Government Enterprise Support Programmes and MSE Sustainability in Northern Nigeria: Evidence from the Katsina State Enterprise Development Agency (KASEDA)

Abstract

This study examined government enterprise support programmes and the sustainability of micro and small enterprises (MSEs) in Northern Nigeria, using the Katsina State Enterprise Development Agency (KASEDA) as a case study. A descriptive qualitative case study design was adopted, drawing primarily on KASEDA's 2025 Impact Report and January–May 2026 Programmes and Interventions Key Impacts Report, complemented by relevant peer-reviewed studies, government publications, and policy documents. Data were analysed using descriptive document analysis and thematic content analysis, with findings triangulated across documentary and external sources. The study was anchored on the Resource-Based Theory and Quadruple Helix Theory. The findings indicate that KASEDA's integrated interventions in interest-free financing, skills development, digital transformation, and enterprise formalisation were associated with reported improvements in market expansion, production capacity, technical competence, digital capability, and business formalisation. However, low programme participation, apprenticeship attrition, gender disparities in access to financing, and coordination and data-integration challenges remain important constraints. The study contributes empirically by providing case-based evidence on an integrated state-level enterprise support model in Northern Nigeria, theoretically by demonstrating the complementary relevance of resource provision and multi-stakeholder collaboration, and practically by identifying implementation areas requiring attention. The study recommends strengthening programme outreach, apprentice retention, gender-inclusive access, programme monitoring, and stakeholder coordination.

Keywords: Enterprise Sustainability; Government Enterprise Support Programmes; Micro and Small Enterprises (MSEs); Resource-Based Theory; Quadruple Helix Theory; KASEDA; Northern Nigeria.

1.1 Introduction

Micro and small enterprises (MSEs) occupy a central position in the socio-economic development of many developing countries because of their contributions to employment creation, income generation, entrepreneurship, and poverty reduction. Across Nigeria, MSEs constitute a substantial proportion of business establishments and are widely regarded as important drivers of inclusive economic growth and local economic development (International Labour Organization, 2019; Small and Medium Enterprises Development Agency of Nigeria [SMEDAN], 2021). Beyond their economic contributions, these enterprises stimulate innovation, encourage self-employment, and promote social stability by creating livelihood opportunities for diverse segments of the population (World Bank/International Finance Corporation, 2024).

Despite their importance, the sustainability of many MSEs remains a significant concern. For this study, MSE sustainability refers to the capacity of micro and small enterprises to remain operational over time while maintaining viable business activities, generating revenue, retaining productive capacity, accessing markets and resources, and adapting to changing economic and environmental conditions. Thus, sustainability is considered beyond mere business survival and encompasses dimensions such as enterprise continuity, revenue and sales performance, production capacity, market expansion, employment retention, access to productive resources, and resilience to business challenges. Limited access to finance, inadequate entrepreneurial capabilities, weak infrastructure, low technological adoption, and an unpredictable business environment continue to constrain their growth and long-term survival (Musa & Abubakar, 2017; Onyeje et al., 2022). These challenges are particularly pronounced in Northern Nigeria, where businesses often contend with security concerns, infrastructural deficiencies, limited digital inclusion, and socio-cultural factors that restrict enterprise expansion and competitiveness (Gambo et al., 2016; Suleiman, 2025). Consequently, many promising enterprises struggle to transition from survival-oriented ventures into sustainable and growth-driven businesses.

Recognising the strategic role of MSEs, successive governments have introduced various enterprise support programmes aimed at strengthening entrepreneurial capacity, improving access to finance, promoting skills development, encouraging innovation, and enhancing business sustainability (SMEDAN, 2021; Adeoye, 2024). Recent interventions have expanded beyond conventional financial assistance to include digital innovation initiatives, mentorship, enterprise incubation, vocational training, and market access programmes designed to improve the competitiveness of small businesses (Maduka, 2025; Ihsanda & Dhewanto, 2025). These initiatives reflect growing recognition that sustainable enterprise development requires a combination of financial and non-financial support mechanisms.

Within Northern Nigeria, the Katsina State Enterprise Development Agency (KASEDA) has emerged as one of the leading state institutions responsible for promoting entrepreneurship and enterprise development. Through programmes such as interest-free loans, grant schemes, apprenticeship development, digital skills training, business advisory services, and market linkage initiatives, the agency seeks to support the survival, growth, resilience, and sustainability of micro and small enterprises across Katsina State (KASEDA, 2025; KASEDA, 2026). These interventions align with broader efforts to strengthen entrepreneurial ecosystems and improve the resilience of small businesses within the region.

Although government enterprise support programmes have continued to expand, empirical evidence on their effectiveness in supporting the sustainability of MSEs remains mixed. While previous studies have reported positive relationships between government interventions and enterprise performance, innovation capability, access to finance, and business growth (Sambo et al., 2015; Onyeje et al., 2022; Maduka, 2025; Ihsanda & Dhewanto, 2025), relatively few studies have examined the documented outcomes of integrated government support programmes across multiple dimensions of MSE sustainability, particularly enterprise continuity, revenue performance, production capacity, market expansion, employment retention, and resilience, in Northern Nigeria. Furthermore, much of the existing literature focuses on individual forms of support, such as financing or skills development, rather than examining how multiple forms of government enterprise support are implemented within an integrated institutional programme framework. This study therefore examines government enterprise support programmes and their documented associations with the sustainability of micro and small enterprises, using evidence from the Katsina State Enterprise Development Agency (KASEDA), with the intention of contributing context-specific evidence to the growing literature on enterprise development and public-sector support for small businesses.

1.2 Statement of the Problem

Government enterprise support programmes have become an important policy instrument for promoting the growth and sustainability of micro and small enterprises (MSEs) in Nigeria. These interventions typically provide financial assistance, entrepreneurship training, digital capacity development, mentorship, and market access with the expectation that beneficiary enterprises will become more competitive, resilient, and sustainable (SMEDAN, 2021; Adeoye, 2024). Although these initiatives have expanded over the years, concerns remain regarding their effectiveness in translating public investments into long-term enterprise sustainability.

Evidence from previous studies suggests that access to finance, entrepreneurial skills, and institutional support positively influence business growth and survival (Sambo et al., 2015; Suleiman, 2025). Similarly, government-backed innovation hubs, mentorship programmes, and structured enterprise development initiatives have been reported to strengthen the competitiveness and innovation capacity of small businesses (Maduka, 2025; Ihsanda & Dhewanto, 2025). Nevertheless, many MSEs continue to experience high failure rates, limited growth, and weak long-term sustainability, particularly in Northern Nigeria, where infrastructural challenges, security concerns, and socio-economic constraints remain prevalent (Gambo et al., 2016; Suleiman, 2025).

In Katsina State, KASEDA has implemented a range of enterprise development initiatives, including interest-free loans, grants, apprenticeship programmes, digital skills training, and business support services to support the sustainability and development of micro and small enterprises (KASEDA, 2025; KASEDA, 2026). However, while agency reports document outcomes such as enterprise expansion, improvements in production capacity and sales, technical skills development, business formalisation, and access to finance, independent empirical evidence examining these documented outcomes across multiple dimensions of MSE sustainability remains limited. In addition, available studies have largely examined isolated forms of government support, such as access to finance or entrepreneurial training, with relatively little attention given to integrated government enterprise support programmes and their documented outcomes for business sustainability (Adeoye, 2024; Maduka, 2025).

This study addresses this empirical and contextual gap by examining government enterprise support programmes and their documented outcomes for the sustainability of micro and small enterprises, using evidence from the Katsina State Enterprise Development Agency (KASEDA). Specifically, the study considers sustainability in terms of enterprise continuity, revenue and sales performance, production capacity, market expansion, employment retention, access to productive resources, and resilience to business challenges. The findings are expected to provide evidence that can guide policy decisions, improve programme implementation, and strengthen enterprise development initiatives in Katsina State and similar settings across Nigeria.

1.3 Research Questions

In line with the purpose of the study, the following research questions were addressed:

1. What documented outcomes are associated with KASEDA's funding programmes for the sustainability of micro and small enterprises in Katsina State?

2. What documented outcomes are associated with KASEDA's skills development programmes for the sustainability of micro and small enterprises in Katsina State?
3. What role do KASEDA's digital transformation programmes play in supporting the sustainability and formalisation of micro and small enterprises in Katsina State?
4. What challenges affect the effectiveness of KASEDA's enterprise support programmes in supporting the sustainability of micro and small enterprises in Katsina State?

1.4 Objectives of the Study

The general objective of this study is to examine government enterprise support programmes and their documented outcomes for the sustainability of micro and small enterprises in Northern Nigeria, using the Katsina State Enterprise Development Agency (KASEDA) as a case study.

The specific objectives are to:

1. Examine the documented outcomes of KASEDA's funding programmes for the sustainability of micro and small enterprises in Katsina State.
2. Examine the documented outcomes of KASEDA's skills development programmes for the sustainability of micro and small enterprises in Katsina State.
3. Examine the role of KASEDA's digital transformation programmes in supporting the sustainability and formalisation of micro and small enterprises in Katsina State.
4. Identify the challenges affecting the effectiveness of KASEDA's enterprise support programmes in supporting the sustainability of micro and small enterprises in Katsina State.

2.0 Literature Review

2.1 Conceptual Review

2.1.1 Micro and Small Enterprises

The definition of MSEs varies across institutions. In Nigeria, the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN, 2021) classifies enterprises using a dual criterion of employment size and asset value, excluding land and buildings: micro enterprises employ fewer than ten persons with assets below five million Naira; small enterprises employ ten to forty-nine persons with assets of five million to fifty million Naira. Where the two criteria conflict, employment size takes precedence. The International Labour Organization (ILO, 2019) similarly classifies micro enterprises as those with one to ten employees, small enterprises as ten to fifty, and medium enterprises as fifty to two hundred employees. The World Bank and International Finance Corporation (2024) emphasise employment size as the most stable and widely applicable criterion. For this study, MSEs are enterprises employing fewer than fifty persons operating across formal and informal sectors, consistent with the SMEDAN framework and the population served by KASEDA.

2.1.2 Enterprise Sustainability

Enterprise sustainability refers to a business's capacity to survive, grow, and generate value over time despite internal and external pressures. The concept encompasses financial, operational, and market dimensions. Financial sustainability relates to the ability to generate revenue, manage costs, maintain profitability, and access financial resources. Operational sustainability concerns the ability to maintain production capacity, retain employees, manage business activities efficiently, and adapt to changing conditions. Market sustainability refers to the ability to retain and expand markets, maintain competitiveness, and respond to changing customer and market demands. Accordingly, this study considers MSE sustainability in terms of enterprise continuity, revenue and sales performance, production capacity, employment retention, market expansion, access to productive resources, and resilience to business challenges. Onyeje, Court, and Agbaeze (2022) found that policy dimensions relating to finance, infrastructure, human resource development, marketing, technology, and the legal-regulatory environment each significantly influenced MSME sustainability in Nigeria, confirming that the concept is inherently multi-dimensional.

2.1.3 Government Enterprise Support Programmes

Government enterprise support programmes are policy interventions designed to correct market failures that prevent MSEs from accessing resources for survival and growth. Financial instruments include grants, subsidised loans, and interest-free loans. Non-financial instruments include training, mentorship, digital skills development, and market linkage facilitation. The effectiveness of these instruments may depend substantially on how financial and non-financial interventions are combined and implemented. Ihsanda and Dhewanto (2025) found that structured mentorship combined with financing produced stronger innovation outcomes than either instrument delivered alone, and that programmes integrating digital transformation yielded better competitiveness results.

2.1.4 Funding Support Programmes

Funding support programmes refer to government-sponsored financial interventions designed to improve access to capital for micro and small enterprises (MSEs). Such interventions include grants, interest-free loans, subsidised credit facilities, soft loans, and credit guarantee schemes that reduce the financial constraints faced by entrepreneurs. Access to finance remains one of the significant factors associated with enterprise creation, expansion, innovation, and long-term sustainability, particularly in developing economies where conventional financial institutions often perceive small businesses as high-risk borrowers (Musa & Abubakar, 2017).Government funding programmes seek to address market imperfections arising from information asymmetry, collateral requirements, and high lending costs that restrict small businesses' access to formal credit. By reducing financing constraints, these programmes may enable entrepreneurs to acquire productive assets, expand operations, improve working capital, and invest in innovation. Suleiman (2025) argues that sustainable access to affordable finance is associated with improved enterprise resilience and enhances the capacity of businesses to withstand economic shocks. Within Katsina State, KASEDA operationalises this objective through interest-free loan schemes and targeted financial support designed to stimulate business growth and improve the sustainability of beneficiary enterprises (KASEDA, 2025; KASEDA, 2026).

2.1.5 Skills Development Programmes

Skills development programmes comprise government interventions aimed at strengthening the knowledge, competencies, and managerial capabilities of entrepreneurs through entrepreneurship education, vocational training, apprenticeship schemes, mentorship, coaching, and capacity-building initiatives. These programmes recognise that enterprise sustainability depends not only on financial resources but also on the ability of business owners to make sound managerial decisions, innovate, adapt to changing market conditions, and identify new business opportunities.

Human capital development has consistently been identified as an important factor associated with enterprise performance and competitiveness. Entrepreneurship training enhances business planning, financial management, marketing capability, innovation, and problem-solving skills necessary for sustainable enterprise growth. Ihsanda and Dhewanto (2025) found that structured entrepreneurship education combined with mentorship significantly improves innovation performance among small businesses. Similarly, Ajik et al. (2026) reported that continuous capacity development strengthens entrepreneurial resilience and business survival, while Amos (2025) observed a positive association between practical skills acquisition and enterprise productivity and competitiveness. KASEDA's apprenticeship programmes, entrepreneurship training, and business advisory services therefore represent important mechanisms for improving the sustainability of MSEs in Katsina State.

2.1.6 Digital Transformation Support Programmes

Digital transformation support programmes refer to government initiatives that facilitate the adoption and effective use of digital technologies by micro and small enterprises. Such interventions include digital literacy training, business digitalisation, e-commerce support, online marketing, financial technology adoption, electronic payment systems, digital record-keeping, and business formalisation through digital registration platforms. These initiatives are intended to support improvements in enterprise efficiency, market accessibility, competitiveness, and long-term sustainability. The adoption of digital technologies canenable businesses to reduce operational costs, improve customer engagement, access wider markets, and enhance decision-making through better information management. Maduka (2025) argues that digital transformation has become a strategic enabler of enterprise competitiveness, particularly for small businesses operating in resource-constrained environments. In addition, digital support programmes facilitate business formalisation by encouraging entrepreneurs to register their businesses, comply with regulatory requirements, and gain access to government incentives and financial services. KASEDA has integrated digital skills development and enterprise formalisation initiatives into its enterprise development strategy, supporting entrepreneurs in leveraging technology to improve productivity and market participation (KASEDA, 2025; KASEDA, 2026).

2.2 Theoretical Framework

2.2.1 Quadruple Helix Theory

The Quadruple Helix Theory was developed by Carayannis and Campbell (2009) as an extension of the Triple Helix Model originally proposed by Etzkowitz and Leydesdorff (2000). While the Triple Helix emphasises collaboration among government, industry, and universities, the Quadruple Helix introduces civil society as the fourth actor, recognising that sustainable innovation and development are achieved when public institutions, businesses, academia, and citizens work collaboratively. The theory argues that innovation, entrepreneurship, and enterprise development are strengthened through knowledge sharing, institutional partnerships, stakeholder participation, and coordinated resource mobilisation.

The theory is highly relevant to this study because KASEDA operates through a collaborative ecosystem involving government agencies, financial institutions, universities, development partners, professional associations, and community stakeholders. Partnerships with institutions such as the Bank of Industry, Sterling Bank, UNDP, Al-Qalam University, the Nigeria Automobile Technicians Association, and community-based organisations illustrate the practical application of the Quadruple Helix approach. The theory therefore provides an appropriate framework for explaining how multi-stakeholder collaboration enhances the effectiveness of government enterprise support programmes and contributes to the sustainability of micro and small enterprises in Katsina State.

In relation to the present study, the Quadruple Helix perspective suggests that the sustainability of MSEs cannot be understood solely in terms of government intervention. Rather, the effectiveness of funding, skills development, digital transformation, and other support programmes may depend on the extent to which government institutions coordinate with financial institutions, educational institutions, development partners, businesses, and community stakeholders. This perspective is particularly relevant to KASEDA's programmes, which involve partnerships with financial institutions, development organisations, universities, professional associations, and community-based actors. The theory therefore provides a basis for interpreting the extent to which collaborative programme delivery can strengthen access to enterprise resources, skills, markets, and institutional support.

2.2.2 Resource-Based Theory

The Resource-Based Theory (RBT) was developed by Barney (1991), building on the earlier work of Wernerfelt (1984). The theory argues that sustainable competitive advantage is achieved when organisations possess and effectively utilise resources that are valuable, rare, inimitable, and non-substitutable (VRIN). These resources may include financial capital, human skills, technological capabilities, organisational knowledge, and strategic networks. According to the theory, firms that acquire and combine these strategic resources more effectively than competitors are better positioned to achieve superior performance and long-term sustainability.

The theory is directly relevant to this study because government enterprise support programmes provide MSEs with strategic resources that many businesses cannot easily access independently. Through funding, entrepreneurship training, digital skills development, mentorship, business formalisation, and market linkage initiatives, KASEDA strengthens the resource base of beneficiary enterprises. These interventions improve the capacity of MSEs to compete, innovate, survive, and grow despite operating in a challenging business environment. Consequently, the Resource-Based Theory explains how the acquisition of valuable resources through government support contributes to enterprise sustainability.

The Resource-Based Theory also provides a useful basis for interpreting the different dimensions of MSE sustainability examined in this study. Financial support can strengthen financial sustainability by improving working capital and productive investment; skills development can strengthen operational sustainability by improving managerial and technical capabilities; while digital transformation can strengthen market sustainability by improving access to customers, information, digital platforms, and formal business opportunities. Thus, the theory suggests that the sustainability outcomes documented in the KASEDA programmes may be understood partly through the additional resources and capabilities made available to participating enterprises.

2.2.3 Underpinning Theory

Although both theories provide valuable perspectives, this study is principally anchored on the Resource-Based Theory (RBT). This is because the theory directly explains the mechanism through which government enterprise support programmes are associated with enterprise sustainability. The various interventions implemented by KASEDA, including financial assistance, entrepreneurship training, digital transformation programmes, mentorship, and business formalization, represent strategic resources that enhance the capabilities and competitiveness of micro and small enterprises. The theory therefore provides the strongest explanation for how these resources are associated with business survival, growth, operational performance, and long-term sustainability.

The Quadruple Helix Theory complements the Resource-Based Theory by explaining the institutional environment through which these strategic resources are delivered. While the Resource-Based Theory focuses on how enterprises utilise valuable resources to achieve sustainable outcomes, the Quadruple Helix Theory explains how collaboration among government, academia, industry, and civil society facilitates the provision of those resources. Together, the two theories provide a comprehensive theoretical foundation for examining government enterprise support programmes and the sustainability of micro and small enterprises in Northern Nigeria.

In this study, the two theories are applied jointly in interpreting the documented programme outcomes. Resource-Based Theory provides the principal explanation for the relationship between the resources delivered through KASEDA programmes and the observed dimensions of enterprise sustainability, while Quadruple Helix Theory provides an explanation of the collaborative arrangements through which those resources are mobilised and delivered. The theoretical perspectives therefore guide the interpretation of the findings on funding support, skills development, digital transformation, and programme effectiveness challenges.

2.3 Empirical Review

Research has identified funding as an important factor in SME performance and sustainability, particularly in contexts where small enterprises face significant financial constraints. Suleiman (2025), for example, found that government intervention beneficiaries in Katsina State recorded a 78 percent survival rate compared with 61 percent among non-beneficiaries, although only 31.7 percent of eligible enterprises accessed available programmes. This finding suggests that government-supported access to finance is associated with stronger enterprise survival outcomes in the Katsina context. The finding is consistent with the present study's observation that KASEDA's funding programmes were associated with reported improvements in market expansion, production capacity, profitability, employee retention, and sales revenue. However, the present study differs in its focus on an integrated programme model rather than examining financial intervention in isolation. This distinction is important because the KASEDA intervention combines financing with monitoring, business support, skills development, and community-based engagement.

Recent evidence also indicates that alternative financing mechanisms may improve financial inclusion among underserved enterprise groups. Muhammad and Al-Shaghdari (2025) found that Waqf-based microfinance has potential for improving financial inclusion among women entrepreneurs through interest-free financing arrangements. Although their study focused specifically on an alternative Islamic financing mechanism and women-owned enterprises, the finding is relevant to KASEDA's interest-free lending programmes because both emphasise improved access to finance without conventional interest-based lending. The present study extends this evidence by documenting the application of interest-free financing within a broader state enterprise development framework that also incorporates skills, digital transformation, and enterprise formalisation.

The importance of complementary support is further demonstrated by Adeoye (2024), who found that financial support alone did not significantly guarantee SME sustainability. This finding provides an important qualification to the positive evidence associated with government financing. In contrast, the KASEDA case suggests that financial support delivered alongside business development services, monitoring, skills development, and institutional partnerships is associated with broader sustainability outcomes. Thus, while the present study agrees with Adeoye (2024) that finance alone may be insufficient, it contributes by showing how financing can form part of a more comprehensive enterprise support ecosystem.

Beyond finance, recent studies have highlighted the importance of skills, leadership, innovation, and human-capital development in strengthening enterprise sustainability. Ajik et al. (2026)

found that strategic leadership and innovation strengthened SME resilience in post-COVID Northern Nigeria. This finding is consistent with the present study's evidence from KASEDA's apprenticeship, entrepreneurship training, and capacity-building interventions, where participants acquired technical competencies and starter resources. Similarly, Ihsanda and Dhewanto (2025) reported that structured mentorship combined with financing generated stronger innovation outcomes than isolated interventions. The agreement between these studies and the present case reinforces the Resource-Based Theory argument that financial resources alone may not be sufficient; human capabilities, technical knowledge, and managerial competencies constitute additional strategic resources that can strengthen enterprise sustainability.

However, the present study adds a contextual dimension to this literature by documenting the scale and structure of KASEDA's skills development interventions across the 34 Local Government Areas of Katsina State. The Mechatronics Apprenticeship Support Programme, Building Your Future Programme, and other training interventions demonstrate that enterprise support can extend beyond conventional entrepreneurship education to include practical technical skills, starter assets, and business development support. At the same time, the 22 percent apprenticeship attrition reported in the case indicates that the availability of training does not necessarily guarantee sustained participation. This finding introduces an important qualification to the generally positive evidence on skills development and highlights the need to consider participant retention when assessing the sustainability of government-supported enterprise programmes.

Digital transformation has also emerged as an important dimension of enterprise development. Maduka (2025) reported that digital innovation hubs enhanced SME competitiveness, although the limited availability of such facilities remained a challenge in Northern Nigeria. The present study is broadly consistent with this finding, as KASEDA's Digital Academy, digital marketing and export training, Campus Connect initiative, and Digital Certification System were associated with increased digital skills, professional certifications, digital projects, start-up development, and enterprise formalisation. However, the present case provides a broader institutional perspective by showing that digital transformation can extend beyond technology adoption to include business formalisation and the development of an enterprise database for policy planning. This suggests that digital support may contribute to sustainability not only through improved competitiveness but also through greater formal participation in the business ecosystem.

The findings also relate to the broader policy perspective reported by Onyeje et al. (2022), who established that policy dimensions relating to finance, infrastructure, human resource development, marketing, technology, and the legal-regulatory environment significantly influenced MSME sustainability in Nigeria. The present study is consistent with this multidimensional view of sustainability. Rather than treating enterprise sustainability as a product of finance alone, the KASEDA case demonstrates the relevance of financial support, skills development, digital transformation, formalisation, market exposure, and institutional coordination. In this respect, the study extends existing evidence by examining these dimensions within a single enterprise development agency and within the specific socioeconomic environment of Katsina State.

The empirical evidence further reveals that programme effectiveness may be constrained by accessibility, coordination, and institutional challenges. Suleiman (2025) reported that only 31.7 percent of eligible enterprises accessed available government interventions, while the present study found relatively limited participation in some KASEDA programmes and identified challenges relating to loan repayment, programme data integration, gender disparities, and coordination with financial partners. These findings suggest that the availability of enterprise support programmes does not automatically translate into universal access or uniform sustainability outcomes. This observation is consistent with Adeoye (2024), who emphasised the importance of supportive infrastructure, enabling policies, and institutional coordination alongside financial support.

The challenges identified in the present study can also be interpreted through the Quadruple Helix Theory. KASEDA's programmes involve government institutions, financial institutions, development partners, universities, professional associations, and community stakeholders. The documented challenges in coordination and programme accessibility suggest that the effectiveness of enterprise support may depend partly on how successfully these actors collaborate in mobilising and delivering resources. Thus, the present study contributes to the empirical literature by demonstrating that enterprise sustainability is not only a question of the resources provided to MSEs but also of the institutional relationships through which those resources are delivered.

Overall, the reviewed literature indicates substantial agreement that government support, access to finance, skills development, digital transformation, and institutional coordination are important components of enterprise sustainability. However, differences remain regarding the relative importance of individual interventions. While some studies emphasise finance as a major determinant of enterprise performance (Sambo et al., 2015; Suleiman, 2025), Adeoye (2024) cautions that financial support alone may not guarantee sustainability. Similarly, recent studies emphasise leadership, innovation, digitalisation, and human-capital development as complementary sources of enterprise resilience and competitiveness (Ajik et al., 2026; Maduka, 2025; Ihsanda & Dhewanto, 2025). The present study therefore supports an integrated perspective in which financial, human, technological, and institutional resources operate within a broader enterprise support ecosystem.

2.4 Research Gap

Existing empirical studies have examined government enterprise support largely from individual perspectives, such as access to finance, skills development, digital transformation, leadership, or enterprise policy. Recent studies have provided useful evidence on the relationship between these individual interventions and enterprise performance, resilience, innovation, and sustainability (Onyeje et al., 2022; Adeoye, 2024; Maduka, 2025; Ihsanda & Dhewanto, 2025; Suleiman, 2025; Ajik et al., 2026). However, the evidence remains fragmented, with limited attention to how multiple forms of government support operate together as an integrated enterprise development model.

A further gap exists in relation to context. Much of the available evidence considers SMEs at national or broad regional levels, whereas relatively limited attention has been given to state-level enterprise development agencies and their documented interventions. In particular, there is limited empirical evidence examining KASEDA as an institutional case through which funding, skills development, digital transformation, formalisation, and partnership-based support are delivered to MSEs. This limits understanding of how integrated public-sector enterprise support operates within the specific socioeconomic and institutional conditions of Northern Nigeria.

There is also a contextual gap concerning enterprises operating in challenging environments, including conflict-affected communities. Existing studies have established that Northern Nigerian enterprises face distinctive infrastructural, security, financial, and socioeconomic constraints, but fewer studies have examined how state-level enterprise support programmes respond to these conditions through targeted interventions.

Consequently, this study addresses an empirical, contextual, and institutional gap by examining the documented outcomes of KASEDA's funding, skills development, digital transformation, and related enterprise support programmes and their association with MSE sustainability in Katsina State. Unlike studies that examine individual support mechanisms in isolation, the present study considers an integrated programme model and interprets its outcomes through Resource-Based Theory and Quadruple Helix Theory. The study therefore contributes context-specific evidence on how financial, human, technological, and institutional resources are mobilised through collaborative enterprise support arrangements to strengthen the sustainability of MSEs in Northern Nigeria.

3.0 Methodology

This study adopted a descriptive qualitative case study design to examine government enterprise support programmes and the sustainability of micro and small enterprises (MSEs), using the Katsina State Enterprise Development Agency (KASEDA) as the case. The design was appropriate for examining documented programme interventions and outcomes within their real-life institutional context without making statistical causal claims. The study covered KASEDA activities across Katsina State's 34 Local Government Areas, including interventions in conflict-affected communities.

The unit of analysis comprised documented KASEDA enterprise support programmes and their reported outcomes, specifically funding, skills development, digital transformation, business formalisation, and related enterprise support interventions. KASEDA was purposively selected because of its integrated enterprise development model and the availability of recent programme documentation. The principal documents were the KASEDA 2025 Impact Report and the January–May 2026 Programmes and Interventions Key Impacts Report. These were selected based on their relevance, recency, official status, and coverage of the study objectives. Peer-reviewed studies, government publications, and relevant policy documents were also reviewed to provide external evidence and contextual comparison.

Data were analysed using descriptive document analysis and thematic content analysis. Programme data, including beneficiary numbers, funding amounts, programme outcomes, and participation patterns, were summarised descriptively, while qualitative evidence was coded into themes corresponding to the four study objectives. Findings from KASEDA reports were triangulated with peer-reviewed literature and official policy documents to enhance credibility and identify areas of convergence or divergence. Given the institutional origin of the principal data, the possibility of reporting bias was recognised; therefore, KASEDA-reported outcomes were treated as documented programme evidence rather than independent causal estimates. This limitation was considered in interpreting the findings.

Ethical considerations were observed throughout the study. The analysis relied on publicly available institutional reports and published secondary sources, with all sources appropriately acknowledged and reported without deliberate alteration or misrepresentation. No personal or confidential information was collected or disclosed.

4.0 Findings and Discussion

The findings were derived through structured documentary analysis of the KASEDA 2025 Impact Report and the January–May 2026 Programmes and Interventions Key Impacts Report. Data were extracted according to the four study objectives and classified into programme outputs, reported outcomes, and sustainability implications. Programme outputs refer to immediate deliverables such as loans disbursed, persons trained, and businesses formalised; reported outcomes refer to documented changes among beneficiaries; while sustainability implications relate these outcomes to the financial, operational, and market dimensions of MSE sustainability. The evidence was triangulated with relevant empirical studies and policy documents and interpreted using the Resource-Based Theory and Quadruple Helix Theory. Given the institutional origin of the principal data, reported outcomes are treated as documented programme evidence rather than independent causal estimates.

4.1 Funding Programmes and MSE Sustainability

The documentary evidence indicates substantial financial support through KASEDA's enterprise funding programmes. In 2025, the MSMEs Managed Fund disbursed interest-free loans to 505 enterprises through Sterling Bank Plc and the Bank of Industry, while more than 3,100 additional applications remained under processing. These figures represent programme outputs and demonstrate the scale and reach of the intervention. More importantly, beneficiary monitoring reported that 45% experienced expansion into new markets, 32% reported improvements in production capacity, profitability and employee retention, while 23% recorded increased sales revenue. These reported outcomes correspond respectively to the market, operational and financial dimensions of MSE sustainability.

The programme was further expanded in 2026, with ₦171 million disbursed to 76 enterprises, while 300 MSEs in conflict-affected communities accessed interest-free loans through the KASEDA/UNDP partnership (KASEDA, 2026). The evidence suggests that the funding interventions were associated with several sustainability-related outcomes, although the reported improvements cannot be interpreted as independently verified impacts. The findings are consistent with Suleiman (2025), who reported higher survival rates among government intervention beneficiaries in Katsina State, and broadly support Sambo et al. (2015), who identified funding as an important factor in SME performance in Northern Nigeria. However, they differ from Adeoye (2024), who found that financial support alone was insufficient to sustain SMEs. This difference suggests that financing may be more effective when accompanied by monitoring, business support, and community engagement.

From the Resource-Based Theory perspective, financial capital constitutes a valuable resource that can enable enterprises to acquire productive assets, maintain working capital, and pursue market opportunities. The findings therefore reinforce the view that access to strategic resources can strengthen the capacity of MSEs to remain viable and competitive. The implication is that expansion of funding programmes should be accompanied by business monitoring and complementary support rather than treating finance as a standalone intervention.

4.2 Skills Development and MSE Sustainability

KASEDA's skills development programmes generated substantial outputs and reported outcomes relevant to MSE sustainability. The Mechatronics Apprenticeship Support Programme enrolled 1,500 apprentices across the 34 Local Government Areas, of whom 1,169 remained active during evaluation. Among the active participants, 1,093 (88%) demonstrated competency across various technical trades and subsequently received starter packs valued at ₦233 million (KASEDA, 2026). While enrolment represents programme reach, demonstrated competency constitutes a reported outcome, and the provision of starter packs provides productive resources that may support enterprise creation and continuity.

The Building Your Future Programme also provided ₦200 million in start-up capital to more than 1,000 youths, while specialised training in digital marketing, exhibition skills and export readiness was delivered to participating MSMEs (KASEDA, 2026). These interventions indicate an integrated approach in which skills development is combined with financial and productive resources. The findings are consistent with Ihsanda and Dhewanto (2025), who reported stronger enterprise outcomes where mentorship and financing were combined, and Ajik et al. (2026), who found that capacity development and innovation strengthened SME resilience in Northern Nigeria. The findings therefore suggest that skills development may contribute particularly to the operational sustainability and adaptability of MSEs.

The Resource-Based Theory further explains these findings by recognising human knowledge, technical competence and productive assets as valuable resources that can strengthen enterprise capabilities. However, the reduction from 1,500 enrolled apprentices to 1,169 active participants represents an attrition rate of approximately 22%. This indicates that programme participation does not automatically translate into sustained engagement. Strengthening participant follow-up, mentoring and post-training support would therefore be important for improving the continuity of skills-related interventions and their potential contribution to MSE sustainability.

4.3 Digital Transformation, Formalisation and MSE Sustainability

KASEDA's digital interventions generated significant programme outputs and reported outcomes relating to enterprise capability and formalisation. The Digital Academy trained 684 participants, awarded 312 professional certifications, completed 64 digital projects and incubated 19 digital start-ups during 2025. The Campus Connect initiative subsequently reached more than 400 university students. In addition, the KASEDA Digital Certification System formalised more than

10,000 businesses (KASEDA, 2025). These figures demonstrate substantial programme reach and an expanding digital enterprise-support ecosystem.

The distinction between outputs and outcomes is important. Training, certification and participation figures represent programme outputs, while digital projects, start-ups and business formalisation represent more immediate reported outcomes. Formalisation is relevant to MSE sustainability because registered businesses may have improved access to formal markets, government programmes, contracts and financial services. However, formalisation should not itself be interpreted as evidence of long-term enterprise survival. The findings are consistent with Maduka (2025), who identified digital innovation as an important contributor to SME competitiveness while noting limited digital infrastructure in Northern Nigeria. The KASEDA evidence extends this literature by demonstrating that digital support can encompass skills development, incubation and enterprise formalisation.

From the Resource-Based Theory perspective, digital knowledge, technological capabilities and formal business status represent potentially valuable organisational resources that may improve market access, information management and adaptability. The implication is that digital enterprise programmes should move beyond training and certification targets to include sustained technology adoption, digital market access and post-training enterprise performance.

4.4 Challenges Affecting Programme Effectiveness and MSE Sustainability

Despite the scale of KASEDA's interventions, the evidence indicates several challenges that may constrain their broader contribution to MSE sustainability. Approximately 31.7% of eligible enterprises were reported to have benefited from available interventions (Suleiman, 2025), indicating a substantial coverage gap. Although the programmes reached thousands of beneficiaries, many eligible enterprises remained outside the intervention system. Limited coverage may therefore constrain the broader sustainability benefits of government enterprise support, particularly for vulnerable enterprises facing barriers to finance, skills, and digital resources.

The apprenticeship programme also recorded approximately 22% attrition, while gender disparities persisted in access to funding. KASEDA further identified challenges relating to loan repayment, programme data integration and coordination with financial partners (KASEDA, 2025). These issues are important because programme effectiveness depends not only on the resources provided but also on the ability of institutions to reach intended beneficiaries, retain participants and maintain effective monitoring and coordination. The findings are consistent with Adeoye (2024), who argued that financial support alone cannot guarantee enterprise sustainability without supportive infrastructure, enabling policies and institutional coordination. Muhammad and Al-Shaghdari (2025) similarly highlighted the need for alternative financing mechanisms to improve financial inclusion among women-owned enterprises.

The challenges also demonstrate the relevance of the Quadruple Helix Theory. Enterprise development requires coordination among government, industry and financial institutions, knowledge institutions, development partners and communities. KASEDA's partnerships with financial institutions and development organisations demonstrate the value of such collaboration, while the reported coordination and data-integration challenges indicate areas requiring further institutional strengthening. Thus, improving MSE sustainability requires not only increasing programme resources but also strengthening the relationships and coordination mechanisms through which those resources are delivered.

4.5 Integrated Interpretation of Findings

Taken together, the findings indicate that KASEDA's enterprise support model combines financial, human, technological and institutional resources. The documented outputs include loans to enterprises, training of apprentices and entrepreneurs, provision of starter packs, digital certification and business formalisation. The reported outcomes include market expansion, improved production capacity, profitability, technical competence, digital capability and enterprise formalisation. These outcomes correspond to the financial, operational and market dimensions of MSE sustainability adopted in this study.

The findings also demonstrate the complementary relevance of the two theoretical perspectives. Resource-Based Theory explains how financial capital, human skills, technological capabilities and productive assets can strengthen the resource base and capabilities of MSEs. Quadruple Helix Theory explains how government, financial institutions, development partners, knowledge institutions and communities facilitate the mobilisation and delivery of these resources. Overall, the evidence suggests that MSE sustainability is associated not only with access to resources but also with their quality, accessibility, coordination and continuity. However, because the study relies primarily on institutional documentary evidence and does not provide longitudinal or independently verified beneficiary-level data, the findings should be interpreted as documented associations and sustainability-related outcomes rather than causal impacts.

Table 1: Summary of Programme Outputs, Reported Outcomes and Sustainability Implications

Programme	Documented Output	Reported Outcome	Sustainability Implication
MSMEs Managed Fund	505 enterprises received loans	Market expansion, improved production, profitability and sales	Financial, operational and market sustainability
KASEDA/UNDP Loan Programme	300 MSEs accessed loans	Increased financial inclusion in conflict-affected communities	Financial and operational sustainability
Mechatronics Apprenticeship	1,500 enrolled; 1,169 active	1,093 demonstrated technical competency and received starter packs	Operational sustainability and enterprise readiness
Building Your Future Programme	Over 1,000 youths supported	Start-up capital provided	Enterprise creation and financial sustainability
Digital Academy	684 trained; 312 certified	Digital projects and start-ups developed	Digital capability and competitiveness
Digital Certification System	Over 10,000 businesses formalised	Formal enterprise status and database development	Market access and institutional sustainability
Digital Marketing/Export Training	200 MSMEs trained	Enhanced digital and export capabilities	Market sustainability and competitiveness

Source: Compiled from KASEDA (2025), KASEDA (2026), and related empirical literature.

5.0 Conclusion, Recommendations, Academic Contribution, Limitations, and Suggestions for Further Research

5.1 Conclusion

This study examined government enterprise support programmes and the sustainability of micro and small enterprises (MSEs), using the Katsina State Enterprise Development Agency (KASEDA) as a case study. The documentary evidence indicates that KASEDA's integrated interventions in funding, skills development, digital transformation, and enterprise formalisation were associated with reported improvements in several dimensions of enterprise sustainability, including market expansion, production capacity, sales, technical competence, digital capability, and business formalisation.

The findings also reveal important implementation challenges. These include relatively low programme participation, apprenticeship attrition, gender disparities in access to funding, loan repayment concerns, and coordination and data-integration challenges. These issues suggest that the availability of enterprise support does not necessarily translate into equal access or sustained outcomes for all potential beneficiaries.

The findings are consistent with the Resource-Based Theory, as KASEDA's funding, skills, technological capabilities, and other forms of enterprise support represent resources that can strengthen the capacity of MSEs. The findings also support the Quadruple Helix Theory, particularly through KASEDA's collaboration with financial institutions, development partners, educational institutions, and community stakeholders. However, given the documentary and case-study nature of the research, the findings should be interpreted as evidence of documented programme outcomes and associations rather than definitive causal effects.

5.2 Recommendations

Based directly on the findings, the study recommends that:

i. **Expand programme outreach:** KASEDA should strengthen awareness and simplify application processes to improve participation among eligible MSEs, given the relatively low level of programme coverage identified.

ii. **Strengthen apprentice retention:** KASEDA should introduce stronger mentoring, participant follow-up, and retention mechanisms to address the 22% apprenticeship attrition recorded in the programme.

iii. **Improve gender inclusiveness:** KASEDA should strengthen outreach to women entrepreneurs through targeted information, application support, and community-based engagement to address the observed gender disparity in access to funding.

iv. **Strengthen programme monitoring:** KASEDA should improve the integration of programme and beneficiary data across its interventions to facilitate systematic tracking of participation, completion, repayment, and enterprise outcomes.

v. **Strengthen stakeholder collaboration:** KASEDA should deepen coordination with financial institutions, development partners, educational institutions, and community stakeholders to improve programme accessibility and implementation, particularly in conflict-affected communities.

5.3 Academic Contribution

The study makes three principal contributions. Empirically, it provides case-based evidence on an integrated government enterprise support model using recent documentary evidence from KASEDA, thereby addressing the limited evidence on state-level enterprise support in Northern Nigeria. Theoretically, the study demonstrates the complementary relevance of the Resource-Based Theory and Quadruple Helix Theory: the former explains the importance of financial, human, technological, and organisational resources, while the latter explains the collaborative institutional arrangements through which such resources are mobilised and delivered. Practically, the study identifies the importance of combining funding, skills development, digital transformation, and stakeholder collaboration while addressing participation, retention, gender access, and monitoring challenges.

5.4 Limitations of the Study

The study has several limitations. First, it relied primarily on KASEDA's official reports; therefore, reported programme outcomes may be affected by institutional reporting bias and should not be interpreted as independently verified impact estimates. Second, the study used documentary evidence rather than primary data from individual beneficiaries, limiting the ability to determine beneficiaries' direct experiences and perceptions. Third, the cross-sectional documentary coverage of the 2025 and January–May 2026 reports limits assessment of the long-term sustainability of reported enterprise outcomes. Finally, because the study focused on KASEDA, its findings are context-specific and should not be generalised automatically to other enterprise development agencies or regions. These limitations provide important directions for future empirical investigation.

5.5 Suggestions for Further Research

Future studies should:

1. Conduct comparative research examining KASEDA alongside other state enterprise development agencies to identify similarities and differences in programme design and outcomes.

2. Undertake longitudinal studies tracking beneficiaries over several years to assess the persistence of enterprise sustainability outcomes.

3. Use primary survey and interview data to examine beneficiaries' experiences, particularly factors underlying gender disparities, programme participation, and apprenticeship attrition.

4. Conduct empirical evaluations of digital transformation programmes, including their relationship with enterprise growth, survival, innovation, and formalisation.

5. Examine alternative financing models, including interest-free and Waqf-based financing, using beneficiary-level evidence to assess their accessibility and sustainability outcomes.

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