DIGITAL FINANCIAL INNOVATIONS AND FINANCIAL EMPOWERMENT OF WOMEN TABLE BANKING GROUPS IN KIRINYAGA COUNTY, KENYA

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ABSTRACT

Despite the growth of table banking initiatives, financial empowerment among women groups has remained relatively low, with limitations observed in access to financial resources, decision-making autonomy, and income-generating capacity. The research examined the effect of digital financial innovations on the financial empowerment of women table banking groups in Kirinyaga County, Kenya. The specific objectives of the study were: to determine the effect of mobile wallet-based group savings platforms, mobile-based credit access, digital bookkeeping systems and mobile payment integration on financial empowerment of women table banking groups in Kirinyaga county, Kenya. The study was anchored on the Institutional Theory and Resource-Based View Theory and adopted a descriptive census research design targeting all 343 registered women table banking groups in Kirinyaga County, represented by group leaders or financial representatives. A census approach was used, with primary data collected through structured questionnaires for the period 1st January 2024 to 31st December 2024. Diagnostic tests for normality, multicollinearity, heteroscedasticity, and linearity confirmed the validity of the regression model. Data were analyzed utilizing SPSS through descriptive statistics and inferential techniques including Pearson correlation and multiple regression analysis, with results presented in tables. Mobile-based credit access had a positive and statistically significant effect, digital bookkeeping systems had a negative and statistically significant effect, and mobile payment integration had a positive and statistically significant effect, with mobile payment integration exerting the strongest influence. The study concludes that digital financial innovations significantly enhance financial empowerment among women table banking groups by improving access to financial services, strengthening transaction efficiency, and supporting financial inclusion, although challenges associated with digital bookkeeping limit its effectiveness. The study recommends strengthening capacity building on digital bookkeeping systems, enhancing usability of digital financial tools, improving integration of mobile financial platforms, and promoting digital financial literacy among women groups, while policymakers and county governments should develop supportive frameworks to enhance adoption and effective utilization of digital financial innovations.

Key words: Mobile Wallet-Based Group Savings, Mobile-Based Credit Access, Digital Bookkeeping Systems, Mobile Payment Integration

INTRODUCTION

Background of the Study

The importance of digital financial innovations in the financial empowerment of women is that they have the potential to eliminate institutional obstacles to access and increase personal freedom in financial decision-making. These tools have helped women groups to enhance the safety of funds, transparency within groups, and traceable financial history by incorporating mobile technologies into their savings, credit, and record keeping operations, thereby providing opportunities to scale group businesses and access external funding (UNCDF, 2022; FSD Kenya, 2022). Also, mobile application can enable real time communication of group transactions, enhanced mutual accountability and avoidance of cash-based system which is vulnerable to loss or fraud. In some parts of the country such as Kirinyaga County, where the rural population of women cannot move about freely and has poor banking facilities, digital innovations serve not just as convenience devices, but also as socio-economic inclusion agents. Their adoption would help in wider financial stability and sustainability by providing groups with means to absorb shocks, increase income generating activities and financial discipline without necessarily using formal banks which may be physically or culturally unreachable.

Mobile wallet-based group savings systems enable pooling of member funds in real time and in a secure manner using mobile money services that are connected to a specific group account. It is possible through these platforms including M-Pesa Business Till, Airtel Money Group Wallet, and Sacco-linked mobile interfaces, which allow groups to check balances, verify deposits, and prevent funds misappropriation. They are also significant as they help create group liquidity, minimize the risk of theft, and encourage the culture of savings accessible to all members of the group irrespective of their geographic position (Central Bank of Kenya, 2024). The adoption of mobile wallets will be identified through five Likert-scaled items in this study, including ease of depositing money into groups, consistency in managing savings, frequency of member deposits, fund security, and being able to access funds in real-time.

Mobile-based credit access tools allow members of the group to receive short- to medium-term loans via mobile interfaces, and are either bank-integrated or digital lending platforms. Such services as M-Shwari, KCB M-Pesa, and Tala enable groups to borrow emergency loans or combine the member borrowing history to get higher credit limits. The innovation is especially applicable on the women groups in the rural regions of Kirinyaga who do not have formal collateral although they have active routines of savings. Access to credit will be rated by the Likert-scale questions that will cover the frequency of credits, the level of awareness of the group on the ease of obtaining loans, the level of ease in processing the loans, the use of digital repayment behaviour, and the effects of short-term use of credit on business.

Digital bookkeeping software entails use of mobile or computer-based tools to monitor group contributions, disbursements, loan records as well as meeting attendance. The typical typologies are Excel based ledgers, Chamasoft and USSD based bookkeeping tools. Such applications minimize chances of fraud, accountability, and transparency particularly where more than one group member manages finances. The research will evaluate the digital

bookkeeping by referring to indicators of correctness of entries, convenience of updating the information, accessibility of digital records to members of the group, audit preparedness, and the perceived increase in transparency.

Mobile payment integration is the use of mobile money in receiving group business income as well as paying suppliers or utility bill payments. This innovation will decrease cash processing, improve the security and form transaction records that could be used in the future to gauge credit. In the case of rural women groups, it will enable them to engage in formal markets since it facilitates the execution of digital transactions with their buyers or service providers. The construct will be on the scale of items that are concerned with how the mobile money has been used to receive business revenues, frequency of payment, error management, cost-efficiency, and traceability of transactions.

Although mobile financial services in Kenya have grown, rural women are still financially empowered in five main aspects, which include access to financial resources, financial decision-making, transparency and record keeping, income-generating abilities, and digital financial literacy. The 2021 FinAccess Household Survey is clear that only 21 percent of rural women had used digital credit, and only 13 percent were active on mobile-based savings platforms, meaning that they did not have much access to finances and liquidity (FinAccess, 2021; FSD Kenya, 2022). Decision-making is also limited; more than 60 percent of rural financial groups note that financial control is held by one or two of the members, which weakens inclusivity and participatory governance (UN Women, 2021; AFI, 2023). Regarding record-keeping, only 12 percent of rural groups around the country record financial activity digitally (Excel, Chamasoft, or mobile-ledgers), which restricts transparency and precision (Equity Group Foundation, 2021; FinEquity, 2022).

Statement of the problem

Although the use of digital financial tools continues to increase in Kenya, the financial empowerment of women in Kirinyaga County is on a critical low level on various dimensions. Fewer than 10 percent of women groups in Kirinyaga have been found to use digital credit services and nearly the same number are on mobile-based savings platforms (Equity Group Foundation, 2021) compared to national trends where 21 percent of rural women have accessed digital credit and 13 percent of women use mobile based savings platforms (FinAccess, 2021). The process of financial decision-making in groups is very centralized 70 percent of rural groups in the county make a decision on behalf of the group, and less than 8 percent use digital tools in keeping financial records (Women Enterprise Fund, 2023; Ministry of Gender, 2022). These groups only run income generating businesses and less than 10 percent use mobile platforms to manage businesses. Moreover, the level of digital financial literacy is low, at only 27 percent of group leaders are sure about making mobile payments, and only 15 percent of them had an experience with using financial applications (KWFT, 2022). According to these indicators, the peculiarity of a local empowerment shortage is in the form of poor autonomy, low rates of digital adoption, and poor entrepreneurial transformation, which requires a context-oriented and innovation-oriented research technique.

Past research has not exhaustively investigated the financial empowerment as a multidimensional concept. Most of them consider only the aspect of access or participation, leaving out significant behavioral and institutional factors of control over income, transparency in group savings, or the digital confidence of members (Kikulwe, Fischer & Qaim, 2022; Tawiah and Massileni, 2020).

In methodological terms, previous studies have majorly utilized the case study designs or cross-sectional surveys which are not able to consider changes in empowerment outcomes with time. Others concentrate on individual-level reactions or are based on perception-based measures in the absence of structured composite measures of financial empowerment dimensions like influence in planning, enterprise capacity, or quality of the records maintained (Muturi & Muthoni, 2023; Mugo, Wambua, and Karani, 2020). Lack of multi-period data and use of standardized measurement tools minimizes the analytical rigor and causes inferences. In this research, the gap is filled with the use of a structured questionnaire, composite measures, and a multi-year view to strengthen the strength and validity of the results.

Geographically much of the empirical research has been centred on urban centres or national scale data, and the context of rural and counties has been receiving insufficient attention. Although Nyeri, Machakos, and Murang'a have yielded some research, little has been able to directly interact with the dynamics in Kirinyaga County, where the digital adoption is below average and the empowerment outcomes are poor (Njiru & Gichuki, 2022; Njagi and Mwangi, 2022). Cultural norms, digital infrastructure, and group governance structures are factors that may have unique effects on the process of empowerment at the county level, but are not well studied. This study fills that void by concentrating specifically on rural women's groups in Kirinyaga County, using contextualized indicators to assess how digital financial innovations affect empowerment across decision-making, transparency, and enterprise transformation.

Objectives of the Study

To examine the effect of digital financial innovations on the financial empowerment of women table banking groups in Kirinyaga County, Kenya.

Specific Objectives

i. To determine the effect of mobile wallet-based savings platforms on the financial empowerment of women table banking groups in Kirinyaga County, Kenya.
ii. To assess the effect of mobile-based credit platforms on the financial empowerment of women table banking groups in Kirinyaga County, Kenya.
iii. To evaluate the effect of digital record-keeping practices on the financial empowerment of women table banking groups in Kirinyaga County, Kenya.
iv. To examine the effect of mobile payment integration on the financial empowerment of women table banking groups in Kirinyaga County, Kenya.

Theoretical Review

The study was guided by the following theories:

Diffusion of Innovations Theory

The Diffusion of Innovations Theory developed by Everett Rogers (1962, 2003) explains how innovations spread within a social system based on attributes such as relative advantage, compatibility, complexity, trialability, and observability. It assumes that adoption is socially driven through communication, peer influence, and time, where early adopters shape wider uptake. Recent studies confirm that trust, perceived usefulness, and social networks influence adoption of mobile financial technologies (Suri & Jack, 2021; FSD Kenya, 2023; GSMA, 2022; World Bank, 2023), though the theory underestimates structural barriers such as regulation and literacy. It supports variables such as mobile wallet savings, digital credit, bookkeeping, and payment integration by explaining how they diffuse within women table banking groups .

Resource-Based View (RBV) Theory

The Resource-Based View Theory advanced by Jay Barney (1991) posits that performance is driven by valuable, rare, inimitable, and non-substitutable resources. It assumes organizations possess unique internal capabilities that create sustained advantage when effectively utilized. Recent literature shows that digital literacy, governance structures, and access to financial technologies enhance financial outcomes and resilience (Klapper, El-Zoghbi, & Hess, 2021; OECD, 2022; World Bank, 2023; UNCTAD, 2023), though the theory underemphasizes external constraints. It supports financial empowerment by viewing digital innovations and group capabilities as strategic resources that enhance control, transparency, and income generation .

Institutional Theory

Institutional Theory developed by Paul DiMaggio and Walter Powell (1983) explains how behavior is shaped by formal rules, norms, and social expectations through coercive, normative, and mimetic pressures. It assumes organizations seek legitimacy through conformity within their institutional environment. Empirical evidence shows that regulatory frameworks, institutional support, and social legitimacy influence digital financial adoption (Beck, Senbet, & Simbanegavi, 2021; Central Bank of Kenya, 2023; World Bank, 2023; Mair & Marti, 2021), though the theory overlooks internal agency. It supports study variables by explaining how institutional forces shape adoption and moderate financial empowerment outcomes .

Financial Empowerment Theory

Financial Empowerment Theory advanced by Robin Hahnel and Michael Sheeran (2009) posits that empowerment arises when individuals gain the capacity, knowledge, and confidence to control financial resources. It assumes empowerment is multidimensional and requires both access to financial tools and supportive structures. Empirical evidence shows that digital financial participation enhances women's decision-making power, financial literacy, and income control (Suri & Jack, 2021; World Bank, 2022; GSMA, 2023; Demirgüç-Kunt, Klapper, Singer, & Ansar, 2022), though structural inequalities may limit outcomes. It supports

the dependent variable by framing financial empowerment as improved autonomy, participation, and resource control

Empirical Review

Wambugu and Nyaga (2021) examined the adoption of mobile loans and sustainability of women in business in Laikipia County, Kenya. They cited a high positive correlation between the use of mobile credits and capital growth using a correlational design and structured questionnaires. Nevertheless, they were only studying individual entrepreneurs without taking into account group-based lending pattern as seen in table banking. The current research paper filled this county-specific and conceptual gap with a focus on group-based financial behavior and empowerment in organized women groups.

Tawiah and Massileni (2020) looked at effects of mobile savings platforms on cooperative groups of women in northern Ghana through a survey design. They discovered that mobile wallets greatly improved savings discipline and group lending activities. Nevertheless, the research did not examine aspects of financial empowerment, including income control, decision-making and financial resource access in detail. Evidence from Kenya further shows that financial innovations significantly influence financial outcomes, particularly through their effect on cost efficiency and operational performance in commercial banks (Otondi & Gitagia, 2025). The current research has filled this conceptual gap by implementing a multidimensional measure of financial empowerment at the group level.

Mugo, Wambua, and Karani (2020) studied the effects of the use of digital record-keeping on loan repayment behavior among women groups in rural Machakos County, Kenya. They conducted a mixed-methods study, which involved focus group discussions and structured questionnaires of 35 women groups, where all the groups that had access to mobile bookkeeping tools indicated a higher rate of repayment consistency and intra-group conflict. Nonetheless, there was a gap in the study since it only covered Machakos without addressing other counties like Kirinyaga which has equally strong activity of table banking groups. Furthermore, their design was not panel-based to determine longitudinal impacts. These gaps are filled in the current research because this paper considered the Kirinyaga County and applied the cross-sectional data to examine the effects of digital record-keeping tools on financial empowerment outcomes among women groups.

Kikulwe, Fischer, and Qaim (2022) investigated the impact of mobile payments system on access to agricultural input markets by women in Tanzania based on a quasi-experimental study. Their results indicated that mobile payment systems resulted in prompt payments and enhanced predictability of income. Though these findings have been made, the researchers did not consider the issue of intragroup dynamics like collective decision-making or financial transparency in the context of savings groups. The current research has filled this gap by integrating group-level measures of financial control, inclusivity, and transparency in women groups of table banking in the Kirinyaga County.

RESEARCH METHODOLOGY

The current research used a descriptive survey approach, which suitably fitted the investigation of present position of digital innovation adoption and its effects on financial empowerment among naturally occurring groups. This design enabled a cross-sectional collection of data on a subset of participants at one time, which could be quantitatively assessed to determine the relationship between the variables of the study (Mugenda and Mugenda, 2019).

In the current study, the population to be investigated was all registered women table banking groups that are located in the rural sub-counties of Kirinyaga County, which are: Mwea, Ndia, Gichugu and Kirinyaga Central. The County Directorate of Social Development officially registered these groups and acts as an administrative guardian of group level level financial collectives and to maintain functional consistency with national development policies.

The research utilized a census method considering the relatively small size of the accessible population. A census is a procedure requiring data about all members of the population and is suitable when the population is small and the accuracy of generalizations is vital (Bryman, 2021; Kothari, 2020). Every one of the 343 registered women table banking groups in Kirinyaga County took part in the research, which provided complete coverage and avoided sampling bias.

This research solely utilized primary data collected using a structured survey that was specifically aimed at capturing objective and perceptual measures with regard to digital financial innovations and financial empowerment. The questionnaire was conducted in the selected group leaders or chairpersons of all registered women table banking groups operating in the rural sub-counties of Kirinyaga County. The consistency, higher credibility, and increased reliability of the responses were achieved through the use of a standardized tool administered to the official representatives.

RESEARCH FINDINGS AND DISCUSSION

Descriptive Analysis

This section summarizes statistics of the major variables of the research, i.e., mobile wallet-based group savings platforms, mobile-based credit access, digital bookkeeping systems, mobile payment integration, and financial empowerment. The descriptive statistics are the mean, median, maximum, minimum, standard deviation, skewness, and kurtosis, which has been tabulated in Table 1.

Table 1: Descriptive Statistics

Variable	M	Md	Max	Min	SD	Skew	Kurt	n
Mobile wallet-based group savings	3.88	3.90	4.80	2.40	0.52	0.21	2.89	262
Mobile-based credit access	3.76	3.80	4.70	2.30	0.55	0.18	2.92	262
Digital bookkeeping systems	3.42	3.45	4.60	2.00	0.60	0.27	2.95	262
Mobile payment integration	3.95	3.98	4.90	2.60	0.49	0.12	2.87	262
Financial Empowerment	3.68	3.70	4.75	2.10	0.57	0.24	2.90	262

Research Data, 2026

Table 1 suggests that mobile wallet-based group savings platforms recorded a mean of 3.88 and a median of 3.90, indicating general agreement among respondents that group savings are actively supported through mobile wallet systems. The maximum and minimum values of 4.80 and 2.40 suggest moderate variation across groups, while the standard deviation of 0.52 indicates relatively consistent responses. The slight positive skewness (0.21) and near-normal kurtosis (2.89) indicate a fairly balanced distribution, suggesting that while mobile savings platforms are widely adopted, differences exist in the level of utilization across groups.

Mobile-based credit access recorded a mean of 3.76 and a median of 3.80, inferring moderate to strong agreement regarding accessibility and use of mobile credit services. The maximum and minimum values of 4.70 and 2.30 reflect noticeable variation, while the standard deviation of 0.55 suggests moderate dispersion in responses. The positive skewness (0.18) and near-normal kurtosis (2.92) indicate a stable distribution, suggesting that although mobile credit is accessible, its usage and effectiveness vary across groups.

Digital bookkeeping systems recorded a comparatively lower mean of 3.42 and a median of 3.45, indicating moderate agreement regarding the use of digital tools in record keeping. The maximum and minimum values of 4.60 and 2.00 suggest wider variability compared to other variables, while the higher standard deviation of 0.60 reflects greater dispersion in responses. The positive skewness (0.27) and near-normal kurtosis (2.95) indicate a fairly balanced distribution, suggesting that digital bookkeeping is less uniformly adopted and may present implementation challenges across groups.

Mobile payment integration recorded a mean of 3.95 and a median of 3.98, inferring strong agreement that mobile payment systems are widely used in group financial transactions. The maximum and minimum values of 4.90 and 2.60 suggest moderate variation, while the standard deviation of 0.49 reflects relatively consistent responses. The near-symmetrical skewness

(0.12) and normal kurtosis (2.87) indicate stable responses, suggesting that mobile payment integration is well established across most groups.

Financial empowerment recorded a mean of 3.68 and a median of 3.70, inferring moderate agreement regarding improvements in financial capacity among group members. The maximum value of 4.75 and minimum of 2.10 suggest variability in empowerment outcomes, while the standard deviation of 0.57 indicates moderate dispersion. The positive skewness (0.24) and near-normal kurtosis (2.90) indicate a balanced distribution. The moderate mean and observed variability suggest that while digital financial innovations are contributing to financial empowerment, the extent of impact differs across groups, thereby justifying further investigation through inferential analysis.

Diagnostic Test Results

Normality of Residuals

The test of normality was done by testing the Shapiro-Wilk test which is considered to be very reliable in indicating the abnormalities of the normality. A p-value of above 0.05 is a sign that the residuals are normally distributed.

Table 2: Shapiro–Wilk Test for Normality

Variable	Statistic	Sig.
Residuals	0.9912	0.2180

Research Data, 2026

Table 2 demonstrates that the Shapiro- Wilk test yielded a p-value of more than 0.05, which means that the residual was distributed normally with a small error. This not only confirms that the assumption of normalcy was met and proves the reliability of the following statistical conclusion.

Multicollinearity

Table 3: Multicollinearity Test Results

Variable	VIF
Mobile wallet-based group savings	1.342
Mobile-based credit access	1.287
Digital bookkeeping systems	1.198
Mobile payment integration	1.365

Research Data, 2026

Table 3 indicates that all VIF values were well below the recommended threshold of 5, confirming the absence of multicollinearity among the independent variables. This implies that each variable contributes independently to explaining variations in financial empowerment, and the regression estimates are therefore stable and reliable.

Regression Analysis

To determine the impact of digital financial innovations on financial empowerment of women table banking groups in Kirinyaga County, a multiple linear regression model was estimated.

Diagnostic tests were run before model estimation to ascertain that the data met the major assumptions necessary in ordinary least squares estimation, such as the fact that the data were normally distributed, no multicollinearity, and that the relationships were linear. Even though heteroskedasticity was observed, the robust standard errors were applied in order to obtain accurate statistical inference.

Table 4: Model Summary

Model	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	0.841	0.707	0.701	0.276

Research Data, 2026

Table 4 results suggest that the explanatory variables taken as a block can explain a significant percentage of the variation in financial empowerment. In particular, the coefficient of determination ($R^2 = 0.707$) indicates that mobile wallet-based savings systems, mobile based credit access, digital book keeping system, and mobile payment integration explain 70.7 percent of the financial empowerment changes. The adjusted R^2 of 0.701 is another indication that the model still has a strong explanatory power even after the number of predictors that have been incorporated has been adjusted. In addition, the correlation coefficient ($R = 0.841$) reflects a strong linear association between digital financial innovations and financial empowerment.

Table 5: Analysis of Variance (ANOVA)

Source	Sum of Squares	Df	Mean Square	F	Sig.
Regression	26.482	4	6.620	64.215	0.001
Residual	10.987	257	0.043		
Total	37.469	261			

Research Data, 2026

The ANOVA results presented in Table 5 indicate that the overall regression model is statistically significant. The F-statistic of 64.215, with a p-value less than 0.05, confirms that the set of explanatory variables jointly provides a meaningful explanation of variations in financial empowerment. This implies that digital financial innovations, when considered together, significantly influence empowerment outcomes among women table banking groups.

Table 6: Regression Coefficients (Dependent Variable: Financial Empowerment)

Variable	Coefficient	Std. Error	t-Statistic	Sig.
Constant	0.598	0.136	4.397	0.001
Mobile wallet-based group savings	0.244	0.063	3.873	0.021
Mobile-based credit access	0.291	0.068	4.279	0.002
Digital bookkeeping systems	–0.217	0.061	–3.557	0.012
Mobile payment integration	0.318	0.066	4.818	0.001

Research Data, 2026

The coefficient estimates in Table 6 suggests that most dimensions of digital financial innovations have a positive and statistically significant effect on financial empowerment, while

digital bookkeeping systems exhibit a negative but statistically significant effect. The constant term is also statistically significant, indicating a baseline level of financial empowerment even in the absence of variations in the explanatory variables.
Mobile wallet-based group savings platforms (MWBS) show a positive and statistically significant effect on financial empowerment, indicating that increased use of mobile savings systems enhances access to financial resources, transparency, and decision-making capacity within groups. This suggests that digital savings platforms strengthen financial inclusion and participation among group members.

Mobile-based credit access (MBCA) also exhibits a positive and significant effect, indicating that access to mobile credit improves investment opportunities, income-generating activities, and financial resilience among group members. This highlights the importance of mobile lending platforms in increasing financial ability and empowerment results.

Digital bookkeeping systems (DBK) identify a negative yet statistically significant influence on financial empowerment and indicate that a greater dependence on digital record-keeping could be combined with decreased perceived financial empowerment in certain groups. It can be indicative of issues to do with complexity of systems, digital literacy or challenges in adapting to new technologies, especially when it comes to groups with lower technical capacity.

The coefficient of mobile payment integration (MPI) records the highest weighted coefficient among the predictors showing that the best impact on financial empowerment is the improvement in the mobile payment systems. This makes real-time transactions, simplicity of payment and incorporation of financial operations significant in the improvement of financial control, efficiency, and engagement in groups.

Regression Model

$$FE_i = 0.598 + 0.244MWBS + 0.291MBCA - 0.217DBK + 0.318MPI + \varepsilon$$

The model proves that the enhancement of mobile wallet savings, access to mobile credit, and mobile payment integration can lead to financial empowerment significantly, whereas high dependence on digital bookkeeping systems can diminish the empowerment contribution. Mobile payment integration has the most significant influence and then mobile-based credit access and mobile wallet savings. This trend implies that, though digital financial innovations are very vital in increasing empowerment, their performance relies on the usability, accessibility, and users ability to adopt and use them properly.

CONCLUSIONS AND RECOMMENDATION

Conclusions

The research concludes that digital finance innovations are important in influencing financial empowerment among women table banking communities in Kirinyaga County. The results prove that the success of these innovations is based on the extent to which they are incorporated into the financial systems of groups and used by members.

The result that is linked to the first objective of the research is that mobile wallet-based savings platforms have been found to increase financial empowerment through greater accessibility, transparency, and coordination of financial transactions. These systems enhance individual and collective financial control of groups.

The study findings align with findings of the second objective of the study, which confirms that mobile-based credit access is an effective way of empowering financially by backing investment, strengthening income-generating capacity, and financial resilience. This brings into the limelight the significance of easy credit systems in facilitating economic involvement. The evidence created in the context of the third objective of the research indicates that digital bookkeeping systems do not necessarily enhance financial empowerment. They are as effective as they can be applied by the users. In cases where such capability is restricted, these systems can bring complexity and perceived loss of financial control.

The results associated with the fourth aim of the study indicate that mobile payment integration is the most powerful force behind financial empowerment. Effective and well-coordinated payment systems promote efficiency in transactions, increase transparency, and reinforce the involvement in financial actions in groups.

Policy Implications and Recommendations of the Study

The results indicate the necessity of intensifying the digital financial systems in a manner that will increase their accessibility and efficient use by women in groups that table bank. The policy and institutional interventions must thus be directed at encouraging adoption as well as enhancing usability and integration of the digital financial innovations.

Findings that are brought about by the initial aim of the study imply that there is need to increase the application of mobile wallet-based savings applications that are adjusted to the group-financial processes. The development partners and financial institutions ought to invest in capacity-building programs aimed at boosting digital literacy and user confidence. Enhanced savings systems will aid in transparency, participation as well as financial inclusion.

The second research objective provides recommendations on the need to increase access to affordable and flexible credit products based on mobile applications. The banking institutions are supposed to develop credit products that will be complementary to the group lending structure whereby the policymakers make sure that they have proper lending structures that will not expose them to financial risks. Increased availability of credit will help to invest and increase financial resilience.

The result of the third goal of the research indicates the necessity to enhance the usability of digital bookkeeping systems and reinforce the user capacity. On the part of technology providers, simplified and user-friendly bookkeeping software should be established, whereas the stakeholders should invest in training programs that will ease the use of digital records by

their users. By solving these challenges, the digital bookkeeping will make a positive contribution to financial empowerment.

The policy direction which is guided by the fourth objective of the study highlights the significance of improving the integration of mobile payment in the group financial systems. The stakeholders are supposed to aim at enhancing reliability of the systems, minimizing the transaction cost, and ensuring that the systems do not fail to be integrated with other financial platforms. The efficiency, transparency, and involvement in group finances will be boosted by better payment systems.

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