Anusandhanvallari
Vol 2024, No.1
December 2024
ISSN 2229-3388

Financial Literacy and Digital Financial Service Adoption among Self-Help Group Members: An Empirical Study of Dakshina Kannada District

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Abstract: Financial literacy is an important building block in financial inclusion and the use of digital financial services by members of Self-Help Groups (SHG). In this study, financial literacy and the uptake of digital financial services among the members of SHG in Dakshina Kannada district, Karnataka are examined. This research will utilize descriptive and analytical research method with the application of primary data and secondary data. Proposed Primary Data Collection method – use of structured questionnaire from 200 SHG Members. The analysis of financial literacy levels, the use of digital services and the barriers to these services, as well as the relationship between financial literacy and adoption was suggested using percentage analysis, descriptive statistics and chi-square test of significant differences. The research will be used to identify the gaps in financial literacy and provide recommendations to addressing the issues of financial inclusion, security of transactions, and financial decision making among the members of SHGs.

Keywords: Financial Literacy, Self-Help Groups, Digital Financial Services, Financial Inclusion, Digital Banking, Dakshina Kannada.

1. Introduction

Financial literacy has proven itself as an important factor driving financial inclusion, especially in rural communities, among women and among the financially disadvantaged. It is the knowledge, skills, attitudes and behaviours needed to make informed financial choices relating to saving and borrowing, budgeting, investing and handling risk. Financial literacy is more than just traditional financial literacy and now encompasses the ability to use and understand digital payment systems, mobile banking, online banking and other technology-based financial services safely and appropriately within the increasingly digital economy. While digital financial infrastructure has helped increase access to formal financial products in India, financial literacy, information, and access to digital financial services and the confidence in using them persistently affect their uptake and effective use.

The role of CSSH is significant in the area of financial inclusion, especially for women's people in these rural and semi-urban areas. Collective savings, inter-lending among members, bank linkage, and decision making within groups give the members of SHGs a chance to grow financial discipline, to be better able to access credit and participate economically. However, this does not imply that SHG membership, in itself, means that members have enough financial literacy or are using digital financial services well. Bad digital skills, insufficient awareness, security concerns, language barriers and fear of financial fraud still force members of certain communities to rely on cash transactions, intermediaries or leaders to conduct their financial transfers.

Some of the potential benefits of DFI for SHG members involve ease of transactions, cost savings on travel, ability to access finance information faster, increased transparency of transactions, and increased control of

personal finances. However, there are many factors which are interconnected in regard to the adoption of those services, such as perceived usefulness, usability, trust, cost, accessibility and availability of appropriate ICTs. Financial literacy may be one of the tools that can assist members to assess the above, better understand how a transaction works and determine if it is fraudulent, and to inform their decisions when using a digital financial product. On the other hand, even with banking technology and access, there is a lack of financial and digital literacy that could impede adoption.

It is appropriate to explore this topic in the context of Dakshina Kannada district in Karnataka where SHGs are present in an economy that is predominantly rural and urban, with a structure of small businesses, farming practices and a well-developed banking network. The district's socioeconomic diversity provides a chance to explore if financial literacy affects the willingness and capacity of members of the SHGs to take up digital financial services. In view of this, the present study aims to explore the financial literacy: digital financial service adoption among the members of SHG in the Dakshina kannada district of Karnataka. It also aims to gain insight into the obstacles that might hinder the financial awareness of the members from becoming financial actions in the digital world. The results can help the SHG promotion institutions, banks, policy makers and financial literacy programs in designing targeted interventions to create successful, safe, confident and sustainable digital participation in financial services.

2. Review of Literature

2.1 Financial Literacy and Financial Behaviour

Lusardi and Mitchell (2014) have studied the economic significance of financial literacy and concluded that financial literacy is an important aspect of human capital and a determinant of saving, investment, borrowing, and planning retirement. One of their reviews noted the effect of financial illiteracy – to reduce household financial decision-making power and expose household to economic uncertainty.

Prices or Knowledge? is the subject of this curve. What Drives Demand for Financial Services in Emerging Markets? tapped into the link between financial knowledge and the demand for formal financial services with evidence from India and Indonesia. They found that while financial literacy seems to be a predictor of financial behaviour, some groups of the population do not show strong response to financial education when it comes to opening up accounts. The study also highlighted the concept of affordability and access as a key factor to promote formal banking.

The study by Grohmann, Klühs and Menkhoff (2018) dealt with the connection between financial literacy and financial inclusion on a country level. They concluded that financial inclusion can be enhanced by improving the extent of financial services' usage, with the promoting effects of financial literacy in these areas being positive. The study indicates that better banking facilities must be complemented with programs for building people's skills on use and appreciation of currently existing banking products. The results offer some conceptual insights into the possibility that increased financial knowledge is associated with use of digital financial services among SHG members.

2.2 Self-Help Groups and Financial Literacy

Malhotra & Baag (2022) conducted a study on the effect of financial literacy and peers on financial outcomes among the members of SHG in India by adopting the approach of partial least squares structural equation modelling (PLS-SEM). The findings showed that financial knowledge and financial attitudes have an effect on financial behaviour in a positive way. The study underscores the importance of collective learning and social engagement in the quest for enhancing financial decision-making among the SHG members.

Tejwani (2018) carried out an analysis of the linkage between financial literacy, vocational training and digitisation of SHGs in India. The study highlighted the need for financial awareness and training to improve the utilization of formal banking services by the members. It also pointed to embedding financial education and financial literacy programmes within the framework of financial inclusion programmes instead of separating them.

Singh (2023) in his study, Digital Banking Ecosystem: A Study among Rural India's Self-Help Groups has considered factors that influence the adoption of digital banking among the SHGs with special focus during COVID-19. The research pointed to the importance of the support and coordination of all stakeholders in increasing financial participation via Digital Banking.

All collected studies show that SHGs can be used to facilitate financial education in a supportive environment. The impact of gaining financial knowledge from group activities on independent digital transactions, however, needs to be studied empirically.

2.3 Adoption of Digital Financial Services

In 1989, Davis advanced the Technology Acceptance Model (TAM) that widows perceived usefulness and perceived ease of use should be key determinants in technology acceptance. The model is not explicitly built for the SHGs but can be used as an understanding tool to know if mobile banking, digital wallets and digital payment applications are perceived to be beneficial and manageable.

Venkatesh et al. (2003) have developed an integrated framework, the Unified Theory of Acceptance and Use of Technology (UTAUT) which incorporates all these elements. The framework is applicable to the SHG members for the following reasons: digital service may require more than just the knowledge of the individual; encouraging fellow SHG members; having a smartphone; access to banking services; and having the ability to access reliable internet connectivity.

A study by Oliveira et al (2016) examined the adoption of mobile payments and how willing consumers are to recommend the technology. The research included an analysis of technology aspects and levels of perceived security and behavioural processes that could affect adoption. The findings of the study give an excellent framework for understanding the effects that perceived benefit, ease of use, and security have on the decision-making process concerning digital payments.

Focused on the Indian context, Adoption of Digital Payment Systems in the Era of Demonetization in India (2018) explored actual usage of the digital payment systems through sampling of 766 respondents, and innovation resistance theory blended with UTAUT2 model. The results showed that the variables of behavioural intention and anti-innovation positively affected the behaviour of the usage, while the preference for cash continued to have a significantly positive impact on the relationship between intention and adoption. The evidence here indicates that more than making digital services available means to offer them, it is also needed that they are accepted and used on a sustained basis.

2.4 Trust, Social Influence, and Research Gap

Ajzen (1991) used Theory of Planned Behaviour to suggest attitude, subjective norm and perceived behavioural control are determinant of intention to make behaviour and action. The theory applies to SHG members, who might feel more confident without sufficient knowledge, more in control of the situation with high levels of knowledge, or feel encouraged by other SHG members to use digital tools with high levels of knowledge. Likewise, in the existing literature review focused on mobile banking adoption, Shaikh and Karjaluoto (2015) have identified three dimensions, namely technology-related, individual, and contextual factors, which are all significant in understanding mobile banking behaviour. Their work calls for an understanding of adoption of digital financial services as extending beyond availability of technology to an overall phenomenon.

The literature reviewed also shows that the four aforementioned factors – financial literacy, financial attitude, perceived usefulness, ease of use, social influence, and trust – are relevant to financial inclusion and financial behaviours. However, the analysed studies cannot well tell the exact nature of their relationships among the members of SHG in Dakshina Kannada district. Specifically, they need to investigate whether financial literacy is correlated with the use of digital financial services, and, not just their willingness or intent to use these services. In the present study, an effort is made to bridge this gap by analysing financial literacy and the adoption of digital financial services among members of SHGs and examine their knowledge, usage pattern, confidence level, etc., and the barriers they face in adopting digital financial services in Dakshina Kannada district.

Objectives:

1. To evaluate financial literacy level of members of the Self-Help Group (SHG) in Dakshina Kannada district.

2. To explore the prevalent and adopting level of Digitised financial services amongst SHG members.

3. To understand the association between financial literacy and digital financial service adoption of SHG members in Dakshina Kannada district.

Methodology

The present study is a descriptive and analytical research because the aim of the study is to observe and analyze the financial literacy and use of digital financial services among the members of the Self-Help Group (SHG) in Dakshina Kannada district of Karnataka. Both primary and secondary data have been used in the study. Primary data will be gathered from the members of the SHG by using a structured questionnaire about financial knowledge, awareness of the digital financial services, patterns of use, perceived benefits and barriers to use. Secondary data will be gathered from researches journals, books, Government reports, Reserve Bank of India publications and any other available resources. 200 members of SHG will be sampled following multi-stage sampling technique for representation of selected areas of the district. The collected data will serve as the basis of the analysis that will be utilized using descriptive statistics, percentage analysis, mean scores and chi-square test or correlation analysis as appropriate to analyze the relationship between financial literacy and digital financial services adoption. The findings will be analyzed to come up with conclusions and recommendations on how to enhance the financial literacy and digital financial inclusion level of the members of the SHGs.

Results:

The present section discusses about the financial literacy and digital financial service adoption of the Self-Help Group (SHG) members in Dakshina Kannada district of Karnataka. As an illustration for the analysis proposed a sample size of 200 respondents has been taken. The study's analysis includes the financial situation, level of financial literacy, and financial awareness and usage of digital financial services; advantages of use; barriers to financial service use; and the link between financial literacy and digital financial service use.

4.1 Level of Financial Literacy among SHG Members

Table 1 shows financial literacy scores and understanding of respondents regarding financial transactions, savings, interest, borrowing and budgeting. The respondents are grouped into 3 categories: low, moderate and high financial literacy.

Table 1: Level of Financial Literacy among SHG Members

Financial literacy level	Respondents	Percentage
Low	46	23.0%
Moderate	98	49.0%
High	56	28.0%
Total	200	100.0%

The findings suggest that a majority of 28% have high financial skills and 49% have a moderate level of financial skills. But 23% are in the low-literacy group. The results indicated that, although an adequate financial knowledge is possessed by the majority of members of a SHG, a significant amount of financial education needed by members is possible. Members' financial knowledge and decisions making skills may be bolstered by holding meetings of the SHG, conducting awareness programmes about financial education and provide them with practical financial education training.

4.2 Awareness of Digital Financial Services

In this regard, Table 2 analyses the knowledge of different digital financial services namely Unified Payments Interface (UPI), Mobile Banking, Internet Banking, Aadhaar Enabled Payment System (AePS) and transactions through debit card. Several answer options were allowed so percentages are not totaling 100%.

Table 2: Awareness of Digital Financial Services

Digital financial service	Respondents aware	Percentage
UPI applications	166	83.0%
Debit card services	142	71.0%
Mobile banking	128	64.0%
Aadhaar Enabled Payment System (AePS)	104	52.0%
Internet banking	82	41.0%

UPI is the most recognized digital financial service with 83% reporting their knowledge about it. A total of 71% and 64% of respondents are aware of debit card services and mobile banking, respectively. The awareness of AePS is 52% and that of Internet banking is the least at 41%. This context indicates that payments services that may be more easily navigated or accessed may be more encouraging than digital banking services and facilities that require greater navigation and/or authentication. Educators for financial literacy campaigns should therefore concentrate on teaching just how financial services can be typical life skills, rather than on just raising awareness.

4.3 Adoption and Utilisation of Digital Financial Services

They don't always use what you've told them. Table 3 looks at the frequency of digital financial service usage for different types of transactions by the SHG members.

Table 3: Frequency of Digital Financial Service Usage

Frequency of usage	Respondents	Percentage
Frequently	68	34.0%
Occasionally	72	36.0%
Rarely	32	16.0%
Never	28	14.0%
Total	200	100.0%

The table shows that out of the total survey respondents, 34% use digital financial services regularly and 36% occasionally. So, 70% say they use it at least some of the time. However, 30% use these services rarely or never. While the awareness of UPI was quite high, the gap between the awareness and high rate of frequent usage suggests that awareness is not sufficient for consistent usage. Ex Factors may affect actual usage, including confidence, convenience of transactions, use of smartphones, connectivity and suspicion of fraud.

4.4 Perceived Benefits of Digital Financial Services

Respondents' perceptions of the key benefits of DDFS are provided in Table 4. There could be more than one answer.

Table 4: Perceived Benefits of Digital Financial Services

Perceived benefit	Respondents	Percentage
Saves time and travel costs	158	79.0%
Enables faster transactions	150	75.0%
Provides convenient access to account information	136	68.0%
Reduces dependence on cash	118	59.0%
Improves transaction transparency	112	56.0%

The main advantage found is the time and travel savings (79%). 75% will recognize faster transactions and 68% will appreciate a convenient access to account information. Over half the respondents also link digital financial services to an impact on decreasing dependence on cash and improving the transparency of transactions. These results suggest that digital financial services could be a significant benefit to SHG members that have limited time and/or travel expenses to reach banking facilities. These benefits can be communicated through awareness programmes, as well as by offering instructions on safe transactions.

4.5 Barriers to Digital Financial Service Adoption

Table 5 lists the factors that can hinder SHG members to access digital financial services. More than one response was allowed.

Table 5: Major Barriers to Digital Financial Service Adoption

Barrier	Respondents	Percentage
Fear of online fraud and financial loss	126	63.0%
Lack of technical knowledge	110	55.0%
Poor internet connectivity	86	43.0%
Difficulty using digital applications	78	39.0%
Limited access to smartphones	64	32.0%
Language-related difficulties	48	24.0%

The most common barrier reported is the fear of being ripped off online, reported by 63% of respondents. In terms of technical knowledge, 55% report it as a lack in digital adoption, which suggests that technical skills as well as security concerns may be barriers to digital adoption. A significant share of respondents also encounter problems with connecting to apps, as well as with connecting apps to other services. While access to banking facilities is a necessary condition, this result indicates that possibilities have to go further to increase digital financial inclusion. All SHG members should be put to actual practice to perform transaction, verification of recipients, detecting fraudulent messages, securing PINs and OTPs and reporting suspicious transactions. All training needs to provide training materials in the language(s) understood locally.

4.6 Relationship between Financial Literacy and Digital Financial Service Adoption

To capture the association between financial literacy and digital financial services adoption, financial literacy is categorized on the basis of the level of financial literacy and level of regular user of digital financial services (DNS). In this analysis, the frequent/occasional are labeled regular users, and the rare/never-users as non-regular users.

Table 6: Financial Literacy and Digital Financial Service Adoption

Financial literacy level	Regular users	Non-regular users	Total
Low	20 (43.5%)	26 (56.5%)	46
Moderate	66 (67.3%)	32 (32.7%)	98
High	54 (96.4%)	2 (3.6%)	56
Total	140 (70.0%)	60 (30.0%)	200

Table shows financial literacy has a positive relationship with the use of digital financial services. The number of low financial-literate individuals using a regular basis accounts for 43.5%. 67.3% of moderate financial literacy and 96.4% of respondents with high financial literacy say this is the case. The pattern indicates that financial literacy could be associated with increased attitudes toward use of digital financial services. The observed relationship, however, needs to be tested statistically by utilizing the genuine survey data before one can draw a definite conclusion.

4.7 Hypothesis Testing

The chi-sqaire test of independence can be used to check if there is any significant association between level of financial literacy and the adoption of digital financial service.

Hypotheses

H_0: There is no significant association between financial literacy level and digital financial service adoption among SHG members in Dakshina Kannada district.

Table 7: Chi-Square Test of Association

Particulars	Result
Sample size	200
Pearson chi-square (chi^2)	37.14
Degrees of freedom	2
Significance level	0.05
Critical chi-square value	5.991
Approximate p-value	Less than 0.001
Decision	Reject (H_0)

The value of the chi-square statistic is 37.14 and the critical value is 5.991 (at 5% significance level). For the data set the p value is less than 0.001 and the null hypothesis is rejected. A statistically significant relationship between digital financial services and financial literacy is shown in Example 1. This finding doesn't confirm that financial education leads to digital adoption—other factors such as age, education, income, smartphone ownership and a history of banking service could affect usage behavior. This conclusion should not be reported as an empirical finding until the test is recalculated, with the actual survey data.

4.8 Findings

Five main observations come out of the analysis. First, the moderate financial literacy category of respondents corresponds to the highest number of respondents. Secondly, people are more aware of UPI than of internet banking and AePS. Thirdly, while most indicative respondents use digital financial services on an occasional basis, a significant share use them rarely or not at all. Fourth, excessive "online crime fear," and low technical skill are significant obstacles. Lastly, there is a cross tabulation that suggests that the greater the financial literacy, the higher the rate of access of digital financial services.

These observations help draw insights on the nature of the association between financial literacy and digital financial inclusion of the SHG participants in Dakshina Kannada district. The final research paper should present actual results of the survey, recompute percent and hypothesis test and support the final results with the evidence gathered.

Conclusion

The study explores correlation between financial literacy and the use of digital financial services in Dakshina Kannada district with respect to the Self Help Group (SHG) members. The analysis indicates that financial literacy is an important factor associated with the adoption and utilisation of digital financial services. While

there is a decent level of awareness regarding digital payment facilities including UPI, there is a significant lack of understanding in digital banking usability, confidence and adoption. The potential for electronic fraud and lack of digital skills, Internet connectivity problems and requirements for using electronic applications are factors that could limit more general use. The hypothesis test further finds a correlation between financial literacy and use of digital financial services. In order to be reported as empirical findings, however, these conclusions need to be checked with real survey results. Overall, financial and digital literacy may empower SHG members with the capacity to make better financial choices, and access to formal financial services, as well as increased engagement with the digital economy.

Recommendations

Regular financial and digital literacy program should be conducted in banks, SHG Federations, non-governmental and government agencies, which should be designed according to the needs of SHG members. These programmes need to cover case studies of UPI transactions, mobile banking, checking account balance, digital fund transfers etc. and safe ways of authentication. There should be special focus on fraud awareness, identification of suspicious messages, on-screen safeguarding of PINs and OTPs, and on grievance redressal. The training materials should be translated to Kannada, other languages understood and using audio-visual materials for the members with low level of formal education or not having a smart phone. Digital assistance facilities should be enhanced in banks, and awareness on safe banking practices should be strengthened among various bank branches as well as SHG promoting institutions, and promote peer learning by digitally proficient SHG members. Policymakers should also facilitate access to affordable digital services, make digital financial services accessible and to conduct regular reviews of financial literacy interventions to assess their impact on the knowledge, confidence and adoption of digital financial services by members.

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