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Financial Literacy as a Tool for Stimulating the Investment Behaviour of Rural Women: An Empirical Assessment

Bhaskaran Rajan, Navjot Kaur, Harpreet K. Athwal, Afzalur Rahman and Velmurugan P.S.

Abstract

Clapping with two hands create the sounds. Similarly, investment and saving behaviour are considered as the most vital elements for economic growth of an individual. This paper is to evaluate the influence of financial awareness on saving and investment behaviour of rural females in India. Investment pattern serves as a link between savings and wants of the common people. Economic growth of any nation can be critically measured through capital accumulation and investment trends in financial markets. In the present study, the investment behaviour on effect of financial awareness of 335 rural women in Jalandhar district has been evaluated. The relationship of financial literacy and saving & investment behaviour is also evaluated in the context of five basic domains of financial behaviour, such as demographic variables, financial control, financial planning, financial product selection and financial literacy. Results of the study revealed that rural women are conscious about the availability of various investment avenues in the market, but their investment pattern is still followed by some factors like familiarity, safety and assured returns, etc. This study suggests policymakers to focus on financial awareness rather to focus only on financial literacy.

Keywords: financial awareness, financial literacy, investment pattern, saving behaviour, rural women

1. Introduction

Women consist of half of the world population and it is an open secret that an independent and educated woman leads an educated and self-reliant family, which is further translated into a liberal, independent and an educated society. As per census of 2011, in India, the female population was 586.4 million (48% of the total population). Out of these total female population, 405.1 million (69% of the total female population) were living in rural areas [1]. Without women contribution or support, it is not possible to develop the country as a whole because half of the nation's human resources is women. Therefore, women are playing a very important role in the socioeconomic development of the country.

The constitution of India honours both men and women with equal rights. But women are not treated as equals as men [2]. Certain barriers still exist between men and women. The literacy level of the rural women population is less than that of urban women population. During 2009–10, 46.7 % of rural women population was illiterate as reported by the National Sample Survey Office [3].

Generally, the rural women face problems with regard to medical facilities, health care, malnutrition, environment, etc. Besides, finance is an essential part of their life. Hence, different financial inclusion programmes were launched by the Government for the rural population at different periods. Financial literacy is an integral part of the financial inclusion programme. It was introduced to rural women for the purpose of understanding the financial concept thoroughly and guiding them to take a decision on financial aspects [4]. This programme cultivates saving habits among the rural women. Also, it helps them to understand the financial affairs and motivate them to invest the savings in a profitable avenue.

Now-a-days, the financial institutions are offering a variety of schemes/products to the public. A careful selection of the product is important; otherwise, it leads to loss of their hard earned money. A large number of literature reports [5] that in India, financial literacy is not well developed particularly in rural areas and they are still waiting for revolutionary push. The purpose of the study is to investigate whether the learned knowledge on financial literacy by the Indian rural women population helps to invest their hard earned saving money in the profitable ventures or not?

2. Literature survey

A study on financial awareness among the salaried class people was carried out by Bhushan [6]; Umamaheswari and Kumar [7]. The studies reveal that certain demographic factors like general education level, gender, income level, employment etc. affect financial literacy. The financial literacy level between the salaried class persons is also varied. Vasagadekar [8] has informed that a working woman who has less knowledge in finance, finds difficulty in managing a portfolio. Hence, they should evaluate the available avenues before making investment [9].

Subha and Priya [10]; Agarwalla et al. [11] have reported that there are certain factors which affect financial literacy level viz. general literacy, income level, age, employment and place of work. Hence the government should take some sort of remedial measures to enhance financial attentiveness.

A variety of investment and saving products are available in the financial market, but people are still least aware. Therefore, a proper awareness about the products, among the public either through TV or radio is required as reported by Trivedi and Trivedi [12]; Goel [13]; Jappelli and Padula [14]; Kudva [15]. Awareness about the various investment avenues brings positive change in the lifestyle and investment pattern of people [16]. Only a few investors are aware about the industrial securities and most of the investors believe that such securities are insecure one [17].

A systematic analysis of the behaviour of rural and urban investors in terms of education, health care services, financial activities and priorities was carried out by Kumar and Mukhopadhyay [18]. The analysis reveals that both groups made an investment according to their requirements and rural investors' especially rural women need certain help for making the financial decision.

The awareness level of investors in a metro city is found to be higher than the investors in rural area [19]. The reason is that the metro investors are more

concerned with financial gateways; news channels and finance or market related programs. In Pakistan, a study on impact of financial literacy on investment decisions was conducted. This study reveals that financial literacy has a positive trend on agreeableness, extraversion, openness and negative trend on neuroticism [20].

The difference between the saver and investor was clearly mentioned by Thilakam [21]. The investment decision made by the investors is fully based upon risk bearing, yield amount and their future plan [22, 23]. If they are aware of the basic concepts of finance under present condition, it helps them to identify the best investment opportunities [24].

Bhattacharya [25] has stressed that the financial literacy is an important requirement for resource planning. The investment behaviour of investors in India varies from time to time. Thulasipriya [26] has informed that in earlier stages, the investors invested in physical asset than financial assets. Later stage, their preference changed from physical assets to financial assets. Sharma and Pandey [27], Palanivelu and Chandrakumar [28] have expressed that Corporate bonds; post-office schemes; debentures; and bank deposits are the most promising investment avenues for the investors and more number of investors prefer these avenues. The rural people in India prefer to invest their savings in bank, insurance and post office only not in Public Provident Fund, Mutual Funds and Industrial Securities for the purpose of safety and security [29].

3. Scope of study

Financial literacy is an energetic universal concern. Availability of large number of financial resources, different financial schemes and low level of financial awareness has led to financial literacy. Earlier studies have mainly concentrated on investment behaviour of women. Most of the studies concluded that investors are interested in investing their savings in banking, insurance and post office schemes. No in depth study has been carried out on impact of financial literacy on investment behaviour of rural women. Scope of this study is to develop a model for assessing the level of financial literacy and to apply the same among the rural women of Jalandhar district in the state of Punjab.

4. Objectives

The main objective of the present study is to assess the relationship between the financial literacy programme and the investment behaviour of rural women. The sub objectives of the present study are:

1. Identify the level of financial knowledge obtained by rural women through the financial literacy programme.
2. Analyse the awareness of rural women towards the available investment avenues.
3. Ascertain the push and pull factors for rural women with regard to savings and investment behaviour.
4. Develop financial literacy score.

5. Research methodology

5.1 Sample size

Jalandhar district of Punjab has been selected as a sample district for this study. This district has five tehsils namely Jalandhar 1, Jalandhar 2, Nakodar, Phillour, and Sahakot. The present study attempts to evaluate the impact of financial literacy programme on investment behaviour of rural women. Hence, 2.5% of the potential rural women savers have been selected from each tehsil randomly. The total sample size is 335 rural women respondents.

6. Analysis and interpretation

6.1 Socio-economic factors

In respect of a wide diversity in socio-economic factors, the sample was drawn out of five tehsils in terms of rural women population across Jalandhar district. Data was collected through questionnaire. Age, occupation, education level, number of dependents, monthly income of family and the type of family were demographic traits on which data was collected. In addition to demographic attributes, the target group was required to respond on questions related to financial behaviour, financial planning and financial literacy. Details about the demographic variables of the respondents are shown in **Table 1**.

6.2 Awareness of investment avenues

The largest numbers of investment avenues are available in financial markets to serve the desires of investors. Thousands of investment schemes are available in the market. The art of rational investment decision is maximum returns with minimum of risk. Investment pattern differs from one another in terms of invested amount, risk bearing capacity and expected returns. In recent times, awareness about financial products has become an issue of discussion in financial markets. Past studies have revealed that people prefer to invest in traditional safe investment avenues. Bank, insurance and post office investment schemes were the most preferred investment avenues. There is an information gap between financial markets and a financier and due to this a majority of investor does not use modern investment products. Data collected under this section confirms that there is imbalance in-between traditional and modern investment avenues. As we can figure out easily that awareness level of respondents is fairly high in banking avenues, post office schemes, insurance schemes and other traditional avenues like gold/silver and real estate opportunities. On the other hand as evidenced in **Table 2**, there is lack of awareness in Chit Fund Schemes, Bonds, Debentures, Public Provident Fund, National Savings Certificate, Government Securities and Forex Market and Commodity Market. It is also stated by Mohd and Verma [29].

In terms of familiarity with financial products, data collected from the respondents revealed that rural female are most familiar with savings account (99.7%), followed by fixed deposit (99.4%), post office schemes (98.5%), life insurance (98.2%), real estate (94%) and gold/silver (91.9%) trading options. Furthermore, it is reported that rural females are most familiar with bank, post office, insurance and other traditional avenues of investment. Although, data do not reveal high familiarity of rural females with Debentures (58.2%), Bonds (57.9%), Forex Market

Variable	Detail	Frequency	Percentage
Age (in years)	20 and less	0	0
	21–30	43	12.8
	31–40	126	37.6
	41 and over	166	49.6
Education level	No formal education	43	12.8
	Primary school	109	32.5
	Matriculation	78	23.3
	Diploma	52	15.5
	Graduate/post-graduate	53	15.8
Marital status	Unmarried	28	8.4
	Married	230	68.7
	Widowed	77	23
No. of dependents	Two	3	0.9
	Three	17	5.1
	Four	49	14.6
	Five and more	266	79.4
Monthly income	1001–3000	28	8.4
	3001–5000	56	16.7
	5001–10,000	232	69.3
	More than 10,000	19	5.7
Family type	Nuclear family	188	56.1
	Joint family	147	43.9

Source: Primary data.

Table 1.
Details of demographic variable.

(40.3%) and Commodity Market (28.7%) in moderate risk avenues. But marginal divergence is found among respondents about few investment avenues like Mutual Funds (77.6%), Equity Share Market (74%), Public Provident Fund (63.3%), National Savings Certificate (62.7%), Chit Fund (62.1%) and Government Securities (61.5%).

6.3 Investment pattern

Investment pattern refers to the outline of savings into various financial products with the objective of risk diversification or high expected profits. The very first step for voyage investment is savings. Investor can take the benefit of large chunk of financial products only if he/she is aware about the relevance of portfolio or diversified pattern of savings. The current investment pattern of selected rural women respondents are represented in **Figure 1**.

From **Figure 1**, it is revealed that most of the female respondents are investing in Savings Account (96.7%), followed by Bank Fixed Deposit (84.2%) and Life Insurance (81.5%). These three are found to be the most prominent investment avenues in pattern of rural females. Post Office Savings (56.4%), Mutual Funds (57.3%) and Gold/Silver (53.1%) are found less popular in the investment pattern of rural

Financial product	Familiar		Non-familiar	
	Frequency	In percentage	Frequency	In percentage
I. Safe investment avenues				
Savings account	334	99.7	1	0.3
Bank fixed deposit	333	99.4	2	0.6
Public Provident Fund (PPF)	212	63.3	123	36.7
National Saving Certificate (NSC)	210	62.7	125	37.3
Kisan Vikas Patra (KVP)	259	77.3	76	22.7
Post office savings	330	98.5	5	1.5
Government securities	206	61.5	129	38.5
II. Moderate risk investment avenues				
Mutual funds	260	77.6	75	22.4
Life insurance	329	98.2	6	1.8
Debentures	195	58.2	140	41.8
Bonds	194	57.9	141	42.1
III. High risk investment avenues				
Equity share market	248	74	87	26
Commodity market	96	28.7	239	71.3
Forex market	135	40.3	200	59.7
IV. Traditional investment avenues				
Real estate	315	94	20	6
Gold/ Silver	308	91.9	27	8.1
Chit fund	208	62.1	127	37.9

Source: Primary data.

Table 2.
Awareness about investment products.

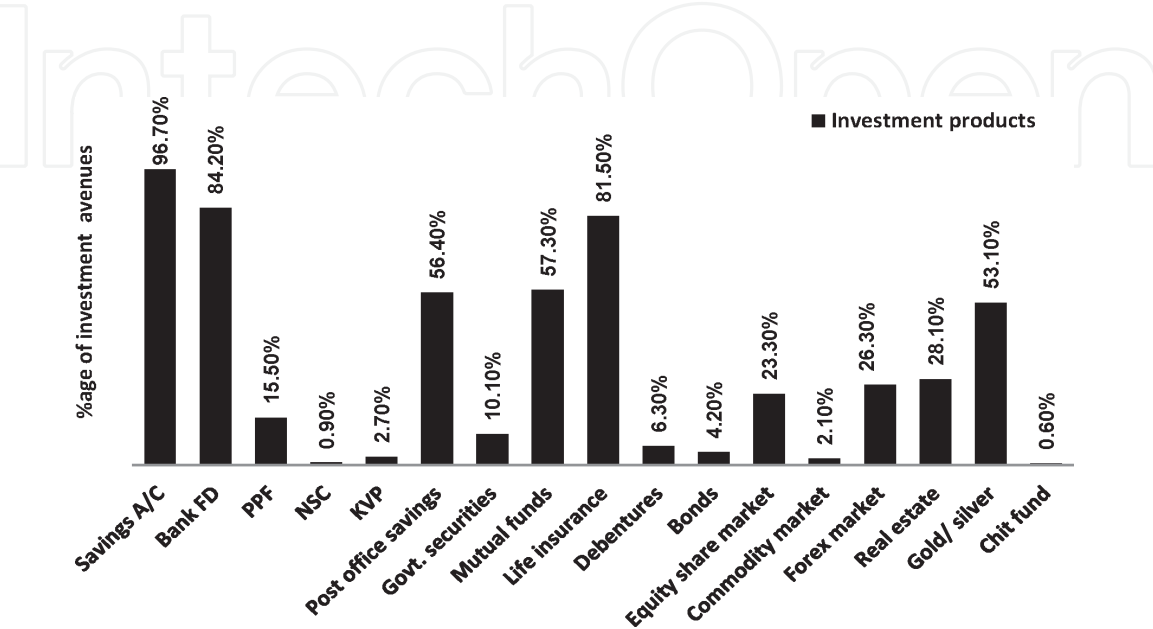


Figure 1.
Attitude of rural women towards various avenues. Source: Primary data.

females. On the other hand, KisanVikasPatra (2.7%), Government Securities (10.1%), Debentures (6.3%), Bonds (4.2%), Commodity Market (2.1%), National Saving Certificates (0.9%), Chit Fund (0.6%) are preferred by very few persons to diversify their portfolio.

6.4 Components of financial attitude

The reason for the selection of the financial instrument by the rural women is presented in **Figure 2**.

From **Figure 2**, it can be concluded that familiarity with any financial institution influences most of the times investment decisions of investors. 34% of total females have selected a financial institution because of familiarity, followed by the reason of assured returns. 23% of respondents has selected only those financial products which assure return on their investment quantum. 22% of respondents have preferred to select a number of financial products. Here, portfolio diversification is the main aim of investment. Interestingly, safe and low risk factors have the lowest preferred reason for financial selection. Only 21% of people has invested in safe and low risk investment avenues.

6.5 Statements describe the financial selection of rural females

Financial and investment behaviour of a person is a vital component in a given financial environment. Investment pattern is affected by the awareness about the financial markets and the ability to make rational decisions. Hence, the variable behaviour prior to the selection of investment policy was investigated for this research. Data related to behaviour and rationality prior to financial selection is presented in **Figure 3**.

Figure 3, illustrates the behaviour-wise allocation of responses. Among 335 households' surveyed 36.40% of respondents have preferred different financial or investment policies from one company only. It is clear that most of the respondents trust in the investment policies of only one company. 34.30% of responses belongs to those households who never compare different investment policies of one or more companies. They prefer to invest in pre-selected avenues. Consequently, 20.60% households compare various products from more than one company and 8.70% of sample population are found to be unaware of the availability of different financial avenues in the market.

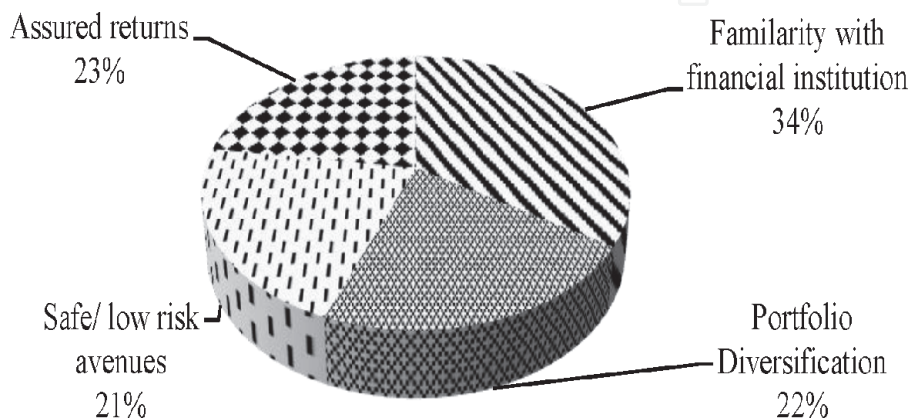


Figure 2.
Reason behind financial selection. Source: Primary data.

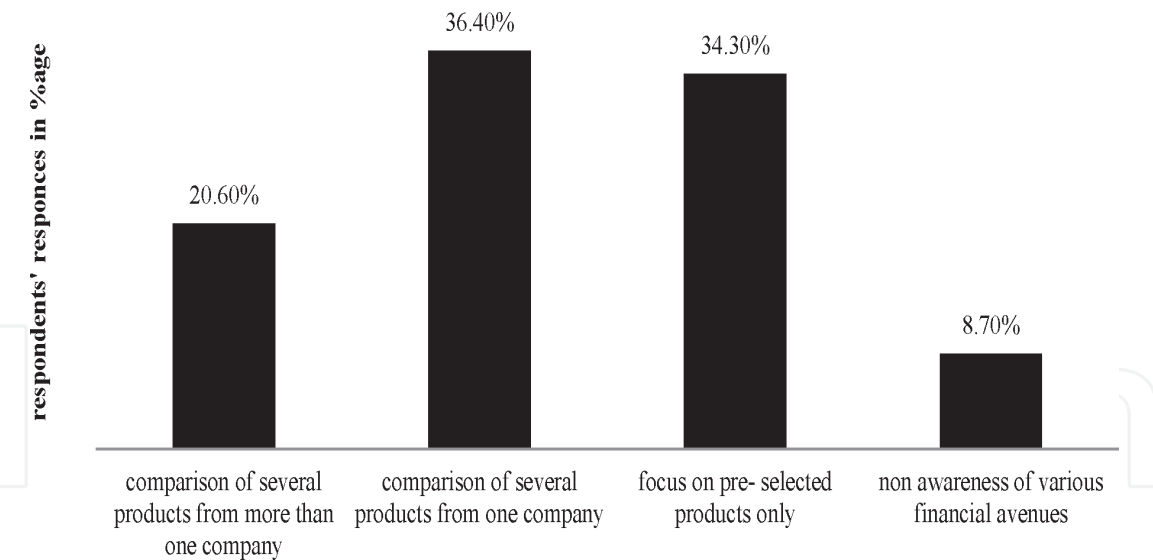


Figure 3.
Behaviour of rural women with reference to product choice. Source: Primary data.

6.6 Financial literacy scale

Financial literacy is the ability of a layman to understand the nature of finance and earning potential of his savings. In true sense, financial literacy allows a person to take a rational financial decision in specific areas like property or real estate matters, tax planning, banking and insurance and capital markets, etc. To achieve financial goals, basic knowledge about financial matters becomes the essential part of today’s world; not only for the investors of stock market; but also for the persons having saving habits. It can be defined as the tricks used by the finance player to manage their earnings in terms of savings, budgeting, investing and insuring etc. Definition of financial literacy also declares that financially knowledgeable people are well aware about money management concepts and know in which manner financial institutions work. The financial literacy score is a platform to identify trends of financial awareness among individuals. To depict awareness trends in basic financial matters, financial literacy index of rural women was calculated. The financial literacy index is prepared on the basis of following basic financial literacy indicators:

- Simple interest rate
- Compound interest rate
- Affordability
- Financial security
- Portfolio diversification
- Loan ideology
- Financial awareness to life circumstances
- Product choice
- Credit card ideology
- Basic taxation ideology

In order to determine the financial literacy level, a set of question was asked and based upon the response, a rank was assigned. The rank “0” is assigned to the respondent who does not have knowledge about financial literacy. The ranks “1” and “2” are assigned for those having average and thorough knowledge on financial activities, respectively.

After assigning rank for the all the parameters, the total financial literacy score for the individual respondent is calculated as follows:

$$\text{Literacy Score} = \left(\frac{\text{Actual value} - \text{Minimum value}}{\text{Maximum value} - \text{Minimum value}} \right), \quad (1)$$

where ‘actual value’ is the sum of ranks the individual respondent scored, ‘maximum value’ is the theoretical maximum, here it is = 20, (that is 10×2) and ‘minimum value’ is the theoretical minimum, here ‘0’ (i.e., 10×0).

In order to get the net score, Total of the literacy score all the respondents is divided by the total number of the respondents.

If the value is 0, it indicates that the financial literacy level is zero. Between 0.1 and 0.33 it specifies that level of financial literacy is at a minimum. Between 0.34 and 0.66 the level of financial literacy is of medium level. Between 0.67 and 0.99 the level of financial literacy is high and if the value is 1, it indicates that complete financial literacy level is achieved.

The calculated value of financial literacy is 0.69552. This revealed that the overall level of financial literacy is encouraging in rural parts of Jalandhar district. This indicates that efforts of government and non-government organisations are leading to a positive change. The results of financial literacy index are given in **Table 3** and **Figure 4**.

From the data collected from rural women of Jalandhar district, on the basis of combination of ten questions, it is revealed that the majority of respondents are falling in high level of financial literacy group followed by 38% of our total respondents who are coming under medium level of financial literacy.

Some differences concerned with investment pattern and financial selection include risk and portfolio choices. Choice of the portfolio, the level of risk bearing capacity is more concerned with the financial awareness of households. It is indicated that most of the rural females are aware of the ideology and framework of taxation (91%), Affordability and Financial security (73%). 72% of respondents confidently answer the calculation of simple interest rate. While portfolio diversification (64%), product choice (63%) and loan ideology (48%) are found lacking in this context. While in some typical financial matters financial knowledge of rural women is found lacking. Those financial concepts are Compound interest rate (24%), financial knowledge to life circumstances (22%) and Credit card ideology (10%). **Table 4** is dictates the financial literacy score for selected financial concepts.

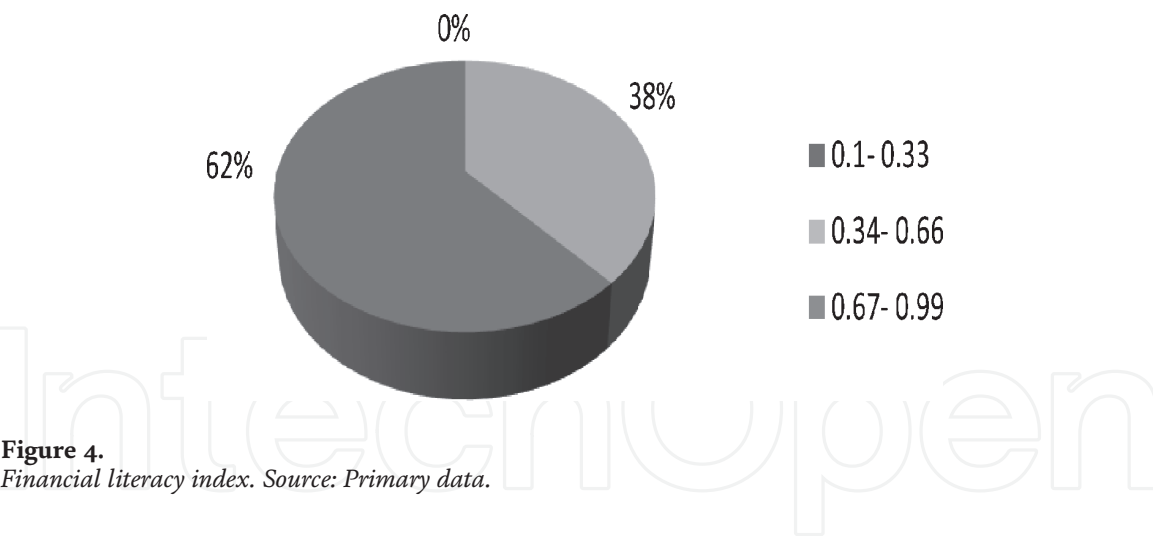
6.7 Relationship between financial literacy and investment pattern

A financier, who is not financially literate, will not be able to select a suitable investment pattern. This behaviour is strongly evident in the rural society of India. Financial literacy is important not only for rural or uneducated one but even an urban educated can get him into financial suffering if he is not aware of financial concepts. The results highlight how important financial literacy is to make sound financial decisions. Financial control, Financial planning, Understanding of financial concepts and Selection of financial product are basic concepts to measure financial awareness of a person.

Respondent	Value for the respondent's response for different parameters										Actual score for individual respondent's (maximum value 20)	Financial Literacy score for individual respondent's $\left(\frac{\text{Actual value} - \text{Minimum value}}{\text{Maximum value} - \text{Minimum value}} \right)$
	Simple interest rate	Compound interest rate	Affordability	Financial security	Portfolio diversification	Loan ideology	Financial awareness to life circumstances	Product choice	Credit card ideology	Basic taxation ideology		
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)		
											Sum of (A to J)	
1	0	0	1	2	2	0	0	2	0	2	9	0.45
2	1	0	2	2	2	1	1	1	0	2	12	0.6
3	2	1	2	2	2	1	1	1	0	2	14	0.7
4	2	1	1	2	0	1	1	1	0	2	11	0.55
5	2	1	2	2	2	1	1	1	1	2	15	0.75
335	2	0	1	2	2	0	2	1	1	2	13	0.65
Total Financial Literacy Score for all the respondents												233.00
Total respondents												335
Average financial literacy Score for individual respondent												0.69552

***Data have been collected from 335 members for calculation of the individual respondent's score on financial literacy. But due to space constraint only responses of 5 members have been shown in Table 3.*

Table 3.
Sample of financial literacy index calculations.**



Financial concepts	Correct	Incorrect	Don't know
Simple interest rate	240 (72%)	69 (20%)	26 (8%)
Compound interest rate	79 (24%)	94 (28%)	162 (48%)
Affordability	252 (75%)	83 (25%)	NIL (0%)
Financial security	244 (73%)	47 (14%)	44 (13%)
Portfolio diversification	213 (64%)	61 (18%)	61 (18%)
Loan ideology	160 (48%)	128 (38%)	47 (14%)
Financial knowledge to life circumstances	166 (22%)	122 (16%)	47 (62%)
Product choice	211 (63%)	124 (37%)	NIL (0%)
Credit card ideology	60 (10%)	62 (11%)	213 (79%)
Taxation ideology	304 (91%)	18 (5%)	13 (4%)

Source: Primary data.

Table 4.
Financial literacy score.

For the purpose of finding out the relationship between financial literacy and pattern of investment, a correlation test is applied. Results obtained by correlation are given in **Table 5**.
From **Table 5**, it is observed that the value of correlation is 0.129. So it is evidenced that there is weak degree of positive correlation between financial literacy and investment pattern among rural females. The significance value revealed by

		Financial literacy	Investment pattern
Financial Literacy	Pearson correlation	1	0.129*
	Sig. (2-tailed)		0.018
	N	335	335
Investment pattern	Pearson correlation	.129*	1
	Sig. (2-tailed)	.018	
	N	335	335

Source: Primary data.

Table 5.
Relationship analysis through correlation.

correlation is 0.018 which is less than 0.05% level of significance. So it is strongly evidenced that correlation is statistically significant also.

7. Conclusion

Financial Literacy is a vital element to predict households' financial attitudes in developing nations. Indeed, in Indian heterogeneous household, levels of financial awareness vary greatly. From the empirical study it is revealed that most of the investors select financial institutions because of familiarity and their portfolio selection is largely based on comparison of number of financial products issued by the same familiar financial institution. So, guaranteed return, safety and diverse portfolio selection are contributing at large to describe the investment attitude of women.

The study reveals that there is a relationship between financial literacy and investment behaviour of the rural female. Through financial literacy programme, majority of the respondents (62% of total) have acquired more knowledge on financial concepts such as taxation, financial security, calculation of interest rate etc.

The awareness level of rural females in Investment Avenue is fairly high in banking avenues, post office schemes, insurance schemes and other traditional avenues like gold/silver and real estate opportunities. Their awareness level in investment avenue is very low in chit fund schemes, bonds, debentures, Public provident fund, National savings certificate, Government securities and Commodity market.

A website as a financial literacy guide was released by the Reserve Bank of India on 31st January 2013. This website was developed as a complete financial awareness guide and banks are advised to use this website as a fundamental curriculum to communicate basic financial knowledge. This financial literacy guide provides operational guidelines to organize financial awareness camps, as an initiative towards financial literacy.

Besides, various measures adopted by government and non-government institutions towards financial literacy, the results of the study reveal that still the investment pattern of rural women is followed by traditional avenues of investment. This, it is suggested to financial literacy program organizers to focusing on preferences and investment attitude of micro level segment investors. Hamza and Arif [20] have also suggested that policymakers and managers need to focus on profiling investors based on their status. It is strongly suggested to the program organizers to pass information on issue of budgeting, portfolio diversification, effective credit card management and loan ideology.

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