

## EXAMINATION OF DETERMINANTS AND LINKAGE WITH FINANCIAL LITERACY IN HOUSING FINANCE

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Kiran Saroe\*  
Dr. Apar Singh\*\*

### ABSTRACT

*The capacity to make important judgments on the effective and efficient use of money is known as financial literacy. The study examined the relationships of financial knowledge, financial attitude, and financial behaviour towards the degree of financial literacy among home loan borrowers in Punjab, India. In order to conduct the research, a sample size of 480 home loan borrowers from selected banks and non-banking financial companies has been taken by using stratified sampling with the help of a structured questionnaire on a five-point Likert scale. The structural equation modelling approach's analysis of moments structures (AMOS) was used to determine the goodness of fit (SEM) and the relationship among three independent variables is looked at using route analysis. The results showed that financial behaviour and financial attitude are more strongly associated with the financial literacy of home loan borrowers than financial knowledge.*

**Keywords:** *Financial Attitude, Financial Behaviour, Financial Knowledge, Financial Literacy, NBFC.*

### Introduction

Understanding and being proficient in the use of different financial skills, such as investing, budgeting, and personal financial management, is known as financial literacy. The cornerstone of one's relationship with money is laid out by financial literacy, which is a lifetime learning process. The issue of financial literacy affects nearly every nation on earth. A certain level of financial literacy is necessary for an individual and his family to be financially successful. Consumers' behaviour may be affected by poor money management, making them more susceptible to financial crises. Financial literacy education is now crucial since it can reduce the likelihood that an investor would be duped when making an investment decision. Those who have a greater level of financial literacy are more comfortable making personal financial decisions and getting the right financial results. In making their own financial decisions, they employ both financial instruments for saving and investing. Additionally, they are more inclined to adopt expensive financing choices. People with less financial expertise, on the other hand, frequently limit their financial decisions to things like paying off credit card debt instead of using cash, etc. People must have a satisfactory level of financial literacy if they want to raise their standard of living. According to the findings of various research, financial illiteracy is a problem that affects people all around the world, especially those in India (Atkinson & Messy, 2012; Brown & Graf, 2013; Lusardi & Mitchell, 2011). RBI permitted commercial banks to take the required actions to expand financial inclusion by raising the level of financial literacy in the nation to raise the level of financial literacy among Indians. A plan and release of a nationwide financial education strategy. According to Ramanaiah and Gowri (2011), inadequate financial literacy and a lack of understanding of available investment options have contributed to poor

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\* Research Fellow, Department of Commerce, Punjabi University, Patiala, Punjab, India.

\*\* Assistant Professor, School of Management Studies, Punjabi University, Patiala, Punjab, India.

financial management in the Ministry of Micro, Small & Medium Enterprises. As financial illiteracy is a problem in India, the current study aims to determine the association of housing loan borrowers' financial knowledge, attitude, and behaviour with their level of financial literacy. We have seen a marked expansion in the variety and use of financial instruments around the world as a result of the recent rapid development of financial markets. In addition due to the "democratization of credit," consumer debt loads from consumer credit cards, mortgages, and other comparable goods have skyrocketed (Dyanan, 2009). Since the 1990s, India's economy has been liberalized and financialized, which has allowed household participation in the financial system to rise. The economy of India has been expanding quickly, as has the average annual income. According to Matur et al. (2012), households have been persuaded to spend more money on consumption and less on saving. Credit became freely accessible as a result of the growth of financial institutions, and the culture of "easy credit" has been spreading. The total household debt to total asset ratio increased from 29.6 percent in December 2009 to 35.1 percent in March 2011. Similarly, individual credits as a percentage of savings are quickly rising. Prior to the global financial crisis, this ratio was roughly 48 percent; by April 2011, it had risen to 54 percent. Individuals' borrowing decisions are influenced by their financial behaviour, which is related to financial literacy. There is evidence that those with poor financial literacy are more prone to have debt issues (Lusardi et al., 2010). According to Lusardi and Tufano (2008), individuals with low debt literacy run a higher risk of overborrowing due to relationships between their debt loads, financial experiences, and debt literacy. In this descriptive research study, financial literacy was assessed using a multidimensional construct (Potrich, Vieira, & Kirch, 2014). The construct used to measure financial literacy includes financial knowledge, financial behaviour, and financial attitude (OECD, 2013). The primary focus should be on how to increase home loan borrowers' financial literacy because they play a significant role in boosting the business of financial lending institutions. This will enhance their financial planning and saving behaviours as well as the welfare of their families. However, there hasn't been enough study done on financial literacy among housing loan borrowers in Punjab. Therefore, it has become crucial to look at understanding the factors that affect financial literacy and its significance for home loan borrowers. The research paper attempted to investigate the variables assessing financial literacy of home loan borrowers in Punjab. Twenty variables are included in the survey questionnaire, comprising six factors related to financial attitude, five factors related to financial behaviour, five factors related to financial knowledge, and four factors related to financial literacy. The model includes one endogenous variable i.e. financial literacy, along with three exogenous variables namely home loan customers' financial knowledge (FK), financial attitudes (FA), and financial behaviours (FB).

### **Literature Review**

The following studies have been reviewed to take a clear idea for the current study.

Al-Tamimi and Bin Kalli (2009), Howlett, Kees, and Kemp (2008), and Yoong, See, and Baronovich (2012) have all claimed that the terms financial literacy, financial education, and financial knowledge can all be used interchangeably. In contrast to the aforementioned, Huston (2010) suggested that financial literacy encompasses more than simply financial education and knowledge and extends beyond these two. Anthes (2004) defined financial literacy as a combination of information, behaviour, awareness, attitude, and ability that is necessary for an individual to make wise financial decisions that result in achieving financial well-being, according to the OECD (2013). According to this definition, financial knowledge, financial behaviour, and financial attitude are the three key factors to consider when evaluating financial literacy. As it is justified and frequently used in literature, Atkinson and Messy (2012) advocated only three characteristics to measure financial literacy in order to improve financial literacy among generations. According to Bhushan and Medury (2014), the emphasis should be on fostering positive financial attitudes among the nation's citizens. Only then can any programme for financial education reap its rewards. Ibrahim and Alqaydi (2013) concluded that education might enhance one's attitude toward money, which will lessen reliance on credit cards. Financial well-being can also be impacted by financial attitudes and behaviour. Research from the past found a connection between young people's financial attitudes and financial literacy (Grable & Lytton, 1998; Kasman, Heuberger, & Hammond, 2018). In 2015, Dwivedi, Purohit, and Mehta examined the NCFE study on financial inclusion and literacy in India. The study demonstrated that men and women have varying levels of financial literacy. Men are better at handling money than women. The survey also found that males score lower than women in financial attitude, while women score better than men in financial behaviour and financial knowledge. The research study cited above confirms that financial attitude is a crucial factor in determining an individual's financial literacy and that it also affects the financial literacy level lack financial literacy, which has an impact on various aspects of their financial behaviour (OECD, 2013). According to

Sanderson (2015), is the capacity of an individual to apply his or her knowledge and abilities to make the right financial decisions for efficient management of monetary resources. Financial education programmes should be taught in schools to raise kids' and teenagers' awareness of and knowledge about money. According to Amagir, Groot, Maassen van den Brink, and Wilschut (2018), having more financial knowledge may alter how risky an investment opportunity is perceived. In his study on financial literacy, Diacon (2004) found that financial experts have greater financial awareness and risk-taking skills than laypeople. Hasler and Lusardi (2017) evaluated participants' level of financial literacy by posing fundamental questions concerning their understanding of interest, compound interest, inflation, and risk diversification. Howlett et al. (2008) found that people with financial knowledge are more financially literate and have better money management skills. Zhu and Dhar (2006) discovered a link between the propensity effect and investor financial literacy. Higher financial literacy and working professionals were observed to exhibit fewer tendency effects. Whether it is objective or subjective, financial knowledge has a strong impact on financial attitude and behaviour. The survey also found that a person's ability to make sound financial decisions depends greatly on their level of financial literacy (Robb & Woodyard, 2011).

### Objective of the Study

As past studies have found a high correlation between financial literacy and borrowing behaviour, the following objectives are framed for this study:

- To identify factors connected with home loan borrowers' financial literacy.
- Examine the relationship of financial knowledge, financial attitude, and financial behaviour of home loan borrowers towards their level of financial literacy.

### Research Methodology

#### Sampling Size and Technique

To measure the financial literacy level, the present research was conducted among home loan borrowers in Punjab. For this study, a descriptive research design was used. A structured questionnaire was used to gather primary data. In the state of Punjab, 480 borrowers are included in the sample, with 240 respondents from both selected banks and NBFCs by stratified random sampling. The sample unit is any person or household that has taken a mortgage loan from one of the selected financial institutions, including Punjab National Bank, State Bank of India, Axis Bank, and ICICI Bank; as well as non-bank financial companies like GIC Housing Finance Limited, LIC Housing Finance Limited, Indiabulls Housing Finance Limited, and Housing Development Finance Corporation Limited. The secondary data was collected from pertinent reports, journals, research papers, books, abstracts from the Punjab and Indian Censuses, different economic surveys, annual reports from the National Housing Bank, reports on the trend and development of housing in India, official websites of lending institutions, as well as the BSE and NSE websites. Table 1 consists of the characteristics of the collected sample for the study.

**Table 1: Demographic Profile of the Respondents**

Sr. No.	Variables	Number of Respondents	Percentage
<b>Age</b>			
1	30 years and below	159	33.1
2	31 - 40 years	180	37.5
3	41 - 50 years	93	19.4
4	51 years and above	48	10.0
	Total	480	100.0
<b>Marital Status</b>			
1	Married	327	68.1
2	Unmarried/Widowed	153	31.9
	Total	480	100.0
<b>Educational Qualification</b>			
1	12th or Below	144	30.0
2	Graduate	192	40.0
3	Post Graduate	107	22.3
4	Doctoral	37	7.7
	Total	480	100.0

<b>Self-Annual Income (In. Rupees)</b>			
1	Below 2,50,000	132	27.5
2	2,50,000 – 5,00,000	183	38.1
3	5,00,000 – 10,00,000	111	23.1
4	Above 10,00,000	54	11.3
Total		480	100.0
<b>Financial Institutions</b>			
<b>Banks</b>			
1	State bank of India	89	37.1
2	Punjab National bank	66	27.5
3	ICICI Bank	50	20.8
4	AXIS Bank	35	14.6
Total		240	100.0
<b>Non-Banking Financial Companies</b>			
1	Housing development finance corporation limited	87	36.3
2	LIC housing finance limited	62	25.8
3	Indiabulls housing finance limited	49	20.4
4	GIC housing finance limited	42	17.5
Total		240	100.0

Source: Primary data

### Tools & Techniques

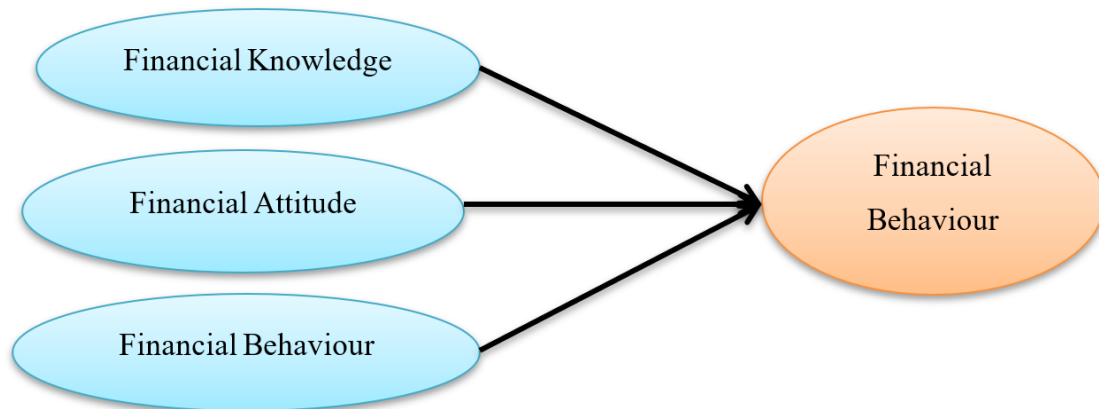
In order to conduct the current research, data was gathered using a well-structured questionnaire. For both the dependent and independent variables in this study, three different scales have been used.

- **Financial Literacy:** As a dependent variable, financial literacy has been measured using a carefully constructed multidimensional scale. According to the OECD (2013), three constructs are included in this scale are financial knowledge, financial behaviour, and financial attitude.
- **Financial Knowledge:** Another independent variable, financial knowledge, has been investigated using the measurement methodology described by Bhushan and Medury (2014) and Luisardi and Hasler (2017). The measure included ten questions on a five-point Likert scale, with 5 indicating strongly agree and 1 indicating strongly disagree. To assess financial knowledge, the questionnaire includes questions about financial numeracy, savings and investments, borrowings, insurance, risk and return, and so on.
- **Financial Attitude:** As an independent variable, for financial attitude scale developed by Shockey (2002) and OECD (2013) has been used. The instrument contains ten questions on a five-point Likert scale where; 5 is assigned to strongly agree and 1 is to strongly disagree. For the purpose to measure financial attitude, questions related to financial planning, risk attitude, the stress in handling finances and satisfaction with the financial situation, and other questions to gauge financial attitude are included in the questionnaire.
- **Financial Behaviour:** Another independent variable is financial behaviour, which is measured by a scale created by the OECD (2013) and Shockey (2002). The test consisted of ten questions on a Likert scale with 5 being strongly agree and 1 being the strongly disagree. Questions like saving behaviour, loan and bill payback behaviour, responsible investing behaviour, and financial planning behaviour among others were included in the questionnaire to measure financial behaviour.

### Hypotheses of the Study

Based on the research papers previously covered in this paper, researchers formulated and tested the following hypothesis:

- H<sub>1</sub>:** Financial knowledge is significantly associated with the financial literacy level of home loan borrowers.
- H<sub>2</sub>:** Financial attitude is significantly associated with the financial literacy level of home loan borrowers.
- H<sub>3</sub>:** Financial behaviour is significantly associated with the financial literacy level of home loan borrowers.



**Figure 1: Hypothesized Structural Measurement Model**

**Reliability and Validity**

Confirmatory factor analysis and analysis of moments structures (AMOS) version 20 are used to examine the reliability and validity of components. Path analysis was performed to assess the relationship between independent and dependent variables. The results of assessing factor-wise reliability and validity are shown in table 3.

**Table 3: Results of Confirmatory Factor Analysis**

Variables	Label	Standardized Factor loading	R <sup>2</sup>	Composite Reliability	AVE	MSV	ASV
Financial Knowledge	FK1	0.80	0.63	0.96	0.73	0.15	0.15
	FK2	0.85	0.72				
	FK5	0.91	0.83				
	FK6	0.87	0.76				
	FK7	0.86	0.74				
Financial Attitude	FA3	0.82	0.67	0.95	0.55	0.27	0.18
	FA4	0.74	0.54				
	FA5	0.74	0.55				
	FA6	0.88	0.77				
	FA7	0.90	0.81				
	FA9	0.72	0.52				
Financial Behaviour	FB2	0.87	0.76	0.97	0.74	0.25	0.16
	FB3	0.93	0.86				
	FB4	0.95	0.89				
	FB5	0.82	0.67				
	FB7	0.74	0.54				
Financial Literacy	FL1	0.88	0.78	0.94	0.66	0.27	0.16
	FL2	0.87	0.76				
	FL3	0.89	0.76				
	FL4	0.77	0.59				

Source: Primary data

**Results and Discussion**

In order to validate the factors of the four variables, the fitness of the model was characterized by confirmatory factor analysis (CFA; Ho, 2006), and the model fit was confirmed to have appropriate data. Table 5.1.1 shows the CFA results for all four variables in terms of validity of scale and goodness of fit. All of the AMOS output indications confirm that all of the variables have good goodness of fit and that no changes are necessary. A decent model fit indices include chi-square/degree of freedom (CMIN/df), goodness-of-fit indicators such as goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), and badness-of-fit indicators such as root mean square error of approximation (RMSEA). The results reveal that all of the model fit indicators are within the allowed rates.

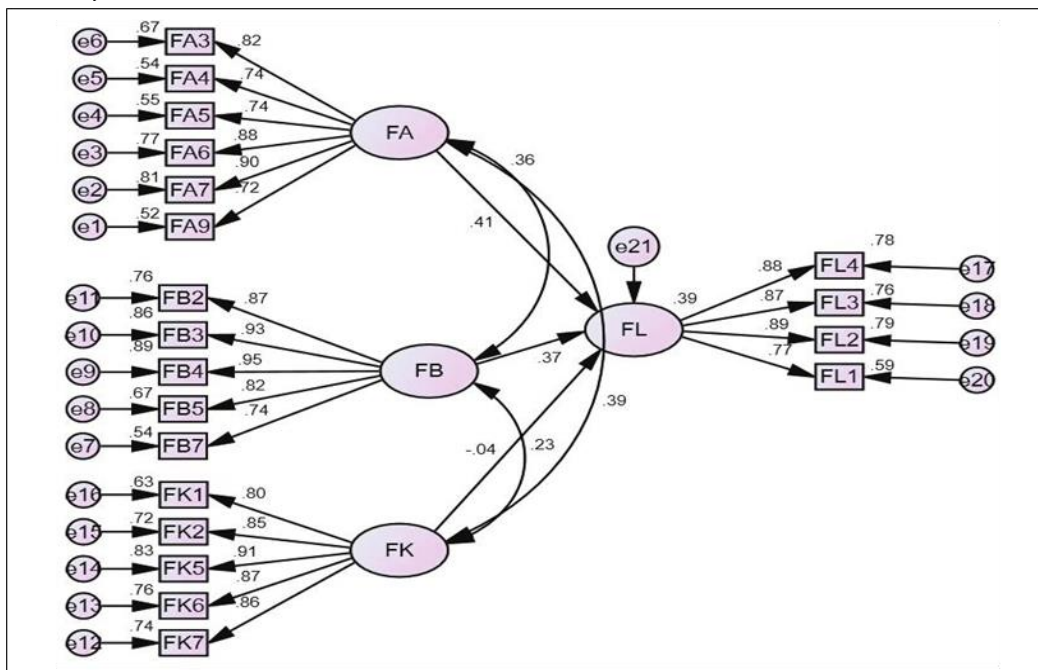
**Model Fit**

Previous studies have found a link between financial knowledge, financial behaviour, and financial attitude (Agarwalla, Barua, Jacob, & Varma, 2015; Bhushan & Medury, 2014). Structural equation modelling (SEM) is used to analyze the link between these variables and their association with financial literacy. The link between three independent variables is achieved by using AMOS graphics, as seen in table 4 (Model fit). GFI, comparative fit index (CFI), Tucker-Lewis index (TLI), and incremental fit index (IFI) values are greater than 0.90 which satisfy the model fit requirements. CMIN/df values in the model that are less than the recommended value (Hooper, Coughlan, & Mullen, 2008; Steiger, 2007) represent a better fit of the data.

**Table 4: Measurement of Model of Different Construct**

Sr. No	Variables	AGFI	GFI	RMSEA	CMIN/df	NFI	IFI	TLI
1	Financial Attitude	0.9	0.96	0.09	4.43	0.89	0.92	0.96
2	Financial Behaviour	0.91	0.96	0.04	2.98	0.91	0.94	0.92
3	Financial Knowledge	0.95	0.98	0.07	2.65	0.91	0.96	0.90
4	Financial Literacy	0.96	0.99	0.06	2.68	0.93	0.98	0.89

Source: Primary data



**Figure 2: Structural Model**

**Path Analysis**

To put the developed hypothesis to the test, path analysis is performed. Table 5.2.1 displays the outcome of the path analysis. The regression weight and critical ratio test exhibits that only financial attitude (\*\*\*, p 0.05) and financial behaviour (\*\*\*, p 0.05) have a strong association with the level of financial literacy of home loan borrowers in Punjab. Financial knowledge (0.398, p 0.05) does not show a significant relationship with the dependent variable financial literacy. As a result, the outcomes of this study support H<sub>2</sub> and H<sub>3</sub>, but not H<sub>1</sub>. Therefore; hypotheses H<sub>2</sub> and H<sub>3</sub> have been accepted, but hypothesis H<sub>1</sub> is rejected shown in figure 5.

**Table 5: Structural Model Results**

Paths	Estimates	S.E	C.R	P
FL FA	0.47	0.068	6.939	***
FL FB	0.516	0.076	6.791	***
FL FK	-0.043	0.051	-0.845	0.398

Source: Primary data

### Conclusion

The primary goal of this study is to identify factors connected with home loan borrowers' financial literacy in Punjab. The three primary factors viz. financial knowledge, financial attitude, and financial behaviour are identified as factors in examining financial literacy. According to the findings of the study, the financial attitudes of home loan customers are strongly related to their level of financial literacy. It was determined that financial knowledge is not the sole determinant of financial literacy, but that financial attitude and financial behaviour are equally significant and have a favourable impact on housing loan customer' financial literacy. It has been also revealed that there is a favourable and significant relationship between financial behaviour and financial literacy of home loan obtainers. However, the results showed that borrowers had less financial knowledge and that it is not significantly connected with financial literacy of home loan customers. Thus, H<sub>2</sub> and H<sub>3</sub> have been accepted in the study.

The study's findings suggest that home loan borrowers' financial literacy should be improved as it can reduce the possibility of being deceived in taking home loans and selecting suitable lending institutions. India's financial literacy authorities should focus more on boosting the financial understanding of borrowers as they are the source of revenue and profit for lending financial institutions.

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