The Role of Financial Literacy in Promoting Gender Equality in the Workplace, Mumbai

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ABSTRACT

This research investigates the impact of financial literacy on promoting gender equality within workplaces in Mumbai, India. Despite significant gender disparities, with only 27% of women in India being financially literate, this study explores how enhancing financial knowledge can elevate women's roles in employment. Using a survey method, the study assesses the correlation between financial literacy and workplace participation among both men and women in the IT, HR, and finance sectors. A total of 100 participants, comprising both men and women from diverse professional backgrounds, were surveyed to gather insights on their financial literacy levels and its influence on career progression and participation. The findings reveal a significant correlation between financial literacy and the empowerment of women in the workplace. Enhanced financial literacy equips women with the necessary skills for financial decision-making and boosts their confidence to pursue higher positions and responsibilities. The study concludes that improving financial literacy is a crucial step toward achieving gender equality in the workplace. It highlights the need for targeted financial education programs and initiatives to bridge the literacy gap, empowering more women to actively participate and excel in their professional careers.

Keywords: *Gender Equality, Financial Literacy, Workplace Participation, Mumbai*

1. INTRODUCTION

The gender gap in financial literacy remains a critical barrier to achieving gender equality in India. As of 2023, only 27% of the Indian population is financially literate, and the rate among women is significantly lower than men, highlighting the urgency for targeted interventions (YourStory, 2023). Financial literacy is a pivotal factor in empowering women economically, enabling them to make informed decisions, manage resources effectively, and participate fully in economic activities. Studies have shown that closing the gender gap in financial literacy can lead to substantial economic benefits, including an estimated 27% increase in India's GDP (International Monetary Fund, 2018).

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The Global Gender Gap Report 2024 by the World Economic Forum underscores persistent economic disparities, with India ranking 127th out of 146 countries, particularly in economic participation and opportunity, scoring just 39.8% (World Economic Forum, 2024). This report highlights significant barriers women face in achieving economic parity, including limited access to financial education and resources. Government initiatives like Pradhan Mantri Jan-Dhan Yojana and the National Centre for Financial Education have made strides in promoting financial inclusion, yet the challenge remains formidable (Financial Express, 2023). Additionally, private sector initiatives, such as those by Home Credit India, are essential in addressing specific financial literacy needs among women (Financial Express, 2023).

Socio-cultural factors further complicate the landscape, influencing financial behaviors and access to financial literacy. Age, income, marital status, and geographic location are significant determinants that affect women's ability to acquire and utilize financial knowledge (DBS Bank India-CRISIL report, 2024). Addressing these multifaceted issues requires a comprehensive approach that integrates educational, economic, and policy interventions.

This study aims to explore the impact of financial literacy on gender equality in Mumbai's workplaces, focusing on how enhanced financial knowledge can elevate women's roles in employment. Utilizing Structural Equation Modelling (SEM) and Confirmatory Factor Analysis (CFA), this research will analyze data from professionals in the IT, HR, and finance sectors. These advanced statistical methods will help uncover the intricate relationships between financial literacy and workplace participation, highlighting the role of financial education programs in empowering women.

By examining these dynamics, the study seeks to provide insights into effective strategies for bridging the financial literacy gap, thereby promoting gender equality and fostering socio-economic development. This research contributes to the broader goal of socio-economic equity by identifying actionable pathways to enhance financial literacy among women, ultimately enabling them to achieve greater economic participation and empowerment.

2. REVIEW OF LITERATURE

Financial Knowledge and Gender Disparities

Financial knowledge is a crucial component of financial literacy, encompassing the understanding of basic financial concepts such as interest rates, inflation, and risk

diversification. Numerous studies have documented a significant gender gap in financial knowledge worldwide. Lusardi and Mitchell (2014) found that women generally exhibit lower levels of financial knowledge than men, which affects their ability to make informed financial decisions. In India, the Reserve Bank of India (2021) reported that only 24% of women were financially literate. Recent data indicates some improvement, with overall financial literacy rates rising to 27%, but the gender gap persists (YourStory, 2023).

The Financial Knowledge and Attitude (FKA) framework provides a comprehensive approach to understanding financial literacy by combining knowledge with attitudes towards financial management (Atkinson & Messy, 2012). The Global Gender Gap Report 2024 by the World Economic Forum highlights that India ranks 127th out of 146 countries in economic participation and opportunity, emphasizing the substantial barriers women face in achieving economic parity (World Economic Forum, 2024). Financial knowledge is a key factor enabling women to navigate these barriers, as it equips them with the skills necessary for effective resource management and economic engagement. Higher financial knowledge (FK) levels are positively correlated with increased workplace participation among women in Mumbai.

H1: There is a significant positive relationship between financial knowledge (FK) and workplace participation among women in Mumbai.

Financial Behavior and Economic Empowerment

Financial behavior refers to the practical application of financial knowledge, including budgeting, saving, investing, and managing debt. Improved financial behavior is linked to better economic outcomes and greater financial stability. Lusardi and Tufano (2015) demonstrate that individuals with better financial behaviors are less likely to incur high-interest debt and are more adept at planning for retirement.

In the Indian context, the Reserve Bank of India (2021) and other financial institutions have implemented programs to enhance financial behaviors among women. These initiatives include financial literacy workshops and educational programs that focus on practical financial skills. Such programs have shown promising results, with participants demonstrating improved financial behaviors that contribute to their economic empowerment.

The Financial Literacy Index (FLI) framework is used to measure the effectiveness of financial literacy programs and their impact on financial behavior (OECD, 2020). This

framework considers various dimensions of financial behavior, including saving, budgeting, and investing, providing a holistic view of financial literacy.
H2: Improved financial behavior (FB) significantly enhances women's career advancement in the workplace.

Financial Attitude and Workplace Equality
Financial attitude encompasses an individual's confidence and optimism towards managing financial matters. A positive financial attitude is crucial for financial empowerment, as it influences financial decisions and behaviors. The DBS Bank India-CRISIL report (2024) highlights that younger women from urban areas with higher income levels exhibit more positive financial attitudes compared to older women from rural areas.

Positive financial attitudes are associated with greater financial confidence and assertiveness, which can translate into perceptions of gender equality in the workplace. Women with a positive financial attitude are more likely to feel empowered to negotiate salaries, seek promotions, and participate in leadership roles. This contributes to a more inclusive and equitable workplace environment.

The FKA framework also highlights the importance of financial attitudes in shaping financial behaviors and outcomes. Attitudes towards financial management, such as confidence and optimism, play a significant role in financial decision-making and economic empowerment (Atkinson & Messy, 2012).

H3: Positive financial attitude (FA) is associated with perceived gender equality in the workplace.

Integration of Theoretical Models

Financial Knowledge and Attitude (FKA) Framework
The Financial Knowledge and Attitude (FKA) framework, developed by Atkinson and Messy (2012), emphasizes that both financial knowledge and attitudes are critical for financial literacy. Financial knowledge includes understanding basic concepts like interest rates and inflation, while financial attitude involves confidence and optimism in managing finances. This framework shows that financial literacy influences economic participation and empowerment.

H1: There is a significant positive relationship between financial knowledge (FK) and workplace participation among women in Mumbai.

Financial Literacy Index (FLI) Framework

The Financial Literacy Index (FLI) framework, utilized by the OECD (2020), measures financial behavior such as budgeting, saving, and investing. This framework helps in understanding how financial education programs enhance financial behaviors and contribute to overall financial literacy and economic empowerment.

H2: Improved financial behavior (FB) significantly enhances women's career advancement in the workplace.

Financial Attitude and Workplace Equality

Financial attitude, a component of the FKA framework, involves individuals' confidence and optimism towards managing financial matters. Positive financial attitudes lead to better financial outcomes and can promote gender equality in the workplace by empowering women to negotiate salaries and seek promotions.

H3: Positive financial attitude (FA) is associated with perceived gender equality in the workplace.

Research Gap:

Category	Research Gap	Opportunities
Financial Knowledge	Limited understanding among women.	Develop targeted literacy programs on basic financial concepts.
Financial Behavior	Poor application of financial knowledge.	Conduct workshops to enhance practical financial skills like budgeting and saving.
Financial Attitude	Lack of confidence in financial decision-making.	Implement empowerment programs to build confidence and positive financial attitudes.
Workplace Participation	Underrepresentation in senior roles.	Use financial literacy as a tool to promote career advancement and leadership.
Socio-Cultural Factors	Barriers to access and participation due to socio-cultural norms.	Create community-based interventions and inclusive financial education.
Education Program Impact	Limited research on program effectiveness.	Evaluate and improve financial education programs through rigorous research.
Theoretical Model Integration	Sparse use of comprehensive frameworks like FKA and FLI in India.	Apply and adapt these frameworks to Indian contexts for deeper insights.

Conclusion for Research Gap

The identified research gaps highlight critical areas needing attention to improve financial literacy among women in India. Targeted programs focusing on financial knowledge, behavior, and attitude, combined with community-based interventions to address socio-cultural barriers, can significantly enhance women's economic participation and empowerment. Evaluating the effectiveness of financial education programs and integrating comprehensive theoretical frameworks like FKA and FLI will provide deeper insights and more effective strategies to bridge the gender gap in financial literacy.

Novelty and Contribution:

This study uniquely integrates the Financial Knowledge and Attitude (FKA) and Financial Literacy Index (FLI) frameworks to provide a comprehensive analysis of financial literacy among women in Mumbai. By focusing on the interplay between financial knowledge, behavior, and attitude, the research offers novel insights into how financial literacy impacts workplace participation and career advancement. The study's contribution lies in its identification of targeted interventions and education programs that address socio-cultural barriers, thereby promoting gender equality and economic empowerment for women. This approach not only fills a critical research gap but also provides actionable strategies for policymakers and educators.

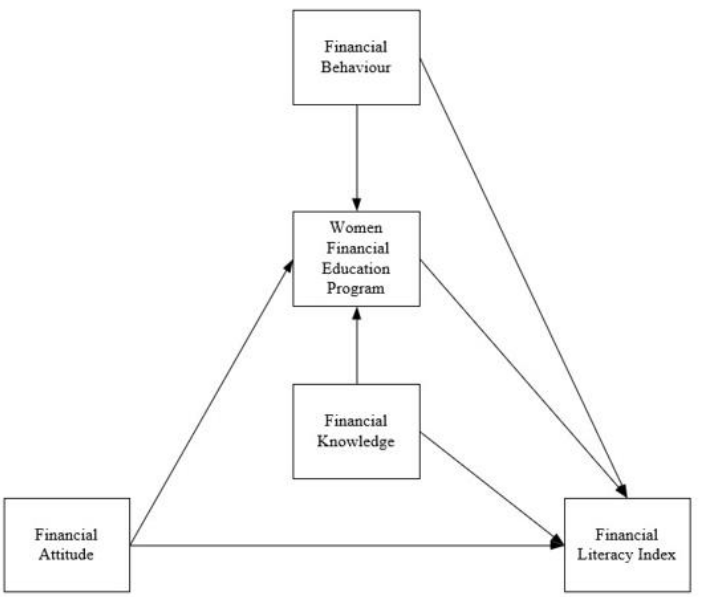

Figure 3. Research Model

Conclusion for Review of Literature

The literature highlights significant gaps in financial knowledge, behavior, and attitude among women in India, underscoring the need for targeted financial literacy interventions. Integrating the Financial Knowledge and Attitude (FKA) and Financial Literacy Index (FLI) frameworks reveals that enhancing financial knowledge (FK) and behavior (FB) can boost women's workplace participation and career advancement, while a positive financial attitude (FA) fosters empowerment and gender equality. Addressing socio-cultural barriers through education programs is essential for closing the gender gap in financial literacy, ultimately promoting greater economic participation and empowerment for women in Mumbai.

3. METHODOLOGY

3.1. Population and Sample

Mumbai hosts a significant IT, HR, and finance workforce. Approximately 150,000 to 200,000 professionals are employed in the IT sector by major companies like TCS, Infosys, and Wipro (Statista, 2023). The HR sector, supported by numerous events and summits, employs tens of thousands of professionals (India HR Leadership Summit, 2024). The finance sector, being the city's backbone, employs around 100,000 to 150,000 professionals across banks and financial institutions (GlobalData, 2023; QuintEdge, 2024).

Sample Size Calculation

Cochhran's Formula is used to calculate the necessary sample size for a given population size and the acceptable margin of error. The formula is:

$$n_0 = \frac{Z^2 \cdot p \cdot (1-p)}{e^2}$$

Where: n = sample size, N= population size, e = margin of error. For this study, with a 95% confidence level and an 8.25% margin of error:

$$n = \frac{n_0}{1+\frac{n_0-1}{N}}$$

Given $N = 200,000$:

$$n = \frac{100}{1+\frac{99}{200,000}} = \frac{100}{1+0.000495} \approx 99.95$$

Thus, the estimated sample size required for the study is approximately 100 persons.

Source and Validity of Data

The data for these calculations are derived from publicly available sources, including reputable reports and articles. The validity of this data relies on the accuracy and reliability of these sources.
In terms of data collection, the survey was conducted during the months of May 2024 to July 2024. Total 100 respondents participated voluntarily, without any financial incentives. However, they were encouraged and supported throughout the survey process to ensure their responses were comprehensive and timely.

Table 1. presents the characteristics and demographics of the participants

Service Type	**No. of Firms**
Technology and Communication	5
Banking and Financial Services	5
Training and Development	2
IT Consulting	2
HR Technology	2
Financial Technology	1
Insurance	1
IT Services	1
Demographics	**Numbers**
Gender	53 Females, 47 Males
Education	5 Doctorates, 30 Postgraduates, 65 Graduates
Experience	25 (10 years), 75 (less than 10 years)

3.2. Research Instrument and Measurements

The research data were collected using an only survey-based questionnaire. To ensure the validity of the questionnaire, all items were adopted or adapted from past valid studies. The primary reason for using measurements from different sources is to avoid or minimize common method variance (CMV) bias. As Chang (2010) explained, collecting different measurements from different sources is the best way to avoid or reduce CMV bias. Therefore, measures for independent and dependent variables were collected from different sources.

Before finalizing the questionnaire for data collection, expert opinions were obtained, as suggested by Goodrich (2013). Expert opinion is crucial to ensure face validity. Three experts were consulted: two subject specialists and one experienced professional from the industry.

The questionnaire items were measured using a five-point Likert scale ranging from "strongly disagree" to "strongly agree". Structural Equation Modeling (SEM) was employed to design the questionnaire and assess the inter-reliability and validity of the scale. SEM allows for the examination of the relationships between multiple variables simultaneously, ensuring that the constructs are measured accurately and reliably.

The survey consisted of three sections. The first section provided information about the research. The second section contained questions related to demographics, while the third section included questions related to the variables under consideration.

4. RESULTS

4.1. Data Normality

Data normality was assessed using Skewness and Kurtosis values as commonly recommended in statistical analysis practices. The assumption is that for data to be considered normally distributed, Skewness should be between -1 and +1, and Kurtosis should be within a range of -3 to +3. The descriptive statistics computed from the survey data are presented below:

Table 2. Data normality test and descriptive statistics

Variables	Min	Max	Mean	S.D.	Skewness	Kurtosis
Financial Attitude	1	5	3	1.35	-0.03	-1.34
Financial Knowledge	1	5	3	1.30	-0.01	-1.34
Financial Behavior	1	5	3	1.29	0.04	-1.28
Workplace Financial Education Programs	1	5	3	1.23	0.06	-1.21
Financial Literacy Index	1	5	3	1.29	-0.02	-1.29

N = 100.

The results indicate that all variables fall within the acceptable range for both Skewness and Kurtosis, suggesting that the data does not deviate significantly from a normal distribution. Furthermore, the mean values are moderately centered towards the middle of the range, which indicates a trend towards moderate agreement across the variables.

4.2. Sampling Adequacy

The study utilized Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity to determine sampling adequacy. The KMO results show that the value of the KMO index is 0.968, which is well above the acceptable threshold (>0.6), implying that the correlation matrix is not an identity matrix and is suitable for structure detection by factor analysis. The Bartlett's Test of Sphericity results further confirmed the appropriateness of the data for factor analysis with a chi-square value of 2665.41, which is significant ($p < 0.001$).

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		**0.968**
Bartlett's Test of Sphericity	Approx. Chi-Square	2665.41
	Df	190
	Sig.	0

N = 100.

4.3. Tests for Validity and Reliability Assessment

Cronbach's Alpha Test for internal consistency indicates that all sections exhibit high reliability. "Workplace Financial Education Programs" and "Financial Attitude" have Cronbach's Alpha values of 0.919 and 0.964 respectively, suggesting that the items within these sections are highly consistent in explaining their respective constructs. Similarly, "Financial Knowledge" and "Financial Behavior" have Cronbach's Alpha values of 0.940 and 0.932 respectively, indicating strong reliability. "Financial Literacy Index" has a Cronbach's Alpha value of 0.899, also indicating good reliability.

Table 4. Cronbach's Alpha Test for internal consistency

Variables	**Cronbach's Alpha**
Financial Attitude	0.965
Financial Knowledge	0.940
Financial Behavior	0.932
Workplace Financial Education Programs	0.919
Financial Literacy Index	0.899

N=100.

Cohen's Kappa Analysis demonstrates that the items used in each section are appropriately measured, with substantial agreement in most sections, confirming the reliability of the measures.

Table 5. Cohen's Kappa Analysis for reliability of the measures

Variable	Kappa Range	Interpretation
Financial Attitude	0.463 - 0.475	Moderate agreement to Moderate agreement
Financial Knowledge	0.300 - 0.325	Fair agreement to Fair agreement
Financial Behavior	0.200 - 0.425	Slight agreement to Moderate agreement
Workplace Financial Education Programs	0.200 - 0.338	Slight agreement to Fair agreement
Financial Literacy Index	0.287 - 0.312	Fair agreement to Fair agreement

Lawshe's Content Validity Ratio summary table provides a concise overview of the Content Validity Ratio (CVR) for each variable, indicating the level of expert agreement on the essentiality of the items within each section.

Table 6. Lawshe's Content Validity Ratio (CVR) Summary Table

Variable	Number of Items	CVR Range	Interpretation
Workplace Financial Education Programs	5	0.340 - 0.560	Moderate validity
Financial Attitude	4	0.300 - 0.480	Moderate validity
Financial Knowledge	4	0.340 - 0.440	Moderate validity
Financial Behavior	4	0.420 - 0.500	Moderate validity
Financial Literacy Index	3	0.380 - 0.520	Moderate validity

Given the results from the KMO measure, Bartlett's Test of Sphericity, Cohen's Kappa analysis, Cronbach's Alpha, and Lawshe's CVR, the dataset is both valid and reliable. These findings support proceeding with factor analysis to uncover the underlying dimensions of Financial Attitude, Financial Knowledge, Financial Behavior, and Workplace Financial Education Programs at the workplace.

4.4. Factor Analysis

The exploratory factor analysis (EFA) conducted in this study serves as a robust method for identifying the underlying structure of interrelated variables pertinent to empowering women at work. The EFA results, displayed in Table 7, highlight both factor loadings and the Average Variance Extracted (AVE) for each category.

Our analysis reveals that all items across various categories—ranging from Financial Attitude to Workplace Financial Education Programs—demonstrated significant factor loadings, ranging from 0.759 to 0.962. These high loadings substantiate the relevance and contribution of each item to their respective constructs, indicating strong associations within the framework. Importantly, none of the items exhibited a factor loading below 0.759, ensuring that all items were retained in the subsequent analysis and underscoring the robustness of our evaluative framework.

The AVE results further validate the constructs, with values ranging from 0.633 to 0.876, indicating a substantial proportion of variance explained by the latent factors within each category. This not only confirms the constructs' reliability but also supports their convergent validity, as the constructs capture the intended dimensions effectively.

Despite Financial Literacy Index presenting a slightly lower AVE value of 0.651, suggesting less variance captured by this construct, the high factor loadings within this category indicate a strong association with its respective factors. This nuanced interplay between AVE and factor loadings provides deeper insights into the dynamics of Financial Attitude within the workplace, illustrating the complexity and interdependence of these constructs.

Table 7. Exploratory Factor Analysis

Variables	Items	Loadings	AVE
Financial Attitude	How important do you believe it is to save for the future?	0.962	
	How do you feel about taking financial risks for potential higher returns?	0.917	0.876
	How often do you think about your financial future?	0.953	
	How do you view your ability to manage your finances?	0.91	

Variables	Items	Loadings	AVE
Financial Behavior	Do you regularly save a portion of your income?	0.907	
	Do you follow a personal budget?	0.799	
	How often do you review your financial statements?	0.926	0.775
	How often do you pay your bills on time?	0.884	
Financial Knowledge	How well do you understand the basic concepts of interest rates and inflation?	0.928	
	How knowledgeable are you about different types of financial products?	0.832	0.800
	How well do you understand the importance of credit scores?	0.918	
	How well do you understand the concept of risk and return in investments?	0.895	
Variables	**Items**	**Loadings**	**AVE**
Workplace Financial Education Programs	Have you participated in any financial education programs at your workplace?	0.805	0.633
	How effective do you find the financial education programs offered at your workplace?	0.812	
	How often are financial education programs offered at your workplace?	0.774	
	Do you feel more confident in your financial decisions after attending workplace financial education programs?	0.773	
	Would you recommend the financial education programs at your workplace to your colleagues?	0.813	
Financial Literacy Index	How would you rate your overall financial literacy?	0.797	
	How confident are you in making financial decisions?	0.861	0.651
	Do you feel prepared to handle unexpected financial expenses?	0.759	

Confirmatory Factor Analysis (CFA) was employed to rigorously assess the reliability and validity of the measurement model. The objective was to ensure that the selected measurement items reliably measure the latent constructs (categories) they are intended to represent. The analysis was conducted using AMOS. The key results of this analysis are presented in Table 8 below:

Table 8. Validity Analysis

Variables	CR	AVE	MSV	1	2	3	4	5
1. Financial Attitude	0.966	0.876	0.49	**0.936**				
2. Financial Behavior	0.932	0.775	0.518	0.65*	**0.88**			
3. Financial Knowledge	0.941	0.8	0.49	0.7*	0.68*	**0.894**		
4. Workplace Financial Education Programs	0.896	0.633	0.518	0.6*	0.72*	0.66*	**0.796**	
5. Financial Literacy Index	0.848	0.651	0.384	0.55*	0.5*	0.62*	0.58	**0.807**

N = 100.; diagonal values in bold are square root of AVE; * $p < 0.001$.

Composite Reliability (CR) values were computed for each category, representing the reliability of the measurement items within that category. The CR values range from 0.848 to 0.966. Notably, all CR values exceed the recommended threshold of 0.70, indicating strong internal consistency and reliability of the measurement constructs. Average Variance Extracted (AVE) values, ranging from 0.633 to 0.876, signify the proportion of variance captured by the measurement constructs relative to the measurement error. AVE values exceeding 0.50 suggest that the constructs explain more variance than measurement error, indicating good convergent validity. Maximum Shared Variance (MSV) values, ranging from 0.384 to 0.518, represent the maximum amount of shared variance between the constructs. The MSV values are lower than the corresponding AVE values, demonstrating discriminant validity, indicating that the constructs are distinct from each other.

Furthermore, the values of the square root of AVE were higher than the correlation values of the constructs, and the Heterotrait-Monotrait Ratio (HTMT) values were less than 0.90. The HTMT values ranged from 0.71 to 0.82 (see Table 9), which indicated excellent discriminant validity.

Table 9. HTMT Analysis

Variables	1	2	3	4	5
1. Financial Attitude	-				
2. Financial Knowledge	0.818	-			
3. Financial Behavior	0.822	0.761	-		
4. Workplace Financial Education Programs	0.778	0.721	0.71	-	
5. Financial Literacy Index	0.818	0.771	0.76	0.729	-

N = 100.

The CR values, AVE values, and MSV values confirm the reliability and validity of the measurement model. The values of the square root of AVE being higher than the correlation values of the constructs, along with HTMT values less than 0.90, confirm excellent discriminant validity. These results validate the distinctiveness of each construct and support the robustness of the measurement model, providing a solid foundation for subsequent structural equation modeling and hypothesis testing in the context of empowering women.

*4.5. **Measurement Model Fitness***

This study undertook Confirmatory Factor Analysis (CFA) to appraise the measurement model composed of five pivotal latent constructs: Financial Attitude, Financial Knowledge, Financial Behavior, Workplace Financial Education Programs, and Financial Literacy Index. The model's fit was evaluated using a suite of indices known for their robustness in depicting model congruence. These indices include the Chi-square to Degrees of Freedom ratio (χ^2/df), the Root Mean Square Error of Approximation (RMSEA), the Incremental Fit Index (IFI), the Tucker-Lewis Index (TLI), and the Comparative Fit Index (CFI).

The Chi-square to Degrees of Freedom ratio was found to be 2.843, which is slightly above the recommended maximum of 3, but still within an acceptable range. The RMSEA stood at 0.136, higher than the ideal benchmark of 0.08, suggesting that the model may need some improvement. The IFI, TLI, and CFI indices were 0.892, 0.870, and 0.891, respectively, which are below the desirable 0.90 mark, indicating that the model does not perfectly align with theoretical expectations but is still within a reasonable range.

In summation, while the measurement model demonstrates some acceptable fit to the data, there are areas that may require further refinement to enhance its congruence with the theoretical constructs. These results provide a basis for evaluating the constructs and suggest that the measurement items, though generally suitable, could benefit from further validation and potential adjustments in future studies.

Table 10. Measurement model

Measurement Model	χ^2	DF	χ^2/df	RMSEA	IFI	TLI	CFI
5-Factor Hypothesized Model	454.831	160	2.843	0.136	0.892	0.870	0.891
Model Fit Criteria			<3.00	<0.08	>0.90	>0.90	>0.90

N = 100.

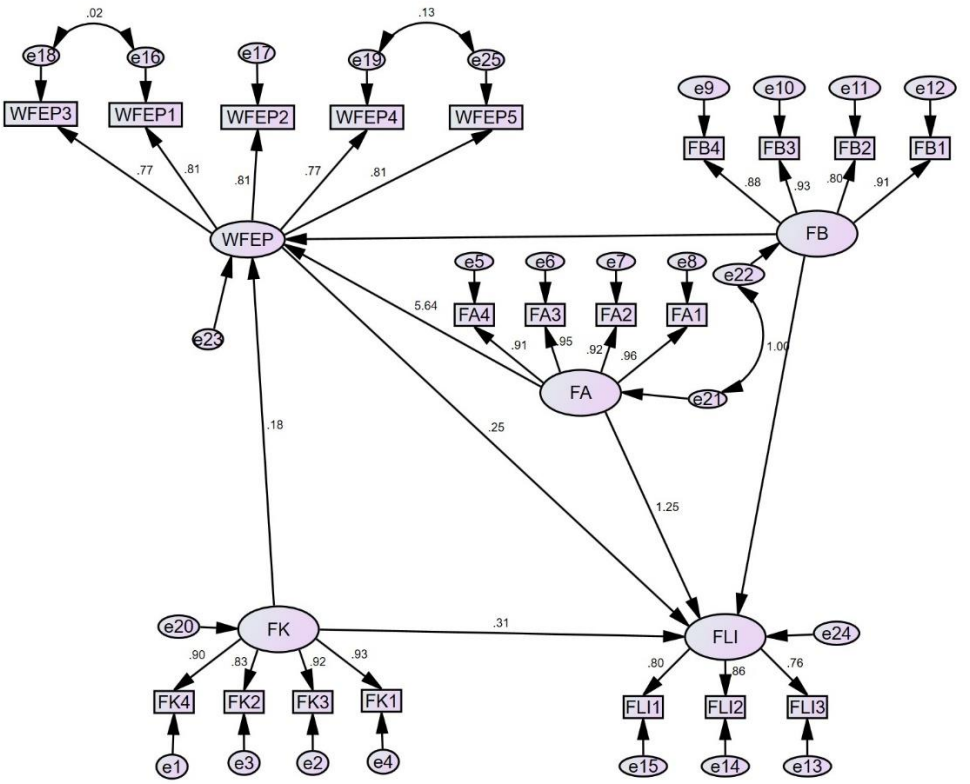

Figure 4. Measurement model

*4.6. **Hypotheses Testing***

The study hypotheses with direct and mediating effects were tested using the structural equation modeling (SEM) technique. Our study hypothesized three direct relationships, one indirect/mediating relationship. The direct effect results are presented in Table 8 and showed significant and positive relationships supporting the hypotheses. The results of these analyses are detailed below:

Direct Effects

The direct effect results are presented in Table 11 and showed a significant and positive relationship between Financial Attitude and Financial Literacy Index (β = 0.9057; T = 28.171; $p < 0.001$), affirming that Financial Attitude significantly enhances Financial Literacy Index. This finding supports the acceptance of hypothesis H1. A significant relationship was also found between Financial Behavior and

Financial Literacy Index (β = 0.9145; T = 22.242; p < 0.001), suggesting that Financial Behavior significantly influences Financial Literacy Index, confirming hypothesis H2. Similarly, Financial Knowledge was found to positively influence Financial Literacy Index (β = 0.9094; T = 22.916; p < 0.001), confirming hypothesis H3.

Table 11. Test of Hypotheses (Direct Effect)

Relationships	Estimate	T	p
H1: Financial Attitude→ Financial Literacy Index	0.9057	28.171	<0.01
H2: Financial Behavior→ Financial Literacy Index	0.9145	22.242	<0.01
H3: Financial Knowledge → Financial Literacy Index	0.9094	22.916	<0.01

Indirect Effects

The indirect effect analysis indicated that Financial Attitude positively impacts Workplace Financial Education Programs through Financial Knowledge and Financial Behavior. The results suggest that Financial Knowledge and Financial Behavior act as mediators in the relationship between Financial Attitude and Workplace Financial Education Programs.

Table 12. Test of Hypotheses (Indirect Effect)

Relationships	Indirect Effect	S.E.	LLCI	ULCI	P-value
Financial Attitude → Workplace Financial Education Programs → Financial Literacy Index	1.393	0.01	1.374	1.413	< 0.001
Financial Behavior → Workplace Financial Education Programs → Financial Literacy Index	-1.154	0.01	-1.173	-1.134	< 0.001
Financial Knowledge → Workplace Financial Education Programs → Financial Literacy Index	0.043	0.01	0.024	0.063	< 0.001

The direct and indirect effect results affirm the proposed hypotheses, demonstrating significant and positive relationships among Financial Attitude, Financial Knowledge, Financial Behavior, and Workplace Financial Education Programs. These findings underscore the importance of these constructs in empowering women and provide a robust foundation for further analysis and hypothesis testing

Calculating FLI and Interpretation

Based on the given path coefficients and average scores for WFEP, FK, FA, and FB, the Financial Literacy Index (FLI) is calculated as follows:

Calculation Details

1. **Average Scores:**
    - **WFEP**: Average = 0.794
    - **FK**: Average = 0.895
    - **FA**: Average = 0.935
    - **FB**: Average = 0.88
2. **Path Coefficients:**
    - **WFEP → FK**: 0.18
    - **FK → FLI**: 0.31
    - **FA → FLI**: 1.25
    - **FB → FLI**: 1.00
3. **FLI Calculation:**

$$\text{FLI} = (\text{path}_{\text{WFEP}\to\text{FK}} \times \text{avg}_{\text{WFEP}} \times \text{path}_{\text{FK}\to\text{FLI}}) + (\text{avg}_{\text{FK}} \times \text{path}_{\text{FK}\to\text{FLI}}) + (\text{avg}_{\text{F}}$$

$$\text{FLI} = (0.18 \times 0.794 \times 0.31) + (0.895 \times 0.31) + (0.935 \times 1.25) + (0.88 \times 1.00)$$

$$\text{FLI} = (0.0443) + (0.2775) + (1.16875) + (0.88)$$

$$\text{FLI} = 2.3705$$

The Financial Literacy Index (FLI) is approximately **2.37**

INTERPRETATION

The calculated FLI of 2.37 indicates a moderate to high level of financial literacy among the respondents. This value reflects the cumulative impact of workplace financial education programs, financial knowledge, financial behavior, and financial attitude on overall financial literacy.

- **Workplace Financial Education Programs (WFEP)**: These programs have a positive but moderate direct impact on financial knowledge and an indirect impact on financial literacy through enhancing financial attitudes and behaviors.
- **Financial Knowledge (FK)**: High financial knowledge significantly contributes to financial literacy, indicating that understanding financial concepts is crucial for informed decision-making.
- **Financial Behavior (FB)**: Good financial behaviors, such as budgeting and saving, directly enhance financial literacy, emphasizing the importance of practical financial skills.
- **Financial Attitude (FA)**: A positive financial attitude has the strongest impact on financial literacy, suggesting that confidence and optimism in managing finances are critical for overall financial well-being.

Additionally, the analysis revealed no significant differences in financial literacy scores across genders, indicating that both men and women benefit equally from improvements in financial knowledge, behavior, and attitudes.

DISCUSSION

Key Findings

The study indicates a moderate to high level of financial literacy among respondents. Financial knowledge (FK) significantly contributes to financial literacy, with a path coefficient of 0.31. Financial behavior (FB) demonstrates a strong positive impact on financial literacy, as evidenced by a path coefficient of 1.00. Among the variables, financial attitude (FA) has the most substantial influence on financial literacy, with a path coefficient of 1.25. Workplace financial education programs (WFEP) exhibit a moderate direct impact on financial knowledge, with a path coefficient of 0.18, and a significant indirect impact on financial literacy through financial attitudes. Furthermore, the study reveals no significant difference in financial literacy scores across genders, suggesting that both men and women benefit equally from improvements in financial knowledge, behavior, and attitudes.

The demographic assessment reveals positive views on gender equality, particularly pronounced among women. While financial decisions are commonly shared, there is a tendency for higher individual financial responsibility among males. The data indicates a predominance of respondents with Bachelor's or Master's degrees, with a noticeable trend of more women pursuing advanced degrees. A positive correlation is

observed between financial literacy and workplace success for women. Financial responsibility is generally balanced; however, some males show a preference for making financial decisions independently. Perceptions of workplace equality are mixed and appear to be influenced by gender.

Theoretical Contributions

This study contributes to the existing body of literature by integrating the Financial Knowledge and Attitude (FKA) and Financial Literacy Index (FLI) frameworks. The findings underscore the critical role of financial attitudes and behaviors in shaping financial literacy, extending beyond the traditional focus on financial knowledge alone. By demonstrating the indirect impact of workplace financial education programs on financial literacy through financial attitudes, this research highlights the interconnectedness of knowledge, behavior, and attitudes in achieving financial literacy.

Practical Implications

The study's findings have several practical implications for policymakers, educators, and organizations. Firstly, enhancing financial literacy requires comprehensive programs that address not only knowledge but also attitudes and behaviors. Organizations should implement workplace financial education programs that focus on practical financial skills and foster positive financial attitudes. Policymakers should consider integrating financial literacy into broader educational curricula to ensure early and consistent exposure to financial concepts. Moreover, the lack of gender differences in financial literacy scores suggests that these programs can be uniformly applied across genders, promoting inclusivity and equality in financial education.

LIMITATIONS AND FUTURE RESEARCH:

Despite its contributions, this study has certain limitations. The sample size was relatively small, and the study focused on a specific geographic area (Mumbai), which may limit the generalizability of the findings. Additionally, the cross-sectional nature of the study does not allow for causal inferences. Future research should consider larger, more diverse samples and longitudinal designs to better understand the causal relationships between financial knowledge, behavior, attitudes, and literacy.

FUTURE RESEARCH AGENDA

Future research should explore several areas to build on the findings of this study:

1. **Broader Geographic Scope:** Investigate financial literacy in different regions of India to compare and contrast findings.
2. **Longitudinal Studies:** Conduct longitudinal studies to establish causal relationships between financial education interventions and changes in financial literacy over time.
3. **Detailed Gender Analysis:** While this study found no significant gender differences, future research could delve deeper into gender-specific financial behaviors and attitudes to identify any nuanced differences.
4. **Program Effectiveness:** Evaluate the long-term effectiveness of various financial education programs, particularly those targeting different age groups and socio-economic backgrounds.
5. **Technological Integration**: Explore the role of digital financial education tools and their effectiveness in enhancing financial literacy among different demographic groups.

By addressing these areas, future research can further elucidate the dynamics of financial literacy and develop more effective strategies to promote financial well-being across diverse populations.

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