ASSESSING THE LINKAGE OF FINANCIAL LITERACY AND WOMEN'S ECONOMIC DECISION-MAKING IN UTTARAKHAND

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Abstract

The study comprehensively investigated the impact of awareness and attitude as factors of financial literacy on empowering women's as decision maker at household level. The requisite data for the study was collected by way of self-structured questionnaire administered to a sample of 190 women in Uttarakhand. The questionnaire was designed to measure the abstract financial literacy phenomenon, including financial awareness, knowledge, and attitude, as well as their economic decision-making behaviors. The judgmental cum purposive sampling technique served as criterion for selecting the survey respondents to ensure representation of women from diverse socio-economic backgrounds. The analysis was performed using Smart PLS 4 to measure the extent of hypothesized relationships among the constructs. The results affirmed strong, statistically significant linkages among the constructs confirming that household levels of financial awareness and knowledge significantly improve women's financial autonomy at household level. In a nutshell, the study underscores the necessity of integrated, multi-stakeholder efforts in strengthening financial literacy as a strategic pathway to enhancing inclusive and equitable economic growth, particularly through the empowerment of women.

Keywords: Financial literacy, Financial knowledge, Financial awareness, financial attitude, Household economic decision making.

Introduction

Financial literacy has widely being accepted concept that enables individuals to manage their finances in an efficient and effective manner thereby resulting in better economic decision making outcomes. For women, financial literacy holds additional importance, as it not only fosters individual empowerment but also influences the economic well-being of the entire household. For women, especially in developing countries, financial literacy does not merely ensures economic independence but also serves as a catalyst for enhanced participation in household decision-making processes. As households increasingly become economic units where collaborative financial planning is essential, the financial acumen of women has emerged as a significant determinant of family well-being and stability (Lusardi & Mitchell, 2014).

Historically, women have been marginalized in financial spheres due to structural inequalities, limited access to economic, and socio-cultural barriers. However, recent trends indicate that women play a pre-emptive and significant role in economic decisions at the household level. Financially literate women are more likely to save, invest wisely, manage debts efficiently, and contribute positively to long-term financial planning for their families (OECD, 2013). Moreover, studies show that when women actively participate in financial decisions, there is an observable improvement in children's economic, health outcomes, and overall household welfare (Duflo, 2012).

Financial literacy serve as "a combination of awareness, knowledge, skill, attitude, and behavior necessary to make sound financial decisions and ultimately achieve individual well-being (OECD, 2012)". It is regarded as an important intervening factor for stimulating financial development through financial inclusion and ultimately financial stability (Ramakrishnan, 2012). Financial literacy facilitates enhanced financial inclusion of individuals. Financial literacy help creates demand through awareness and financial inclusion functions from supply side – equipping individuals with adequate financial services that they demand. It facilitates women to make informed financial decisions for better management of their finances (Cole et al., 2011). Hence it is considered to be an important contributor to women economic empowerment as a financial inclusion dimension. (Ali et al., 2021).

In the Indian context, the intersection of gender roles and financial knowledge presents unique challenges. Many women, especially in rural and semi-urban settings, still face

barriers in accessing formal financial systems and acquiring essential financial knowledge. Government schemes and NGO-led financial literacy programs aim to bridge this gap, yet the impact remains varied depending on socio-economic and economical backgrounds (Agarwal, 2020).

Due to its utmost relevance the government and financial sector intermediaries have accorded special attention to this issue. Among recent initiatives, the setting up of the National Centre for Financial Economic under the Technical Group of Financial Inclusion and Financial literacy established by Financial Stability and Development Council (FSDC) in 2013 with support from RBI, and other ancillary institutions to implement the National Strategy for Financial inclusion and Centre for Financial Literacy project in 2017 were undertaken by RBI as an innovative approach for expanding financial literacy at block level involving selected banks and non-governmental organisations (rbi.org.in). At present, the second phase of National Centre for Financial Economic is underway, the 1 st being initiated in 2013-18 involving a 5Cs multi stakeholder led approach based on Content, Capacity, Collaboration, Conduct, Community & Communication for effecting financial skills, attitude and behavior of various sections of society thereby improving their financial well-being NSFE (2025). The NSFE aims at enhancing financial skills of individuals among various sections of society to ensure a bright financial future for all. The ongoing implementation of NSFE 2025 continues to align with the vision of the Government of India to promote economic empowerment through financial awareness. By empowering individuals financially, these efforts aim to synchronize availability accessibility& use of financial services and financial inclusion, resulting in sustainable economic development and individual financial security. Such integrated interventions aim to empower diverse segments of society, especially marginalized women in rural and semi-urban areas, enabling them to participate actively in the formal financial ecosystem and thereby promoting gender equity in economic participation and household decision-making.

Considering its importance, this study constitutes modest attempt to examine the how financial literacy fosters women's economic decision-making across districts of Uttarakhand through a structured analysis involving survey data and advanced statistical techniques.This study is structured with an introduction, literature review, objectives, hypotheses, and a methodology using a survey of 190 women. Data analysis is done with Smart PLS SEM. The

discussion interprets findings, and the conclusion discussing the positive role played by financial literacy in women's economic decision-making, along with practical implications.

Literature Review

Financial literacy has garnered much focus from researchers & industry experts in the academic domain, due to its critical role in accentuating gender equality, economic empowerment, & inclusive financial development, particularly in developing countries where women's participation in financial decision-making remains limited. Recent research has increasingly lay stress on critical role of financial literacy in empowering women to partake in household economic decision-making. Studies by Kumar and Singh (2021) emphasize that financial literacy significantly improves women's ability to manage household budgets and contribute to savings and investment decisions, thereby enhancing family welfare. Similarly, Sharma et al. (2021) found that women with household financial knowledge tend to exercise greater control over financial resources, which positively impacts children's economic and health outcomes.

Research by Patel and Verma (2022) highlights the persistent gender gap in financial literacy in rural areas, where traditional gender norms limit women's access to financial economic and banking services. Their study advocates for targeted financial literacy programs tailored to socio-cultural contexts to increase women's economic participation. Correspondingly, Singh and Joshi (2022) demonstrate through survey data that financial economic initiatives increase women's confidence in making economic decisions, which correlates with improved household savings rates.

In urban contexts, Gupta and Malhotra (2023) reveal that women engaged in microfinance and self-help groups exhibit household financial awareness and autonomy in household spending decisions. This is supported by Rao (2023), who documents that digital financial literacy programs improve women's understanding of digital banking, enabling them to navigate formal financial systems effectively.

Further, Banerjee et al. (2023) investigated the role of government-led financial inclusion schemes on women's financial behaviors, finding a significant rise in women's participation in household budgeting and asset management post-intervention. The longitudinal study by

Chatterjee and Roy (2024) underlines that consistent financial literacy economic leads to sustained improvements in women's economic decision-making roles within families.

Emerging research by Das and Mukherjee (2024) shows that financial literacy imparts benefits of social empowerment and increased bargaining power to women in addition to economic empowerement, contributing to gender equality. Correspondingly, Mehta and Kapoor (2024) report that women possessing financial knowledge are interested to invest in health insurance and retirement planning, reflecting a long-term vision for household financial security.

Recent quantitative analyses by Verma et al. (2024) confirm that women's financial knowledge strongly influences household expenditure patterns, with literate women prioritizing economic and nutrition. Meanwhile, Singh and Kaur (2025) provide evidence that financial literacy training integrated into community programs significantly grants women financial autonomy to take decisions regarding loans & credit.

Innovative studies by Sharma and Iyer (2025) illustrate how digital tools contribute towards enhancing women's financial literacy, with mobile-based economic platforms proving effective in reaching marginalized women. In line with this, Reddy et al. (2025) find that digital financial literacy boosts women's confidence and competence in managing household finances in semi-urban areas.

Across these studies, a common theme emerges: financial literacy is regarded as a important paradigm for facilitating women's empowerment in household economic decision-making. Despite progress, barriers such as socio-cultural norms, limited access to economic, and technological divides remain. Addressing these through integrated financial literacy programs, supported by policy and community initiatives, is essential for improving women's economic roles and household well-being (Kumar & Singh, 2021; Reddy et al., 2025). Despite wide plethora of studies on different facets of financial literacy there exists a void in literature in studying its role in case of women in vulnerable states like that of Uttarakhand. Building upon the extensive body of research, this study aims to address critical gaps related to the financial literacy dimensions that influence women household decision making power.. While previous studies (Kumar & Singh, 2021; Sharma et al., 2021; Reddy et al., 2025) have demonstrated the positive impact of financial literacy on women's decision-making roles, there remains limited

understanding of how these dynamics operate in specific local contexts with diverse cultural and economic backgrounds.

This research focuses on examining the nexus of financial literacy and the economic decision-making capacity of women within households, with particular attention to barriers such as economical levels, access to financial services, and prevailing gender norms.

Despite growing recognition of financial literacy as a driver of women's economic empowerment, there is a paucity of research examining its direct influence over women's economic decision-making within households in Uttarakhand. The region's unique socio-cultural context, marked by varying economical levels, limited access to formal financial services, and persistent gender norms, presents distinct barriers that have not been adequately explored. Furthermore, the effectiveness of current financial literacy initiatives tailored for women in Uttarakhand remains under-evaluated. This study aims to fill these gaps by utilizing quantitative extracted from women at grassroots level data belonging to diverse communities across Uttarakhand to provide in-depth insights. The study also seeks to evaluate the effectiveness of current financial literacy initiatives in enhancing women's financial knowledge and autonomy. By integrating quantitative data, this research aims to provide nuanced insights that can inform policy design and targeted interventions to further empower women economically. Ultimately, the findings intend to contribute to the broader discourse on gender equality, economic development, and financial inclusion, offering practical recommendations for stakeholders engaged in promoting women's financial literacy and household decision-making capabilities.

The findings are intended to inform region-specific policy measures and interventions that can enhance women's financial autonomy and participation in household economic decisions, commenstruate with the major developmental goals in the region.

Objectives of the Study & Research Methodology

This research endevour follows a empirical research design approach and intends to examine the influence of financial literacy on household economic decision making power. The data has been collected through structured questionnaire approach employing data from 190 women respondents residing in Dehradun & Haridwar districts of Uttarakhand. A self structured questionnaire which was personally administered via offline mode for soliciting requisite data from prospective women respondents. The financial knowledge and awareness

(FA) & financial attitude (FA) served as proxies for measuring the abstract financial literacy phenomena consisting of 3 items each whereas the construct of household economic decision making was measured through 5 items accounting for a total of 11 indicators in the model. Financial literacy served as endogenous while HEDM as exogenous variable to measure the extent of intended hypothesized relationship among constructs. The analysis was done using Smart PLS 4 approach. The financial literacy (household order) was measured through two lower order constructs (FKA & FA) The abstract financial literacy phenomena was measured employing two lower-order constructs in PLS-SEM as it is useful for measuring complex concepts like Financial Literacy. **Financial Awareness (FA)**, **Financial Knowledge & Attitude (FKA)**, and **Financial Literacy (FL)** were modeled reflectively constructs. The repeated tow sept indicator approach was used wherein the latent variable scores arrived at 1st step were used as indicators in second step for measuring the relationship of financial inclusion attributes and household economic decision making (Becker, Klein, and Wetzels., 2012). The analysis was performed in two steps whereby an assessment of measurement model was made followed by structural model analysis to measure extent of hypothesized relationship among the constructs.

Hypothesis of the Study

Studies have consistently shown that household levels of financial knowledge improve women's ability to participate in household financial decisions. Lusardi and Mitchell (2014) found that financial knowledge equips women with the skills to budget, save, and plan, thereby increasing their decision-making influence within families. Similarly, Kumar and Singh (2021) demonstrated that women's awareness of financial concepts leads to greater control over household expenditures and investments. Therefore it is hypothesized that

H1: Financial knowledge and awareness positively and significantly impact women's household economic decision-making power.

The attitude towards money management, including confidence and willingness to engage with financial matters, plays a critical role in women's economic empowerment. According to Loke and Boon (2014), positive financial attitudes correlate strongly with proactive financial behaviors, which enhance women's participation in economic decisions at the household level. Sharma et al. (2021) also highlight that a constructive financial attitude fosters greater

involvement in saving, borrowing, and planning activities among women. Thus it is hypothesized that-

H2: Financial attitude positively and significantly impact women's household economic decision-making power.

Financial literacy, encompassing both knowledge and attitudes, is considered as a key driver of women's decision-making power within households. Agarwal (2020) emphasizes that women with household financial literacy are more capable of managing family resources effectively and making informed financial choices. Furthermore, Duflo (2012) argues that financial literacy empowers women to contribute meaningfully to household budgeting, investments, and long-term economic planning. Hence it is hypothesized that

H 3 – Financial literacy positively and significantly impact women's household economic decision making power.

Data Analysis

The present study aims at studying the extent of relationship exhibited by fl and hedm. The hypothesized relationship among constructs was measured using SMART PLS SEM . The use of Smart PLS 4 connotes a two-stage process for involving wherein firstly measurement model essentials like validity and reliability is checked and subsequently structural model analysis is done. The estimation of measurement is done by examining the Cronbach Alpha & composite reliability (Rho a) to confirm internal consistency reliability. The convergent validity is examined through AVE for which the threshold limit is above 0.50 in order to affirm the convergent validity exhibited by the constructs. (Hair et al., 2022). For assessing discriminant validity Fornell larcker criterion for which an AVE is greater than inter-item correlations between the constructs (Fornell & Larcker, 1981),The 2nd step involves the structural model involves the evaluation of the results serving as basis for testing of proposed hypothesis and deriving appropriate conclusions therefrom,

Measurement Model Results

As a precursor to hypothesis testing the model was tested for internal consistency and reliability among the constructs. As shown in table 1 & 2 the results for indicator reliability of each of the constructs (household as well as lower order) component were satisfactory

reflecting the presence of reliability & validity. (Hair et al., 2019). For instance, the Cronbach Alpha values & CR values surpassed the minimum threshold of 0.70 (Fornell & Larcker, 1981; Hair et al 2010; Raykov et al., 2016) confirming the presence of internal consistency & reliability among the constructs. Additionally the convergent validity is examined through AVE for which thethreshold limitis above 0.50 to affirm the convergent validity exhibited by the constructs (Sartesdt et al., 2016; Hair et al., 2022). As evident from the tables, the AVA values surpassed the threshold limit thereby affirming good convergent validity.

Table 1 - Reliability of The Model (Lower Order)

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
FA	0.690	0.705	0.829	0.620
FKA	0.661	0.716	0.690	0.520
HEDM	0.663	0.777	0.788	0.665

Source – Retrieved from Smart PLS

Table 2 - Reliability of The Model (Household Order)

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
FL	0.799	0.799	0.909	0.833
HEDM	0.663	0.778	0.788	0.771

Source – Retrieved from Smart PLS

Discriminant validity

For assessing discriminant validity Fornell larcker criterion for which an AVE is greater than inter-item correlations between the constructs (Fornell and Larcker, 1981). As evident from tables 3 & 4 the AVE values were more than inter item correlation among the constructs confirming discriminant validity results

Table 3 – Fornell – Larcker Criterion (Lower- Order Constructs)

	FA	FKA	HEDM
FA	0.787		
FKA	0.666	0.721	
HEDM	0.909	0.889	0.691

Source – Retrieved from Smart PLS

Table 4 – Fornell – Larcker Criterion (Household - Order Constructs)

	FL	HEDM
FL	0.913	
HEDM	0.986	0.773

Source – Retrieved from Smart PLS

Interpretation of Structural Model

After affirming the model's suitability, the analysis proceeded to evaluate the structural model using path coefficients, T-values, and p-values. According to Hair et al. (2019), t – values above 1.96 and a p-value below 0.05 indicate that the hypothesized relationship is statistically significant in PLS-SEM analysis.The structural model results reveal that both Financial Awareness (FA) and Financial Knowledge & Attitude (FKA) have a strong and statistically significant positive influence on Household Economic Decision-Making (HEDM). Specifically, the path coefficient from FA to HEDM is 0.570 with a T-value of 25.295 and a p-value of 0.000, while the path from FKA to HEDM is 0.510 with a T-value of 18.882 and a p-value of 0.000. These high T-values (well above the threshold of 1.96) and p-values below 0.05 indicate robust significance, suggesting that increases in FA and FKA significantly enhance women' decision-making regarding household economic. Furthermore, in the household-order construct analysis, Financial Literacy (FL) shows an exceptionally strong effect on HEDM with a path coefficient of 0.986, T-value of 464.578, and p-value of 0.000, indicating near-perfect reliability and significance. These findings align with the standards outlined by Hair et al. (2019), who state that path coefficients with high T-values and low p-values confirm the strength and significance of hypothesized relationships in PLS-SEM models.

Fig 1 – Structural model
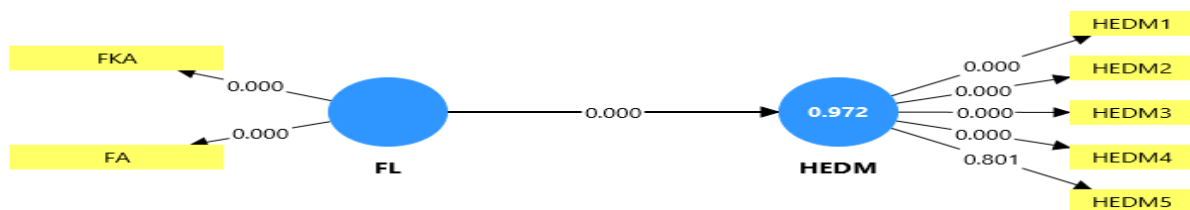
Table 5– Hypothesis Testing (Lower-Order)

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
FA -> HEDM	0.570	0.569	0.023	25.295	0.000
FKA -> HEDM	0.510	0.512	0.027	18.882	0.000

Source – Retrieved from Smart PLS

Table 6– Results for Hypothesis Testing (Higher-Order)

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
FL -> HEDM	0.986	0.986	0.002	464.578	0.000

Source – Retrieved from Smart PLS

The structural model results reveal that both Financial Awareness (FA) and Financial Knowledge & Attitude (FKA) have a strong and statistically significant positive influence on household Economic Decision-Making (HEDM). Specifically, the path coefficient from FA to HEDM is 0.570 with a T-value of 25.295 and a p-value of 0.000, while the path from FKA to HEDM is 0.510 with a T-value of 18.882 and a p-value of 0.000 as evident from table 5.These high T-values (well above the threshold of 1.96) and p-values below 0.05 indicate robust significance, suggesting that increases in FA and FKA significantly enhance women' decision-making regarding household economic. Furthermore, in the household-order construct analysis, Financial Literacy (FL) shows an exceptionally strong effect on HEDM with a path coefficient of 0.986, T-value of 464.578, and p-value of 0.000 as evident from table 6. These findings align with the standards outlined by Hair et al. (2019), who state that path coefficients with high T-values and low p-values confirm the strength and significance of hypothesized relationships in PLS-SEM models.

This result indicates a **strong and statistically significant** positive relationship between **FA (Financial Awareness)** and **HEDM (Household Economic Decision-Making**

Since the **T-value exceeds the critical value (usually 1.96 at 0.05 significance level)** and the **P-value is less than 0.05, t**he relationship is significant The results indicate that Financial Awareness (FA) and Financial Knowledge & Attitude (FKA) significantly contribute to Household Economic Decision-Making (HEDM), with path coefficients of 0.570 and 0.510 respectively, both supported by high T-statistics (25.295 for FA and 18.882 for FKA) and p-values of 0.000. These values suggest a strong internal reflection of the constructs on the underlying concept of decision-making in economic. Furthermore, the household-order reflective construct, Financial Literacy (FL), shows an exceptionally strong association with HEDM (path coefficient = 0.986, T = 464.578, p = 0.000), reflecting that the overall latent concept of financial literacy is accurately measured by its indicators and significantly influences decision-making.

Table 7 - Hypotheses Testing Summary: Acceptance or Rejection

HYPOTHESIS	DECISIONS
H1: Financial knowledge and awareness positively and significantly impact women's household economic decision-making power.	H1 ACCEPTED
H2: Financial attitude positively and significantly impact women's household economic decision-making power.	H2 ACCEPTED
H3 : Financial literacy positively and significantly impact women's household economic decision making power.	H3 ACCEPTED

Source: Author's self compiliation

Discussion & Conclusion

The current study seeks to study role of financial constructs—Financial Awareness (FA), Financial Knowledge and Attitude (FKA), and the household-order construct Financial Literacy (FL)—on Household Economic Decision-Making (HEDM) using a reflective measurement model within the PLS-SEM framework. The results strongly support the hypothesized relationships, revealing that each construct significantly contributes to women' decisions regarding their household economic pathways.

The path coefficient from **FA to HEDM** (β = 0.570, T = 25.295, p = 0.000) and from **FKA to HEDM** (β = 0.510, T = 18.882, p = 0.000) indicates that both financial awareness and knowledge-based attitudes have a substantial and statistically significant impact on economical

decision-making. These findings underscore the importance of equipping women with financial information and a sound attitude toward financial planning during their academic journeys.

Furthermore, **the higher -order construct Financial Literacy (FL)** demonstrated a near-perfect relationship with HEDM (β = 0.986, T = 464.578, p = 0.000), emphasizing its critical role as a combined influence of awareness, knowledge, and attitude. This validates the conceptual model, highlighting that financial literacy holistically determines women' ability to make informed economic choices.

As per the results, all the proposed hypotheses were accepted. Hypothesis 1 (H1), which stated that Financial Awareness positively and significantly impacts women's household economic decision-making power, supported by a strong path coefficient (β = 0.570), a high T-value (25.295), and a statistically significant p-value (0.000). Similarly, Hypothesis 2 (H2), proposing that Financial Knowledge and Attitude positively and significantly influence women's economic decision-making, was also accepted at p-value 0.510, T-value of 18.882, and p-value of 0.000. Finally, Hypothesis 3 (H3), which posited that overall Financial Literacy (combining awareness, knowledge, and attitude) positively and significantly impacts household economic decision-making power, was strongly supported by an exceptionally high path coefficient (β = 0.986), T-value (464.578), and p-value (0.000). These findings collectively confirm the critical role of financial literacy components in empowering women in their household economic decisions.

The results are in conformity with Paluri & Mehra, 2016 which showed positive impact of attitude on Household Economic decision making. Moreover the result corroborates findings of Haque and Zulfiquar 2016) Parvathy & Kumar, 2022, Gautam et al., 2022 García-Santillán, A. 2025) who asserted similar findings. The research outcome highlight the critical role of financial literacy, awareness, and attitude in improving women's household economic decision-making power. For policymakers, this underscores the need to design and implement targeted financial education programs that focus not only on imparting knowledge but also on shaping positive financial attitudes among women. Integrating such programs into through targeted efforts can empower women imparting necessary skills required to manage household finances effectively. Additionally, policies aimed at increasing access to financial resources and services, especially for women from marginalized communities, can further strengthen their economic participation and autonomy. By prioritizing financial literacy in governmental targeted efforts for economic empowerment , policymakers can facilitate more inclusive economic growth and promote gender equity in individual or society level as well.

In conclusion, the findings suggest that strengthening financial literacy among women can significantly enhance their household economic decision-making capacity. The government and policymakers should consider integrating targeted financial economic programs within community to support informed student choices. Future studies may extend this model by exploring moderating variables such as peer influence, socioeconomic background, or digital financial literacy to comprehend understanding of financial literacy.

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