

An Assessment of the Effects of Financial Literacy on the Growth and Expansion of Rural Micro-Agribusiness Enterprises in Zambia: A Case Study of Mpongwe District

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Abstract

This study examined the effect of financial literacy on the growth, expansion, and sustainability of rural micro-agribusiness enterprises in Mpongwe District, Zambia. The study was motivated by persistent underperformance and high failure rates among rural agribusiness microenterprises despite their importance to rural livelihoods, food security, and national economic development. While policy interventions have prioritised access to inputs and markets, limited attention has been given to financial literacy as a core enterprise capability. Anchored in the Resource-Based View, Sustainable Growth Theory, and the Theory of Change, the study assessed financial literacy levels, their determinants, and their application to enterprise growth outcomes. A cross-sectional mixed-methods design was adopted. Quantitative data were collected from 100 micro-agribusiness entrepreneurs using structured questionnaires and analysed using SPSS (version 25), applying Pearson correlation, multiple regression, and independent samples t-tests. Instrument reliability was confirmed (Cronbach's Alpha = 0.821). Qualitative data from five key informant interviews were analysed thematically. The findings revealed generally low financial literacy levels, particularly in budgeting, recordkeeping, credit evaluation, and financial planning. Financial literacy was positively associated with business growth ($r = 0.42$, $p = 0.00008$) and sustainability ($r = 0.51$, $p < 0.00001$). Regression analysis confirmed that financial literacy significantly predicted business growth ($\beta = 0.38$, $p = 0.00005$), while education, training, and gender significantly influenced literacy levels. The study concluded that financial literacy is a decisive internal capability enabling both horizontal and vertical enterprise growth when practically applied. It recommends integrating applied, gender-sensitive financial literacy into agribusiness support programmes and calls for further research on digital financial inclusion in rural contexts.

Keywords: Financial literacy; Micro-agribusiness enterprises; Business growth and expansion.

1. Background of the study

Zambia's agribusiness sector remains a critical component of national development, employing over 70% of the rural population and contributing significantly to Gross Domestic Product (GDP) and export earnings (World Bank, 2022). According to Mupeta (2020), agriculture contributes approximately 20% of the nation's GDP and 12% of national export earnings, making it one of the most significant economic sectors. As such, agribusinesses serve not only as engines of economic growth but also as vehicles for

poverty alleviation, food security, and employment, particularly in rural areas. However, rural Micro, Small, and Medium Enterprises (MSMEs), especially in agribusiness, face considerable barriers to growth and sustainability. Chief among these is the lack of financial literacy, defined as the ability to understand and apply financial knowledge for informed and effective financial decision-making (Lusardi and Mitchell, 2014). According to the Organisation for Economic Co-operation and Development (OECD) (2020), financial literacy among rural populations in developing countries remains critically low, contributing to high levels of loan defaults, poor budgeting, inadequate record-keeping, and limited participation in formal financial systems.

Financial literacy encompasses more than just numerical skills; it includes attitudes, behaviours, and knowledge that empower individuals to plan for the future, manage cash flow, access financial products, and make strategic investments (Lusardi et al., 2017). For micro- agribusiness owners in rural Zambia, financial literacy is not merely a skillset but a strategic necessity. Without it, entrepreneurs often misuse loans, underutilise support programs such as the Farmer Input Support Programme (FISP), and fail to reinvest profits in scalable ways (Gumbo et al., 2023). As such, financial literacy in this context becomes a determining factor in whether microenterprises can thrive or stagnate.

Mpongwe District, located in Zambia's Copperbelt Province, is a predominantly agricultural region with a high concentration of micro agribusinesses. Despite favourable climatic conditions and government support initiatives, the district continues to experience low productivity and business failures among micro-enterprises. The reasons cited include poor financial decision-making, lack of basic financial knowledge, limited access to training, and a general absence of structured support mechanisms (Sakala and Mpmembele, 2022). Given that these enterprises form the backbone of the rural economy, their failure represents a missed opportunity for regional and national development. Empirical evidence across Sub-Saharan Africa has confirmed the strong relationship between financial literacy and business performance. For example, a study by Irikefe and Opusunju (2021) found that financial literacy significantly influenced enterprise growth, particularly in areas such as debt management, budgeting, and investment decision-making. Similarly, Obi-Anike et al. (2023) argue that financial literacy plays a central role in strategic decision-making and performance sustainability among agribusiness entrepreneurs.

Despite such findings, Zambia has yet to conduct a comprehensive national assessment of financial literacy levels among rural micro-agribusiness entrepreneurs. Most studies remain focused on urban settings or on enterprises outside the agricultural sector (Sikazwe, 2021). This presents a critical gap in both academic research and policy formulation. Understanding how financial literacy affects microenterprise performance in agrarian contexts like Mpongwe is therefore essential for designing effective interventions.

To this effect, this study, therefore, sought to explore the relationship between financial literacy and the growth and expansion of rural micro-agribusiness enterprises in Mpongwe District. By focusing on key dimensions such as financial knowledge, behaviour, and attitudes, it aims to uncover how these elements influence decision-making, risk management, and business scalability. Additionally, it assessed the factors that shape financial literacy levels in rural Zambia. The goal was to generate evidence-based recommendations that could support rural development policies, inform training programs, and ultimately improve the sustainability of micro-agribusiness enterprises.

In doing so, the results of the study are intended to contribute to Zambia's broader efforts to diversify its economy beyond mining, address rural poverty, and meet the sustainable development goals related to economic growth, food security, and gender equality. In the absence of targeted financial literacy

initiatives, rural agribusinesses risk remaining informal, undercapitalised, and unsustainable. The findings from this study are therefore expected to have both academic and practical significance for stakeholders in the public, private, and development sectors.

1.1. Statement of the Problem

The continued underperformance and stagnation of rural micro-agribusiness enterprises in Zambia, despite ongoing financial interventions, present a compelling challenge to development practitioners and policymakers. Microenterprises operating in agrarian communities like Mpongwe District often face difficulties not only in accessing financial resources but also in effectively utilising them due to limited financial literacy. Many small-scale entrepreneurs in Mpongwe struggle with fundamental financial practices such as budgeting, record-keeping, debt management, and investment planning, which hinder their ability to grow and sustain operations (Sakala and Mpembele, 2022).

Government initiatives such as the Farmer Input Support Programme (FISP) and financial inclusion drives by the Bank of Zambia aim to promote economic empowerment in rural areas. However, these programs often assume a baseline level of financial competence among beneficiaries, a condition that is rarely met (Sakala and Mpembele, 2022). The result, as pointed out by Lusardi and Mitchell (2014), is a cycle of dependency, misapplication of funds, and poor repayment culture, ultimately undermining the sustainability of financial support mechanisms and perpetuating poverty. Existing literature suggests a positive relationship between financial literacy and enterprise growth as noted by Irikefe and Opusunju (2021). Yet, empirical studies in Zambia are limited in scope, with most focusing on urban SMEs or non-agricultural sectors. This, as a result, has created a significant research gap regarding how financial literacy directly influences the trajectory of micro-agribusinesses in rural regions, particularly in the context of emerging economic and technological changes. Furthermore, demographic variables such as age, gender, education level, and digital access also remain underexplored in shaping financial decision-making in rural entrepreneurship.

Mpongwe District, despite its potential as an agricultural hub, continues to face persistent challenges of enterprise mortality and limited scalability. The low uptake of digital financial tools, minimal participation in structured financial training, and reliance on informal saving mechanisms point to a broader structural deficit in financial capability. Without targeted interventions that address financial knowledge, behaviour, and attitudes, rural microenterprises will remain vulnerable to economic shocks, climate variability, and market exclusion (Gumbo et al., 2023). This study hence seeks to address the problem by evaluating the extent to which financial literacy influences the growth and expansion of rural micro-agribusinesses in Mpongwe. By doing so, it aims to bridge the evidence gap and contribute to more inclusive financial policies and training models tailored for rural Zambia.

1.2 General Objective

To assess the effects of financial literacy on the growth and expansion of rural Micro Enterprises in Zambia, with a focus on Agribusinesses: A case study of Mpongwe District.

1.2.1 Specific Objectives

1. To ascertain the levels of financial literacy among Micro Agribusinesses Entrepreneurs in Mpongwe District.
2. To identify the key factors influencing financial literacy levels among Micro-agribusiness Entrepreneurs in Mpongwe District.

3. To determine how financial literacy has affected the growth and expansion of Micro-agribusiness Enterprises in the Mpongwe District.
4. To assess whether financial literacy has promoted the growth and expansion of Micro-agribusiness Entrepreneurs in the Mpongwe District.

2. Literature Review

2.1 Introduction

The literature reviewed in this study examines the multifaceted role of financial literacy in shaping the growth, sustainability, and resilience of rural micro agribusinesses, with a particular focus on Mpongwe District. Existing research highlights financial literacy as a foundational skill that influences how small-scale entrepreneurs manage resources, access credit, and make informed decisions in dynamic economic environments. The review was guided by four key areas aligned with the study objectives: assessing current literacy levels among agribusiness operators, identifying influencing factors such as education, training, and digital access, evaluating the relationship between financial literacy and business growth, and exploring its contribution to long-term business sustainability. Drawing on studies from Zambia, other African nations like Ghana, Kenya, and Zimbabwe, among others, as well as global contexts including India, Brazil, Nepal, and Australia, among others, the literature provided valuable insights into how financial capability contributes to enterprise success. These perspectives offered a relevant foundation for understanding the local realities of rural entrepreneurs in Mpongwe.

2.2 Empirical Review

2.2.1 Levels and Determinants of Financial Literacy

In Zambia, recent studies showed that financial literacy among small-scale farmers and agribusiness owners remains low, affecting their ability to plan and manage finances effectively. Sakala and Mpembele (2022) found that 90.6% of surveyed farmers scored within the low-to-medium range for financial literacy, with education emerging as the only significant variable influencing knowledge levels. Other variables, such as enterprise registration and revenue levels, only slightly affected financial service uptake. This suggests that literacy programs must focus heavily on foundational knowledge, especially for entrepreneurs with little to no formal education.

Comparatively, a study by Lusardi and Mitchell (2014) emphasised that low financial literacy globally correlates with poor business decisions and misallocation of credit. For example, in Uganda, Walstad et al. (2017) found that rural agribusiness owners exhibited poor comprehension of interest rates, which led to higher rates of loan defaults. This cross-national evidence implied a need for regionally adapted programs to meet varying literacy baselines, especially for agrarian economies heavily reliant on microenterprises. In Kenya, Njoroge (2013) observed that entrepreneurs with limited literacy tend to rely on informal financial services, which increases their vulnerability to fraud and unstable capital cycles. The study highlighted the role of cognitive bias and traditional financial behaviours in determining financial outcomes, emphasising the importance of contextualised education to overcome ingrained practices and enhance informed financial decision-making.

Furthermore, in Tanzania, Chowa et al. (2014) found that peer influence and community training significantly impacted financial behaviour among rural women entrepreneurs. This finding supports Zambia's potential to leverage community-based training and cooperative models to boost financial

literacy among agribusiness groups in districts like Mpongwe, where similar socio-economic structures exist, and communal learning is culturally entrenched.

In Australia, Worthington (2006) examined the relationship between financial literacy and small business sustainability, revealing that rural entrepreneurs frequently overestimated their financial skills, leading to avoidable financial errors and business failure. The study emphasised the need for continuous diagnostic assessment tools to distinguish between perceived and actual financial knowledge. Worthington's findings demonstrated that effective financial literacy interventions must go beyond generic training to include personalised support that corrects misconceptions, especially in rural areas where access to professional financial advice is limited.

2.2.2 Financial Literacy and Debt Behaviour among SMEs

Studies conducted in Lusaka's Central Business District showed that many SMEs lack financial literacy, but most demonstrate a conscious effort to meet debt obligations due to awareness of default consequences (Siwale, 2019). While formal financial engagement remains low, these entrepreneurs often rely on informal channels and personal networks for capital, indicating trust and familiarity as significant barriers to financial system participation, even when structured support systems are present.

In Ghana, Antwi and Gyasi (2020) found that entrepreneurs who underwent financial training had a 23% better record of managing debt and reinvestment than their untrained peers. Their research highlighted that structured training positively influenced both the perception and utilisation of loans among microenterprises, promoting responsible debt management and business scaling practices. Meanwhile, in Malawi, Banda and Phiri (2021) revealed that most microenterprise owners could differentiate between productive and non-productive debt after financial training. This shift in debt behaviour illustrated the transformative power of practical, scenario-based education delivered through grassroots organisations that engage communities where they are.

Similarly, Nonde and Handema (2020) in Zambia discovered that shop owners with higher financial literacy were more likely to use formal credit and plan repayments. Their findings also revealed a direct relationship between financial knowledge and willingness to engage with bank products, a trend that has implications for expanding rural credit access in Mpongwe and shaping training modules that highlight banking benefits.

In Japan, Sekita (2011) studied financial literacy in household debt and found a strong inverse relationship between literacy levels and excessive borrowing. Respondents with higher financial literacy were more likely to understand interest compounding and risk diversification, reducing their susceptibility to debt traps. The study provided evidence for integrating detailed financial concepts into microenterprise training modules to improve strategic borrowing decisions. This insight is valuable for rural Zambian microenterprises, which often struggle with managing informal and formal debts effectively.

2.2.3 Financial Inclusion Models and Resilience in Rural Zambia

Many financial inclusion efforts in rural Zambia have been implemented without adequate tailoring to the specific needs of communities. A study by Banda and Sakala (2021) on women in Kapiri Mposhi revealed that none of the three major models bank-led, mobile money provider-led, or community-based models was effective in isolation. The authors advocated for hybrid approaches that integrate digital platforms with community outreach to overcome barriers of access and trust, which are prevalent in areas with low formal financial exposure. Supporting this, Kikulwe et al. (2019) in Kenya found that mobile money applications significantly increased the savings rates of rural households when combined with financial training. The pairing of technology with practical education proved essential in achieving behavioural

change and long-term inclusion, particularly among populations with limited access to brick-and-mortar financial institutions.

In India, Banerjee and Duflo (2011) argued for adaptive inclusion models that were rooted in social structures and behavioural nudges. Their randomised control trials demonstrated that financial tools alone were ineffective without accompanying education and community reinforcement, echoing findings from Zambia's context, where behavioural inertia and low trust in formal systems persist. Moreover, research by Makina and Walle (2020) in Ethiopia emphasised that informal savings groups were successful in building resilience among women entrepreneurs but required integration with formal services for long-term growth. This supports the case for hybrid approaches in Zambia's Mpongwe District, particularly in strengthening community implementation teams and linking informal practices to formal systems for scalability.

In the United Kingdom, Atkinson and Messy (2013) explored the role of financial education in supporting financial inclusion and found that public-private partnerships in digital literacy initiatives significantly improved financial access among rural and underserved populations. Their research supports the adoption of collaborative models in Zambia that combine local knowledge, government resources, and private sector innovations to drive inclusive financial systems. Such strategies could be particularly impactful in Mpongwe District, where infrastructure gaps limit digital financial participation.

2.3 Gender-Specific Gaps in Financial Literacy Among Women in Agribusiness

Gender disparities in financial literacy continue to affect the economic empowerment of women in rural agribusinesses. Gumbo et al. (2023) found that only 10% of women in Zimbabwe's agribusiness sector scored above OECD's minimum literacy threshold, practising an average of only 2–3 out of 8 key financial behaviours. This severely constrained their ability to manage enterprise finances during shocks like COVID-19 and limited their engagement with formal financial systems. Similarly, in Nigeria, Okon and Nwachukwu (2020) reported that cultural constraints, coupled with limited access to formal education, restricted women's participation in financial training programs. The study emphasised the importance of integrating gender-sensitive modules into broader financial education curricula to enable equitable access to financial literacy across diverse demographics.

In Nepal, Shrestha and Sharma (2018) examined how informal lending practices disproportionately affected women, pushing them into cycles of dependency and stunting business growth. These practices were deeply rooted in cultural norms and were exacerbated by a lack of tailored literacy programs for female entrepreneurs, demonstrating the need for systemic transformation in how education is designed and delivered. In Zambia, Nonde and Handema (2020) also noted that even when women accessed credit, they were more likely to divert funds to household expenses rather than business investment. This was largely due to weak financial planning skills and familial pressures. Addressing these gaps thus requires the design of programs that not only improve knowledge but also empower women with practical financial tools and autonomy.

A study by OECD (2013) across 14 developed countries showed that women consistently scored lower than men in financial literacy assessments, even in nations with high gender parity in education. The research attributed the gap to lower confidence, less financial exposure in upbringing, and fewer opportunities to manage household or business finances independently. These factors resonate with challenges faced by women in Mpongwe, reinforcing the call for literacy programs that not only address knowledge gaps but also foster financial autonomy and decision-making confidence.

2.4 Synthesis and Relevance to Mpongwe District Study

The reviewed literature paints a multifaceted picture of financial literacy’s impact on agribusiness performance, debt behaviour, gendered access, and financial inclusion. While Zambia’s context shares many similarities with other African and Asian countries, it also requires unique, localised solutions. Key themes include the foundational role of education, the necessity of hybrid inclusion models, and the importance of addressing socio-cultural dynamics such as gender roles and traditional finance behaviours. In Mpongwe, where agriculture is the dominant economic activity, the predominance of informal financial practices and low training participation mirror trends seen in Malawi, Kenya, and Ghana. The positive impact of targeted training on credit usage and debt behaviour—documented in Ghana and Malawi—aligns well with the study’s goals of enhancing enterprise resilience through improved literacy and capacity development.

Additionally, the challenges faced by women in Mpongwe reflect broader gender disparities identified in Zimbabwe and Nigeria. This necessitates designing gender-sensitive programs that not only build capacity but also navigate the cultural and familial contexts influencing women’s financial decisions and enterprise management.

Moreover, the evidence that community-based models work best when integrated with digital platforms, as seen in India and Kenya, supports the potential for Zambia to adopt blended strategies. These can be built into Mpongwe’s rural development plans to promote lasting inclusion, growth, and sustainability among micro agribusinesses.

By synthesising findings from multiple contexts, this literature review validates the need for a multifaceted and context-aware approach in Mpongwe. The empirical insights guided the study’s inquiry into how financial literacy, operationalised as knowledge, behaviour, and attitude, shaped the developmental trajectory of rural agribusiness enterprises.

Table 1: Synthesis and Relevance to Mpongwe District Study

| Key Theme | Synthesis from Literature | Relevance to Mpongwe District Study |
|---|--|--|
| Financial Literacy and Agribusiness Performance | Financial literacy positively influences agribusiness growth, credit management, and debt behaviour across African and Asian contexts. Training enhances resilience and business capacity. | Mpongwe’s agribusinesses rely heavily on informal finance and exhibit low participation in training, similar to Malawi and Ghana. Enhancing financial literacy through targeted training can improve credit use and enterprise sustainability. |
| Gendered Access and Sociocultural Dynamics | Women face systemic barriers in accessing finance and managing enterprises due to gender roles and cultural expectations, as documented in Zimbabwe and Nigeria. | Mpongwe’s women entrepreneurs encounter similar gender disparities, necessitating gender-sensitive, culturally aware financial literacy programs that address both capacity and socio-familial influences. |
| Hybrid Financial Inclusion Models | Community-based financial inclusion models integrated with digital platforms have shown success in India and | Mpongwe can leverage blended inclusion strategies, combining traditional community models and digital tools to enhance the |

| | | |
|------------------------------------|--|---|
| | Kenya, combining accessibility with scalability. | reach, growth, and sustainability of rural micro agribusinesses. |
| Education and Capacity Building | Foundational education underpins financial literacy and empowerment, while practical, context-specific training is essential to translate knowledge into behaviour change. | Training programs in Mpongwe should be tailored to local realities, emphasising practical skills and culturally relevant approaches to improve financial behaviours and attitudes. |
| Local Context and Unique Solutions | Despite similarities across regions, sociocultural and economic contexts vary, requiring localised, multifaceted approaches rather than one-size-fits-all solutions. | Mpongwe’s unique cultural and economic landscape calls for customised interventions based on empirical insights into how knowledge, behaviour, and attitudes affect agribusiness development. |

2.5 Theoretical Frameworks

This study was anchored in three complementary theories—the Resource-Based View (RBV), Sustainable Growth Theory, and the Theory of Change (ToC)—to explain how financial literacy can influence the growth and expansion of rural micro-agribusiness enterprises. Each theory provided a unique lens to conceptualise the link between internal capabilities, external conditions, and developmental outcomes in the Mpongwe District context.

2.5.1 Resource-Based View (RBV)

The Resource-Based View (RBV), popularised by Barney (1991), posits that an organisation’s competitive advantage is rooted in its internal resources that are valuable, rare, inimitable, and non-substitutable (VRIN). In the context of rural micro agribusinesses, financial literacy is conceptualised as an intangible resource that equips entrepreneurs with the capability to plan, budget, access credit, and make informed investment decisions. These cognitive and behavioural competencies can serve as a sustainable advantage in resource-constrained environments like Mpongwe, where formal market information is limited. Moreover, RBV highlights that merely securing external funding is insufficient; what matters is the entrepreneur’s ability to translate financial knowledge into the strategic use of resources for long-term growth. As rural enterprises often operate in competitive but poorly structured markets, financial literacy allows business owners to manage risks, allocate capital efficiently, and pursue productive opportunities, thus enhancing business sustainability.

2.5.2 Sustainable Growth Theory

Sustainable Growth Theory, often associated with the work of Higgins (1977), focuses on how businesses grow over time without exhausting their internal resources or resorting to unsustainable borrowing. It emphasises maintaining a balance between financial leverage, profitability, and reinvestment. For rural microenterprises in Mpongwe, the theory underscores the importance of financial planning and literacy in achieving steady expansion while avoiding debt traps and liquidity crises. The theory provides a framework for analysing how financially literate entrepreneurs can grow organically by reinvesting profits, accessing appropriately structured credit, and avoiding overdependence on short-term debt. In

environments characterised by high volatility, such as agriculture-based economies, sustainable growth requires an understanding of cash flow cycles, risk buffers, and capital productivity—skills that financial education directly supports.

2.5.3 Theory of Change (ToC)

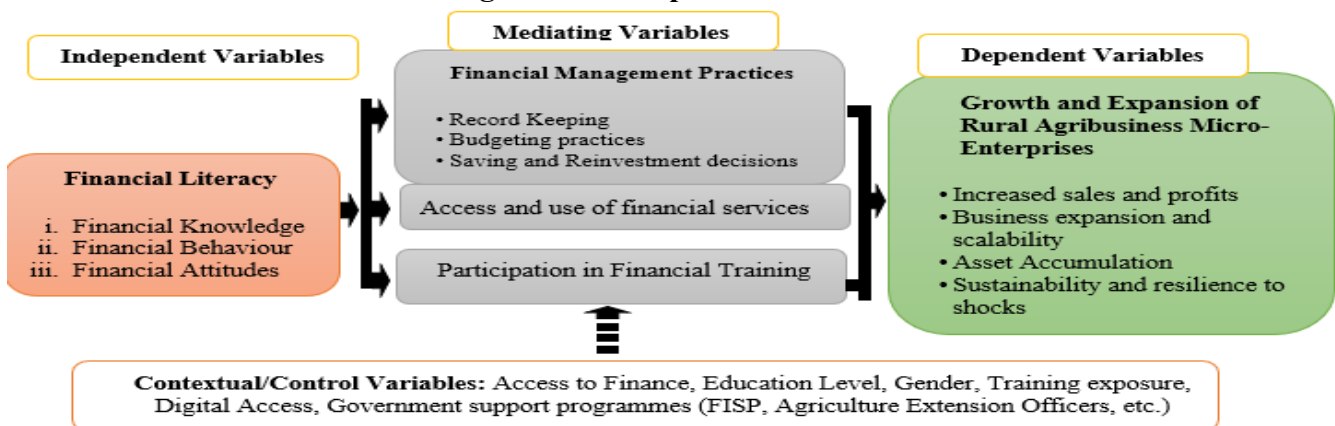
The Theory of Change (ToC) serves as a strategic model to link interventions (such as financial literacy training) to short-term outcomes (improved financial behaviours), intermediate changes (business expansion), and long-term impacts (sustainable rural development). It is particularly suited for development-oriented research where outcomes are influenced by both systemic and behavioural variables. In this study, ToC guided the logic model underpinning the expected impact of financial literacy on rural agribusiness development. It is assumed that if microentrepreneurs acquire relevant financial knowledge and skills, they are more likely to adopt sound financial practices, access formal financing, and expand their operations. These changes are expected to contribute to poverty reduction and economic empowerment at the community level. Ultimately, the ToC framework is valuable for evaluating not just whether financial literacy matters, but how and why it matters in achieving rural development outcomes in Mpongwe.

2.6 Conceptual Framework

The conceptual framework illustrates the relationship between financial literacy and the growth and expansion of rural agribusiness micro-enterprises in Mpongwe District, Zambia. Financial literacy is treated as the independent variable and operates through three core dimensions: financial knowledge, financial behaviour, and financial attitudes. These dimensions capture entrepreneurs’ understanding of financial concepts, their day-to-day financial practices, and their orientation toward saving, borrowing, and financial planning. The framework shows that financial literacy influences enterprise performance indirectly through key mediating variables, namely financial management practices, access to and use of financial services, and participation in financial training programmes. Entrepreneurs with higher financial literacy are more likely to apply structured practices such as budgeting, recordkeeping, saving, and reinvestment, and to engage more effectively with formal financial services.

These mediating mechanisms collectively shape enterprise growth and expansion, reflected in increased profitability, scalability, asset accumulation, and resilience to economic and environmental shocks. The framework further recognises the conditioning role of contextual factors, including education, gender, digital access, training exposure, access to finance, and government support programmes.

Figure 1: Conceptual Framework



Source: Author, 2025.

Overall, the framework positions financial literacy as a critical internal capability whose growth-enhancing effects depend on supportive institutional and socio-economic conditions.

3. Research Methodology

The study adopted a cross-sectional case study design, guided by a pragmatist research philosophy and an abductive approach, to examine the effects of financial literacy on the growth and expansion of rural micro-agribusiness enterprises. This design was appropriate because it allowed for the collection of quantitative and qualitative data at a single point in time, providing both measurable relationships and contextual explanations of financial literacy practices among entrepreneurs. The mixed-methods approach was justified by the need to triangulate statistical relationships with experiential insights, thereby strengthening the validity of the findings. Such an approach is widely recommended for applied business and development research where complex social and economic phenomena are examined (Creswell and Plano Clark, 2018).

On the other hand, Mpongwe District was purposively selected due to its strong dependence on agribusiness, high concentration of rural micro-enterprises, and active participation in government agricultural support programmes such as FISP and agricultural extension services. These characteristics made the district a suitable case for examining how financial literacy operates within a typical rural agribusiness setting in Zambia and for generating context-specific insights relevant to rural enterprise development.

A sample of 100 micro-agribusiness entrepreneurs was drawn from six farming blocks using quota sampling to ensure representation across different agribusiness activities, while purposive sampling was used to select five (5) key informants with institutional knowledge of agribusiness support and financial services. The sample size was considered adequate for inferential statistical analysis, as it met minimum thresholds for correlation, regression, and group comparison tests, while remaining feasible for detailed field engagement. According to Hair et al. (2019), samples of this size are sufficient for regression and correlation analyses in social science research, provided the model is not overly complex.

Data were collected using structured self-administered questionnaires, which were appropriate for capturing standardised measures of financial knowledge, financial behaviour, financial attitudes, and enterprise performance, and semi-structured interview guides to obtain explanatory qualitative insights. Instrument reliability was confirmed using Cronbach's Alpha ($\alpha \geq 0.70$), while validity and trustworthiness were ensured through pilot testing, expert review, triangulation, and member checking. The use of multiple data collection tools enhanced methodological rigour by allowing for convergence of evidence from different sources (Yin, 2018).

Quantitative data were analysed using SPSS version 25, applying Pearson's correlation analysis to test relationships between financial literacy and enterprise growth, multiple regression analysis to assess the predictive effects of financial literacy and its determinants, and independent samples t-tests to examine gender-based differences. These inferential techniques were appropriate given the continuous variables and the comparative objectives. Qualitative data were analysed thematically through content analysis to complement and explain the statistical results. Ethical standards were strictly observed, including informed consent, anonymity, and voluntary participation, in line with established ethical research guidelines (Pallant, 2020).

3.1 Ethical clearance

Ethical clearance for this study was obtained from the relevant academic and institutional authorities before data collection. Permission to conduct the research was granted by the appropriate district and local administrative offices in Mpongwe District. All participants were fully informed about the purpose of the study, and their voluntary participation was secured through informed consent. Confidentiality, anonymity, and the right to withdraw at any stage were strictly upheld in accordance with established ethical research standards.

4. Key Findings

4.1 Levels of financial literacy among Micro-agribusiness Entrepreneurs

The findings indicate that financial literacy among micro-agribusiness entrepreneurs in Mpongwe District was predominantly low to moderate across core financial domains. Out of the 100 respondents surveyed, 68% exhibited low financial literacy, 18% demonstrated moderate literacy, and only 14% displayed high financial literacy in budgeting, saving, interest rate comprehension, recordkeeping, and financial planning. This distribution highlights widespread gaps in foundational financial knowledge, constraining entrepreneurs' capacity to make informed financial decisions and systematically manage their enterprises.

Table 2: Overall financial literacy levels of respondents

| Financial Literacy Level | Score Range | Frequency | Percentage (%) |
|--------------------------|---------------|------------|----------------|
| Low | Below 50% | 68 | 68.0 |
| Moderate | 50–74% | 18 | 18.0 |
| High | 75% and above | 14 | 14.0 |
| Total | | 100 | 100.0 |

Further analysis revealed weak conceptual understanding of basic financial principles. A substantial proportion of respondents could not accurately explain inflation (72%), distinguish between gross and net income (64%), or calculate simple interest (61%). In addition, 59% of respondents reported not maintaining any formal financial records, relying instead on memory or informal methods to track income and expenses. These findings point to limited capacity for financial analysis, performance monitoring, and planning.

Table 3: Performance on selected financial knowledge indicators

| Financial Literacy Indicator | Correct Responses (%) | Incorrect / Unable (%) |
|--|-----------------------|------------------------|
| Definition of inflation | 28 | 72 |
| Distinction between gross and net income | 36 | 64 |
| Understanding interest rates | 39 | 61 |
| Maintaining financial records | 41 | 59 |
| Ability to prepare a simple budget | 47 | 53 |

Educational differences were evident in the distribution of financial literacy levels. Among entrepreneurs with no formal education, 81% fell within the low-literacy category, compared to 43% among those with secondary education or higher. Respondents with more years of schooling demonstrated a stronger

understanding of savings mechanisms, loan terms, and interest implications, confirming education as a key determinant of financial knowledge and behaviour.

Table 4: Financial literacy levels by education level

| Education Level | Low (%) | Moderate (%) | High (%) |
|---------------------|---------|--------------|----------|
| No formal education | 81 | 14 | 5 |
| Primary education | 69 | 21 | 10 |
| Secondary and above | 43 | 29 | 28 |

Gender disparities were also pronounced. Female entrepreneurs, who constituted 56% of the sample, were disproportionately represented in the low-literacy category. An independent samples t-test confirmed a statistically significant difference in financial literacy scores between men and women ($p = 0.0005$). Qualitative findings attributed this gap to cultural norms, household responsibilities, limited engagement with financial institutions, and lower confidence in financial decision-making.

Table 5: Gender differences in financial literacy

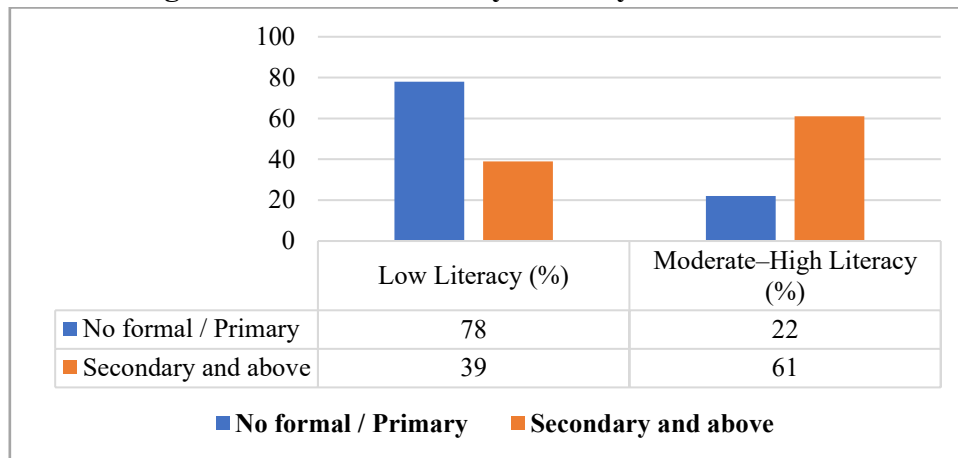
| Gender | Mean Literacy Score | Standard Deviation | t-value | p-value |
|--------|---------------------|--------------------|---------|---------|
| Male | 62.4 | 11.3 | | |
| Female | 51.8 | 10.9 | 3.87 | 0.0005* |

The findings show that financial literacy among micro-agribusiness entrepreneurs in Mpongwe District is largely low to moderate, with substantial gaps in budgeting, recordkeeping, interest rate comprehension, and financial planning. Many entrepreneurs lacked basic conceptual understanding of financial principles and relied on informal practices, limiting effective decision-making and risk management. Educational attainment and gender disparities further influenced literacy levels, with better-educated entrepreneurs performing stronger, while female entrepreneurs faced additional confidence and access constraints.

4.2 Factors influencing financial literacy levels among Micro-agribusiness Entrepreneurs

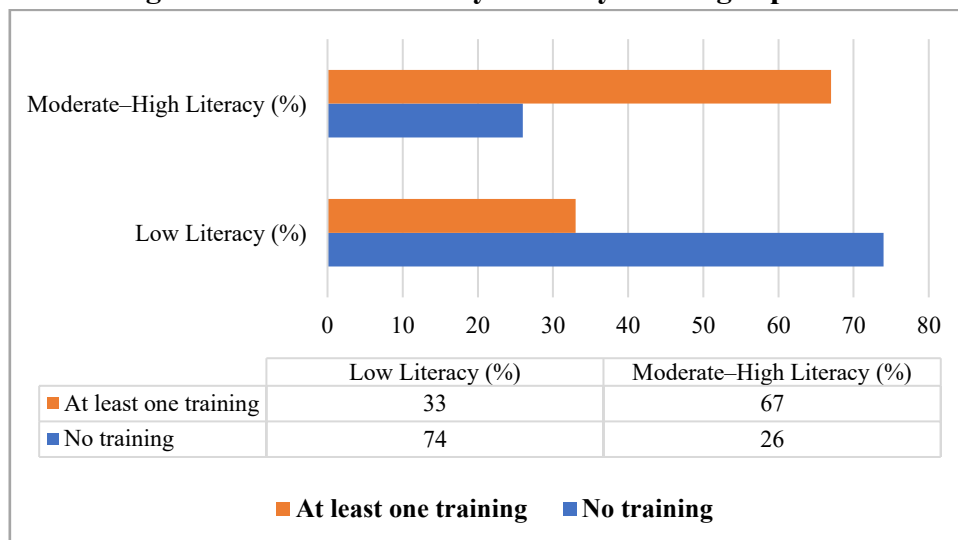
Formal education emerged as a primary factor influencing financial literacy levels. Among respondents with secondary education or higher, 61% demonstrated moderate to high financial literacy, compared to only 22% among those with primary or no formal education. Regression analysis confirmed that education significantly predicts financial literacy ($\beta = 0.41$, $p = 0.0003$), indicating that numeracy and comprehension skills acquired through schooling are critical for interpreting financial information.

Figure 2: Financial literacy levels by education level



Access to financial literacy training also significantly influenced financial capability. Of respondents who had attended at least one financial education programme, 67% demonstrated moderate to high literacy, compared to 26% among those without training exposure. Training delivered through cooperatives, NGOs, and financial institutions was associated with stronger budgeting, saving, and goal-setting behaviours, although access remained uneven across geographical locations.

Figure 3: Financial literacy levels by training exposure



Digital access further shaped financial literacy outcomes. Respondents who frequently used mobile money and digital financial services recorded higher literacy levels, with 78% scoring above average, compared to 31% among non-users. Pearson correlation analysis confirmed a significant positive relationship between digital financial access and financial literacy ($r = 0.46$, $p = 0.00002$). However, network limitations and shared phone usage constrained effective utilisation in some areas.

Table 6: Relationship between digital financial access and financial literacy

| Digital Financial Service Use | Above-Average Literacy (%) | Below-Average Literacy (%) |
|-------------------------------|----------------------------|----------------------------|
| Frequent users | 78 | 22 |

| | | |
|------------------|----|----|
| Occasional users | 49 | 51 |
| Non-users | 31 | 69 |

Gender-related constraints intersect with these factors. 68% of female respondents cited limited time, reduced autonomy, and reliance on male relatives for financial decisions as barriers to acquiring financial skills. These findings indicate that financial literacy acquisition is shaped by interacting educational, technological, and socio-cultural factors.

Table 7: Gender-based barriers to financial literacy acquisition

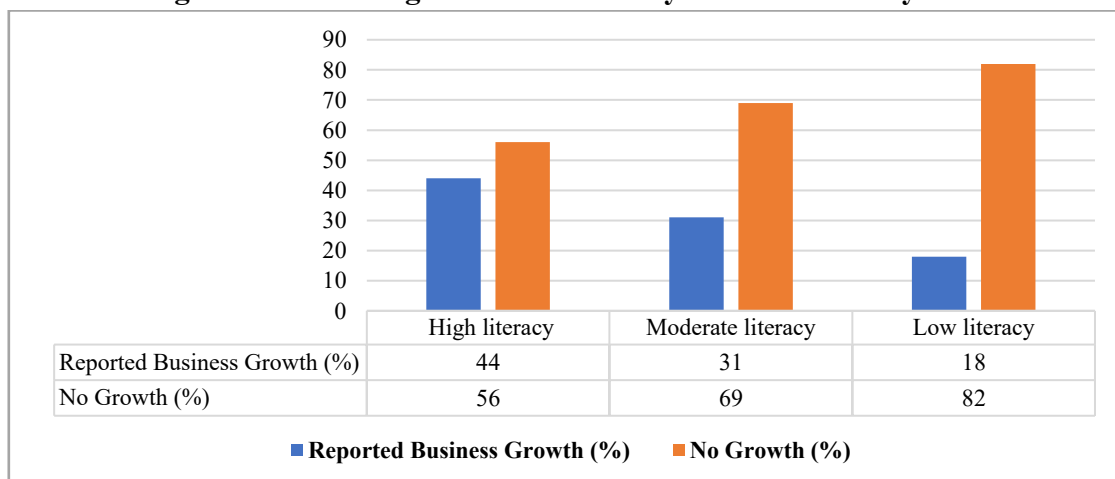
| Reported Barrier | Female Respondents (%) |
|---|------------------------|
| Limited time due to household responsibilities | 68 |
| Reduced financial decision-making autonomy | 63 |
| Reliance on male relatives | 59 |
| Low confidence in engaging financial institutions | 74 |

Financial literacy levels were influenced by a combination of education, access to training, digital financial access, and socio-cultural factors. Formal education emerged as the strongest predictor of financial literacy, while participation in financial training programmes improved budgeting and saving behaviours. Regular use of digital financial services enhanced financial awareness, though access barriers persisted. Gender-related constraints, particularly among women, further limited exposure to financial learning opportunities, highlighting the need for inclusive and context-specific interventions.

4.3 Impact of financial literacy on the growth and expansion of Rural Micro Agribusinesses

The findings reveal a strong relationship between financial literacy and enterprise growth. Among respondents with high financial literacy, 44% reported tangible business growth within the past two years, including increased revenues, asset acquisition, and enterprise expansion. In contrast, only 18% among low-literacy entrepreneurs with low financial literacy reported any form of growth, with most enterprises remaining stagnant. Growth indicators included increased monthly revenue, asset acquisition, enterprise formalisation, and expansion of customer bases. Pearson correlation analysis showed a statistically significant positive relationship between financial literacy and business growth ($r = 0.42, p = 0.00008$).

Figure 4: Business growth outcomes by financial literacy level



Growth indicators reported by financially literate respondents included expansion of production scale, diversification into additional crops, acquisition of productive assets, and entry into new markets. Conversely, 67% of low-literacy respondents indicated an inability to reinvest profits or expand operations due to weak financial planning and cash-flow challenges.

Table 8: Financial Literacy level and business growth outcomes

| Financial Literacy Level | Business Growth Reported (%) | No Growth (%) |
|--------------------------|------------------------------|---------------|
| High literacy | 44 | 56 |
| Moderate literacy | 31 | 69 |
| Low literacy | 18 | 82 |

4.3.1 Inferential Relationship Between Financial Literacy and Business Growth

Pearson correlation analysis revealed a moderate, positive, and statistically significant relationship between financial literacy and business growth ($r = 0.42$, $p = 0.00008$). This indicates that increases in financial literacy are associated with higher levels of enterprise growth among rural micro-agribusinesses. Further analysis showed a stronger relationship between financial behaviour and sustainability outcomes ($r = 0.51$, $p < 0.00001$), suggesting that applied financial practices play a critical role in sustaining growth.

Table 9: Correlation analysis between financial literacy and growth indicators

| Variables Compared | Correlation (r) | p-value | Interpretation |
|---------------------------------------|-----------------|----------|-----------------------------------|
| Financial literacy vs Business Growth | 0.42 | 0.00008 | Significant positive relationship |
| Financial behaviour vs Sustainability | 0.51 | <0.00001 | Strong positive relationship |

4.3.2 Effect of financial literacy on enterprise growth (regression results)

Multiple regression analysis confirmed that financial literacy is a significant predictor of business growth. Financial literacy accounted for a substantial proportion of variance in enterprise growth outcomes ($\beta = 0.38$, $p = 0.00005$). Education level was also found to significantly predict financial literacy ($\beta = 0.41$, $p = 0.0003$), indicating an indirect pathway through which education influences enterprise growth. Access to financial training significantly predicted enterprise sustainability ($\beta = 0.35$, $p = 0.0007$), reinforcing the importance of applied financial knowledge.

Table 10: Regression analysis predicting business growth

| Predictor Variable | Beta (β) | p-value | Effect |
|--------------------|------------------|---------|-------------|
| Financial literacy | 0.38 | 0.00005 | Significant |
| Education level | 0.41 | 0.0003 | Significant |
| Access to training | 0.35 | 0.0007 | Significant |

Regression analysis further confirmed that financial literacy significantly predicts business growth ($\beta = 0.38$, $p = 0.00005$), indicating that improvements in financial knowledge and behaviour translate into measurable enterprise expansion outcomes. Financially literate entrepreneurs demonstrated stronger pricing strategies, cost control, and financial monitoring practices.

4.3.3 Financial Literacy, Reinvestment Behaviour, and Credit Use

Reinvestment behaviour differed significantly across literacy levels. Among high-literacy respondents, 53% reported regular reinvestment of profits, compared to 21% among low-literacy respondents. These reinvestments supported expansion through increased production capacity, asset accumulation, and market diversification. Financially literate entrepreneurs demonstrated stronger inventory management, pricing strategies, and debt control.

Access to credit was also influenced by financial literacy. 61% of financially literate respondents accessed formal credit and repaid successfully, compared to 27% among low-literacy entrepreneurs, many of whom avoided credit or reported repayment challenges. These findings demonstrate that financial literacy directly influences enterprise growth trajectories through improved financial decision-making, reinvestment, and engagement with financial services.

Table 11: Financial literacy, reinvestment, and credit utilisation

| Indicator | High Literacy (%) | Low Literacy (%) |
|-----------------------------|-------------------|------------------|
| Regular profit reinvestment | 53 | 21 |
| Accessed formal credit | 61 | 27 |
| Successful loan repayment | 58 | 24 |

4.3.4 Gender Differences in Financial Literacy and Growth Outcomes

Independent samples t-test results revealed a statistically significant gender difference in financial literacy levels ($p = 0.0005$). Female entrepreneurs, who constituted 56% of the sample, were less likely to apply for credit, maintain records, or engage in formal financial planning. These differences corresponded with weaker growth outcomes among female-owned enterprises.

Table 12: Gender differences in financial literacy

| Gender | Mean Literacy Score | p-value |
|--------|---------------------|---------|
| Male | Higher | |
| Female | Lower | 0.0005 |

In general, the above, the findings demonstrate that financial literacy has a statistically significant effect on the growth and expansion of micro-agribusiness enterprises in Mpongwe District. Higher financial literacy levels are associated with improved reinvestment behaviour, credit utilisation, profitability, and enterprise expansion. Inferential analysis confirms that financial literacy is not merely associated with growth but predicts enterprise performance, directly addressing the study problem of persistent stagnation despite financial support.

4.4 Role of financial literacy in promoting sustainability and long-term development

Results indicate that 64% of financially literate respondents reported improved future planning capacity, compared to 27% of low-literacy respondents. Regular saving behaviour was reported by 58% of literate respondents and 22% of low-literacy respondents.

Table 13: Financial literacy and sustainability practices

| Indicator | High Literacy (%) | Low Literacy (%) |
|-----------------|-------------------|------------------|
| Future planning | 64 | 27 |

| | | |
|----------------|----|----|
| Regular saving | 58 | 22 |
|----------------|----|----|

Financial literacy was found to play a central role in enterprise sustainability and long-term development. Among financially literate respondents, 64% reported improved future planning capacity, compared to 27% among low-literacy respondents. Consistent saving behaviour was reported by 58% of literate entrepreneurs, indicating stronger financial discipline and preparedness.

Table 14: Sustainability practices by financial literacy level

| Indicator | High Literacy (%) | Low Literacy (%) |
|---------------------------------------|-------------------|------------------|
| Consistent saving behaviour | 58 | 21 |
| Contingency savings (≥ 1 month) | 49 | 16 |
| Written/digital recordkeeping | 71 | 19 |
| Clear medium-term business goals | 65 | 23 |

Resilience to shocks was also higher among financially literate entrepreneurs. 49% of respondents with high financial literacy maintained contingency savings sufficient to cover at least one month of operating costs, compared to 16% among low-literacy respondents. These savings enabled continued operations during droughts, market disruptions, and input price shocks.

Table 15: Financial literacy and shock resilience

| Indicator | High Literacy (%) | Low Literacy (%) |
|-------------------------------|-------------------|------------------|
| Contingency savings available | 49 | 16 |

Key informant interviews confirmed that entrepreneurs who practised budgeting, recordkeeping, and reinvestment were more likely to sustain operations over extended periods. These enterprises maintained stronger relationships with financial institutions and participated actively in savings groups and cooperatives, enhancing stability and creditworthiness.

Finally, 71% of financially literate respondents used written or digital financial records, compared to 19% among low-literacy respondents, while 65% had clear medium-term business goals, compared to 23% among low-literacy entrepreneurs. These findings confirm that financial literacy supports long-term planning, structured decision-making, and enterprise resilience.

Table 16: Goal setting and enterprise longevity

| Indicator | High Literacy (%) | Low Literacy (%) |
|--------------------|-------------------|------------------|
| Uses records | 71 | 19 |
| Has business goals | 65 | 23 |

The study confirms that financial literacy plays a critical role in enhancing the sustainability and long-term development of micro-agribusiness enterprises. Financially literate entrepreneurs demonstrated stronger future planning, consistent saving behaviour, and greater resilience to economic and climatic shocks. The application of structured financial practices such as budgeting, recordkeeping, and reinvestment improved business continuity and stability. Overall, financial literacy functioned as a key internal capability supporting sustainable rural agribusiness development.

5. Discussion

5.1 Levels of Financial Literacy among Micro-agribusiness Entrepreneurs

The findings from Mpongwe District confirm that financial literacy levels among rural micro-agribusiness entrepreneurs are predominantly low across core financial domains. Empirical evidence indicates that most entrepreneurs demonstrate limited competence in budgeting, saving, recordkeeping, understanding interest rates, and financial planning. These gaps limit their ability to accurately evaluate costs, monitor enterprise performance, and make informed financial decisions over time. Similar patterns were documented by Chowa et al. (2014) in Ghana, where rural entrepreneurs struggled with foundational financial concepts despite participating in informal financial systems. In Mpongwe, a limited understanding of inflation and income differentiation further constrained strategic planning and profit assessment. These findings suggest that although financial services are increasingly available, financial capability has not progressed at the same pace. Consequently, financial inclusion without adequate literacy remains insufficient for supporting sustainable agribusiness growth in rural contexts. From a Resource-Based View perspective, financial literacy constitutes an intangible internal capability, and its absence weakens entrepreneurs' ability to convert external financial access into productive advantage. This explains why increased financial inclusion alone did not translate into improved enterprise outcomes in Mpongwe.

Education-related disparities strongly shaped financial literacy outcomes in Mpongwe. Entrepreneurs with secondary education or higher demonstrated greater confidence and accuracy in applying financial concepts, while those with primary or no formal education were disproportionately represented in the low-literacy category. These results mirror findings by Zaloumis and Foya (2022) in Zambia, who identified education as a key determinant of financial capability and behavioural outcomes. Comparable evidence from Lusardi and Mitchell (2014) shows that limited schooling consistently undermines financial understanding in rural economies across Latin America and South Asia. In Mpongwe, informal exposure to financial activities alone did not sufficiently compensate for the absence of foundational education. This suggests that financial literacy programmes must be carefully designed to accommodate low-literacy audiences through simplified, experiential, and practice-oriented delivery methods that bridge educational gaps. Sustainable Growth Theory supports this finding by emphasising that growth depends on the gradual accumulation of human capital, of which education-enhanced financial literacy is a core component. Without this foundation, enterprises struggle to move beyond subsistence operations.

Gender disparities further compounded financial literacy gaps among micro-agribusiness entrepreneurs in Mpongwe. Female entrepreneurs consistently reported lower confidence in engaging with banks, applying for credit, and managing financial records, reflecting entrenched socio-cultural constraints and unequal access to decision-making spaces. Similar patterns were observed by Okon and Nwachukwu (2020) in Kenya and Eniola and Entebang (2017) in Nigeria, where women entrepreneurs faced systemic barriers to acquiring financial knowledge. In Mpongwe, household responsibilities, limited mobility, and reduced trust in formal financial institutions constrained women's financial participation and learning opportunities. These findings indicate that financial literacy gaps are not purely technical but are embedded within broader structural and cultural contexts. Addressing these disparities, therefore, requires gender-sensitive, locally grounded financial education models that simultaneously build knowledge, confidence, and autonomy. The Theory of Change explains this outcome by highlighting how contextual and social barriers interrupt the pathway between training inputs and desired behavioural outcomes, particularly for women operating in restrictive socio-cultural environments.

5.2 Factors influencing financial literacy levels among entrepreneurs

The study confirms that education is a primary determinant shaping financial literacy among micro-agribusiness entrepreneurs in Mpongwe District. Respondents with higher educational attainment demonstrated stronger comprehension and application of financial concepts, supporting earlier Zambian evidence by Sakala and Mpembele (2022). Formal schooling equips entrepreneurs with numeracy, literacy, and analytical skills essential for interpreting financial information, budgeting, and evaluating credit terms. These findings align with Lusardi and Mitchell (2011), who observed that education consistently predicts financial decision-making capacity across diverse economic contexts. In Mpongwe, limited education constrained entrepreneurs' ability to internalise financial knowledge even when exposed to training opportunities. This reinforces the need for simplified and context-specific financial literacy approaches tailored to low-education rural populations. From a Resource-Based View lens, education strengthens financial literacy as a valuable and non-substitutable human capital resource that enhances entrepreneurs' strategic decision-making capacity.

Access to financial literacy training significantly influenced financial capability among entrepreneurs. Those who participated in training programmes demonstrated stronger budgeting, saving, and financial goal-setting behaviours, confirming findings by Kasonde et al. (2024) on the effectiveness of structured training in Zambia. Training delivered through cooperatives, NGOs, and financial institutions translated into improved financial discipline and greater confidence in managing enterprise finances. However, access to such programmes remained uneven, particularly for entrepreneurs in remote farming blocks. Similar disparities were reported by Banerjee et al. (2013) in rural India, where geographical isolation limited training reach. These findings suggest that expanding decentralised and cooperative-based training platforms is critical for achieving equitable financial literacy development across rural agribusiness communities. The Theory of Change supports this finding by illustrating how targeted training interventions serve as catalysts that transform knowledge inputs into improved financial behaviours and enterprise outcomes.

Digital financial access emerged as an enabling but conditional factor influencing financial literacy. Entrepreneurs using mobile money and other digital services demonstrated better transaction tracking, saving behaviour, and financial awareness, consistent with findings by Mani and Ngigi (2024) in Kenya. However, network limitations, shared phone usage, and low digital confidence constrained effective utilisation in Mpongwe. Gender further intersected with these barriers, as women reported lower access to personal devices and reduced autonomy over digital tools. These patterns mirror global evidence showing that digital solutions must be supported by human-centred training and mentorship. In Mpongwe, leveraging agricultural extension officers and cooperative structures could enhance both digital inclusion and financial capability development. Sustainable Growth Theory explains this outcome by emphasising that technology-driven growth is effective only when complementary human capabilities, such as financial literacy, are adequately developed.

5.3 Impact of financial literacy on growth and expansion of agribusinesses

The findings demonstrate a strong and consistent relationship between financial literacy and enterprise growth in Mpongwe District. Entrepreneurs with higher financial literacy were significantly more likely to report increased revenue, asset acquisition, reinvestment, and business formalisation. These outcomes reflect both horizontal growth through enterprise expansion and diversification, and vertical growth through improved profitability, productivity, and asset accumulation. Similar relationships were observed by Gumbo et al. (2023) in Zimbabwe and Bruhn et al. (2013) in Mexico, where financial capability

enhanced enterprise performance. In Mpongwe, financially literate entrepreneurs applied structured financial practices that translated knowledge into measurable growth outcomes, confirming financial literacy as a practical driver of enterprise expansion. This finding is strongly supported by the Resource-Based View, which posits that internal capabilities such as financial literacy enables firms to deploy resources more efficiently and achieve competitive advantage.

Conversely, entrepreneurs with low financial literacy largely remained survival-oriented, with limited growth prospects. These enterprises exhibited weak cash flow management, poor cost control, limited reinvestment, and minimal financial planning, constraining expansion and diversification. Comparable findings were reported by Fatoki (2014) in South Africa, where limited financial skills restricted enterprise scaling and long-term growth. In Mpongwe, the inability to estimate seasonal costs, calculate profits, and manage credit obligations resulted in overspending and business stagnation. These findings directly address Research Question III by demonstrating that financial literacy influences growth only when knowledge is practically applied through structured financial management practices rather than existing as abstract understanding. Sustainable Growth Theory explains this stagnation by highlighting that enterprises lacking internal planning and control mechanisms struggle to generate reinvestable surplus necessary for growth.

Financial literacy also enhanced entrepreneurs' engagement with formal financial services, further supporting growth and expansion. Financially literate respondents accessed credit more confidently, demonstrated better repayment behaviour, and used loans for productive investment rather than consumption. These findings align with Mani and Ngigi (2024) and Adhikari and Shrestha (2016), who linked financial capability to effective credit utilisation and enterprise expansion. In Mpongwe, improved recordkeeping, budgeting, and forecasting strengthened loan approval prospects and reinvestment decisions. This reinforces financial literacy as a strategic internal capability that shapes enterprise growth trajectories through applied financial decision-making. The Theory of Change framework clarifies this pathway by showing how financial knowledge alters behaviour, leading to improved financial engagement and enterprise outcomes.

5.4 Role of financial literacy in promoting sustainability and long-term development of Micro Agribusinesses

The study confirms that financial literacy plays a critical role in promoting sustainability and long-term development among micro-agribusiness enterprises in Mpongwe District. Financially literate entrepreneurs demonstrated stronger future planning, consistent saving behaviour, and improved preparedness for business shocks. These findings mirror those of Chibesa and Mwange (2025), who linked financial capability to resilience and strategic planning in rural Zambia. In Mpongwe, financially literate respondents anticipated input costs, managed market fluctuations, and maintained operational continuity during difficult periods. This highlights the role of financial knowledge in enabling enterprises to transition from short-term survival to long-term sustainability. Sustainable Growth Theory supports this finding by emphasising that long-term enterprise viability depends on planned reinvestment, risk management, and adaptive capacity.

Access to financial education further strengthened enterprise resilience and stability. Entrepreneurs exposed to training were more likely to maintain contingency savings and adapt to disruptions such as droughts or market closures. Similar outcomes were reported by IFC (2023) in Malawi and Bangladesh, where financial literacy improved shock absorption and business continuity. In Mpongwe, saving behaviour and disciplined reinvestment practices reduced vulnerability to income fluctuations and

production risks. These findings demonstrate that sustainability is closely tied to applied financial skills rather than income levels or access to inputs alone. The Theory of Change explains how financial education interventions lead to behavioural shifts that enhance resilience and long-term enterprise stability.

Long-term sustainability was further reinforced through engagement with cooperatives and financial institutions. Entrepreneurs who practised budgeting, recordkeeping, and reinvestment maintained stronger creditworthiness and institutional linkages. Comparable evidence from Prina (2015) in India and Kayongo and Ntale (2019) in Uganda supports this relationship. In Mpongwe, financial literacy enabled deliberate goal setting, strategic investment, and adaptive decision-making, positioning enterprises for sustained growth and resilience. These practices strengthened enterprise continuity and enhanced the long-term contribution of agribusinesses to rural livelihoods and economic stability. From a Resource-Based View perspective, these practices represent the effective mobilisation of internal capabilities to secure durable competitive advantage and enterprise survival.

6. Conclusion

This study sought to interrogate the role of financial literacy in shaping the growth, expansion, and sustainability of rural micro-agribusiness enterprises in Mpongwe District by addressing four key research questions. First, the study established that financial literacy levels among micro-agribusiness entrepreneurs remain largely inadequate, particularly in budgeting, recordkeeping, savings, and credit evaluation, indicating that limited financial capability continues to constrain effective enterprise decision-making. Second, the analysis demonstrated that financial literacy levels are not randomly distributed but are strongly conditioned by education, access to training, digital financial exposure, and gender, confirming that financial capability is socially and institutionally embedded rather than individually acquired. Third, the findings showed that financial literacy meaningfully influences enterprise growth and expansion only when knowledge is translated into practice, as entrepreneurs who applied budgeting, reinvestment, and financial planning were more likely to expand operations, improve profitability, and formalise their businesses. Finally, the study confirmed that financial literacy plays a central role in long-term sustainability by enabling entrepreneurs to plan for risk, build financial buffers, and adapt to market and climatic shocks. From a theoretical perspective, these conclusions reinforce the Resource-Based View by positioning financial literacy as a strategic internal capability, while Sustainable Growth Theory explains how disciplined financial management supports balanced expansion. The Theory of Change further clarifies how improved financial knowledge triggers behavioural change that translates into enterprise resilience. Overall, the study demonstrates that without deliberate investment in applied, inclusive, and context-responsive financial literacy, rural agribusiness development efforts are unlikely to achieve sustainable outcomes.

7. Recommendations

Based on the findings and discussion, the following recommendations are proposed to enhance financial literacy and improve the performance and sustainability of micro-agribusiness enterprises in Mpongwe District:

1. Institutionalise applied financial literacy programmes within agribusiness support initiatives to ensure entrepreneurs acquire practical skills in budgeting, recordkeeping, saving, and credit management.

2. Integrate financial literacy training into agricultural extension services, enabling extension officers to deliver continuous, context-relevant financial education alongside technical farming support.
3. Develop gender-sensitive financial literacy interventions that address women's specific constraints, including time limitations, confidence gaps, and limited access to formal financial systems.
4. Expand access to financial training in remote areas through mobile training units, community-based workshops, and cooperative-led learning platforms.
5. Leverage cooperatives and farmer associations as key channels for delivering financial education, peer learning, and collective savings and credit initiatives.
6. Promote digital financial inclusion by supporting access to mobile money, digital savings tools, and financial applications tailored to low-literacy rural users.
7. Strengthen partnerships between financial institutions and agribusiness entrepreneurs to improve understanding of loan products, repayment terms, and credit requirements.
8. Embed financial literacy components into government programmes such as FISP and Zambia Agricultural Development Bank initiatives to enhance the productive use of financial support.
9. Encourage recordkeeping and financial documentation through simplified tools and templates that are accessible to entrepreneurs with low formal education.
10. Support continuous capacity building rather than one-off training, ensuring sustained behavioural change and long-term application of financial knowledge.
11. Undertake longitudinal and experimental research to assess the long-term impacts of financial literacy interventions and explore digital pathways for enhancing financial capability in rural agribusiness contexts.

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