan, Ali and Djalaluddin, 2019). It was discovered that investor behaviour is influenced by aspects such as why people want to invest, how much they want to invest, how long they want to spend for a return, and how they would distribute their financial resources among investment alternatives. Furthermore, the research expressly indicates that the material is about investing. Investment decisions have an impact on investment choices and post-investment actions. Furthermore, behavioural biases were described as a pattern of judgmental variation that leads to changes in perception, incorrect interpretation, and irrationality. As a result, the researchers came to the conclusion that an investor's individual level of financial literacy has a direct impact on their attitude (Li, Wang and Dong, 2016). Ibrahim and Alqyadi came to the conclusion that education can enhance financial attitudes, minimising reliance on others. Financial attitude and behaviour may both have an impact on one's well-being (Rai, Dua and Yadav 2019). From the above-aforementioned studies, the study hypothesis:

H_1: There is no significant relationship between financial literacy and investor's attitude.

Investors' Attitude and Decision Making

The investor's attitude refers to the confidence that the investor holds in his prediction, analysis for the final investment decision. It is one of the major factor that affects the decision making procedure. The investors' attitudes shift depending on their financial objectives (Goldberg and Lewis, 1978). A person's favourable attitude toward a certain activity may lead to a positive intention to carry it out (O'Connor *et al.,* 2010). When it comes to individual investors' intentions to invest in the stock market, this study follows the same premise. If he or she has a good mindset, there is a likelihood that he or she will have a positive intention for stock investing involvement (Gopi and Ramayah, 2007; Ali,2015; Phan and zhou, 2014; Raut and Das,2017; Alleyene and Broome, 2011)) The influence of psychological and environmental elements on individual investors' attitudes is investigated in a study by Chandra and Kumar. The link between cognitive and behavioural characteristics, as well as investor attitudes, was examined. Psychological biases have been recognised as a factor in determining an individual's attitude towards investing. A survey instrument is used to conduct uni-variate and bi-variate analysis to determine the variables. Five psychological factors influence investor attitudes, according to research. Prudence, a cautious approach, conservatism, lack of confidence, knowledge, and financial addiction are all examples of financial addiction (Yadav *et al.,* 2020). An individual's attitude toward stock market investment is positively influenced by previous behaviour. The investor's attitude positively mediates past behaviour and intention (Raut, 2020). The study looked at the elements that impact Turkish college students' financial attitudes. There were three financial habits identified: prompt bill payment, budgeting, and future savings. The findings of the study demonstrate that more financially aware students have better financial habits. A significant financial attitude prediction was discovered. There was a discernible difference in budgeting behaviour between males and females (Akben and Elif, 2015). The study hypothesis derived from the aforementioned investigations:

H_2: There is no significant relationship between investor's attitude and decision making.

Financial Literacy and Decision Making

Polls have revealed that American children and adults lack the basic financial understanding they need to make sound financial decisions since the mid-1990s (Lusardi and Mitchell, 2013). Financial literacy aids in the effective management of financial resources for improved financial results. Individual financial knowledge and attitude are also important factors of a financial decision's result for each investor (Gale and Levine, 2011). If a person is financially literate, they can make well-informed judgments. Insufficient knowledge leads to ineffective judgments. It is critical to invest time in gaining financial knowledge by comprehending numerous concepts such as interest rates, inflation, diversification, and numeracy (Remund, 2010). It seems to reason that investors with appropriate information would be confident and certain in their investing choices. As a result, investors' judgments are influenced by their knowledge of financial investments (Gnana, Kalaselvi, and Ansuya, 2006). The bulk of the population demonstrates a money-related lack of education. According to Lusardi, the majority of individuals are incapable of performing simple financial calculations and analysing data on fundamental financial concepts. Individuals who are financially illiterate are at a disadvantage when it comes to good financial planning (Lusardi, 2007).

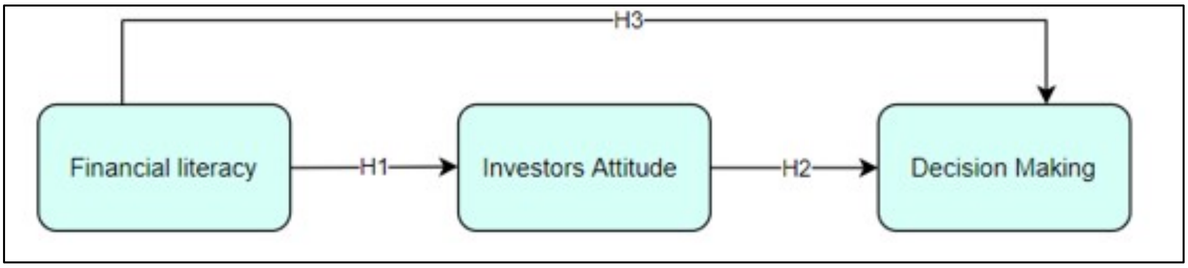
Financial decision-making has been related to a lack of financial literacy. Murray (2000), citing a Nellie May study, claims that 25 percent of undergraduate college students had four or more credit cards, with 10 percent having outstanding sums of $3,000 to $7,000 (Mandell, 2008). The 2004 US Health and Retirement Study (HRS) was utilised by Lusardi and Mitchell (2006) to assess fundamental financial knowledge in adults above the age of 50, you must be at least 50 years old. They created questions on comprehending interest compounding, inflation impacts, and risk diversification, and discovered that financial illiteracy is pervasive, especially among women, the elderly, and those with less schooling. These findings were especially striking given that the majority of respondents over the age of 50 have used bank accounts and credit cards, as well as taken out at least one mortgage (Mandell and Hanson, 2009). The study hypothesis derived from the aforementioned investigations:

H_3: There is no significant relationship between financial literacy and decision making.

Research Gap

From the above discussion and the review of literature, it is evident that the study on financial literacy, investor’s attitude and decision making has a lot of scope to be explored in India. The major studies on this topic are niche and restricted to a relation between any two of the given three variables. This research seeks to address the relationship among these three variables, i.e., financial literacy, investor’s attitude and decision making. Aside from the diverse outcome, any researchers have failed to provide any solid conclusions about the relationship among these variables. Moreover, many researchers found contradicting results (Ronald and Todesco, 2012). The main purpose of this study is to examine the relationship between financial literacy, investor’s attitude and decision making. At present, there are very few studies globally and no major studies in India’s context.

Figure 1- Research Model



Source-Author’s Compilation

RESEARCH METHODOLOGY

Measurement Scale

The adopted scale from the previous study has been listed in table 1. To evaluate the provided hypotheses, the research model was analysed using structural equation modelling, which included factor analysis and path analysis. The remarks were evaluated on a Likert scale of 1 to 5, with 1 indicates strongly disagree and 5 indicates strongly agree. A few statements were changed to make communication and language easier in the Indian setting.

Table 1: Measurement scale used in questionnaire

Constructs	Sources	Number of Items
Financial literacy	Rooji, Lusardi, and Alessie (Partially taken and Modified)	4
Investors Attitude	Chen (2007), Raut (2020)	8
Decision Making	Scott and Bruce (1995)	7

Source-:Authors' compilation

Data Collection and Sample

The sample for this study includes undergraduate, postgraduate, and doctoral students from various institutions in Maharashtra, Gujarat, and Uttar Pradesh because these states have the biggest number of investors in India (Money control, 2021). The questionnaire was issued to 1000 respondents via Google forums using non-probability convenience sampling. The information was gathered over a three-months period, from July to October 2021. The survey was completed by 510 people out of a total of 1000 people. The percentage of those that responded was 51 percent.

Participants

On the basis of frequency analysis, the sample consists of 235 females (46 percent) and 275 males (54 percent). More than 50 percent were pursuing a graduate degree. As it is very obvious from the data of age group, more than half of the respondents are students, followed by servicemen and lastly businessmen. The description of all the demographics is given in table-2.

Table 2- Survey respondents profile (n= 510)

Measure	Item	Frequency	Percentage
Gender	Male	275	54
	Female	235	46
Educational Background	Graduation	200	39.3
	Post-Graduation and above	48	9.3
	Higher Secondary education	246	48.1
	Primary	7	1.4
	Diploma	9	1.9
Monthly Income	Upto 25000	79	15.4
	25001-50000	22	4.2
	50001-75000	357	70.1
	75001-100000	22	4.2
	100001-150001	7	1.4
	150001 and above	23	4.7
Marital Status	Married	46	8.9
	Single	444	86.9
	Prefer not to say	20	4.2

Source- Authors' calculation

DATA ANALYSIS

Validity And Reliability

The Kaiser-Meyer-Olkin (KMO) test and Bertlett's test of sphericity were used to assess EFA using 17 construct questions in a questionnaire. A KMO value above 0.6 and above and a significant Bartlett's test indicate that data were acceptable (Pallant, 2010). The results obtained from both of these were satisfactory, KMO= 0.912, p=0.000 so the data were suitable for analysis. Principal component analysis with varimax rotation was used to conduct an EFA on the constructions. This approach identified three components with eigen values greater than 1 and loading greater than 0.5, which explained 72 percent of the total variation. Table 3 displays the constructions' internal consistency and reliability by displaying the Cronbach's alpha values, which vary from 0.845 to 0.949, which is good because it exceeds the minimum cut-off point of 0.6 (Hair, Black, Babin, Anderson and Tatham, 2006).

Table 3- Validity and reliability construct items

Constructs	Items	Factor loading	CR	AVE	CA
Investors attitude	IA1	0.742	0.949	0.698	0.948
	IA2	0.740			
	IA3	0.752			
	IA4	0.758			
	IA5	0.801			
	IA6	0.791			
	IA7	0.796			
	IA8	0.846			
Decision Making	DM1	0.682	0.949	0.729	0.845
	DM2	0.830			
	DM3	0.720			
	DM4	0.800			
	DM5	0.770			
	DM6	0.791			
	DM7	0.839			
Financial literacy	FI1	0.837	0.857	0.551	0.949
	FI2	0.831			
	FI3	0.850			
	FI4	0.697			
	FI5	0.646			

Source- Authors calculation

Confirmatory Factor Analysis

In the second stage, AMOS 22 was utilised to establish convergent and discriminant validity using a CFA. The maximum likelihood estimate approach is utilised in the analysis. The "*concept that the indicators for a particular construct should be at least substantially associated among themselves*" is known as *convergent validity* (Blanco, Blasco and Azorin, 2010). The confirmatory model's factor loading, according to Steenkamp and Geyskens (2006), should be statistically significant (level of 0.01) and more than 0.5. All three constructs have a mean-variance extracted (AVE) that is more than 0.5, indicating convergent validity (refer to table 3) (Hair *et al.,* 2006). *Discriminatory validity* states that indicators for various constructs should not be highly linked, as this might lead to the conclusion that they are measuring the same thing (Blanco *et al.,* 2010. The assumptions of common method bias and linearity were also tested and found to be valid.

Table 4: Discriminant validity

Constructs	Investors' Attitude	Decision Making	Financial Literacy
Investors' Attitude	0.835		
Decision Making	0.784***	0.854	
Financial Literacy	0.372***	0.407***	0.743

Note- *** indicates significant at 1 percent significant level.

Source: Authors' calculation

Structural Model and Hypothesis Testing

In the conceptual research model, the significance of the path coefficients was computed and appraised, and the relationship was checked using AMOS and the goodness of fit. Overall, the data offered a strong model fit, which was confirmed by calculating absolute fit indicators such as goodness for fit indices (GFI), the ratio of χ^2/df, and the root means square of approximation (RMSEA). The incremental fit indices, such as the Incremental fit index (IFI), the comparative fit index (CFI), and the Tucker-Lewis index (TLI), were also evaluated. The estimate of normed fit index (NFI) and adjusted GFI is also shown in the paper. The fit statistics study model, as well as the values and suggested values or cut-off points, are shown in Table 5.

Table 5: Fit indices for Research model

Fit indices	Research model	Recommended Criteria
χ^2/df	2.657	<3.0
GFI	0.934	>9.0
RMSEA	0.039	<0.08
TLI	0.953	>9.0
CFI	0.945	>9.0
NFI	0.903	>9.0
AGFI	0.867	>0.8

Source: Authors' calculation

"*The fit indices offer a satisfactory model fit to the data, and the model is acceptable for hypothesis testing, according to the recommended criterion*" (Etezadi-Amoli and Farhoomand, 1996). Three criteria were employed to examine the different model interrelationships and to test the hypothesis: regression coefficients, their degree of significance (p-value 0.001), and critical ratio (CR > 1.96). The theory has been supported or rejected based on this (refer table 6).

Table 6: Summary of the Hypothesis testing result

Hypothesis	Independent Variable	Dependent Variable	Standardized Estimate	Standard Error	Critical Value	p-value	Hypothesis Decision
H1	Financial Literacy	Investors Attitude	0.583	0.059	9.911	0.000	Supported
H2	Investors Attitude	Decision Making	0.761	0.027	27.979	0.000	Supported
H3	Financial Literacy	Decision Making	0.190	0.039	4.841	0.000	Supported

Source: Authors' calculation

RESULTS AND DISCUSSION

After analysing the above-mentioned indicators - IA, FI and DM were statistically supported at 1 percent significance level. In this model, FL explains 16.2 percent variance in IA and IA and FL are explaining 68.2 percent variance in DM. Table 6 summarizes the hypothesis results. This study confirms the relationships of financial literacy, investors' attitude with decision making and in accordance with the previous study there has been a significant positive relationship between investors attitude, financial literacy and decision making. The present study has found a direct positive relationship between financial literacy and investors' attitude as shown by Ronaldo and Todesco (2012). Also, with these three variables, the results are consistent with the previous studies which were undertaken in this context. There has been a significant relationship between financial literacy and decision making i.e., conclusion can be drawn that financial literacy leads to effective management of funds and better financial results. Also, people that have a considerable amount of financial knowledge tend to make better financial decision than people with less or low financial knowledge. This relationship depicts that if a person has better financial knowledge then he would be able to make sensible decisions in financial matter and would tend to end up in a better situation financially then a person with no financial knowledge. In addition to this investors judgement are influenced by their knowledge of financial investment. Also, people with weak financial knowledge are at a disadvantage when it comes to financial planning. Investors attitude and decision making as best explained by O'connor *et al.,* (2010), he stated that a person's positive attitude towards an action would lead to a positive intention to do that action. Through the present study the authors' found that there is a significant relationship between decision making and investor's attitude and therefore supports the notion that investors' positive attitude significantly effects their decision. Additionally, the researchers discovered a positive relationship between financial literacy and investor attitude, indicating that if a person has a good level of financial knowledge, their attitude toward financial matters tends to be positive, and vice versa, inferences can be drawn that investors' with financial knowledge will be able to better handle risky situations and would be able to better judge the outcome of a transaction as compared to a person who does not have a good level of financial knowledge. Lastly, if anyone wants to improve their condition financially and make better financial decisions they need to expand their financial knowledge. They can do so by reading book listening to podcasts, interviews, observing financial behaviour of successful people etc.

Implications

First, in order to minimize the losses during trades and ensuring that the investors make sensible financial decisions, people must learn about the relationship among the financial literacy, decision making and investors' attitude. Secondly, various regulatory authorities can assist investors in avoiding financial losses by providing them with sufficient information and financial education. This research aids them in determining which areas to concentrate on in order to provide suitable methods and recommendations to improve financial literacy. Lastly, this study can help various education providers understand how people's attitudes alter in different settings. This research aids them in determining which places to target for courses and training programmes aimed at investors, as well as which demographics should be targeted for increased financial literacy.

LIMITATIONS AND FUTURE SCOPE

First, this study focuses solely on Indians which limits the generalizability of the findings; nonetheless, the study can be expanded to other developing nations. Secondly, just a small number of statements were used to rate the investors for all three factors in this study. Lastly, the study focuses on few aspects of the variables it ignores some major aspects such as investors behaviour, effect on portfolio etc., future studies can focus on these aspects as well.

REFERENCES

1. Akben, S., & Elif. (2015). Factors Influencing College Students' Financial Behaviors in Turkey: Evidence from a National Survey. *International Journal of Economics and Finance, 7*(6).
2. Al-Tamimi, H. A. H. (2009). Financial literacy and investment decisions of UAE investors. *The Journal of Risk Finance.*
3. Amisi, S. A. R. A. H. (2012). The effect of financial literacy on investment decision making by pension fund managers in Kenya (Doctoral dissertation).
4. Australian and New Zealand Banking Group, (2015) (https://www.anz.com/resources/3/1/31cbc1fd-9491-4a22-91dc-4c803e4c34ab/adult-financial-literacy-survey-full-results.pdf)
5. Awais, M., Laber, M. F., Rasheed, N., & Khursheed, A. (2016). Impact of financial literacy and investment experience on risk tolerance and investment decisions: Empirical evidence from Pakistan. *International Journal of Economics and Financial Issues, 6*(1).

ISSN 2348-2869 Print
ISSN 2348-5434 Online

6. Bhushan, P., & Medury, Y. (2013). Financial literacy and its determinants. *International Journal of Engineering, Business and Enterprise Applications, 4*(2), 155-160.

7. Blanco, C. F., Blasco, M. G., & Azorín, I. I. (2010). Entertainment and informativeness as precursory factors of successful mobile advertising messages. *Communications of the IBIMA, 1*(2), 1–11.

8. Chandra, A., & Kumar, R. (n.d.). Determinants of Individual Investor Behaviour: An Orthogonal Linear Transformation Approach. *Munich Personal RePEc Archive.*

9. Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural equation modeling: a multidisciplinary journal, 14*(3), 464-504.

10. Danila, N., Shahwan, Y., Ali, Z., & Djalaluddin, A. (2019). The linkages between financial literacy and its application in financial decision-making among academicians in Indonesia. *Humanities & Social Sciences Reviews, 7*(5), 1280-1292.

11. Desigan Gnana , Kalaselvi S, & Ansuya . (2006). Women Consumers Awareness Towards Investment: An empirical Study. *Indian Journal of Marketing, 36*(4).

12. Etezadi-Amoli, J., & Farhoomand, A. F. (1996). A structural model of end user computing satisfaction and user performance. *Information & Management*, (2), 65.

13. Gale, W., & Levine, R. (2011). Financial literacy: What works? How could it be more effective? Work. Pap. Cent. Retire. Res., Boston Coll.

14. Goldberg, H., & Lewis, R. (1978). Money madness: the psychology of saving spending, loving and hating money. William Morrow and Company, Inc, New York.

15. Gopi, M. & Ramayah, T. (2007), “Applicability of theory of planned behaviour in predicting intention to trade online: some evidence from a developing country”, International *Journal of Emerging Markets, 2*(4), 348-360.

16. Hair, J., Black, B., Babin, B., Anderson, R., & Tatham, R. (2006). Multivariate data analysis. Upper Saddle River, NJ: Prentice Hall.

17. Jariwala, H. (2014). To study the level of financial literacy and its impact on investment decision-an in depth analysis of investors in Gujarat State.

18. Kamboj, S. (2014). Current scenario of financial literacy in India. *International Journal of Entrepreneurship and Small Business Management, 1*(1), 61-68.

19. Kefela, G. (2011). Implications of financial literacy in developing countries. *African Journal of Business Management, 5*(9), 3699-3705.

20. Klapper, L., Lusardi, A., & Van Oudheusden, P. (2015). Financial literacy around the world. World Bank. Washington DC: World Bank.

21. Kumar, G. & Seth, (2020), Financial express (Retrieved from https://www.financialexpress.com/money/why-financial-literacy-is-important-for-children/2334907/)

22. Kumar, S., & Anees, M. (2013). Financial literacy & education: Present scenario in India. *International journal of engineering and management research, 3*(6), 83-87.

23. Li, Z., Wang, F., & Dong, X. (2016). Are all investment decisions to subscribe to new stocks mindless?: Investor heterogeneity and behavior in the process of subscribing to new stocks. *China Journal of Accounting Research, 9(*4), 283-304.

24. Lusardi, A. (2007). Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education. *Palgrave Macmillan Journals (Business Economics), 42*(1), 35-44.

25. Lusardi, A., & de Bassa Scheresberg, C. (2013). Financial literacy and high-cost borrowing in the United States (No. w18969). National Bureau of Economic Research.

26. Lusardi, A., & Mitchell, O. S. (2019). The economic importance of financial literacy: Theory and evidence. Journal of economic literature, 52(1), 5-44. Frey B., Schaltegger C. (eds) 21st Century Economics. Springer, Cham. https://doi.org/10.1007/978-3-030-17740-9_9Hilgert et.al 2002a

27. Lusardi, A., & Mitchelli, O. S. (2007). Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business*

ISSN 2348-2869 Print
ISSN 2348-5434 Online

economics, 42(1), 35-44.

28. Mandell, L. (2008). Financial literacy of high school students. In Handbook of consumer finance research (pp. 163-183). *Springer, New York, NY.*

29. Mandell, L., & Hanson, K. O. (2009, January). The impact of financial education in high school and college on financial literacy and subsequent financial decision making. In American Economic Association Meetings, San Francisco, CA (Vol. 51).

30. Murendo, C., & Mutsonziwa, K. (2017). Financial literacy and savings decisions by adult financial consumers in Zimbabwe. *International journal of consumer studies, 41*(1), 95-103.

31. Murray, C. J., Knaul, F., Ke, X., Musgrove, P., & Kawabata, K. (2000). Defining and measuring fairness in financial contribution to the health system. World Health Organization. GPE Discussion Paper Series, (24).

32. Murray, D. (2002). How much do your kids know about credit? *Medical Economics, 77*(16), 58–66.

33. O'Connor, N., Hammack, F. M., & Scott, M. A. (2010). Social capital, financial knowledge, and Hispanic student college choices. *Research in Higher Education, 51*(3), 195-219.

34. Rai, K., Dua, S., & Yadav, M. (2019). Association of financial attitude, financial behaviour and financial knowledge towards financial literacy: A structural equation modeling approach. *FIIB Business Review, 8(*1), 51-60.

35. Raut, R. K. (2020). Past behaviour, financial literacy and investment decision-making process of individual investors. *International Journal of Emerging Markets.*

36. Remund, D. L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of consumer affairs, 44*(2), 276-295.

37. Ronaldo, E., & Todesco, L. (2012). Financial Literacy and Money Attitudes:Do Boys and Girls Really Differ? A Study among Italian Preadolescents. *Italian Journal Of Sociology Of Education, 2*, 143-165.

38. Scott, S. G., & Bruce, R. A. (1995). Decision-making style: The development and assessment of a new measure. *Educational and psychological measurement, 55*(5), 818-831.

39. Van Rooji, M., Annamaria, L., & Rob, A. (2012). Financial Literacy, Retirement Planning and Household Wealth. Econ J. , 449-472.

40. Yadav, N. The Influence of Financial Literacy Towards Investors Attitude and Its Implication on Decision Making. (Retrieved form the thesis-https://shodhganga.inflibnet.ac.in/handle/10603/329855).

41. Phan, K. C., & Zhou, J. (2014). Factors influencing individual investor behavior: An empirical study of the Vietnamese stock market. *American Journal of Business and Management, 3*(2), 77-94.

42. Raut, R. K., & Das, N. (2017). Individual investors' attitude towards online stock trading: some evidence from a developing country. *International Journal of Economics and Business Research, 14*(3-4), 254-267.

43. Alleyne, P. (2011). Using the theory of planned behaviour and risk propensity to measure investment intentions among future investors. *Journal of Eastern Caribbean Studies, 36*(1), 1-21.

44. Ali, A., Abd Rahman, M. S., & Bakar, A. (2015). Financial satisfaction and the influence of financial literacy in Malaysia. *Social Indicators Research, 120*(1), 137-156.