

Examining Collaborative Initiatives to Enhance Financial Literacy for Inclusive Growth with respect to Bangalore City

**Dr. Rekha Gothe¹, Dr. Ganesh Waghmare², Vidyashree. C³, Dr. Lakshmi HS⁴, Sneha. R⁵,
Roopa. T⁶**

¹Assistant Professor, SVYASA University, School of Advanced Studies, India

²Associate Professor, MIT College of Management, MIT Art, Design and Technology University, Pune, India

³Assistant Professor, PES University, Department of commerce, RR Campus, India

⁴Assistant Professor, School of Commerce, SVKM'S NMIMS, (Deemed to be University), India

⁵Assistant Professor, School of Commerce, Jain (Deemed to be university), India

⁶Principal, Jnanavikas institute of Management Studies and Commerce, India

Corresponding Author: Ganesh Waghmare, Email: gntilu@gmail.com

KEYWORDS

Financial Literacy,
Economic
Empowerment,
Savings Behavior,
Collaborative
Financial Planning,
Behavioral Finance
Insights.

ABSTRACT

This study examines the complex relationship between financial literacy, economic empowerment, and saving and investing behaviors. Findings reveal that financial knowledge significantly fosters cooperative partnerships and economic resilience but highlight an unexpected negative correlation between economic empowerment and conventional savings. This suggests that empowered individuals often prioritize alternative financial avenues over traditional savings. To address these dynamics, the study advocates for tailored financial literacy programs emphasizing collaboration, community engagement, and resilience. These include modules on group investment, resource pooling, and diversified financial planning. It also underscores the importance of empowering community leaders, leveraging technology for outreach, and integrating microfinance opportunities. Moreover, enhancing education through customized digital resources and collaborations with institutions is proposed to bridge gaps in financial knowledge. The study further recommends promoting balanced savings and investment behaviors by incorporating behavioral finance insights, scenario-based training, and personalized financial planning. Policymakers are urged to use these insights to design inclusive financial literacy programs that align with diverse economic preferences and goals, ultimately fostering long-term wealth building and economic stability. Future research should explore the motivations behind empowered individuals' financial decisions to refine strategies for enhancing financial well-being.

1. Introduction

The Indian city of Bangalore, which is also the capital of the state of Karnataka, is experiencing profound social and economic change and is known as a tech powerhouse. The public and commercial sectors, which place a premium on financial inclusion, collaborate with government agencies, non-profits, for-profits, and educational institutions to promote financial literacy in underserved areas.

The capacity to manage one's own money, create and stick to a budget, save and invest, and comprehend and make beneficial use of a variety of financial goods and services are all components of financial literacy. Economic opportunities and benefits should be available to all members of society, especially those from disadvantaged, low-income, and neglected areas, in order to promote inclusive development. The city's rapid urbanisation and the growing number of tech-savvy residents necessitate the filling of financial literacy gaps.

The Reserve Bank of India (RBI) is a major player in the Bangalore initiative to improve people's financial literacy. Every year during Financial Literacy Week, the RBI hosts events to educate the public on important financial literacy subjects like budgeting, saving, digital banking, and government initiatives. The Indian government has also implemented the Pradhan Mantri Jan Dhan Yojana (PMJDY) to promote bank account establishment among urban slum dwellers who lack access to formal financial services.

Workshops, online tutorials, and community outreach activities are all ways that banks and financial institutions like the State Bank of India (SBI), ICICI, and HDFC (the private sector) contribute to financial literacy programs. In order to increase people's knowledge of personal finance, fintech companies such as ETMoney, Razorpay, and MoneyTap work with traditional banks to provide educational applications, interactive tools, and material that is specific to each region.

In addition to government agencies, non-governmental organisations (NGOs) and social enterprises (SFLPs) such as the Centre for Financial Literacy (CFL) and Sampurna Financial Literacy Programme (SFLP) help spread financial education in less-populated regions. Research, curriculum creation, and partnerships with government agencies and NGOs are some of the ways that educational institutions like the Indian Institute of Management Bangalore (IIMB) are working to promote financial literacy.

Bangalore is facing a critical juncture in its pursuit of economic progress and social welfare. Greater focus on financial literacy and inclusivity is part of the city's pursuit of an inclusive development goal. The city views enabling people and communities to fully engage in the economic environment, financial inclusion, or universal access to financial services and resources as a vital driver of inclusive development.

Financial literacy efforts have become tools for fair development and sustainable progress in Bangalore's ever-changing socio-economic setting. The programs primarily target low-income families, women, and rural and urban migrants via banking and financial services, reaching out to the excluded and marginalized strata of society. By providing previously excluded individuals with access to credit, savings, insurance, and various other financial services, these programs enhance communities' resilience to economic challenges.

This study paper delves into the extensive effects that financial literacy and inclusion programs in Bangalore have had on the city's economy and society and how they have the ability to bring about transformation.

It delves into the fundamental ideas that govern these kinds of endeavors, which require collaboration between government entities, banks, NGOs, and IT companies. Through an examination of various tactics and interventions, this research seeks to shed light on how improving people's financial literacy may contribute to inclusive development and encourage them to make educated decisions about their money, which in turn can boost their economic prospects.

The main areas of concentration include enhancing financial literacy, using technology to make financial services accessible, and building a regulatory framework that allows for inclusive finance. By teaching individuals how to budget, save, and invest, financial literacy programs help people build assets while reducing risks. In addition to improving access to financial services in underserved districts of Bangalore, digital technologies like mobile banking and digital payment platforms help break down geographical constraints.

Now that financial literacy is a priority, this trend should also continue in Bangalore. Such actions notably improve outcomes by reducing poverty, fostering entrepreneurship, and strengthening an economy. Thus, we may adopt a new path towards shared prosperity for everyone in Bangalore, amplifying the voice of marginalized sectors and increasing the advantages of financial inclusion for all sections.

The capital of Karnataka, Bangalore, is experiencing profound social and economic change while also becoming one of India's leading innovation hubs. Collaborations including educational institutions, government agencies, non-profits, and private businesses are essential in promoting financial literacy in various groups, which is why financial inclusion is a top goal for the private and public sectors.

The capacity to manage one's own money, create and stick to a budget, save and invest, and comprehend and make beneficial use of a variety of financial goods and services are all components of financial literacy. Making sure that low-income, underprivileged, and disadvantaged groups, as well as other parts of society, may participate in and reap the economic advantages of development is essential to achieving inclusive growth. The city's rapid urbanisation and the growing number of tech-savvy residents necessitate the filling of financial literacy gaps.

The Reserve Bank of India (RBI) is a major player in the Bangalore initiative to improve people's financial literacy. Every year during Financial Literacy Week, the RBI hosts events to educate the public on important financial issues like budgeting, saving, digital banking, and government initiatives. Additionally, the Pradhan Mantri Jan Dhan Yojana (PMJDY) has played a significant role in encouraging individuals living in urban slums without bank accounts to open accounts with the Indian government.

Involvement in the private sector includes financial organizations and banks like ICICI, HDFC, and the State Bank of India (SBI) that provide financial literacy programs via community outreach programs, online courses, and seminars. RazorPay, MoneyTap, and ETMoney are just a few examples of fintech businesses that work with banks to spread awareness about personal finance via specialized instructional materials, interactive tools, and mobile applications.

Non-governmental organisations (NGOs) and social enterprises (SFLPs) such as the Sampurna Financial Literacy Programme (SFLP) and the Centre for Financial Literacy (CFL) also contribute to the promotion of financial literacy in semi-urban and rural regions. Research, curriculum creation, and partnerships with government agencies and NGOs are some of the ways that educational institutions like the Indian Institute of Management Bangalore (IIMB) are working to promote financial literacy.

Bangalore finds itself at a pivotal point where social flourishing and economic progress intersect. The city prioritizes financial literacy and inclusion in its efforts to achieve its inclusive development agenda. A key component of inclusive development is financial inclusion, which means that everyone should be able to use financial services and resources. This will enable communities and people to participate in the economy to the fullest.

Financial literacy efforts have become tools for fair development and sustainable progress in the ever-changing socio-economic milieu of Bangalore. The programs primarily target low-income families, women, and rural and urban migrants via banking and financial services in an effort to reach out to the excluded and marginalized parts of society. This helps communities' financial sectors become more resilient by making a variety of financial products—including loans, savings accounts, insurance, and more—accessible to previously excluded populations.

Looking at the many ways in which financial literacy and inclusion programs in Bangalore may change the city's economy and way of life, this study investigates the possibilities for transformation. It delves into the fundamental ideas that govern these kinds of endeavors, which require cooperation between government entities, banks, NGOs, and IT companies. By examining several techniques and interventions in depth, this research hopes to shed light on how financial literacy may promote equitable development and help individuals make educated financial decisions that will improve their economic prospects.

The main goals are to increase people's understanding of money matters, use technology to broaden access to financial services, and create a legislative climate that encourages inclusive finance. By teaching individuals how to budget, save, and invest, financial literacy programs help people build wealth while reducing their exposure to risk. In addition to improving access to financial services in underserved areas of Bangalore, digital technologies like digital payment platforms and mobile banking remove geographical constraints.

Given the recent push for financial literacy, we should not undervalue the significance of this breakthrough in Bangalore. It is believed that these actions greatly assist in lowering poverty rates, boosting entrepreneurialism, and strengthening economies. This approach would amplify the voices of under-represented groups, realizing the benefits of financial inclusion for all, and laying the foundation for a new era of shared prosperity in Bangalore.

2. Literature Review

The study covers a comprehensive review to lay the foundation for the conceptual model. The review of the literature in the current research has been classified under the following headings:

2.1 Drivers of FI

According to Swamy (2012), the Indian government is actively working to increase access to financial services by reaching out to more rural areas via banks. For commercial banks to achieve expansion while maintaining equality, they must use cost-effective technology such as ATMs, zero-balance accounts, mobile banking, and point-of-sale systems (Basant, 2011). The three main aspects of FI that Camara and Tuesta examined in their study were its use, accessibility, and obstacles. They state that "usage" includes things like having a loan, savings account, or other financial product; "access" refers to things like having convenient locations to access financial products and services, like ATMs and bank branches; and "barriers" include things like cost, paperwork, distance, and trust (Camara et al., 2014).

The authors Gine and Townsend brought attention to the fact that increasing geographical access to banking services has a beneficial effect on economic growth. Beck looked at financial inclusion from two angles: access and use. He stressed that the latter is more important for people's empowerment.

Having frequent access to financial instruments like savings accounts and debit cards enables people to make daily purchases, invest in critical assets, own houses, educate children, and prepare for retirement (Chakravarty et al., 2010).

In a similar vein, other academics (including Allen) have shown that formal bank accounts are crucial to expanding access to financial services. Given the widespread agreement in the literature about the significance of both access and use, it is crucial to focus current research on "usage" (Allen et al., 2016).

Mobile banking and other forms of information and communication technology have revolutionized digitalization by lowering barriers to entry and increasing conveniences for consumers. New financial services have a profound effect on people's lives; for example, mobile banking has been revolutionary in Kenya (Sassi et al., 2013). Mobile money systems such as CELPAY in Zambia, M-PESA in Kenya, and WIZZIT in South Africa are significant instances of how many nations are now using ICT to improve the speed, affordability, and accessibility of financial services. Financial services have become even more accessible in India because of technologies like the Unified Payments Interface (UPI) and Aadhar-linked cash transfers (Andrianaivo et al., 2011).

According to Swamy (2012), the Indian government is actively working to increase access to financial services by reaching out to more rural areas. Commercial banks need to use cost-effective technology, including zero-balance accounts, point-of-sale systems, mobile banking, and ATMs, if they want to achieve growth while being fair (Bassant, 2011). Camara and Tuesta evaluated FI from three important angles: use, accessibility, and obstacles. Their definitions of "usage" and "access" to financial products and services include things like having a checking account, savings account, or loan; "barriers" include things like cost, paperwork, distance, and lack of trust (Camara et al., 2014).

Gine and Townsend brought attention to the fact that increasing geographical access to banking services has a beneficial effect on economic growth. Beck looked at financial inclusion from two angles: access and use. He stressed that the latter is more important for people's empowerment. The ability to purchase a house, send one's children to school, save for retirement, and handle day-to-day expenses is dependent on having consistent access to various forms of electronic money (Chakravarty et al., 2010).

Numerous studies, such as the one by Allen and colleagues, have demonstrated the significance of formal bank accounts in advancing financial inclusion. Given the widespread agreement in the literature about the significance of both access and use, it is crucial to focus current research on "usage" (Allen et al., 2016).

The emergence of mobile banking and other forms of information and communication technology has transformed digitalization by making financial services more accessible and user-friendly. In Kenya, for example, new financial services like mobile banking have had a profound effect on people's daily lives (Sassi et al., 2013). Mobile money systems such as CELPAY in Zambia, M-PESA in Kenya, and WIZZIT in South Africa are significant instances of how many nations are using ICT to improve the speed, affordability, and accessibility of financial services. Andrianaivo et al. (2011) note that new developments like the Unified Payments Interface (UPI) and Aadhar-linked cash transfers have further expanded access to financial services in India.

2.2 The Role of Digitalization and Financial Literacy in Enhancing Financial Inclusion

The elimination of long-standing obstacles and the expansion of available services are two key ways in which digitalisation promotes financial inclusion. The ease of use of digital financial products is increasing as more and more individuals have access to them (Demombynes et al., 2012). Aadhar, an integrated system with banking and other financial services, has demonstrated a positive impact on financial inclusion (Ghosh, 20). Research also shows that populations that were previously unbanked may benefit from ICT-based solutions, which can help build a wider financial network. Digital payments and mobile money accounts are still crucial financial innovations that help increase financial inclusion globally (Onaolapo et al., 2015).

Financial literacy greatly enhances one's ability to plan ahead and make educated judgements about their financial situation. Debt management, long-term planning, and making difficult financial decisions are all areas in which people who have a firm grasp of financial concepts tend to excel (Lusardi et al., 2014). People that have a thorough understanding of money management also know how to earn, spend, invest, and save their money prudently. An increase in financial inclusion and better financial literacy has been associated with more people being able to access and understand financial products and services (Rastogi et al., 2018).

Academics from all around the globe have come to the same conclusion: raising people's financial literacy levels is one way to increase financial inclusion. Unfortunately, many countries face the challenge of limited financial inclusion due to low levels of financial literacy. Advocates have urged lawmakers to support financial institution training initiatives that enhance financial inclusion to address this need (Bongomin et al., 2020).

Innovation in technology may help overcome infrastructural and institutional obstacles, allowing financial services to reach those who need them the most (Al-Mudimigh et al., 2020). Therefore, financial knowledge serves as a bridge, enabling technology to significantly enhance financial inclusion. Grohmann et al. (2017) reasoned that our research perceives financial literacy as a moderating factor. Previous research (Ramakrishna et al., 2018) has supported the key role of financial literacy in establishing a connection between social networks and financial inclusion, as demonstrated by a number of studies. To pave the way for future studies on this crucial issue, we set out to investigate the role of financial literacy as a mediator between important economic drivers and sustainable development.

2.3 Research Objectives

1. Find out how well versed in money management different socioeconomic groups in Bangalore City are right now.
2. Look at group efforts to make Bangalore City more financially literate and inclusive.
3. Assess how digital platforms might bolster initiatives to increase financial literacy across different demographics.
4. In order to promote equitable development, it is important to identify the potential obstacles and possibilities that financial literacy initiatives in Bangalore City may encounter.

2.4 Hypothesis

H1: Socioeconomic variations among distinct groups in Bangalore City demonstrate a degree of inequality in financial literacy.

H2: The collaborative efforts of government agencies, financial institutions, and NGOs with the people of Bangalore City enhance better financial literacy and inclusion.

H3: Using digital platforms will help improve financial literacy initiatives in Bangalore City, according to Hypothesis.

H4: The fourth hypothesis is that economically disadvantaged groups in Bangalore City will benefit from the introduction of financial literacy initiatives, leading to more equitable development overall.

3. Research Methodology

3.1 Research Design and Framework

This research aims to explore the relationship between financial literacy, collaborative efforts, and inclusive growth in Bangalore, a metropolis at the forefront of rapid urbanization, technological innovation, and economic inequality. Using quantitative data and structural equation modeling (SEM), we delve into these links to find out how financial literacy and collaboration lead to inclusive development in different ways. An essential component of this subject is financial literacy, which includes the ability to understand and manage one's own money, as well as the information and skills necessary to use various financial products. Increased financial literacy enhances both socioeconomic outcomes and financial inclusion. In order to increase financial literacy and access to financial services, many different groups and individuals are working together via collaborative projects. These groups include government programs, private sector organizations, educational institutions, and NGOs.

The study's central hypothesis is that disadvantaged groups will benefit financially from increased financial literacy and inclusive development as a result of increased use of digital platforms, especially by underprivileged populations. Measures of inclusive growth include lowering poverty rates, increasing employment opportunities, and improving socio-economic mobility for historically underserved communities, as well as broader economic growth that raises the quality of life for all parts of society, especially the marginalized or vulnerable ones.

The proposed conceptual model suggests several important connections between the aforementioned variables:

Direct effects: The government, the corporate sector, and non-governmental organizations (NGOs) are all working together to improve financial literacy, which will have a direct impact on the results of inclusive growth. To achieve inclusive development in a varied and dynamic metropolitan context like Bangalore, it is essential to have this knowledge in order to create successful policies and initiatives.

3.2 Sampling Strategy and Data Collection

Households with low incomes, women, people living in rural and urban areas, and important stakeholders like government agencies, banks, and non-governmental organizations (NGOs) working on the problem of financial literacy make up the target population in Bangalore City. We use a stratified random sampling approach to ensure that our sample accurately reflects the variety found in all these groups. Based on important demographic and socioeconomic factors, this method may divide the population into many strata. We select random samples from these strata. With this method, the research is able to fairly and adequately include participants from various socioeconomic backgrounds, which increases the results' applicability. In order to guarantee that the sample is big enough to provide trustworthy statistical insights and keep robust SEM model estimates, power analysis in statistics uses a minimum threshold of 300 answers to establish the necessary sample size.

3.3 Variable Measurements

Researchers describe the study's key variables in an operational sense to examine the connections between inclusive development, digital platform use, and collaborative activities. The study considers the use of digital platforms and collaborative initiatives as independent factors. We can measure cooperation in fostering financial literacy and inclusion by examining the number of partners and collaborative actions among governmental entities, financial institutions, and NGOs. This indicates the degree to which these groups are working together. To quantify the utilisation of digital platforms, we use indicators that reflect the availability and depth of these tools and platforms. This enables informed thinking about the resources that support financial literacy and other forms of financial inclusion.

Improved access to financial services, more economic involvement, and overall socioeconomic mobility, with a focus on highlighted groups, are all indicators of inclusive growth, the dependent variable. Since the metrics measure the extent to which digital and collaborative efforts contribute to increased access to financial services and broader economic prospects, they provide a holistic picture of inclusive development.

3.4 Data Collection Methods

We surveyed various demographic groups and stakeholders involved in financial literacy initiatives using standardised questionnaires to gather primary data for this research. The survey aims to measure three important aspects: inclusive growth indicators, digital platform use, and collaborative initiatives. The Collaborative Initiatives section collects information about collaborations and partnerships between governmental entities, banks, and NGOs. When it comes to assessing digital platform usage, the questionnaire checks how often and how easily people utilize various online resources to help with financial literacy and inclusion. Furthermore, we assess inclusive growth indicators to gauge improvements in underprivileged people's access to financial services, economic engagement, and socioeconomic mobility. Governmental agencies, financial institutions, and NGOs operating in Bangalore provide a variety of sources for secondary data, such as published reports, program valuations, and policy papers. Primary data is derived via surveys. You may learn a lot about the current state of financial literacy initiatives and partnerships from these secondary sources. This research fills gaps in our knowledge of financial inclusion and literacy programs in Bangalore and how collaborative strategies have contributed to inclusive development by combining secondary and primary data.

3.5 Data Analysis

We will analyse the data using Structural Equation Modelling (SEM) software, such as SmartPLS. Various indices, including the Chi-square (χ^2), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Tucker-Lewis Index (TLI), will be used to assess the model's fit. We can evaluate the proposed model's alignment with the data using these fit indices, and refine and validate it based on satisfactory results. We will study standardized path coefficients to find the strength and significance of the links between the variables, and we will use that information to test our hypotheses. We will also use bootstrap analysis to test the robustness and reliability of the model's indirect effects and mediation pathways. This all-encompassing method will guarantee an exhaustive and careful assessment of the suggested linkages in the research.

Table 3.1 Reliability Testing

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Collaborative Partners	0.987	0.987	0.989	0.940

Community Engagement and Support	0.988	1.144	0.989	0.938
Economic Empowerment and Resilience	0.989	0.990	0.991	0.950
Educational Approaches and Materials	0.989	1.000	0.991	0.948
Financial Literacy Levels	0.996	0.996	0.996	0.979
Saving and Investment	0.987	0.987	0.989	0.938

Interpretation

Cronbach's alpha, a measure of internal consistency, can reveal the degree of correspondence between elements within a construct. All constructs (collaborative partners, community engagement and support, economic empowerment and resilience, educational approaches and materials, saving and investment, and financial literacy levels) exhibit a high degree of internal consistency, with Cronbach's alpha values above 0.9. This further demonstrates the accuracy of each construct's items in assessing the measured variable.

Composite reliability, which takes into account both the construct's variance and measurement error, provides a more thorough evaluation of reliability (rho_a and rho_c). A rho_c value greater than 0.9 indicates very high construct dependability for all constructions. This proves that the items accurately and efficiently measure the target latent variable. Both Educational Approaches and Materials, as well as Community Engagement and Support, exhibit rho values of 1.000, indicating near-perfect dependability, while Community Engagement and Support displays a $\sqrt{\text{This may indicate a significant overlap or connection among the components, necessitating the fine-tuning of the model to enhance its parallelism. more parallel.}}$

The AVE calculates the proportion of a concept's total variance attributable to measurement error. All conceptions with AVE values greater than 0.9 demonstrate superior convergent validity. Each construct accounts for a significant amount of variation in its own set of items, confirming that the items accurately measure the latent variables.

In conclusion, the high values of Cronbach's alpha and composite reliability show that all constructions are very reliable and consistent with one another. The indicators faithfully portray the constructs, as shown by the high AVE values, which further confirm the constructs' outstanding convergent validity. On the other hand, if there are strongly linked items, as suggested by certain constructions' abnormally high rho_a values, then checking them for uniqueness might boost model efficiency without sacrificing reliability. When it comes to structural equation modeling (SEM) analysis, these validity and reliability indicators show that the model's structure is strong.

Fig. 3.1 Model Fit

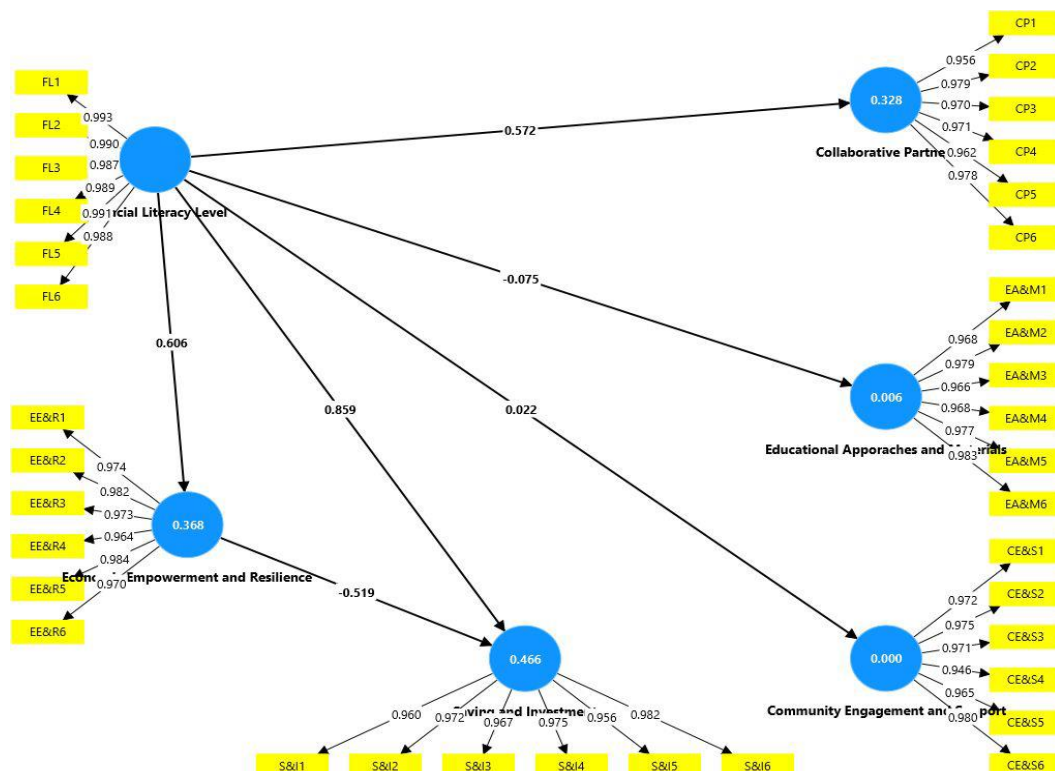


Table 3.2

	Saturated model	Estimated model
SRMR	0.751	0.748
d_ULS	0.651	0.647
d_G	0.841	0.838
Chi-square	952.189	951.538
NFI	0.967	0.963

Interpretation

The model fit indices indicate that the estimated model closely matches the saturated model in terms of data matching. The SRMR, d_ULS, and d_G values for the two models almost equalize, indicating a good match. The estimated model's chi-square value (951.538) is quite near to the saturated model's chi-square value (952.189), suggesting that there is little variation in the two models' fits. The estimated model's NFI value of 0.963, slightly lower than the saturated model's NFI value of 0.967, still indicates a strong match. All things considered, the predicted model closely matches the saturated one.

Discriminant Validity

Table 3.3 HTMT

	Collaborative Partners	Community Engagement and Support	Economic Empowerment and Resilience	Educational Approaches and Materials	Financial Literacy Levels	Saving and Investment
Collaborative Partners						
Community Engagement and Support	0.071					
Economic Empowerment and Resilience	0.039	0.017				
Educational Approaches and Materials	0.092	0.022	0.080			
Financial Literacy Levels	0.577	0.015	0.611	0.073		
Saving and Investment	0.033	0.050	0.015	0.040	0.549	

Interpretation

The majority of constructs show strong uniqueness from one another, according to the discriminant validity findings derived from the HTMT (Heterotrait-Monotrait Ratio). Discriminant validity is evident from the HTMT values, which vary from 0.033 to 0.092 when comparing collaborative partners to other variables. Similarly, when compared to other constructs, Community Engagement and Support has low HTMT values ranging from 0.015 to 0.071, which further supports its uniqueness. Economic empowerment, resilience, and financial literacy levels do share a value of 0.611, but the other values are modest, indicating a strong separation in general. The discriminant validity of educational approaches and materials is undeniable, as they consistently maintain low HTMT values, ranging from 0.022 to 0.080. The constructs of Saving and Investment exhibit low values, while Financial Literacy Levels demonstrate a moderate value of 0.549, indicating some overlap. While there might be some overlap between Economic Empowerment and Resilience and Financial Literacy Levels, additional research is necessary to differentiate the constructs, as the HTMT values frequently fall below the 0.85 threshold.

Key Elements of the Model

1. Latent Variables:

- Financial Literacy Level: This is a latent variable measured by six indicators (FL1 to FL6). The values associated with each indicator are factor loadings, showing the strength of each item's association with Financial Literacy Level. These values are all high (ranging from 0.987 to 0.993), indicating that each item strongly represents Financial Literacy Level.
- Collaborative Partnerships: This latent variable has six indicators (CP1 to CP6), with high loadings (0.956 to 0.979). This suggests that these items reliably represent the concept of Collaborative Partnerships.
- Educational Approaches and Materials: This variable is measured by six indicators (EA&M1 to EA&M6), each with high factor loadings (0.968 to 0.983). These strong loadings suggest that the items are good measures of Educational Approaches and Materials.

- Economic Empowerment and Resilience: This latent variable has six indicators (EE&R1 to EE&R6) with high factor loadings (0.964 to 0.984), indicating strong representation of the Economic Empowerment and Resilience construct.
- Saving and Investment: Measured by six indicators (S&I1 to S&I6), this variable also has high factor loadings (0.956 to 0.975), indicating reliable measurement.
- Community Engagement and Social Support: This variable has six indicators (CE&S1 to CE&S6) with loadings ranging from 0.946 to 0.982, showing strong reliability in measuring Community Engagement and Social Support.

2. Path Coefficients and Relationships:

- Financial Literacy Level → Collaborative Partnerships: Path coefficient = 0.572. This positive path coefficient suggests that as Financial Literacy Level increases, Collaborative Partnerships also increase. The relatively high coefficient indicates a substantial influence of Financial Literacy Level on Collaborative Partnerships.
- Financial Literacy Level → Educational Approaches and Materials: Path coefficient = -0.075. This negative path coefficient suggests a very weak inverse relationship, meaning that Financial Literacy Level has a negligible impact on Educational Approaches and Materials.
- Financial Literacy Level → Economic Empowerment and Resilience: Path coefficient = 0.606. This strong positive path indicates that higher Financial Literacy Levels significantly enhance Economic Empowerment and Resilience.
- Financial Literacy Level → Saving and Investment: Path coefficient = 0.859. This very high positive coefficient indicates a strong influence of Financial Literacy Level on Saving and Investment, suggesting that financially literate individuals are more likely to engage in saving and investment behaviors.
- Financial Literacy Level → Community Engagement and Social Support: Path coefficient = 0.022. This weak positive path suggests a very small or negligible impact of Financial Literacy Level on Community Engagement and Social Support.
- Economic Empowerment and Resilience → Saving and Investment: Path coefficient = -0.519. This negative path coefficient suggests an inverse relationship, meaning that as Economic Empowerment and Resilience increase, there might be a decrease in Saving and Investment. This might indicate that empowered individuals feel less need for immediate saving and investment, possibly due to financial security.

3. Interpretation of R-Squared Values:

- Each blue circle contains an R-squared value, representing the amount of variance in the latent variable explained by the predictors.
- Collaborative Partnerships has an R-squared of 0.328, meaning 32.8% of the variance in Collaborative Partnerships is explained by Financial Literacy Level.
- Educational Approaches and Materials has an R-squared of 0.006, indicating a very low explained variance by Financial Literacy Level.
- Economic Empowerment and Resilience has an R-squared of 0.368, suggesting that 36.8% of its variance is explained by Financial Literacy Level.
- Saving and Investment has an R-squared of 0.466, indicating that 46.6% of its variance is explained by Financial Literacy Level and Economic Empowerment and Resilience.
- Community Engagement and Social Support has an R-squared of 0.000, implying that it is not explained by Financial Literacy Level in this model.

Summary Interpretation

- Financial Literacy Level is a crucial predictor of several outcomes in this model. It has a particularly strong positive impact on Saving and Investment and a significant positive influence on Economic

Empowerment and Resilience. This suggests that financial literacy directly translates into practical financial behaviors and contributes to individuals' empowerment and resilience.

- The influence of Financial Literacy Level on Collaborative Partnerships is also positive, though less strong than on Saving and Investment. This may imply that financially literate individuals are more likely to engage in partnerships, possibly for mutual financial or social benefits.
- Educational Approaches and Materials and Community Engagement and Social Support are minimally impacted by Financial Literacy Level, suggesting that other factors not captured in this model likely influence these constructs.
- The inverse relationship between Economic Empowerment and Resilience and Saving and Investment could indicate that as people feel more financially empowered, their need to save or invest conservatively decreases, potentially due to increased confidence in their financial security.

Table 3.4 Hypotheses Testing

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values
Economic Empowerment and Resilience -> Saving and Investment	-0.519	-0.519	0.051	10.113	0.000
Financial Literacy Levels -> Collaborative Partners	0.572	0.572	0.036	15.869	0.000
Financial Literacy Levels -> Community Engagement and Support	0.022	0.015	0.064	0.339	0.735
Financial Literacy Levels -> Economic Empowerment and Resilience	0.606	0.606	0.038	16.058	0.000
Financial Literacy Levels -> Educational Approaches and Materials	-0.075	-0.077	0.057	1.314	0.189
Financial Literacy Levels -> Saving and Investment	0.859	0.859	0.044	19.579	0.000
Financial Literacy Levels -> Economic Empowerment and Resilience -> Saving and Investment	-0.314	-0.315	0.042	7.445	0.000

Hypotheses and Interpretation

1. H1: Financial Literacy Levels positively influence Collaborative Partners.

- Result: Significant (O = 0.572, T = 15.869, $p < 0.001$).

Interpretation: cooperation partners are positively impacted by financial literacy levels, suggesting that as financial literacy improves, cooperation activities are more likely to be successfully engaged. This positive effect is large and statistically significant.

2. H2: Financial Literacy Levels positively influence Community Engagement and Support.

- Result: Not significant (O = 0.022, T = 0.339, $p = 0.735$).

Interpretation: This model finds no significant relationship between financial literacy levels and community engagement or support, indicating that other variables may be at work here that are unrelated to efforts to raise financial literacy.

3. H3: Financial Literacy Levels positively influence Economic Empowerment and Resilience.

- Result: Significant (O = 0.606, T = 16.058, $p < 0.001$).

Interpretation: Strengthening Economic Empowerment and Resilience is Influenced by Financial Literacy Levels. This discovery provides further evidence that raising people's level of financial literacy increases their economic agency and resilience.

4. H4: Financial Literacy Levels positively influence Educational Approaches and Materials.

- Result: Not significant (O = -0.075, T = 1.314, $p = 0.189$).

Interpretation: Rather than depending only on literacy levels, educational approaches and materials may benefit from independent strategic improvement, as financial literacy levels do not substantially impact their selection or quality.

5. H5: Financial Literacy Levels positively influence Savings and Investment Behavior.

- Result: Significant ($O = 0.859$, $T = 19.579$, $p < 0.001$).

Interpretation: Savings and investing behaviour are strongly impacted by financial literacy levels. This suggests that when people have a better understanding of money matters, they are more likely to save and invest wisely, which in turn helps to foster equitable development.

6. H6: Economic Empowerment and Resilience positively influence Savings and Investment Behavior.

- Result: Significant but negative ($O = -0.519$, $T = 10.113$, $p < 0.001$).

Interpretation: Investment and Savings Behaviour is significantly inversely related to Economic Empowerment and Resilience, which is a surprising finding. People who are more self-reliant and resilient may be more willing to take risks with their money and invest in unconventional ways rather than relying on traditional savings methods.

7. H7: Financial Literacy Levels positively influence Savings and Investment Behavior through Economic Empowerment and Resilience (Mediated Path).

- Result: Significant and negative ($O = -0.314$, $T = 7.445$, $p < 0.001$).

Interpretation: There is a significant, negative mediation pathway that connects levels of financial literacy to saving and investing behaviors through economic empowerment and resilience. Based on these findings, it seems that financial literacy does not directly cause people to engage in conventional saving behaviors, even when mediated through economic resilience. However, it does contribute to empowerment. Some people may want to look into other investing options instead.

4. Conclusion and Recommendations

There are major ramifications for saving and investing habits stemming from the findings, which highlight the importance of financial knowledge in encouraging cooperative partnerships and economic empowerment. A surprising negative correlation between economic empowerment and savings suggests that empowered people may choose to invest in other things, even if the majority of hypotheses indicate favorable connections. Future studies should investigate this behavior's causes. When crafting community involvement projects and financial literacy programs, policymakers should keep these results in mind so that they can accommodate a wide range of financial preferences.

1. Enhance financial literacy programs to support collaborative partnerships.

Tailored Financial Literacy Modules: Create financial education programs with an emphasis on teamwork and mutual assistance, particularly in institutional and neighborhood contexts. Skills such as group investment vehicles, resource pooling, and collaborative financial planning might be the subject of some modules. **Community-Based Financial Workshops:** Facilitate community-based financial literacy programs that emphasize the value of pooling resources. Workshops like this may show participants examples of successful collaborations and instruct them on how to participate in community-led financial projects.

2. Address the Limited Influence of Financial Literacy on Community Engagement and Support

Incorporate Social Impact in Financial Education: Create lessons for financial education programs that highlight the value of giving back to the community as a means to better financial health. Include sections on how well-off people may help their communities, which might increase their social influence and get more people involved. **Empower Community Leaders with Financial Knowledge:** In order to empower and guide local projects, community leaders should get advanced financial literacy training. By setting a positive example and encouraging others to do the same, trained leaders may increase financial literacy and strengthen community involvement.

Utilise Technology for Community Outreach: Introduce social networking elements into financial education apps or web-based platforms so users can connect, exchange info, and participate in community-backed financial activities.

3. Leverage Financial Literacy to Boost Economic Empowerment and Resilience

Focus on Economic Resilience Skills: Make sure that students learn about insurance, emergency funds, and

long-term financial planning as part of their financial literacy curriculum. As a result, individuals are better equipped to withstand financial challenges, accumulate savings for the future, and reduce their reliance on government assistance.

Microfinance and Credit Access Programs: We should integrate microfinance opportunities with financial literacy initiatives to enable economically empowered individuals to secure loans and enhance their financial status. Participants may strengthen their financial stability and resilience by learning about ethical borrowing and efficient loan management.

Establish Community Savings Groups: We recommend that individuals join a local savings and loan association to enhance their financial independence and resilience. Communities without access to traditional banking services may greatly benefit from these trust-based organizations' ability to provide loans, savings, and other forms of financial assistance.

4. Independent Development of Educational Approaches and Materials

Supplement financial literacy with education-specific resources: Develop focused educational initiatives, given that enhancing financial literacy does not significantly impact school funding. Rather than solely concentrating on financial knowledge, these initiatives could also emphasize teaching abilities in curriculum building, pedagogical techniques, and budget allocation.

Invest in Digital Education Platforms: Develop easily available digital instructional resources that impart information that is both relevant and applicable to real-world situations. To help people of all ages and backgrounds develop the abilities they'll need for success in their careers and personal lives, online platforms might include a wide range of materials.

Collaborate with Educational Institutions: In order to achieve larger social and developmental objectives, it is important to work in tandem with educational institutions and community centers to include financial literacy in their existing curricula.

5. Promote positive savings and investment behaviours through financial literacy programs.

Focus on Long-Term Wealth Building: We should emphasise the two cornerstones of wealth development: saving and investing. Studying topics like compound interest, retirement planning, and diversified assets can lead to financial security and long-term success.

Develop age-specific financial literacy modules: It's crucial to tailor material to the unique financial concerns of young people, those in the middle of their careers, and retirees. For instance, adult modules may center on investing tactics and retirement planning, while adolescent programs could focus on goal-setting and starting savings habits.

Financial Incentives for Savings Behavior: Look into programs that promote good money habits to encourage people to save more. Financial incentives, such as reduced interest rates on loans or matching donations to savings accounts, are two examples of potential initiatives.

6. Address the Negative Impact of Economic Empowerment on Conventional Savings Behaviour

Introduce Diversified Investment Education aims to educate empowered individuals on how to make diverse, secure investments that align with their risk tolerance levels, as they are likely to explore new financial avenues. Investments in low-risk mutual funds, government bonds, and similar products might fall under this category.

Balance Empowerment with Conservative Financial Advice: Educate people on the significance of having a financial safety net in addition to more aggressive investing tactics to encourage a balanced approach to personal finance. Courses might include topics like diversification and financial risk management.

Facilitate Access to Financial Advisors: Make available programs where people may meet with financial experts on a regular basis; these professionals can advise them on how to best balance their newfound independence with healthy saving habits. Personalized counsel is essential to ensure financial stability and prevent excessive exposure to risky investments.

7. Enhance Financial Literacy for Improved Mediation between Empowerment and Savings

Financial Resilience through Scenario-Based Training: Help people understand how various financial strategies

might affect their economic resilience via scenario-based financial training. Measures like emergency fund management, investing in unpredictable markets, and contingency planning can enhance resilience and encourage sensible savings.

Behavioral Finance Insights in Literacy Programs: Financial literacy programs might benefit from incorporating behavioral finance concepts to better inform participants about the cognitive biases that impact their money decisions, particularly when given more agency to make riskier choices.

Customized Financial Plans for Diverse Economic Goals: Facilitate the creation of individual strategies for financial well-being that take resilience and wealth accumulation into consideration. This method promotes a comprehensive perspective on financial well-being, ensuring a balance between immediate safety nets and future goals.

References

- [1] Swamy, V. (2012). Bank-based financial intermediation for financial inclusion and inclusive growth. Retrieved February 23, 2020, from <http://ssrn.com/abstract=52126834>
- [2] Bassant, S. (2011). Profitable models for financial inclusion; Compendium II; Layout 1, BANCON review papers. BANCON: Banchory, UK.
- [3] Camara, N., & Tuesta, D. (2014). Measuring financial inclusion: A multidimensional index. SSRN Electronic Journal.
- [4] Gine, X., & Townsend, R. (2004). Evaluation of financial liberalization: A general equilibrium model with constrained occupation choice. *Journal of Development Economics*, 74(2), 269–304.
- [5] Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality, and the poor. *Journal of Economic Growth*, 12, 27–49.
- [6] Allen, F., Demirgüç-Kunt, A., Klapper, L., & Peria, M. S. M. (2016). The foundations of financial inclusion: Understanding ownership and use of formal accounts. *Journal of Financial Intermediation*, 27, 30.
- [7] Chakravarty, S., & Pal, R. (2010). Measuring financial inclusion: An axiomatic approach (Working Paper 2010-03). Indira Gandhi Institute of Development Research, Mumbai, India.
- [8] Sassi, S., & Goaied, M. (2013). Financial development, ICT diffusion and economic growth: Lessons from MENA region. *Telecommunications Policy*, 37, 252–261.
- [9] Andrianaivo, M., & Kpodar, K. (2011). ICT, financial inclusion, and growth: Evidence from African countries (Working Paper WP/11/73). IMF: Washington, DC, USA.
- [10] Demombynes, G., & Thegeya, A. (2012). Kenya's mobile revolution and the promise of mobile savings (Working Paper No. 5988). World Bank Policy Research: Washington, DC, USA.
- [11] The Global Partnership for Financial Inclusion (GPFI) Report. (2016). Global standard-setting bodies financial inclusion: The evolving landscape. Retrieved January 10, 2020.
- [12] Ghosh, S. (2018). Retracted article: Biometric identification, financial inclusion and economic growth in India: Does mobile penetration matter? *Information Technology for Development*, 25(4), 23.
- [13] Onaolapo, A. R. (2015). Effects of financial inclusion on the economic growth of Nigeria 1982–2012. *International Journal of Management and Business Research*, 3(8), 11–28.
- [14] Dos Santos, P. L., & Kvangraven, I. H. (2017). Better than cash, but beware the costs: Electronic payments systems and financial inclusion in developing economies. *Development and Change*, 48, 205–227.
- [15] Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52, 5–44.
- [16] Grohmann, A., Klühs, T., & Menkhoff, L. (2017). Does financial literacy improve financial inclusion? Cross country evidence. German Research Foundation: Bonn, Germany. Retrieved January 10, 2020, from http://economics.handels.gu.se/digitalAssets/1643/1643705_71.-kl-hsgrohmannkl-hsmenkhoff_150217—kopia.pdf
- [17] Atkinson, A., & Messy, F.-A. (2013). Promoting financial inclusion through financial education. OECD Working Papers on Finance, Insurance and Private Pensions, Volume 34, pp. 1–55. OECD: Paris, France.
- [18] Ramakrishna, S., & Trivedi, P. (2018). What determines the success of financial inclusion? An empirical analysis of demand side factors. *Review of Economics and Finance*, 14, 98–112.
- [19] Rastogi, S., & Ragabiruntha, E. (2018). Financial inclusion and socioeconomic development: Gaps and solution. *International Journal of Social Economics*, 45(7), 1122–1140.
- [20] Al-Mudimigh, A., & Anshari, M. (2020). Financial technology and innovative financial inclusion. In *Financial Technology and Disruptive Innovation in ASEAN* (pp. 119–129). IGI Global: Hershey, PA, USA.
- [21] Bongomin, G. O. C., Ntayi, J. M., & Malinga, C. A. (2020). Analyzing the relationship between financial literacy and financial inclusion by microfinance banks in developing countries: Social network theoretical approach. *International Journal of Sociology and Social Policy*, 40, 1257–1277.