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DIGITAL TRANSFORMATION OF SHGs: EXPLORING THE ADOPTION OF FINTECH SOLUTIONS IN RURAL INDIA

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Abstract

SHGs have long played a pivotal role in empowering women and fostering community development, particularly by providing access to microfinance and promoting entrepreneurship. However, these groups have faced impediments in accessing formal financial services, hindering their growth and impact. The emergence of fintech solutions has offered a promising path for SHGs to bridge this gap. Mobile banking, digital payments, and peer-to-peer lending platforms are some of the fintech innovations that have gained momentum among SHGs in diverse regions. This study delves into the digital transformation of Self-Help Groups (SHGs) in rural India, focusing on their adoption of fintech solutions to overcome challenges and enhance financial inclusion. These solutions promise increased accessibility, reduced transaction costs, and improved efficiency in managing funds and resources, thereby fostering greater financial resilience within the communities they serve. To gain comprehensive insights, a mixed-methods research approach was adopted, encompassing both qualitative and quantitative data collection methods. The primary data were gathered through interviews and surveys conducted in select rural areas across India, while secondary data from governmental reports, academic literature, and industry research provided supplementary context and depth to the findings. The study highlights the positive impact of fintech adoption on SHGs, which in turn empowers the group members, primarily comprising women, to take control of their financial lives. However, despite these promising developments, several challenges have been identified. Many SHG members face digital illiteracy, limiting their ability to utilize fintech solutions effectively. Additionally, infrastructural limitations and concerns over data security and privacy pose hindrances to widespread adoption. The study concludes by advocating for targeted policy interventions that focus on promoting digital literacy and capacity-building initiatives for SHG members. Collaborative efforts involving government agencies, financial institutions, and fintech providers are crucial to create an enabling environment that fosters sustainable fintech adoption in rural India.

Keywords: Digital Transformation, Self-Help Groups (SHGs), Fintech Solutions, Rural Women Empowerment, Financial Inclusion

1. INTRODUCTION

In recent years, the concept of digital transformation has permeated various sectors, promising to revolutionize economies, societies, and communities across the globe. The rapid evolution of technology has opened up new possibilities for enhancing efficiency, accessibility, and connectivity in financial systems, particularly in developing countries like India, where a significant proportion of the population resides in rural areas. Among the key beneficiaries of digital innovation are Self-Help Groups (SHGs), grassroots community-based organizations that have played a transformative role in empowering

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women, promoting entrepreneurship, and driving social and economic development in rural India.

SHGs have emerged as essential vehicles of financial inclusion, leveraging the power of collective savings and credit to improve the livelihoods of their members, who are predominantly women. These groups offer a supportive environment for skill-building, capacity development, and income-generating activities, thereby fostering inclusive growth and poverty alleviation. However, despite their significant contributions, SHGs have faced challenges in accessing formal financial services, hampering their full potential. The advent of financial technology, or FinTech, has opened new avenues for addressing these challenges and accelerating the digital transformation of SHGs.

1.1 Context of Rural India

Rural India is home to more than two-thirds of the country's population and remains an integral part of the nation's socio-economic fabric. However, it also faces unique challenges such as limited access to formal financial institutions, inadequate infrastructure, low digital literacy levels, and gender disparities. Financial inclusion has been a major focus of the Indian government and various stakeholders, aiming to bring the underserved and marginalized populations within the fold of the formal financial system. SHGs have emerged as crucial institutions in this endeavor, serving as microfinance institutions at the grassroots level.

1.2 The Role of SHGs in Financial Inclusion

SHGs are community-based organizations typically consisting of 10 to 20 women who pool their savings and provide credit to members in need. They have played a transformative role in empowering women by providing them with financial autonomy and decision-making power. SHGs act as intermediaries, connecting their members to formal financial institutions and government-led development schemes. Self-Help Groups (SHGs) serve as potent instruments for fostering financial inclusion, particularly in underprivileged and developing communities. By pooling members' small savings and creating a collective fund, SHGs encourage regular saving habits and offer a vital platform for marginalized individuals to access credit at reasonable rates, empowering them to engage in income-generating activities and escape the cycle of exploitative lending. These groups have been successful in fostering a culture of savings and instilling financial discipline among their members. However, despite their accomplishments, SHGs have faced challenges in adapting to the evolving financial landscape and harnessing the benefits of digital technology. Moreover, SHGs play a pivotal role in promoting financial literacy, equipping members with essential knowledge about budgeting, saving, and prudent financial decision-making. Particularly impactful for women, SHGs offer a safe space for participation, education, and leadership, addressing gender disparities in financial access. These groups nurture a sense of community, provide mutual support beyond just financial matters, and contribute to local development by stimulating entrepreneurship and improving livelihoods. Through their linkage to formal financial

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institutions and collaboration with government programs, SHGs extend financial services to the grassroots, reducing vulnerability to economic shocks and enabling better integration of marginalized populations into the broader economy.

2. LITERATURE REVIEW

In an era marked by rapid technological advancement and evolving consumer expectations, the imperative for digital transformation has emerged as a cornerstone of success across industries (*World Economic Forum's 2023*). This transformative process is essential for businesses and organizations to remain competitive and efficient, as it entails harnessing digital tools and technologies to optimize operations, elevate customer experiences through personalized interactions, extract actionable insights from data analytics, foster innovation and adaptability, expand global reach, reduce costs, cultivate a competitive edge, mitigate risks, contribute to environmental sustainability, align with modern customer preferences, ensure regulatory compliance, and empower employees through enhanced tools and flexible work arrangements (*Deloitte, 2022*) . Ultimately, digital transformation transcends being a mere strategic choice, evolving into an indispensable pathway toward relevance and prosperity in a dynamic and interconnected world (*Baker et. al., 2022*). As technology continues to evolve rapidly, traditional modes of financial transactions and record-keeping are becoming obsolete (Lakhani et. al., 2017). For SHGs to remain relevant and effective in the modern financial ecosystem, embracing digital transformation has become imperative. Digital technologies offer opportunities to enhance efficiency, transparency, and outreach (*Kapoor et. al., 2018*). Mobile banking, digital payments, and other FinTech innovations hold the potential to revolutionize the way SHGs function, thereby empowering them to serve their members more effectively and sustainably *(Kapoor et. al., 2018*.

Adoption of FinTech Services in SHGs

Fintech services wield profound significance in bolstering Self-Help Groups (SHGs), amplifying their reach and efficacy by infusing digital innovation into the tapestry of financial inclusion (*Anupama Roy and Sandeep Krishnan, 2021*). The intersection of these technological marvels with SHGs cultivates an environment where economic empowerment, improved livelihoods, and societal advancement intertwine seamlessly. Fintech's pivotal role manifests through a tapestry of benefits, commencing with the democratization of financial services bestowing upon SHG members an unprecedented array of digital tools to access banking, savings, and credit facilities (*NPCI, 2021*). The once-daunting chasm separating marginalized populations from formal financial institutions is bridged through these accessible interfaces, fostering inclusivity by ushering those previously on the fringes into the economic mainstream (Lakhani, 2016).

Efficiency, a linchpin of fintech, unfurls within SHGs as manual processes metamorphose into automated workflows, imbued with accuracy and precision (*Kapoor et. al., 2018*). These streamlined operations not only heighten efficiency but also cultivate productivity among SHG members, as time once consumed by laborious tasks is recaptured for more

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impactful endeavors. Yet, the value of fintech extends beyond mechanization, it envelops the very contours of customer experience. SHG members, oftentimes residing in remote locales, are endowed with personalized financial solutions hitherto inaccessible. Fintech's digital embrace forges an enduring bond, ameliorating customer satisfaction through seamless engagements, real-time interactions, and tailored experiences that cater to the unique requirements of each member (*Lakhani, 2016*).

Data, the cornerstone of modern transformation, melds harmoniously with fintech, offering SHGs a trove of insights that illuminate their journey. Data-driven decisions, rooted in granular understanding of market trends and customer behaviors, guide SHGs toward strategies poised for success (*Sandeep Krishnan and Anupama Roy, 2020*). This harnessing of data optimizes risk management, affording SHG members protection against unanticipated setbacks through tailor-made insurance products. Furthermore, fintech's prowess lies in its catalytic impact on financial literacy, a vital ingredient for SHG members to navigate the intricate realm of modern finance. The educational components woven into fintech platforms equip members with a compass to traverse the labyrinthine pathways of savings, investments, and loans, enhancing their decision-making process and financial resilience (*Akash Garg and Manoj Kumar, 2020*).

Fintech's alchemy extends to the empowerment of women, a transcendental outcome within SHGs. Women, often relegated to the peripheries of financial activities, find within fintech a springboard for empowerment, independence, and self-reliance (*Roy et. al., 2022*). These digital interfaces furnish a sanctuary for participation and learning, emancipating women from the shackles of traditional barriers. Moreover, financial transactions, once fraught with logistical difficulties, now dance at the fingertips of women members, fostering autonomy over their economic destinies (*Kishan et. al., 2022*).

Yet, the symbiosis of fintech and SHGs isn't confined to individual interactions; it germinates social capital, nurturing a sense of community among members. The digital platforms burgeon into conduits for mutual support and knowledge exchange, transcending financial concerns to encompass broader facets of personal and communal growth (*Manoj Kumar and Akash Garg, 2021*). This interconnectedness amplifies SHGs' role as vehicles for local development, catalysing entrepreneurship, augmenting livelihoods, and invigorating economies from the grassroots.

Financial services, once hermetic entities, now traverse borders through fintech's borderless canvas. SHGs, through these technological conduits, expand their horizons beyond geographical confines, surmounting spatial limitations to serve hitherto unreachable regions (*Amit Kapoor, 2020*). This outreach fortifies their role as beacons of financial inclusion, enabling underserved communities to bask in the radiance of economic opportunities previously obscured.

As SHGs ascend the ladder of progress, fintech facilitates their convergence with formal financial institutions, erasing historical divides. These symbiotic relationships transcend mere collaboration, metamorphosing into robust partnerships that usher SHG members

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into a world enriched with an expansive spectrum of financial services (*Khan 2012; Schuetz and Venkatesh 2020*). Fintech's innate ability to whittle down costs doesn't merely bolster SHGs' operational efficacy; it engenders responsible resource utilization, aligning with principles of sustainability and environmental stewardship (*Singh et. al, 2012*).Adaptability and innovation thrive in the soil nourished by fintech's embrace. SHGs, guided by these digital lodestones, evolve into hotbeds of innovation, birthing novel business models, services, and products tailored to local needs (Thomas et. al., 2019). These nimble transformations empower SHGs to navigate the evolving tides of market dynamics, securing their relevance and impact. In traversing the landscape of regulatory compliance, fintech escorts SHGs across the terrain of stringent norms. These digital tools imbue SHGs with the capacity to weave transparency, audit ability, and data protection into their operations, fostering trust among members, regulators, and stakeholders.

The culmination of fintech's contribution is seen in the empowerment of SHG members, individuals once marginalized, now standing tall as agents of change. The synergy between fintech and SHGs shatters the shackles of financial exclusion, channelling an ethos of progress, inclusivity, and resilience. In a world poised on the cusp of digital metamorphosis, the fusion of fintech and SHGs offers a template for a brighter, more equitable future-a future where the algorithms of technology harmonize with the melodies of human aspiration.

3. PROBLEM STATEMENT

The adoption of FinTech solutions in rural India presents a multifaceted challenge that requires careful consideration. Rural areas are often characterized by limited access to formal financial services, low digital literacy levels, and infrastructural constraints. The integration of innovative financial technologies faces hurdles ranging from inadequate internet connectivity and power supply to lack of awareness and trust in digital platforms. Additionally, rural communities often have unique financial needs and cultural preferences that must be addressed to ensure the relevance and effectiveness of FinTech solutions. The digital divide exacerbates existing disparities, as marginalized populations risk further exclusion due to their limited exposure to digital tools. Thus, the challenge lies in crafting FinTech strategies that are contextually relevant, inclusive, and capable of overcoming the technical, social, and infrastructural barriers that impede their widespread adoption in rural India.

Objectives

1. To assess the utilization of FinTech solutions within SHGs in rural India.
2. To identify the unique challenges faced by SHGs in adopting FinTech solutions.
3. To explore the impact of FinTech adoption on the financial management practices of SHGs.

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4. To evaluate the role of FinTech in enhancing the empowerment of women within SHGs.
5. To recommend tailored FinTech solutions that align with the specific needs of SHGs.

The outlined objectives hold substantial importance in comprehensively understanding the landscape of FinTech adoption within Self-Help Groups (SHGs) in rural India. Assessing current utilization offers a baseline to measure progress and target interventions, while identifying challenges specific to SHGs ensures tailored solutions to overcome digital literacy gaps, accessibility issues, and socio-cultural barriers. Exploring FinTech's impact on SHG financial practices informs strategies for optimizing operations and financial decision-making. Recommending customized FinTech solutions aligns technology with SHG dynamics, fostering usability and relevance. Lastly, evaluating FinTech's role in women's empowerment within SHGs provides insights into whether digital tools open avenues for greater participation, leadership, and economic autonomy among women members, enabling targeted policies for positive change.

Hypotheses

H_1: There is a positive correlation between digital literacy among rural SHG members and the adoption of FinTech solutions.

H_2: Higher levels of financial literacy within Self-Help Groups (SHGs) will positively influence the adoption of FinTech solutions by members of these groups

H_3: Internet connectivity availability and reliability significantly influence the adoption of FinTech solutions within rural SHGs.

H_4: Customized FinTech solutions designed for rural SHGs lead to a higher adoption rate compared to generic solutions.

H_5: The adoption of FinTech solutions positively impacts the social norms of rural SHGs group members.

H_5: FinTech adoption enhances gender empowerment within rural SHGs, resulting in increased participation, decision-making influence, and economic autonomy for women members.

4. METHODOLOGY

The present study adopted mixed-methods research design that offers a holistic approach to understanding the adoption of FinTech solutions within rural Self-Help Groups (SHGs) across India. Leveraging stratified random sampling, the study aims to conduct a quantitative survey questionnaire that will collect vital data related to digital literacy, internet connectivity, the adoption of FinTech solutions, financial practices, and gender dynamics. Concurrently, the study undertook qualitative exploration by conducting in-depth interviews and focus group discussions involving SHG members, with a particular

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emphasis on women. This approach aimed to delve into the intricacies of their experiences concerning the adoption of FinTech solutions. The study employed a Structural Equation Modelling (SEM) framework to analyze the complex relationships among various constructs related to FinTech adoption and its influencing factors. Ethical considerations will be scrupulously adhered to, ensuring participant rights and data confidentiality. The convergence of quantitative and qualitative findings will reinforce the robustness of the study's conclusions, contributing to the discourse on enhancing financial inclusion and gender empowerment within rural SHGs.

5. CONCEPTUAL FRAMEWORK

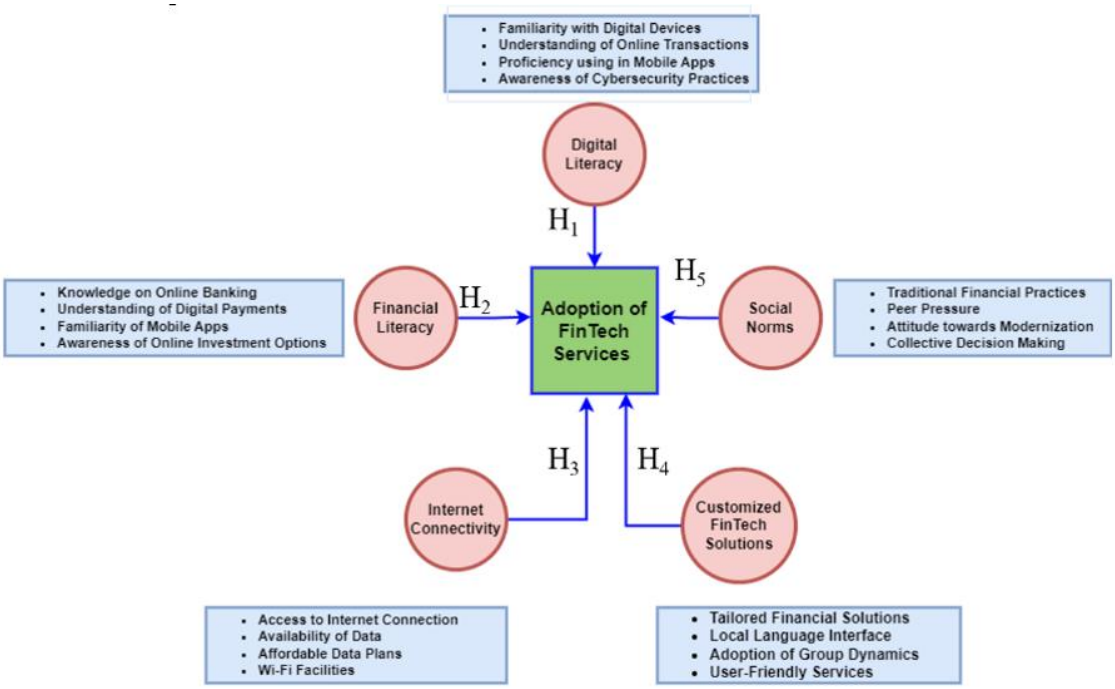

Figure 1: Conceptual Framework

6. RESULTS

The data collection method for this study involves utilizing a detailed questionnaire administered to Self-Help Group (SHG) members, encompassing vital aspects influencing the adoption of FinTech services. The questionnaire adeptly explores participants' digital and financial literacy, their access to reliable internet connectivity, adoption of efficient financial management practices, perception of tailored financial solutions, and the impact of social norms on their decision to adopt FinTech services. By encompassing these dimensions, the questionnaire serves as a comprehensive tool to

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gather insights into the multifaceted factors that shape the adoption of FinTech services among SHG members, providing valuable information for the formulation of targeted strategies aimed at enhancing financial inclusion and driving positive change within SHGs.

Reliability

Table 1: Cronbach's Alpha

Factors	Cronbach's Alpha	Items
Digital Literacy	0.771	4
Financial Literacy	0.824	4
Internet Connectivity	0.801	4
Customized FinTech Services	0.863	4
Social Norms	0.805	4
Adoption of FinTech Services	0.741	6
Total	0.800	26

The Table 1, indicates the Cronbach's Alpha reliability analysis was conducted on a scale comprising factors such as Digital Literacy, Financial Literacy, Internet Connectivity, Customized FinTech Services, Social Norms, and Adoption of FinTech Services. The obtained Cronbach's Alpha values ranged from 0.741 to 0.863 for individual factors, demonstrating satisfactory to good levels of internal consistency. The overall scale exhibited a Cronbach's Alpha of 0.800, indicating that the collective set of items provides a reliably consistent measurement of the diverse elements associated with FinTech adoption and its influencing factors.

Structural Model Testing

In this study, we used structural equation modelling (SEM) and confirmatory factor analysis (CFA) tools for data analysis and testing relationships between variables. We performed SEM and CFA using SPSS (a software for statistical data analysis) and AMOS (a software that can be used to perform structural equation modelling). In brief, structural equation modelling is a family of multivariate statistical analysis methods used to model a network of complex structural relationships between one or more measured variables and latent constructs. Confirmatory factor analysis (CFA) method is used to verify the factor structure of a set of observed variables (Joseph, Marko, Torsten, & Christian, 2012). The proposed equation model that explainsadoption of FinTech Solutions in SHGs was constructed using five latent variables, namely, Digital Literacy (DL), Financial Literacy (FL), Internet Connectivity (IC), Customized FinTech Solutions (CFS) and social norms (SN) were examined. We got six factors in the total variance experienced and that was the exact number of factors we wanted and the total variance experienced by the model was 70% and that is reasonable percentage of variance

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Table 2: Total Variance Experienced

Initial Eigenvalues				Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	8.486	32.638	32.638	8.486	32.638	32.638	5.018
2	2.974	11.437	44.075	2.974	11.437	44.075	3.333
3	2.417	9.297	53.372	2.417	9.297	53.372	2.612
4	1.976	7.599	60.971	1.976	7.599	60.971	2.599
5	1.441	5.541	66.512	1.441	5.541	66.512	2.594
6	1.108	4.26	70.772	1.108	4.26	70.772	2.245
7	0.956	3.677	74.448				
8	0.76	2.924	77.373				
9	0.693	2.666	80.039				
10	0.657	2.528	82.567				
11	0.649	2.496	85.063				
12	0.608	2.338	87.402				
13	0.526	2.022	89.424				
14	0.508	1.955	91.378				
15	0.487	1.874	93.252				
16	0.385	1.482	94.734				
17	0.35	1.345	96.078				
18	0.315	1.212	97.291				
19	0.3	1.153	98.443				
20	0.21	0.81	99.253				
21	0.194	0.747	100				

The c2 /df (chi-square /degree of freedom), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Non-Normed Fit Index/Tucker Lewis index (NNFI/TLI) and Incremental Fit Index (IFI) were examined to check the felicitousness of the solution and goodness-of-fit of the model (Table 3). As shown in Table 3, all the indices exceeded their commonly accepted levels, demonstrating that the measurement model exhibited a good fit. Standardized and unstandardized path coefficients of structural model are shown in Figs. 2 and 3, respectively. We observed the pattern matrix (Additional file 1: Tables S1-S7) of all the three factors and the coefficients between benefit and its observed variables were found to be significant ($p < .005$ or $t > 1.96$). The overall results showed that the five observed variables, which are Digital Literacy, Financial Literacy, Internet Connectivity, Customized FinTech Solutions and Social Norms have appreciably positive effect on Adoption of Fintech Solutions in SGHs. Taking the values from the Figure 2 Digital Literacy has a significant influence on Adoption of Fintech Solutions in SGHs ($\beta = 0.87$, $\beta = 0.76$, $\beta = 0.52$, $\beta = 0.76$). (H_1supported).

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Table 3: Model Fit Indices for the Model

Index	Perfect Fit	Accepted Values	Model Results
x^2/df	$x^2/df < 3$	$3 < x^2/df < 5$	3.392
AGFI	0.90 < AGFI < 1	0.85 < AGFI < 0.90	0.837
RMSEA	0 < RMSEA < 0.05	0.05 < RMSEA < 0.08	0.07
CFI	0.97 < CFI < 1	0.95 < CFI < 0.97	0.904
IFI	0.95 < IFI < 1	0.090 < IFI < 0.95	0.905
TLI	0.90 < AGFI < 1	0.90 < AGFI < 0.95	0.885
GFI	0.95 < GFI < 1	0.90 < GFI < 0.95	0.877

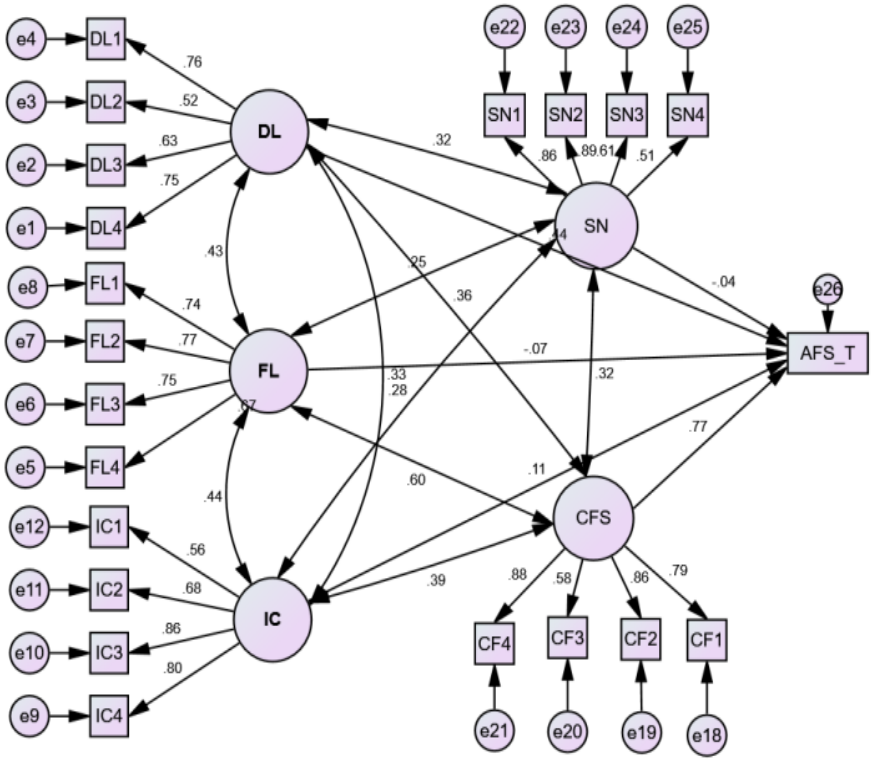

Figure 2

Result of proposed research model (Standardized Estimates)

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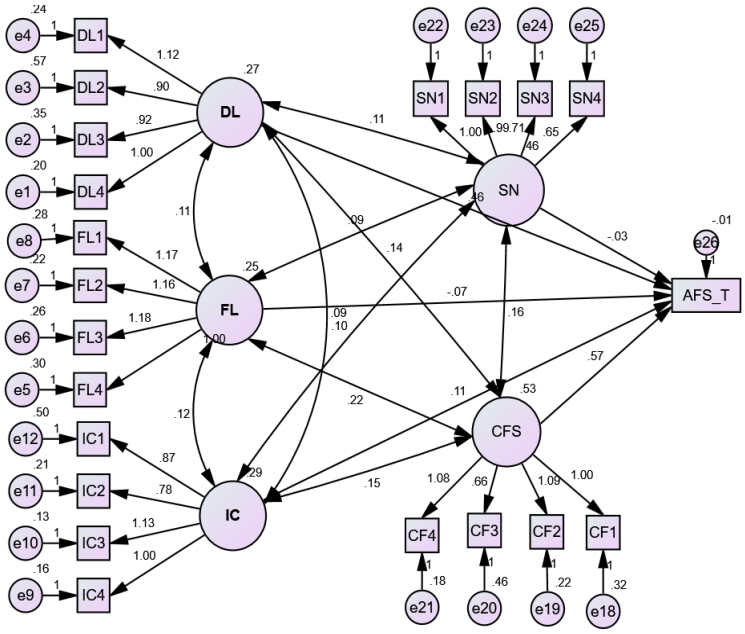

Figure 3

Result of proposed research model (Un Standardized Estimates)

While checking the coefficients between financial literacy influence on adoption of FinTech solutions, we found it is be significant ($p < .005$) H_2 is supported. The results obtained for Internet Connectivity showed an appreciably positive impact on adoption of Fintech solutions ($\beta = 0.55$, $\beta = 0.67$, $\beta = 0.85$, $\beta = 0.79$, $\beta = 0.78$). (H_3 supported). The results for coefficients between customized FinTech Solutions, its observed variables also showed good significance ($p < .005$, H_4 is supported). Finally the social norms and its observed varialbles also shows a positive correlations with dependent variable ($\beta = 0.87$, $\beta = 0.86$, $\beta = 0.88$, $\beta = 0.61$, $\beta = 0.51$ and H_5 is supported).

Table 4: Path Coefficients and T-Values between Observed and Latent Variables

Latent Variable	Observed Variables	Path Co-efficient	t-Value
Digital Literacy (DL)	Digital Literacy: Familiarity of Digital Devices (DL1)	0.762	6.504
	Digital Literacy: Understanding of Online Transactions (DL2)	0.525	2.738
	Digital Literacy: Proficiency in using Mobile Apps (DL3)	0.626	1.390
	Digital Literacy: Awareness of Cyber Security Practices (DL4)	0.752	5.600
Financial Literacy (FL)	Financial Literacy: Knowledge on Online Banking (FL1)	0.742	1.243
	Financial Literacy: Understanding of Digital Payments (FL2)	0.773	0.958
	Financial Literacy: Familiarity of Mobile Wallets (FL3)	0.753	1.967
	Financial Literacy: Awareness on Online Investment Options (FL4)	0.672	-0.985
	Internet Connectivity: Access to Internet (IC1)	0.555	1.321
	Internet Connectivity: Availability of Data (IC2)	0.677	8.338

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Internet Connectivity (IC)	Internet Connectivity: Affordability of Data Plans (IC3)	0.859	-0.394
	Internet Connectivity: Wi-Fi Facilities (IC4)	0.799	0.788
Customized FinTech Solutions (CFS)	Financial Management Practices: Digital Savings Tracking (CFS1)	0.789	1.339
	Financial Management Practices: Automated Expenses Management (CFS2)	0.861	9.593
	Financial Management Practices: Loan Repayment Tracing (CFS3)	0.576	-1.571
	Financial Management Practices: Personalized Financial Planning (CFS4)	0.877	7.705
Social Norms (SN)	Social Norms: Traditional Financial Practices (SN1)	0.863	-0.688
	Social Norms: Peer Pressure (SN2)	0.888	2.066
	Social Norms: Attitude towards Modernization (SN3)	0.610	0.458
	Social Norms: Collective Decision Making (SN4)	0.513	1.020

DISCUSSION

Many SHG members in rural India are aware of FinTech solutions, particularly mobile banking and digital payment platforms. Their perception of these solutions is generally positive, viewing them as convenient and time-saving alternatives to traditional banking methods. Despite the positive perception, there are significant barriers to the adoption of FinTech solutions. These barriers include limited digital literacy and technical skills among SHG members, particularly among older members. The lack of access to smartphones or internet connectivity in remote areas also impedes adoption. The study highlights the need for targeted digital literacy training programs. SHG members who received training on using FinTech solutions demonstrated a higher willingness to adopt these technologies. This underscores the importance of providing accessible and tailored training initiatives. The social structure of SHGs plays a crucial role in the adoption of FinTech solutions. SHG members often rely on peers and leaders for guidance and trust. The study shows that when influential group members endorse FinTech solutions, others are more likely to adopt them. FinTech solutions have the potential to enhance financial inclusion among rural SHGs. They offer opportunities for members to access banking services, savings, and credit facilities more conveniently, which can lead to economic empowerment and poverty reduction. In areas with limited or unreliable network connectivity, the adoption of FinTech solutions becomes more challenging. This underscores the need for improved digital infrastructure in rural regions to facilitate the effective use of these technologies. Concerns about data security and privacy are prevalent among SHG members. They worry about the potential misuse of personal and financial information when using digital platforms. Addressing these concerns is crucial to building trust in FinTech solutions. The study suggests that clear and supportive regulatory frameworks are essential to foster the adoption of FinTech solutions. Policies that promote digital financial inclusion while ensuring consumer protection can have a significant impact on the willingness of SHG members to adopt these technologies. The integration of FinTech solutions can streamline administrative processes within SHGs,

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such as record-keeping and loan management. This efficiency improvement can positively influence the overall functioning and sustainability of SHGs. Gender plays a role in the adoption of FinTech solutions. Female members, who are often the backbone of SHGs, may have different preferences and challenges when it comes to technology adoption. Tailoring solutions to their specific needs is important.

CONCLUSION

The study underscores both the influence and potential challenges of adoption of FinTech solutions within rural Indian Self-Help Groups (SHGs). While SHG members express positive attitudes toward FinTech, barriers like limited digital literacy, access constraints, and privacy concerns impede widespread adoption. Social norms, Financial Literacy and Digital Literacy play pivotal roles, emphasizing the need for community-based and gender-responsive approaches. The study's findings also highlight the importance of digital literacy programs, streamlined operations, and supportive regulations. Ultimately, the research's insights resonate beyond its context, offering guidance for harnessing FinTech's transformative power to drive inclusive socioeconomic progress in rural communities, contingent upon collaborative efforts among governmental, financial, technological, and civil stakeholders.

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