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Beyond Knowledge Deficits: Exploring Structural and Institutional Barriers to Financial Capability among Smallholder Farmers in Peri-Urban and Rural Kabwe, Zambia

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Abstract: Financial literacy is a major limiting factor to financial inclusion and financial resilience among smallholder farmers in rural Africa, but the factors that influence it remain a poorly comprehended issue. This paper examines the structural, behavioural, and institutional determinants of financial literacy in smallholder farmers in Kabwe District, Zambia. The primary goal was to explore the extent to which these related limitations affect the financial knowledge, attitudes and practices of farmers. The qualitative research design was used with a sample of 26 participants that were purposefully selected. The generation of data was done using semi-structured interviews and focus group discussions, which were analysed using thematic analysis.

The findings reveal that financial literacy is constrained by limited access to financial education, inadequate understanding of financial products, mistrust of financial institutions, and reliance on informal financial systems. Financial capability is further impeded by structural barriers like distance to the financial services as well as behavioural factors like low confidence and short-term financial planning. Lens, in terms of the Financial Literacy Theory and the Theory of Planned Behaviour, the findings indicate that knowledge gaps and behavioural intentions are both impactful in financial decision-making and are shaped by attitudes and perceived constraints.

The study suggests targeted financial education programs, trust-building programs, and better access to rural financial services. The results add to the theory by showing that financial literacy is internalized in behavioural and institutional frames. Future studies need to utilize mixed methodology and a wider geographical scope. In general, the research contributes to knowledge by emphasizing the multidimensionality of rural farming system financial literacy.

Keywords: Financial literacy; Smallholder farmers; financial inclusion; Behavioural constraints; Institutional barrier

1.0. INTRODUCTION

Millions of smallholder farmers across sub-Saharan Africa, including Zambia, operate under precarious socioeconomic and agricultural conditions. Such farmers usually have small farms and use small inputs, but their choices have a vital impact on the welfare of the household and

national food security. Financial literacy, interpreted as the knowledge, skills, and attitudes required to handle money, has been found to be a major enabler of agricultural productivity and resilience (Sakala and Mpembele, 2022; Soekarni et al., 2024). Theoretically, more informed farmers are able to budget inputs and diversify incomes as well as cushion shocks. According to

the Asian Development Bank, financial literacy is needed to make informed and effective choices regarding personal finances (Soekarni et al., 2024). Similarly, the OECD and other research emphasize that financial capability enables people to cope with the challenging financial environment by enhancing their ability to utilize financial knowledge and access financial resources effectively (Sun and Chen, 2022). Despite these benefits, the level of financial literacy for most of the rural households in Zambia remains low. Financial inclusion problems have been identified in national surveys, such as low physical access to financial services, the cost of financial transactions, lack of financial service provider trust, and lack of awareness of financial products/services. (Mwela, 2025; Sakala and Mpembele, 2022). For example, a Zambian study found that over 90% of small-scale farmers scored only low-to-medium on a financial literacy test, with education level the only significant predictor of better scores (Sakala and Mpembele, 2022). Similarly, research indicates that smallholder farmers have low financial literacy, and education has become a major predictor of better financial knowledge and ability (Mdoda and Nontu, 2026; Santoso et al., 2020).

The farmer should be able to make informed investment decisions, use the savings and credit products effectively and manage his agricultural activity to improve productivity and livelihood security. In many rural areas, however, this ideal is yet to be realised to a large extent even in Kabwe District. For example, a study conducted in Zambia by Siwale (2019) found that formal finance is only accessed by about 14% of smallholder households, of which just 13% of those households are women. Borrowers generally find themselves in bad conditions: onerous collateral regulations and excessive interest charges put them off (Mwonge et al., 2026; Siwale, 2019). The same tendencies are observed in the neighboring states: for example, despite understanding micro-credit, in many cases, Tanzanian farmers do not apply it because of the fear of losing collateral or default (Mwonge et al., 2026). In the meantime, the traditional agricultural credit initiatives are

usually more inclined towards inputs and do not pay much attention to the training requirements of farmers. A recent case study in Kabwe demonstrated that microfinance loans assisted in boosting incomes, although inflexible repayment timetables and high interest rates continued to leave many farmers straining (Mundia et al., 2025). In short, the system tends to provide access to resources (loans) without sufficiently facilitating how to use them (financial literacy).

There have been previous studies and development interventions that have covered some aspects of financial literacy and financial inclusion, but there are knowledge gaps that need to be addressed. Much of the previous studies in Zambia have been on the quantitative measurement of financial literacy and the determinants of access to credit and financial services (Sakala and Mpembele, 2022; Siwale, 2019). Financial training has been piloted in extension programs and non-governmental organizations, for instance, ACRE Africa, and microfinance projects have sought to extend inclusion (Mundia et al., 2025). However, such attempts tend to homogenize farmers as the recipients of knowledge but not as people formed by circumstances.

Further, financial inclusion has been a persistent agenda; however, research rarely focuses on the reasons for low uptake of financial services. Although the adoption of savings accounts or other financial products is often reported as a low rate, it does not reveal the role played by various factors (such as mistrust of financial institutions, documentation requirements, social norms and the perceived costs) on farmers' choice to adopt or not. Similarly, behavioural factors such as risk aversion, financial confidence and informal financial preferences are often not examined in an empirical way and have been overlooked. Some qualitative evidence was found that links structural factors (educational attainment, geographical access) and behavioural factors (attitudes, perceptions, financial confidence) with institutional factors (extension support, policies, financial services provision) as barriers to financial literacy in Kabwe District. This gap is important since interventions, which do not account

for these mutually reinforcing factors might miss the root factors that influence the financial decision-making of farmers. Financial literacy is an important topic, which, if unaddressed, can have a great impact. Low financial literacy has been linked to low agriculture productivity, food insecurity, rural poverty and low opportunities for rural development (Siwale, 2019).

Study Objective

The aim of this study was to explore the structural, behavioural and institutional aspects that influence the financial literacy of smallholder farmers in Kabwe District, Zambia. Specifically, the study aimed to capture farmers' perceptions and experience of financial literacy, as well as the impact of financial education, financial product knowledge, financial management attitudes, financial institutions' trust, and financial institutions' arrangements on financial literacy, attitudes and practices.

This study addresses this gap by exploring how structural, behavioural, and institutional factors shape financial literacy among smallholder farmers in Kabwe District, Zambia. It provides a socio-economic approach that also embraces the behavioural and institution dimension of the study based on in-depth interviews and focus group discussions with farmers in an effort to learn how they cope or fail to cope with their finances in their day-to-day lives.

2. LITERATURE REVIEW

Financial literacy, the ability to acquire and successfully utilize financial knowledge, skills, and attitudes in decision-making, has become a key factor of economic resiliency, especially in agrarian societies in sub-Saharan Africa (Lusardi and Mitchell, 2014). Smallholder farmers make up about 70% of the agricultural labour force and make up a large portion of national food security in Zambia, but cycles of poverty, credit exclusion, and vulnerable financial statuses have continued to plague this group (FAO, 2021). These are not just the consequences of income inadequacy but

are entrenched within a web of structural factors such as poor infrastructure and geographic remoteness; behavioural patterns based on cognitive biases and risk aversion; and institutional failures such as poor regulatory regimes and unavailable formal financial services (Klapper et al., 2015).

The relevance of this question is supported by the fact that financial inclusion is a priority of the Zambian government in its Eighth National Development Plan (2022 – 2026), which identifies agriculture transformation as a driver of development. Although this policy orientation exists, there is a dearth of empirical research that specifically questions the multidimensional constraints to financial literacy among smallholder farmers in Kabwe District, and this brings a dire gap that this research aims to fill. This review critically assesses the literature to contextualize the research problem, discover theoretical foundations and define the empirical and conceptual gaps that warrant this study by considering the intersection of structural, behavioural, and institutional dimensions.

2.1. Theoretical Framework: Financial Literacy Theory and the Theory of Planned Behaviour

This study is conceptually oriented toward two theoretical frameworks. First of all, the Financial Literacy Theory developed by Lusardi and Mitchell (2014) suggests that financial literacy operates at 3 levels: the level of knowledge about the basic financial concepts, the level of performing basic financial calculations, and the level of applying financial reasoning to the real-world choices. Lusardi and Mitchell (2014) show that poor retirement planning, over-indebtedness, and being locked out of formal credit are empirically linked to deficits in these dimensions, which again bear very similar results to the financial precarity of smallholder farmers in developing agrarian settings. Importantly, but critically, the development of this theory was made in the framework mainly of advanced economies, in which there are significant disparities between institutional infrastructure and access to financial products in rural

Zambia. Its direct use in structurally constrained agricultural contexts, thus, needs to be adapted to local contexts, especially in terms of the way literacy is defined and what meaningful financial knowledge in low-resource settings is.

Second, the gap between financial knowledge and action can be viewed through the prism of Ajzen's (1991) Theory of Planned Behaviour (TPB) that offers a behavioural perspective on the issue. TPB assumes that intention determines behaviour, which is influenced by attitudes to the behaviour, subjective norms and perceived behavioural control. In terms of financial literacy, the theory helps to understand why smallholder farmers might have poor financial knowledge but still fail to put it to productive financial behaviour - because of negative attitudes towards formal banking or social peer pressure or lack of self-efficacy in negotiating with financial institutions (Ajzen, 1991). This paradigm becomes especially pertinent to the institutional and behavioural aspects of the current study since it takes into consideration the social and psychological mediators, which cannot be represented by structural analyses alone. Collectively, these frameworks offer a solid and complementary theoretical framework: Lusardi and Mitchell (2014) cover the cognitive and knowledge aspects, whereas Ajzen (1991) puts financial behaviour in a socially contextual perspective: volitional and socially embedded.

Empirical Review

There is a growing empirical literature on the topic of financial literacy among smallholder farmers, but with significant geographic, methodological, and conceptual diversity. In a randomised controlled trial study in India and Indonesia, Cole et al. (2011) concluded that financial literacy training had a significant impact on enhancing savings behaviour by low-income rural households. Their research was well methodologically sound because they used experimental design to prove that there is causation, but it was limited because it did not take into consideration institutional barriers like lack of accessible savings instruments that can reduce the behavioural effects of training. Although the study provides

evidence about the effectiveness of literacy interventions, it is limited in its ability to be replicated in Zambia, which has a structurally different agricultural economy. Similarly, Calderone et al. (2018) find that financial education raises savings, mainly via increased use of formal institutions and shifts in financial attitudes rather than knowledge gains. However, there are still ongoing obstacles, especially to access and confidence, that influence results.

Zins and Weill (2016), who analyzed the data of 37 countries in Africa with the help of FinScope survey data, found income level, education, and gender to be the key determinants of financial inclusion in the continent. Their extensive cross-national study is useful at the macro level; the aggregate quality of the data covers the heterogeneity on country and community levels. More importantly, the research fails to break down results of smallholder agricultural populations or question the behavioural processes in which exclusion is mobilized. This restricts its generalizability to the Kabwe context, where institutional and structural constraints can interplay in different ways with farmer-specific behavioural dispositions.

The study by Carpena et al. (2011) is more subtle because it is a mixed-method study based in India, where financial literacy interventions are shown to have moderate impact on financial attitudes and goal-setting behaviour and little impact on knowledge acquisition in low-literacy groups. Their results implicitly correlate with the focus of TPB on attitudinal change as a preliminary step towards behavioural intention. However, the context of the study, the peri-urban microfinance clients, is quite different compared to the remote, lack-of-infrastructure situation of Kabwe District, where structural constraints such as limited mobile network access and a low concentration of bank branches inhibit even attitudinally driven financial behaviour.

Similar evidence in Zambia also points to structural and capabilities-related barriers to financial inclusion. Kabala et al. (2021) demonstrate that a large number of the population continues to be financially marginalized, both because of the

lack of access to formal financial services and the presence of institutional barriers in place. This is supported by the World Bank (2017), which captures the records of low financial capability and trust, especially among rural people.

Regarding financial literacy, Chibesa and Mwange (2025) conclude that the low rates of digital literacy and financial literacy are the major limitation to the adoption of formal financial services, in particular, by the participants of the informal sector. In the same vein, Mwansakilwa et al. (2017) show that increases in financial involvement like savings group participation are reflected in welfare benefits, a proxy of underlying literacy and capability deficits.

Nevertheless, these studies, although contextually relevant, lack explicit study of smallholder farmers and the consideration of the seasonality of agriculture in determining financial behaviour, which forms a vital gap in the literature. One trend that has come out in this literature is the inclination to view financial literacy as more of a knowledge gap issue and to intervene by spreading information instead of changing the structural and institutional context within which knowledge is likely to be effectively used. This is a major area of conceptual gap: the discipline has not clearly studied the interaction of structural bottlenecks like intermittent income flows, the absence of collateral and inadequate road networks with behavioural biases and institutional inefficiencies to maximize financial illiteracy among smallholder farmers. In addition, most of the studies have followed quantitative methodologies, and therefore, the lived experiences, perceptions, and contextual meanings that can be revealed through a qualitative approach are still untouched.

Although the literature reviewed collectively contributes to the knowledge of financial literacy constraints, there are a number of evaluation issues. Theoretically, the prevailing use of Financial Literacy Theory in high-income situations constrains its explanatory capabilities on structurally marginalized agrarian populations in sub-Saharan Africa. The lack of qualitative research, empirically, implies that the subjective,

socially embedded aspects of financial behavior, which are at the centre of TPB, are understudied, especially within smallholder farming communities in Zambia. Kabwe District, geographically, is simply out of the empirical record that already exists, which constitutes a contextual and methodological gap.

The current research fills these gaps by embracing a qualitative exploratory research design, which places the voices and lived experiences of smallholder farmers at the centre of research in Kabwe District. This study broadens the theoretical relevance of both Lusardi and Mitchell (2014) and Ajzen (1991) to an agrarian African environment by explicitly exploring the structural, behavioural and institutional aspects of financial literacy constraints in one contextually rich environment and by yielding empirically informed insights that can be used to make targeted policy and programmatic responses.

3. METHODOLOGY

Research Design

This study adopted a qualitative research design to explore the challenges affecting financial literacy among small-scale farmers. The qualitative approach was appropriate because the study aimed to capture participants' lived experiences, perceptions, and interpretations within their socio-economic context. Qualitative research is particularly suitable for investigating complex social phenomena where meanings, behaviours, and contextual factors are central (Creswell and Poth, 2018).

The choice of this design was justified by the exploratory nature of the study. Financial literacy in rural settings is shaped by a combination of behavioural, institutional, and structural factors that require in-depth understanding rather than numerical measurement. The qualitative design enabled the researcher to examine issues such as mistrust of financial institutions, reliance on informal financial systems, and knowledge gaps, which are not easily quantifiable but are critical to understanding financial decision-making.

Study Area

The study was conducted in Kabwe District, located in the Central Province of Zambia, approximately 138 kilometres north of Lusaka along the Great North Road. Kabwe serves as the provincial headquarters and occupies an area of approximately 1,577 square kilometres, with a population of about 180,129 and an annual growth rate of 0.5%.

The study focused on Munyama Block, which comprises four agricultural camps: Munyama, Kalwelwe, Kaway, and Musebo. These areas are predominantly rural and characterized by small-scale farming activities. The selection of this setting was appropriate for examining financial literacy challenges because farmers in these communities typically operate within constrained financial environments and have limited access to formal financial services.

Study Population and Sample

The study involved a total of 26 small-scale farmers drawn from the four agricultural camps within Munyama Block. The distribution of participants was as follows: five participants from Munyama Camp, seven from Kalwelwe, six from Kaway, and eight from Musebo.

The sample size was considered adequate for qualitative inquiry, as it allowed for detailed exploration of participants' experiences while ensuring depth rather than breadth. The selection of participants enabled the study to capture diverse perspectives within a relatively homogenous farming context.

Sampling Techniques

The study employed purposive sampling, specifically homogeneous and expert purposive sampling techniques. Homogeneous sampling was used to select participants who share similar characteristics, namely small-scale farmers operating within the same geographical and socio-economic environment. This approach ensured that the study focused on a specific group relevant to the research objectives.

Expert purposive sampling was used to identify participants with relevant knowledge and ex-

perience in farming and financial decision-making. This ensured that participants were able to provide rich and meaningful insights into financial literacy challenges.

Data Collection Methods

Primary data were collected using semi-structured interviews and focus group discussions (FGDs). Two focus group discussions were conducted. The first group consisted of seven participants, while the second comprised six participants. In addition, individual interviews were conducted with the remaining participants.

The use of semi-structured instruments allowed flexibility in questioning, enabling the researcher to probe deeper into participants' responses and clarify emerging issues. Focus group discussions facilitated interaction among participants, allowing shared experiences and collective perspectives to emerge, while individual interviews provided more detailed and personal accounts.

Data Analysis

A thematic analysis approach was used to analyse the data. This included a systematic approach that involved transcriptions, re-reading transcripts for familiarisation, coding key statements from transcripts, and then theming and subtheming of codes. Thematic analysis was suitable as it enabled the pattern to be identified and interpreted from the qualitative data (Braun and Clarke, 2006). It enabled the study to capture key themes such as knowledge gaps, mistrust of financial institutions, and reliance on informal financial systems.

Triangulation was used to increase the credibility of the findings through comparing data collected from focus group discussions and individual interviews. This process ensured consistency and added to the validity of the themes identified.

Time Frame of the Study

The data was collected from October to November 2025 in the 2025/2026 agricultural season in Kabwe District, Zambia. The timeframe was selected as suitable, as farming activities

were in full swing and the participants were able to think about their farming-related financial activity, decision-making, and their experience of financial services in an appropriate agricultural context. A two-month fieldwork period allowed for extended interviews and focus group discussions and for meaningful engagement of participants, which in turn helped to reach data saturation, one of the criteria for rigor in qualitative research (Guest et al., 2006).

4. FINDINGS

The qualitative analysis identified several interrelated factors affecting the financial literacy of small-scale farmers. These are characterized by limited access to financial education, inadequate knowledge of financial products, mistrust and fear of financial systems, reliance on informal financial services, and structural and behavioural inhibitors. The findings are presented in

Table 1. Summary of Findings Supported by Direct Verbatim

Main Theme	Subthemes	Verbatim (Illustrative Quotes)
Limited Access to Financial Education	Lack of training opportunities	<i>"We have never received any training on how to manage money or savings".</i>
	Dependence on informal knowledge	<i>"We just learn from friends and other farmers, not from experts".</i>
	Limited extension services	<i>"No officers come to teach us about financial matters".</i>
Inadequate Knowledge of Financial Products	Poor understanding of loans	<i>"I don't understand how interest on loans is calculated".</i>
	Limited awareness of financial services	<i>"We don't know the types of services banks offer".</i>
	Difficulty interpreting financial terms	<i>"The terms used by banks are too complicated for us".</i>
Mistrust and Fear of Financial Systems	Fear of fraud	<i>"People lose money through scams, so we are afraid to use these services".</i>
	Lack of trust in institutions	<i>"Banks are not always trustworthy; we prefer keeping money ourselves".</i>
	Negative past experiences	<i>"Some people were cheated when they tried using financial services".</i>
Dependence on Informal Financial Systems	Reliance on family and friends	<i>"We mostly borrow from relatives when we have problems".</i>
	Use of informal savings groups	<i>"We use village bank savings groups instead of banks".</i>
	Avoidance of formal institutions	<i>"Banks do not target people like us in the village, moreover bank charges are just too high".</i>
Structural and Institutional Barriers	Distance to financial institutions	<i>"The bank is too far, and transport is expensive".</i>
	Poor infrastructure	<i>"There are no proper services nearby to help us with finances".</i>
	Limited access to information	<i>"We rarely receive information about financial services".</i>
Behavioural and Psychological Constraints	Low confidence in financial decisions	<i>"I am not confident making financial decisions on my own".</i>
	Resistance to change	<i>"We are used to doing things the traditional way".</i>
	Short-term financial focus	<i>"We only think about immediate needs, not long-term planning".</i>

themes and are illustrated through direct quotations of participants to support the results.

4.1. Limited Access to Financial Education

One of the main themes that emerged from the data was the limited access to formal financial education and training among small-scale farmers. Most participants reported that they never received formal training on financial management. One respondent explained: *"We have never received any training on how to manage money or savings."* Similarly, another participant noted: *"No officers come to teach us about financial matters"*. Without formal training, farmers are dependent on informal knowledge: *"We learn it through friends and other farmers, not professionals"*. These results indicate that financial literacy in farmers is mostly informal and experience-based, which restricts the extent and quality of financial literacy.

4.2. Inadequate Knowledge of Financial Products and Services

The limited understanding of financial products and services is another important challenge. Respondents complained that they had a hard time understanding some fundamental financial terms like interest rates and loan terms. According to one farmer: *I do not know how interest is calculated on loans*. Others highlighted a broader lack of awareness: *"We don't know the types of services banks offer"*. The complexity of financial terminology was also identified as a barrier: *"The terms used by banks are too complicated for us"*. These reactions show that, although financial services are accessible, little understanding limits effective use and thus limits financial inclusion.

4.3. Mistrust and Fear of Financial Systems

Another important theme was mistrust towards formal financial institutions. Fear of fraud and bad experiences in financial systems are the causes of this mistrust. One of the respondents was concerned: *"People lose money in scams, and we are afraid to use these services"*. Another respondent noted: *"Banks are not always trustworthy; we prefer keeping money ourselves"*.

Past negative experiences further reinforce this perception: *"Some people were cheated when they tried using financial services"*. These results imply that lack of trust is a significant deterrent, making farmers unwilling to use formal financial institutions.

4.4. Dependence on Informal Financial Practices

Farmers are overly dependent on informal financial systems because of low trust and access. These are borrowing from family members and joining local savings groups. A respondent explained: *"We mostly borrow from relatives when we have problems"*. Another added: *"We use village banking savings groups instead of banks"*. There is also a perception that formal financial systems are not suited to rural populations: *"Banks do not target people like us in the village, moreover, bank charges are just too high"*. Informal systems are both accessible and trusting but can also restrict the exposure to formal financial knowledge and opportunities.

4.5. Structural and Institutional Barriers

Structural factors and especially access to financial institutions physically were often cited by the respondents. One farmer stated: *"The bank is too far, and transport is expensive"*. Others highlighted broader infrastructural challenges: *"There are no proper services nearby to help us with finances"*. Limited access to information further compounds the problem: *"We rarely receive information about financial services"*. These results suggest that institutional access and infrastructure as well as knowledge are elements that determine financial literacy.

4.6. Behavioural and Psychological Constraints

Besides the structural and knowledge-based barriers, behavioural factors were also identified as a theme influencing financial literacy. Respondents expressed low confidence in managing financial matters: *"I am not confident making financial decisions on my own"*. There is also resistance to adopting new financial practices: *"We*

are used to doing things the traditional way“. Short-term financial thinking was another recurring issue: *“We only think about immediate needs, not long-term planning“*. These behavioural patterns restrict the use of good financial behaviours and prevent financial sustainability in the long-term.

5. DISCUSSION

This study identified six interrelated themes, which constitute the explanation of why smallholder farmers still do not participate in formal financial systems. Themes covered are limited access to financial education, lack of awareness of financial products and services, distrust and fear of formal financial institutions, informal financial systems, structural and institutional barriers, and behavioural and psychological limitations. These findings collectively illustrate the multifaceted issues associated with financial exclusion in rural farming communities. This discussion compares and contrasts the results with previous research and addresses the theoretical implications of the results for each theme.

5.1. Limited Access to Financial Education and Inadequate Knowledge of Financial Products

Participants in this study attributed their limited use of formal financial services to a lack of structured financial education. The majority of participants indicated that they had received little or no formal financial education but had learned about finances from peers, their experiences, and informal sources. The observation echoes sharply with the Financial Literacy Theory that says financial knowledge that includes the ability to comprehend and utilize financial concepts is a prerequisite to meaningful engagement in formal financial markets (Lusardi and Mitchell, 2014). The theory argues that people who do not possess this background knowledge are simply less prepared to judge financial products, to use debt in a responsible manner, or to organize to achieve long-term economic objectives (OECD, 2023),

with recent empirical evidence reinforcing these relationships (Nogueira et al., 2025). The difficulty in comprehending the interest calculation of loans along with the lack of familiarity with the variety of banking products expressed by the participants makes the theoretical perspective applicable to the current agrarian and rural setting.

These results are closely related to the findings of Cole et al. (2011), whose field experiment, which was seminal and performed in Indonesia and India, showed that low demand for formal financial services among rural people was conditioned mainly by the lack of financial knowledge as opposed to the price sensitivity. Likewise, in a study of rural Madagascar smallholder farmers, Sarfo et al. (2023) established that financial literacy was a statistically significant predictor of the awareness of digital credit by farmers, which supports the perspective that the knowledge gap, rather than factors related to infrastructure, is the main contributor to financial exclusion in an agrarian economy. Ogbemudia Benedict et al. (2024), in a complementary study across Nigerian smallholder farming communities, came to the conclusion that financial literacy, in particular, the numeracy and compound interest calculation competencies, had a significant impact on access to credit and financial performance. These convergent cross-national results indicate that poor financial knowledge is a structural and not an incidental aspect of smallholder financial exclusion in sub-Saharan Africa.

The gap of this study with the existing literature is that there is a total lack of formal agricultural extension services as the main financial knowledge source. Candiya Bongomin et al. (2017) found that the elements of financial literacy had a positive effect on financial inclusion in rural Uganda, but that setting was based on a background of already, though possibly small, financial literacy interventions. Such a baseline was not found in the current study; the only resource that the participants had to learn about financial matters was peer-based learning that occurred informally. This is an extreme form of knowledge deprivation and indicates that generic financial literacy programmes reported in the lit-

erature might be inadequate without initially implementing operational delivery infrastructure in chronically under-served agricultural communities. This would suggest, according to the Financial Literacy Theory, not just a lack of literacy, but a structural failure of the knowledge supply chain itself – a difference that has important policy implications.

5.2. Mistrust and Fear of Financial Systems

One of the most notable themes in the accounts of participants was a long-standing mistrust of traditional financial institutions based on fear of fraud, bad vicarious experiences, and institutional unreliability. This observation can be well explained in the TPB framework in terms of the construct of attitude, which is the extent to which a person has a positive or negative judgment towards engaging in a specific behaviour (Ajzen, 1991). Where the attitudes towards formal financial involvement are highly negative, instilled by experiences of fraud and institutional betrayal, the behavioural intention to take part in formal systems is equally inhibited.

This observation supports substantially Xu (2020), who found in his cross-national research that institutional trust and financial inclusion are positively and significantly related and corroborates that trust is an antecedent of formal financial engagement. The existing body of financial inclusion literature in Sub-Saharan Africa has consistently recognized distrust as a key demand-side impediment (Allen et al., 2016), and the qualitative data presented in the current study adds to the existing body of literature by offering specific, experiential explanations of how distrust is created and sustained on the community level. The references to fraud and deception made by participants also concur with the results of the study by Demircuc-Kunt et al. (2022), who found fraud risk perceptions to be a major deterrent to formal account ownership, especially among low-income countries' unbanked adults.

One notable area of divergence, however, is the directionality of institutional distrust that is reported in this research. Although a large portion of the existing literature describes distrust

as a supply-side failure that can be attributed to predatory lending or weak regulation (Allen et al., 2016), the participants of this study also voiced a culturally ingrained distrust towards formal institutions as institutions that were structurally inaccessible to rural and low-income people, which can be captured through the verbatim quote that the banks are This normative framing of exclusion overcomes personal negative experience and is a social positioning created collectively. This is less often theorized in quantitative financial inclusion research and is indicative of a limitation to explanatory power of the entirely TPB-based approach, which only considers the formation of attitudes on an individual basis and does not take into consideration inherited systems of beliefs. Further studies should be conducted in order to determine how these collective financial identities are constituted, sustained and possibly broken.

5.3. Dependence on Informal Financial Systems

The high preference of the village savings groups, family borrowing and other informal financial mechanisms by the participants instead of the formal institutions is a trend that has been widely reported in the financial inclusion literature. In the TPB approach, this behaviour can be partly attributed to the construct of subjective norms – the perceived social pressure to do a certain behaviour or to avoid a particular behaviour (Ajzen, 1991). In the context where the dominant social norm supports dependency on informal reciprocity, personal desires to work with formal institutions are compromised by social norms of conformity and the viability of peer solutions in practice.

This observation is consistent with recent studies on rotating savings and credit associations (ROSCAs), which show that informal savings groups derive their sustainability not only from financial needs but also from social capital and trust-based relationships embedded within communities (Okangi and Busagara, 2026). Similarly, Okello Candiya Bongomin et al. (2018) discovered that social networks mediated the associ-

ation between mobile money uptake and financial inclusion in Sub-Saharan Africa, thus supporting the claim that informal social structures have a substantial influence on financial behaviour. The village savings and loan associations mentioned by the participants in this research are similar to those that are broadly documented in rural Rwanda (Schoofs, 2022) and Zambia (Mwalupaso et al., 2025), where informal saving frameworks remain outperforming formal ones due to trust, access, and cultural familiarity with peer-based systems.

More importantly, the current research puts forward a twist that the current literature fails to capture: the clear expression of informal finance as an identity-based escape as opposed to a practical alternative. By saying that the banks are not meant to serve people like them, participants were not referring to a mere preference but a social identity resource that makes formal financial institutions culturally foreign. This represents a hypothetically important extension of the subjective norms construct of the TPB: normative pressure in this context does not act on the grounds of what other people want one to do but rather on the grounds of what financial actions are seen as consistent with the occupational and community identity. This result indicates a promising line of further studies on the interaction of financial identity, social norms, and inclusion behaviour.

5.4. Structural and Institutional Barriers

Physical distance of financial institutions, high costs of transport, and lack of ready financial service points were found to be major structural complaints on the part of participants. The most suitable theorisation of these barriers within the TPB is as restrictions to perceived behavioural control (PBC) – the degree to which individuals feel able and have the opportunity to engage in a behaviour (Ajzen, 1991). In cases where banks are inaccessible (geographically) and linked to the prohibition of transaction costs, PBC is bounded objectively, and behavioural intention could not be translated into action despite attitudinal orientation and normative pressures.

These results are more or less similar to those of Masuka (2025), who reported that high transaction costs and inadequate banking infrastructure in rural areas are the greatest causes of financial exclusion among smallholder farmers in Zimbabwe. Similarly, Allen et al. (2016) found distance to financial service points to be one of the most reliable supply-side predictors of formal account non-ownership in the setting of developing countries. The existing role of physical proximity as a barrier to financial inclusion is supported by the World Bank Global Findex data (Demirguc-Kunt et al., 2022) that reports that the financial infrastructure in the rural regions of Sub-Saharan Africa is severely underdeveloped compared to its demand. The current research offers qualitative support of these macro-level trends at the level of individual farmers.

The newness of the present study lies in the fact that structural barriers are not limited to physical distance but also include the near-total lack of informational outreach. Consistently, participants reported that financial data seldom made it to their communities, which indicated wider information asymmetry, as opposed to a location-specific access issue. It is similar to Klapper et al. (2015), who noted that low financial awareness among low-income groups cannot be attributed solely to low literacy but is also a result of information supply failures within the communities that lack institutional outreach. The combination of these results suggests that infrastructure-oriented interventions, including the development of mobile banking, although needed, cannot be effective without other interventions to actively spread financial information via credible community channels.

5.5. Behavioural and Psychological Constraints

The fifth and sixth subthemes are low confidence in making financial decisions, resistance to change, and short-term financial orientation, which interact the most with behavioural aspects of the TPB and Financial Literacy Theory. The perceived low confidence of participants in their own financial judgement is in line with the low

perceived behavioural control, which is a prominent TPB construct strongly linked with the self-efficacy concept (Bandura, 1997). In cases where people have non-beliefs that they can effectively negotiate financial choices, their desire to participate in formal financial products is equally undermined, without any external structural constraints.

In the perspective of Financial Literacy Theory, this psychological self-deprivation is partially a downstream effect of educational deprivation: those who have not been taught the financial ropes will tend to engage in financial self-doubt and avoidance behaviour (Huston, 2010). Empirical studies indicate that perceived (subjective) financial literacy may be as powerful as, or even more powerful than, objectively assessed financial knowledge in determining financial behaviour. For instance, Allgood and Walstad (2016) demonstrate that both actual and perceived financial literacy significantly influence financial behaviours, with perceived financial literacy being “as important as actual financial literacy” in explaining financial decision-making outcomes. Similarly, Asaad (2015) finds that financial confidence, an individual’s self-assessment of their financial knowledge, is a critical determinant of financial behaviour across different knowledge levels.

The short-term financial orientation recorded among the respondents is similar to those recorded by Dupas and Robinson (2013), who showed that smallholder farmers in Kenya were presently biased to limit long-term saving behaviour despite making formal savings vehicles available. The normal TPB model does not sufficiently support this temporal discounting dynamic and implicitly assumes relatively stable future-related intentions. Current evidence indicates that behavioural change initiatives with smallholder farmers need not only to address the lack of knowledge and structural barriers but also to overcome ingrained cognitive biases, which are difficult to change without culturally appropriate, long-lasting, and community-based behavioural change initiatives.

6. CONCLUSION

This study explored the structural, behavioural and institutional limitations influencing financial literacy among the smallholder farmers. Six interconnected themes emerged from the analysis: limited access to financial education, inadequate knowledge of financial products, mistrust of formal institutions, dependence on informal financial systems, structural and institutional barriers, and behavioural and psychological constraints. All these themes point out that financial exclusion of smallholder farmers is not merely a lack of knowledge but a result of structural inequalities, to which financial products are skewed, and psychosocial obstacles that are historically based on institutional failures.

In theory, the results expand financial capability frameworks with the foresight of socio-institutional context as a predictor of financial behaviour, challenging approaches that situate the issue entirely within the individual. There are specific policy implications of this reorientation, which is that systemic reform is necessary, rather than standalone financial literacy training.

Future studies ought to consider longitudinal and mixed designs that evaluate the long-term effects of community-based interventions and comparative research that evaluates the moderating effects of regulatory environments on these limitations in various agricultural settings. The co-designing of solutions with farming communities, which is a participatory approach, is especially justified based on the lack of trust that is reported here.

The qualitative nature of the study restricts generalizability, and purposive sampling might have excluded the most marginalized farmers. Subsequent studies should use larger sampling structures to enhance transferability.

Finally, this paper contributes to the body of knowledge that inclusive agricultural finance needs to take the structural and human aspects of exclusion seriously, the type of complexity that policy and practice can no longer risk ignoring.

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