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Exploring the Influence of Financial Attitude, Behaviour and Knowledge on Financial Literacy Among Working Women in Uttarakhand, India

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Abstract: Financial literacy (FL) means the ability to handle money throughout one's life by using information and intellect. Financial management is key to solving financial problems, especially for working women. This study collected responses using a standardized questionnaire and summarized financial literacy based on three elements: Financial Attitude (FA), Financial Knowledge (FK) and Financial Behavior (FB). Data was gathered from 150 working women from the private and public sectors in the Dehradun district of Uttarakhand state in India. The study finds that working women's FA and FL and their FK and FL are positively correlated. Financial behavior shows an adverse effect on financial literacy. Individual female investors may use this knowledge to make informed decisions. The unique aspect of this study was that it examined for the first time the variables, including FK, FA & FB associated with FL focusing on working women in the Dehradun district of Uttarakhand, India.

Keywords: Financial Literacy • Finance Decisions • Saving • Investment Financial Knowledge • Financial Behavior • Decision-Making • Female Investor

Introduction

Investment behaviour refers to how people decide to invest their money (Pompian 2012). A person's investment decisions depend on their financial literacy (FL) and knowledge of different investment options. Those who are financially literate better implement their choices related to money and have a better grasp of finance, financial planning, savings and wealth-building techniques. Financially knowledgeable individuals make smart decisions about money and it is unlikely that they would be misled by others on financial matters. According to Santa Clara University finance professor “Meir Statman”, "In standard finance, people are rational and in behavioural finance, people are normal." According to him, behavioural finance is the study of how investors and managers make financial decisions and how social influences, emotional states and cognitive errors affect these decisions. However, occasionally, investors fail to make the best choices. Financial education provides the information, abilities and mindsets necessary for responsible financial management which includes spending, earnings, saving, borrowing as well as investing money (Lusardi 2019). A variety of elements such as information sources, personal convictions and common biases such as overconfidence, loss aversion, overreaction and crowdsourcing affect investors’ judgments. Emotions, such as fear, greed and hope also affect decisions. Awareness of these biases helps investors and financial experts make better choices (Zhang & Zheng 2015). In India, middle-class people choose investment plans for benefits such as building wealth, enjoying retirement, obtaining tax benefits, ensuring long-term financial security, covering death risks, having flexibility and maintaining financial protection. As reported by the "Humanity Welfare Council," 80% of Indian women face difficulties in understanding financial matters and approximately 62% do not have easy access to banking services or bank accounts. This indicates that many Indian women lack financial knowledge and freedom. They face cultural, economic, psychological, and physical barriers that hinder financial education. Empowering women is a major challenge in India. Despite this, the Indian women must play a crucial role in India's economic growth, which requires them to be financially empowered. This can be achieved by ensuring that they receive an education and become financially knowledgeable and independent. Being financially literate means possessing the capacity to effectively manage finances. FL empowers individuals to maximize the benefits of earnings. Traditional investing alternatives like bank savings accounts, post office savings plans, and fixed deposits began to give way to more complicated options like investments in bonds, mutual funds, residential real estate, and even equity shares for female investors (Arora 2016)." The Organisation for Economic Co-operation and Development (OECD) defined financial literacy (FK) in 2012 as integrating financial knowledge, skills, attitudes, and behaviours to make well-informed financial decisions and attain personal economic well-being.

The International Labour Organisation (ILO) defines a working woman as any female at least 15 years old. It works for at least one hour a week as an employee or a self-employed person. Women are advancing in various fields, like men, but many still rely on male family members for financial decisions. Many women view investing as a way to achieve financial independence and freedom. Historically, women have earned money but lacked financial awareness and investment options to increase their wealth. However, women today, are more aware of the importance of controlling their financial futures and investing in accordance with their values and goals. It is crucial for women to have the same financial decision-making opportunities as men do. To address this, the government has introduced programs and schemes to promote FL among women, helping them achieve financial independence and contribute to social development. Women in India are increasingly involved in every field, including politics, education, the media, the arts and entertainment, the service industry, the military, and even driving. In the business world, responsibilities at various levels contribute to a company's success. Women's roles in both business and home life are crucial. They generate profits for businesses and earn salaries to support their families. Currently, women are becoming more independent in making investment decisions for their families (Sharma & Kota 2019). The degree of FL and familiarity with the different investment possibilities maintained by individuals influences their investment decisions. Distinct behavioural traits also influence working women's choices regarding investments. Financial advisors also help working women in becoming more conscious of their financial lives after retirement and avoid future financial crises (Sabri & Juen 2014). The process of influencing people's behavior in a long-lasting manner through FL takes time. To gradually improve, a thorough and continuous effort is required. Individuals, women, families, communities, organizations, and the government play a role in making sound financial choices (Bonga & Mlambo 2016). FK, FA and FB have a positive impact on financial decisions (Sudindra & Naidu,2019). Fundamentally, FL focuses on learning about financial products and the risks and rewards associated with them. (Vaghela 2019). FL depends on several aspects, including marital status, family income, income, place of residence, gender, education level, and financial behaviors. Additional factors include exposure to the outside world, necessity of retirement planning, and product understanding (Arora 2016).

Since the introduction of India's first "National Strategy for Financial Inclusion" in 2013, significant strides have been made to enhance the accessibility to banking services nationwide. The latest National Strategy for Financial Education (NSFE), launched in 2020, emphasizes a comprehensive approach known as the 5C model Content, Capacity, Community-led efforts, Communication, and Collaboration to disseminate FK across the country. Alongside these strategies, the GOI has taken several significant initiatives such as "Pradhan Mantri Jan-Dhan Yojana (PMJDY), Pradhan Mantri Mudra Yojana (PMMY)," and others, intended to provide access to services from both national and commercial banks and to include underprivileged groups in the official financial system. The World Bank's Findex (2021) report highlights a notable increase in the percentage of Indian adults with formal bank accounts, underscoring the impact of these initiatives. In Uttarakhand, however, despite overall progress in literacy rates, disparities persist, particularly in terms of gender literacy and employment patterns. The state's efforts include initiatives by organizations such as Sanjeevani NGO and HDFC Bank's Parivartan, which conduct FL workshops to empower local communities with acumen of savings, investments and access to financial services. Targeted efforts like these are crucial for addressing local challenges and fostering sustainable financial practices among diverse populations in the region.

The current study uses FA, FK, and FB to evaluate working women's FL levels in the Dehradun area of Uttarakhand, India.

The Hypothesized relationships are as follows:

H1: There is a significant relationship between financial attitude and financial literacy among working women in Dehradun, Uttarakhand.

H2: There is a significant relationship between financial knowledge and financial literacy among working women in Dehradun, Uttarakhand.

H3: There is a significant relationship between financial behavior and financial literacy among working women in Dehradun, Uttarakhand.

Theoretical background and literature review

Theoretical Background

The present study is based on the Theory of Planned Behaviour (TPB) by Ajzen (1991), according to which attitudes, subjective norms and perceived behavioural control determine behavioural intentions. When integrated with financial literacy, this theory proposes that the financial attitude of a person, along with financial knowledge and behavioural intentions, contribute to a person's overall financial decisions and literacy levels. Financial literacy, the capacity to comprehend and utilize financial knowledge to make informed decisions, is increasingly regarded as a multi-dimensional construct determined by cognitive and behavioural aspects (OECD, 2016; Lusardi & Mitchell, 2014).

Hypotheses Development and Literature Review

H1: Financial Attitude → Financial Literacy

Financial attitude is an individual's thoughts, principles and inclinations regarding money management, expenditure, savings and investment. A positive attitude towards finances increases the chances of an individual making informed financial choices. Several studies confirm that financial attitude significantly influences financial literacy (Mouna & Jarboui 2017).

H2: Financial Knowledge → Financial Literacy

Financial knowledge includes a basic awareness of economics, financial products, risk-return trade-offs and budgeting. Several empirical studies have shown a positive relationship between financial literacy and financial knowledge (Lusardi & Mitchell 2014; Patrick et al 2024).

H3: Financial Behaviour → Financial Literacy

The actual financial practice of an individual is what is meant by financial behavior; this could be budgeting, saving, or borrowing. Theoretically, they should correlate with financial literacy, but recent evidence paints a different possible scenario. The findings of Robb & Woodyard (2011) and Bhushan & Medury (2013) did not show a significant association between financial behavior and literacy, and this tendency has been maintained in recent research. Potrich et al (2018) showed a mismatch between financial behavior and financial knowledge in most cases because of structural, contextual, and psychological impediments. Behavioral interventions (not just knowledge) are frequently needed to cause a change in behavior (Amagir et al 2020)

Conceptual Model

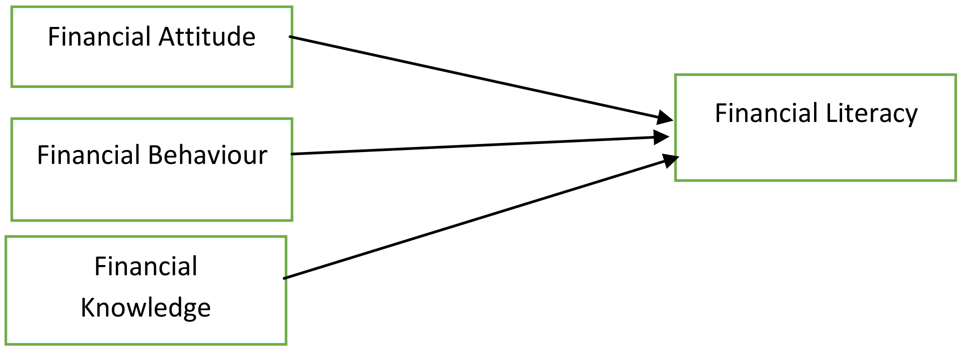


Fig. 1: Conceptual framework of the study

Source(s): Author's calculation

The conceptual model that Figure 1 explores interrelationships between four crucial components: FA, FB, FK and FL. This framework positions FL as the outcome variable, while FA, FB, and FK serve as predictor variables. All these elements are intricately connected within the proposed model.

Materials and Methods

Population sample and procedure

This study aims to determine the level of FL among the district's working women in Dehradun, Uttarakhand, India. Dehradun was chosen as the location for this study because it is the capital of the state of Uttarakhand and as a result, it is probably the most developed district out of the thirteen total districts in Uttarakhand. Therefore, due to industrial and government establishments as well as many private businesses, a lot of people (including large number of women) work in Dehradun. The research relied on a descriptive approach, snowball and purposive sampling were used to collect data from women in different public and private positions. As we targeted only working women for this study, we could not have used random sampling. Hence, we asked our respondents to refer other working women in their knowledge for the purpose of this study. The focus categories were FA, FB and FK. FL was considered when creating the questionnaire. Working women were asked questions regarding their financial planning knowledge, debt management practices, and investment attitudes. A well-structured questionnaire was used, although more than 200 women completed the questionnaire, and only 150 responses were deemed useful for this study. The current research utilized data gathered from a carefully designed adaptive questionnaire developed based on Chetna Singh's PhD thesis from BHU. The questionnaire was approved by finance experts including bank managers, corporate executives, and researchers. FL was the dependent variable measured using a well-structured, multidimensional scale.

Measurement of the variables

A well-structured questionnaire was used to assess the influence on FL. The questionnaire has three sections; first section collects participant demographic information. There was a five-point Likert scale, with 1 denoting "strongly disagree" and 5 denoting "strongly agree." The multidimensional scale used to measure FL, the dependent variable, was created by following OECD requirements. FA has a scale that was advanced by the (OECD 2013) and (Shockey 2002). The questionnaire consisting of fifteen questions, assessed FA by inquiring about risk tolerance, long-term financial planning, investment management skills, sources of financial data, contentment with one's financial situation, and furthermore. A scale created by the OECD (2013) and Shockey (2002) was used to quantify financial behaviour, another independent variable. A five-point Likert scale, with five denoting strong agreement and one denoting severe disagreement, was used for the test's thirteen items. In order to assess financial behavior, the questionnaire included questions regarding goals and accomplishments related to money management, debt repayment, proper investment, and saving practices. The measuring methodology proposed by Hasler and Lusardi (2017) and Bhushan and Medury (2014) examined FK, another independent variable.

Data Analysis Using PLS-SEM Analysis & Interpretation

Demographic Details of the Respondents Frequencies

Among the respondent working women, 31% were aged 25-34, 27.50% were 35-44, 14% were 45-54, and 2.5% were above 54. The majority of working women were post-graduates, comprising 46% of the total. 17% were graduates, 8.50% had obtained professional qualifications and 3.50% were undergraduates. Marital status of the respondents showed that 59% were married, 12% were unmarried, 3.50% were widowed and 0.5% were separated. Additionally, 25.50% of women earned monthly incomes between Rs. 50,001 and Rs. 70,000. While, 14.50% of women were earning between Rs. 70,001 and Rs. 90,000 monthly. Moreover, 13.5% were earning between Rs. 90,001 and Rs. 1,10,000 monthly and 10% of women were earning between Rs. 30,001 and Rs. 50,000 monthly. 6.50% were earning Rs. 10,000 and Rs. 30,000 monthly. Only 5% women were earning more than Rs. 1,10,000 per month.

Measurement Model

To ensure the validity and reliability of the measures used in the study, the researchers looked at the relationship between each item and its corresponding concept. The results demonstrated the reliability of the 29 items for a further examination, with all of them showing good correlations (above 0.7) with their constructs (Hair et al, 2018). The Cronbach's Alpha test and composite reliability (CR) were part of a thorough evaluation that assessed internal consistency and convergent reliability. All of the Cronbach's Alpha values were above the acceptable threshold of 0.7, indicating strong internal consistency (Urbach & Ahlemann,2010). The composite reliability of all the latent variables above the 0.7 threshold value, as suggested by previous study, and ranged from 0.71 to 0.95 (Fornell & Larcker, 1981). The calculated average variance extract (AVE) for estimating convergent validity exceeded the acceptable threshold of 0.5. therefore, the convergent validity was assured (Fornell,1983).

Table 1: Factor Loading of the construct

Variables	Label	Standardized factor loading	AVE	Composite Reliability	Cronbach's Alpha
FA	FA-1	0.802	0.693	0.961	0.956
	FA-10	0.811			
	FA-11	0.855			
	FA-12	0.827			
	FA-2	0.845			
	FA-3	0.907			

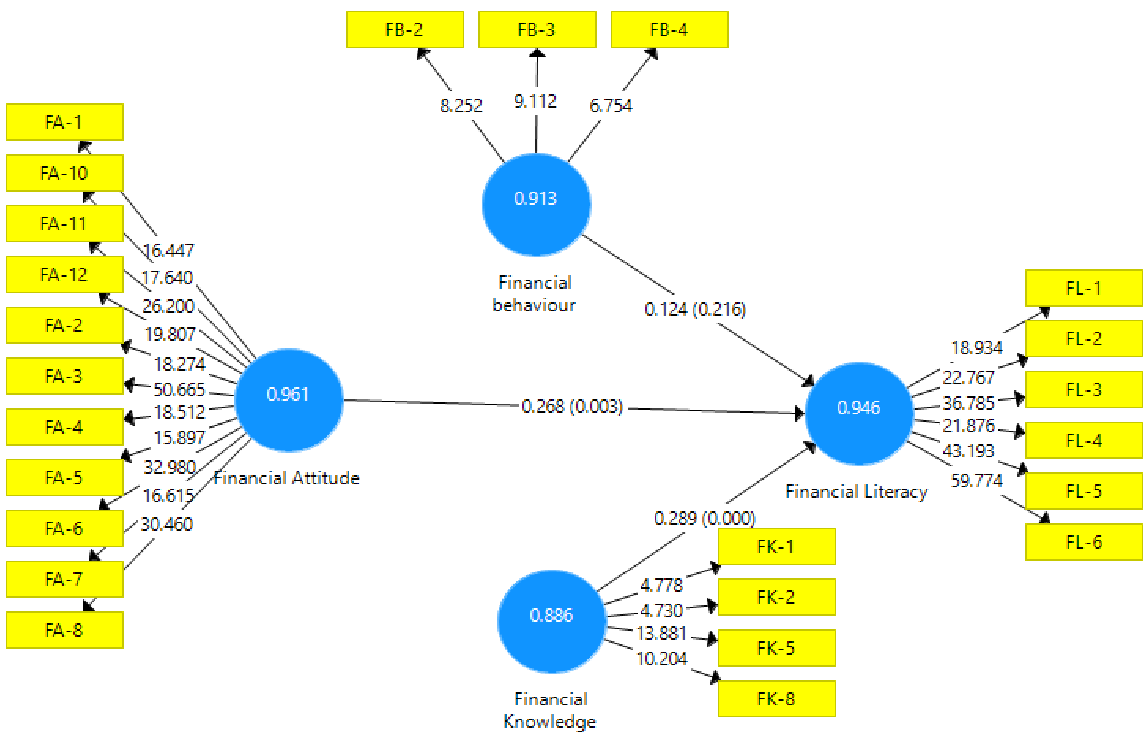
	FA-4	0.840			
	FA-5	0.789			
	FA-6	0.860			
	FA-7	0.775			
	FA-8	0.838			
FB	FB-2	0.916	0.779	0.913	0.865
	FB-3	0.934			
	FB-4	0.790			
FK	FK-1	0.774	0.662	0.886	0.845
	FK-2	0.776			
	FK-5	0.879			
	FK-8	0.821			
FL	FL-1	0.827	0.745	0.946	0.932
	FL-2	0.837			
	FL-3	0.846			
	FL-4	0.838			
	FL-5	0.908			
	FL-6	0.919			

Source(s): Author's calculation

Structural Model

The relevant structural model, measuring coefficient of determination (R^2) and collinearity are examined in order to analyze the structural model. According to Hair et al. (2018), multicollinearity across the constructs is evaluated by computing each exogenous variable's Variation Inflation Factor (VIF). In this study latent variables' VIF value was less than five. According to (Hair et al., 2018), this guarantees that multicollinearity does not occur. The justification of the collinearity values suggests that there was a significant link between the components. This study used the PLS-SEM bootstrapping approach to examine the significance of the model's constructs. To investigate the applicability of the construct's relationships, 5000 randomly selected examples were generated from the original cases (Hair et al.2018).

Fig. 2: PLS -SEM full model with Path Coefficient and P-Value



Source: Author's calculation

Table 2: Discriminant Validity

	Financial Attitude	Financial Knowledge	Financial Literacy	Financial Behavior
Financial Attitude	0.832			
Financial Knowledge	0.250	0.813		
Financial Literacy	0.383	0.370	0.863	
Financial Behavior	0.340	0.115	0.249	0.882

Source: Author's calculation

Table 3: Coefficient of Determination (R^2 Value)

Variable	Coefficient of Determination (R^2 Value)	
	R Square	R Square Adjusted
Financial Literacy	0.240	0.225

Source(s): Author's calculation

Table 4: Path Analysis Result

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Decision
H:1Financial Attitude _ -> Financial Literacy	0.268	0.269	0.092	2.929	0.003	Supported
H2: Financial Knowledge _ -> Financial Literacy	0.289	0.300	0.081	3.560	0.000	Supported
H3: Financial behaviour _ -> Financial Literacy	0.124	0.130	0.100	1.236	0.216	Not Supported

Source(s): Author's calculation

Findings and Discussion

Table 4 presents the findings of path analysis, a statistical method used to analyze the association between variable path coefficients, indicating the direction and robustness of these collaborations. The sample mean and standard deviation gave details about the mean scores and the variation of scores in the sample. The present research results provide beneficial information about the matters that affect financial literacy (FL) in working women in the Dehradun district, Uttarakhand. The estimates indicated that (H1) Financial Attitude significantly and positively affects Financial Literacy (Path coefficient = 0.268, P value = 0.003). This correlates with the previous literature that indicates an individual's mindset regarding saving, spending, and future planning plays a crucial role in developing financial literacy and making sound decisions (Atkinson & Messy, 2012; Pankow 2003). Women with a positive and responsible attitude towards finance have higher chances of being financially literate, which enables them to use their resources well. Similarly, (H2) Financial Knowledge significantly correlated with Financial Literacy (Path coefficient = 0.289, P value = 0.000). It aligns with Lusardi and Mitchell's (2014) and OECD (2016) results, which underlined that the level of financial knowledge, especially the awareness of financial products, risk management, and fundamental economic concepts, is a decisive factor in making adequate financial choices. The growing significance of digital financial literacy and the proficiency to use financial technology systems are also supported by recent research (Potrich et al 2018). Contrary, (F3) Financial Behavior was not significantly related to Financial Literacy (Path coefficient = 0.124, P value = 0.216). This contradicts the widespread belief that financially literate individuals are bound to exhibit wise financial behavior. Such a finding corresponds with earlier studies like Robb &Woodyard (2011) and Bhushan & Medury (2013), which reported an insignificant relationship between financial knowledge and behavior. This observation is also confirmed by recent empirical research between 2020 and 2025, which shows that gains in financial literacy do not always result in subsequent gains in financial behavior. A 2024 meta-analysis of financial literacy interventions found moderate, heterogeneous impacts on real behavior and longer-term financial health (Potrich et al 2018). Knowing-doing gaps, or the so-called behavioral execution gap, can be explained by low self-control, financial anxiety, habits, and a lack of support systems (Amagir et al 2020). Patrick et al (2024) also showed that, although digital literacy programs have a positive effect on financial awareness, they do not translate into long-term behavioral adjustment either regarding savings or investment behavior.

These data support the notion that even though financial attitude and knowledge are key factors in developing financial literacy, other measures should be encouraged to encourage good financial behavior. This can take the form of behavioral nudges, real-time decision-making aids, and situation-specific assistance based on individuals' circumstances and issues. The study recommends multi-dimensional approaches to reduce the gap between financial knowledge and practice, specifically for working women in semi-urban and rural locations.

Conclusion

This research contains valuable information on the determinants of financial literacy among working women in the Dehradun district of Uttarakhand. The fidelity of the outcomes is that financial attitude and knowledge contribute positively and significantly to financial literacy, whereas financial behavior does not indicate a statistically significant correlation. These results support the idea that people's knowledge and attitudes towards money, more than their behavior, could be more relevant in determining financial literacy among this population group. This nonsignificant correlation between financial behavior and literacy level corresponds with emerging evidence that behavior change is not necessarily automatic or straightforward with increased knowledge or awareness. Psychological obstacles, situational constraints, or the absence of behavior reinforcement may result in the knowledge-action gap. In practical terms, the results highlight the importance of specific interventions (especially those related to the improvement of financial attitudes and financial knowledge) via financial education programs, workshops, and government initiatives. In addition, it could be beneficial to combine behavioral nudges, digital solutions, and culturally adaptive strategies to ensure that the intention-action gap is reduced and more positive financial outcomes are achieved. Due to the geographic and demographic restriction of the sample, subsequent studies ought to address the investigation of larger populations and include variables, including digital competence, self-efficacy, and socio-cultural factors, to provide a more holistic picture of how financial literacy develops in emerging economies.

Limitation and Direction for future research The present study, which was conducted on 150 working women of the Dehradun district of Uttarakhand, has limited generalizability because other segments of society, such as non-working women, men, and students, have not been covered. It only takes into account three variables that impact financial decision-making. Further study broader demographics should be considered, as well as geographical diversity, family structure, and socioeconomic status and also, we will use mediation and moderation analyses, including other significant variables that can further elaborate on the intricate relationships affecting investment decisions. The results indicate that financial literacy is more affected by financial knowledge and attitude than behavior. These insights can inform policymakers and educators to create specific financial education programs to empower women and encourage economic inclusion.

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