FINANCIAL LITERACY AMONG WOMEN EDUCATORS IN HIGHER EDUCATION: AN EMPIRICAL INVESTIGATION OF KNOWLEDGE, ATTITUDE, AND BEHAVIOUR

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RESEARCH ARTICLE

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Abstract

Financial literacy – encompassing financial knowledge, attitude, and behaviour – is a critical determinant of individual economic well-being. Despite growing scholarly attention, women, particularly in the academic profession, remain understudied in the context of financial literacy. This study investigates the financial literacy levels of women educators employed in higher education institutions across West Bengal, India, and examines the influence of socio-demographic variables on these levels. Data were collected from 450 women educators spanning five teaching streams (Commerce and Management, Science, Arts, Engineering, and Law) through a structured questionnaire adapted from the OECD/INFE financial literacy framework. Financial literacy scores were computed by aggregating standardised scores for financial knowledge, financial attitude, and financial behaviour. Multinomial logistic regression was employed to identify significant predictors of financial literacy levels. Findings show that a high percentage of the respondents (72%) showed high financial literacy. Marital status, income level, years of professional experience, teaching stream, and financial decision-making autonomy were found to be statistically significant predictors. Educators in the Commerce and Science streams showed a comparatively higher financial literacy, while those in the fields of Engineering and Law scored lower. The study highlights the need for stream-specific and demographic-specific financial education interventions that will help address these existing disparities among women educators in higher education.

Introduction

Financial literacy has taken on an important status as a defining factor of individual economic empowerment and social stability in societies. In general, it denotes a person's capacity to gain the knowledge of financial concepts and use this knowledge to make a rational, well-thought-out decision (Hung et al., 2009; T & Balakrishnan, 2021). The construct has been systematically operationalised along three dimensions, including financial knowledge, financial attitude, and financial behaviour (Atkinson & Messy, 2012; Potrich et al., 2015). Financial knowledge refers to the degree of knowledge about basic financial principles, the time value of money, compound interest, inflation, risk diversification, etc. (Dewi et al., 2020). Financial behaviour refers to the extent to which individuals put knowledge into practices of sound financial behaviours such as budgeting, long-term planning, and spending prudently (Atkinson & Messy, 2012). Financial attitude implies the attitude an individual has with respect to saving, investment appraisal, and risk assessment in the context of financial decision-making (Haque & Zulfiqar, 2015; Choudhary & Kamboj, 2017). Although financial literacy is an issue for all, there is sufficient evidence that women are not as financially literate as men (Bhushan & Medury, 2014; Gupta, 2017). This difference is explained by structural obstacles like the absence of financial independence, cultural and psychological constraints, and limited access to financial services and insufficient basic financial education (Baluja, 2016; Arora, 2016). Nevertheless, it has been found that employed women with reliable income and financial resources will show comparatively high levels of financial literacy (Sandeep, 2023). Accordingly, financial education has been seen as instrumental to facilitate women's professional and personal empowerment (Santos et al. submitted). Women educators in higher education institutions are a unique and policy-relevant population, because they are formally educated, professionally active, and potentially able to act as role models in their communities. However, the financial

literacy profile for them is still understudied in the Indian context. The present study addresses this gap in the literature by exploring the Financial Literacy of the Women Educators in colleges and universities in West Bengal, India. Specifically, the objectives of the study are to (i) determine financial literacy level in its constituent dimensions (knowledge, attitude, and behaviour), (ii) find out the impact of socio-demographic variables on the level of financial literacy, and (iii) ascertain differences in financial literacy level among educators from the various disciplines of academia.

Literature Review

The existing literature on financial literacy spans several decades and covers different populations, approaches, and countries. At the macroeconomic level, a high level of financial literacy is associated with higher savings rates among households, a lower dependence on credit to fund consumption, and an increase in aggregate financial well-being (Hung et al. 2009). Within countries, there is sharp heterogeneity in levels of financial literacy, as defined by various demographic, socioeconomic, and institutional factors. Bhushan and Medury (2013) analyzed the factors affecting financial literacy among Indian employees, and found that non - government employees were more financially literate than their government counterparts, but geographical location did not turn out to be a significant factor.

Separately, Potrich et al. (2015) developed a structural model of financial literacy considering the financial knowledge, attitudes, and behaviour as latent constructs, which found that men consistently reported higher levels of financial literacy than women across different groups sampled for the study. Dewi et al. (2020) studied financial literacy among Indonesian millennials and showed the positive relationship between financial experience and awareness and capabilities as well as learning, and emphasized the importance for educators to improve their competencies in money management and decision-making in investment.

Complementarily, Schmeiser and Seligman (2013) tested the predictive validity of common financial literacy measures using longitudinal data from the Health and Retirement Study (HRS) and found that responses differed across different survey waves, and that financial literacy was not always associated with good financial outcomes. This makes multi-dimensional measurement far more important than single-item assessments. BenDavid-Hadar (2015) focused on the financial literacy of educators in Israel, where they found financial background, behaviour, and financial planning awareness as determining factors, explaining the necessity of intervention for pedagogical professionals.

Atkinson and Messy (2012) undertook a global assessment of financial literacy for the benefit of the OECD/INFE network in twelve countries, from which they identified significant cross-national variation in the level of financial literacy due to demographic and institutional differences, and identified barriers, such as the lack of financial independence, less than adequate education and poor access, which continue to exist in most countries. In the Indian context, Arora (2016) identified the multiple-dimensional barriers, including cultural, psychological, and structural barriers that hinder the financial literacy of women. Baluja (2016) came up with a similar analysis that the lack of basic education and awareness about the available financial products restricts the financial empowerment of women in India. By contrast, according to Sandeep (2023), working women with higher education have low levels of financial literacy but are biased towards traditional investment forms, and not capital market products. These divergent results highlight the need for breakdowns in analyses according to professional category and to pick the "context" factors. Notwithstanding the aforementioned evidence, there still exists a huge paucity of studies focusing specifically on financial literacy among the educators of women working in Indian higher education institutions, particularly in varied academic disciplines. The present study addresses this gap by responding to the reality in West Bengal empirically by utilizing a multi-stream comparative design and multinomial logistic regression in order to address the complexity of the predictors.

Research Methodology

Research Design and Data Collection: This study adopts a quantitative cross-sectional research design. Primary data were collected from 450 women educators employed at colleges and universities in West Bengal, India. The sample encompassed five academic streams: Commerce and Management, Arts, Science, Engineering, and Law. A non-probabilistic convenience sampling technique was employed for sample selection, given the geographic dispersal and institutional heterogeneity of the target population. Data were gathered using a structured questionnaire comprising two components: (i) a socio-demographic profile section capturing marital status, academic qualification, job designation, monthly income, years of experience, and financial decision-making pattern; and (ii) a financial literacy section adapted from the OECD/INFE financial literacy measurement framework (Atkinson & Messy, 2012).

Measurement of Financial Literacy: Consistent with OECD (2011, 2012) guidelines and prior empirical work (Kumar et al., 2013), financial literacy was operationalized as the aggregate score of three sub-dimensions:

Financial Knowledge was assessed using eleven items covering simple and compound interest, inflation, risk diversification, insurance, KYC norms, and tax planning. Each correct response was coded as 1, and each incorrect or unknown response as 0. Scores ranged from 0 to 11. Respondents scoring 8 or above were classified as having High Financial Knowledge; 5–7 as Average/Moderate; and below 5 as Low (Kumar et al., 2013).

Financial Behaviour was assessed through twelve items examining long-term financial planning, budgeting, financial monitoring, debt management, and spending decisions. Responses were recorded on a five-point Likert scale. Positive behavioural responses ('Strongly Agree' and 'Agree') were scored 1; all others were scored 0. Scores ranged from 0 to 12.

Respondents scoring 9 and above were classified as exhibiting Good Financial Behaviour; 6–8 as Average; and 5 or below as Indifferent (Kumar et al., 2013).

Financial Attitude was measured using eight items on a five-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree). A composite attitude score was computed as the simple mean of responses, yielding values between 1 and 5. Respondents scoring 3.75 and above were classified as having a Positive Financial Attitude; above 2.5 as Average; and 2.5 or below as Indifferent (Kumar et al., 2013).

The overall financial literacy score was the sum of the three sub-dimension scores, producing a composite ranging from 1 to 28 (maximum: 11 + 12 + 5 = 28). Respondents scoring 21 or above were classified as having High Financial Literacy; 14–20 as Moderate/Average; and below 14 as Low (Kumar et al., 2013).

Analytical Framework: Descriptive statistics were used to characterise the distribution of financial literacy levels across the sample. Multinomial logistic regression was employed to examine the relationship between socio-demographic predictors and the categorical financial literacy outcome variable (High, Moderate, Low), with Low/Indifferent as the reference category. The explanatory variables included marital status, academic qualification, job designation, monthly income, years of experience, teaching stream, and financial decision-making pattern. The regression model is specified as:

$$P[Y_i = j] = exp(\beta 0 + \beta 1M + \beta 2Q + \beta 3P + \beta 4I + \beta 5E + \beta 6S + \beta 7D) / [1 + exp(\beta 0 + \beta 1M + \beta 2Q + \beta 3P + \beta 4I + \beta 5E + \beta 6S + \beta 7D)] \quad ...(1)$$

where M = Marital Status, Q = Qualification, P = Position/Designation, I = Income, E = Experience, S = Stream, D = Decision-making pattern. The log-odds form of the model is expressed as:

$$ln [P / (1 - P)] = \beta 0 + \beta 1M + \beta 2Q + \beta 3P + \beta 4I + \beta 5E + \beta 6S + \beta 7D \quad ... (2)$$

Odds ratios with statistically significant coefficients ($p < 0.05$) indicate the direction and magnitude of the influence of each predictor on the likelihood of belonging to a given financial literacy category relative to the reference group.

Results and Discussion

Distribution of Financial Literacy Sub-dimensions

Table 1 presents the distribution of respondents across levels of financial knowledge, financial behaviour, and financial attitude.

Table 1: Distribution of Financial Knowledge, Financial Behaviour, and Financial Attitude Levels Among Women Educators

Level	Financial Knowledge	Financial Behaviour	Financial Attitude
High / Good	86.00%	68.00%	68.89%
Average / Moderate	9.56%	26.89%	29.33%
Low / Indifferent	4.44%	5.11%	1.78%

A striking majority of respondents demonstrated high financial knowledge (86%), indicative of strong conceptual familiarity with fundamental financial principles. A similarly high proportion exhibited good financial behaviour (68%) and positive financial attitudes (68.89%). These findings contrast with several prior studies reporting lower financial literacy among women and may reflect the educational attainment and professional context of the sample. Nonetheless, non-trivial proportions reported average or low levels across all three dimensions, indicating areas where targeted interventions remain warranted.

Average Scores Across Socio-Demographic Groups

Table 2 presents the mean scores for each financial literacy sub-dimension and the aggregate financial literacy score, disaggregated by socio-demographic characteristics.

Table 2: Mean Financial Literacy Scores by Socio-Demographic Group

Category / Sub-group	Fin. Knowledge	Fin. Behaviour	Fin. Attitude	Total FL Score
Teaching Stream				
Commerce & Management	10.03	9.06	3.88	22.97
Arts	9.26	9.04	3.83	22.13
Science	9.50	9.67	4.04	23.21
Engineering	8.10	8.42	3.46	19.97
Law	8.41	8.59	3.59	20.59
Marital Status				
Married	9.52	9.24	3.83	22.58

Unmarried	8.60	8.38	3.67	20.66
Divorced	7.80	9.33	4.02	21.15
Qualification				
Postgraduate	9.05	9.19	3.84	22.07
M.Phil.	9.49	8.84	3.77	22.10
Ph.D.	9.13	8.86	3.70	21.69
Job Designation				
Assistant Professor	9.49	9.02	3.77	22.28
Associate Professor	9.62	9.49	3.77	22.88
Professor	7.71	8.38	4.30	20.39
SACT	9.23	9.39	3.83	22.44
Monthly Income (INR)				
20,000–40,000	8.96	9.00	3.83	21.79
40,000–60,000	9.41	9.07	3.74	22.22
60,000–80,000	9.20	8.90	3.76	21.83
>80,000	9.79	9.07	3.77	22.64
Years of Experience				
< 6 years	8.92	8.74	3.86	21.52
6–14 years	9.22	9.13	3.75	22.10
≥15 years	9.75	9.23	3.76	22.73
Decision-Making Pattern				
Self (independently)	9.07	8.92	3.85	21.84
Jointly (with others)	10.36	9.18	3.63	23.18
Totally with others	9.28	9.08	3.74	22.10

Educators in the Science stream recorded the highest aggregate financial literacy score (23.21), followed by Commerce and Management (22.97), Arts (22.13), Law (20.59), and Engineering (19.97). This pattern suggests that disciplinary orientation and curriculum exposure to quantitative reasoning may influence financial literacy. Married educators consistently outperformed unmarried and divorced counterparts in financial knowledge, while divorced educators recorded higher financial attitude and behaviour scores. Educators with more than 15 years of experience and those with incomes exceeding INR 80,000 per month demonstrated the highest financial knowledge scores, corroborating the positive relationship between professional tenure and financial sophistication reported in earlier literature (BenDavid-Hadar, 2015). Joint decision-makers recorded the highest financial knowledge and total literacy scores, suggesting that collaborative financial engagement may reinforce financial learning.

Overall Financial Literacy Level

Table 3 presents the aggregate financial literacy distribution across the sample.

Table 3: Overall Financial Literacy Levels Among Women Educators

Financial Literacy Level	Percentage of Respondents
High Financial Literacy	72.00%
Moderate / Average Financial Literacy	26.00%
Low Financial Literacy	2.00%

The majority of respondents (72%) exhibited high overall financial literacy, while 26% were at the moderate level and only 2% at the low level. This distribution reflects the relatively high educational attainment and professional standing of the sample.

However, the presence of a non-trivial proportion at the moderate level and the variation observed across streams and demographic subgroups warrants further investigation.

Multinomial Logistic Regression: Predictors of Financial Literacy

Table 4 presents the results of the multinomial logistic regression examining predictors of financial literacy level, with High Financial Literacy as the reference category.

Table 4: Multinomial Logistic Regression — Predictors of Financial Literacy Level
(Reference: High Financial Literacy)

Category	Variable	p-value	Odds Ratio
Moderate vs. High	Unmarried	0.003*	2.471
	Divorced	0.843	0.868
	M.Phil.	0.772	0.904
	Ph.D.	0.272	0.697
	Associate Professor	0.147	0.461
	Management-Appointed	0.446	1.346
	Professor	0.030*	0.256
	SACT	0.190	0.541
	Income: 40,000–60,000	0.479	1.331
	Income: 60,000–80,000	0.474	1.398
	Income: >80,000	0.040*	0.529
	Experience: 6–14 years	0.684	0.874
	Experience: ≥15 years	0.033*	0.893
	Stream: Science	0.042*	0.274
	Stream: Engineering	0.024*	0.269
	Stream: Arts	<0.001*	4.838
	Stream: Law	0.111	2.553
	Decision: Jointly	0.038*	0.384
	Decision: Other	0.255	0.736
Low vs. High	Income: 40,000–60,000	<0.001*	0.000
	Engineering stream	0.053	0.196

* Statistically significant at p < 0.05. Reference category: High Financial Literacy; Base income: INR 20,000–40,000; Base stream: Commerce & Management; Base marital status: Married.

The analyses of the data with regression analysis provided several salient patterns. Regarding the marital status, unmarried educators who were women were significantly more likely to have moderately high, than high, financial literacy (OR 2.471, p = 0.003), which was consistent with the view suggesting that marriage may intervene in high financial engagement through shared responsibilities in the household and therefore a joint decision making (Potrich et al. 2015). Designation as Professor was an important negative predictor of moderate compared to high financial literacy (OR = .256, p = .030), and therefore, full Professors were overrepresented among those with high financial literacy; this may encourage full Professors in the sample because of accrued financial experience and knowledge provided by senior academic tenure. Educators who received incomes of INR >80,000 per month were significantly more likely to have high rather than moderate financial literacy (OR = 0.529, p = 0.040) in corroboration with the positive income-literacy association that has been reported from other pieces of literature (Bhushan & Medury, 2013). Professional experience of 15 years or more was a significant predictor (OR = 0.893, p = 0.033); older individuals between younger and less experienced colleagues also had a tendency to show higher financial literacy due to the number of decisions a person has made throughout their career. Teaching stream was a significant predictor of the financial literacy category. Educators in Science (OR = 0.274, p = 0.042) and Engineering (OR = 0.269, p = 0.024) were less likely to be in the moderate to high literacy level than were Commerce educators, suggesting that educators in STEM fields may be comparatively disadvantaged in their financial literacy despite having quantitative training. On the other hand, educators working in Arts were

significantly more likely to report moderate literacy (OR = 4.838, p < 0.001), indicating a particular need for specific financial education and financial education intervention that is focused on this group. Joint decision making was found to be a significant predictor (OR 0.384, p 0.038), with collaborative decision making found to be associated with the probability of being in the high level of financial literacy category.

Conclusion

This study provides an overall empirical study on financial literacy among female educators of higher education institutions in West Bengal, India. The results show a high level of financial literacy at the top, mostly in this professionally active and formally educated group, with a total of 72% being identified as having a high level of financial literacy. Nevertheless, the study shows substantial variation across socio-demographic subgroups, with marital status, income, professional experience, teaching stream, and financial decision-making patterns becoming statistically significant predictors. Women's education in the Commerce and Science streams was better than that of their peers in Engineering, Law, and Arts. Married, well-paid educators with more professional experience had consistently higher financial literacy scores. Educators involved in joint financial decision-making had the highest scores on the financial knowledge questions, implying that social and collaborative approaches to financial engagement may be an informal path to financial learning. These findings have important implications for policy and institutional practice. So why does the persistence of below-average financial literacy among certain demographic and disciplinary subgroups emphasize the reason that targeted, evidence-based financial education interventions may be innovative and warranted for higher education settings? The study adds to the growing body of literature on financial literacy in emerging economies and gives a basis for further longitudinal and multi-state studies. Future studies could extend this framework and incorporate studies in qualitative ways to investigate the psychological and contextual determinants of financial decision-making among women educators.

Recommendations

1. Stream-wise Targeted Financial Education: Creating and implementing a targeted financial literacy programme for women educators working in the Stream of Sciences, Engineering, Arts, and Law, in which the level of financial literacy is comparatively lower compared to the Commerce and Management streams.
2. Income and Compensation Equity: Institutional and policy measures that enhance compensation for women educators - especially those who are in lower income brackets - are likely to have positive downstream implications for income literacy and income and financial well-being.
3. Continuous Professional Development: Financial literacy modules must be operated within continued professional development (CPD) specifications for academic personnel, especially focusing on early career academics with less than six years of teaching experience.
4. Promotion of Collaborative Financial Decision-Making: Institutional and community-level awareness campaigns should foster joint and informed financial decision-making among women educators, especially those who currently make decisions on their own.
5. Marital Status- sensitive Interventions - Financial Counselling and Literacy resources should be made available and tailored to the specific situation of the unmarried and the divorced women educators who had comparatively low levels of financial literacy.

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