

Bridging Markets and Margins: Strategic Business Innovations for Sustainable Livelihoods and Competitive Positioning in Low-Income Economies

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ABSTRACT

This study explores how micro, small, and medium enterprises (MSMEs) in low-income economies can strategically innovate to enhance both their market competitiveness and their contributions to sustainable community development. Focusing on innovations in products, distribution systems, and service delivery, the research investigates how businesses can create value that balances profitability with social impact. Despite increased attention to inclusive business models, many enterprises in marginalized regions still face challenges such as limited scalability, lack of integration between commercial and social goals, and inadequate support systems. This research addresses key gaps, including the under exploration of service and distribution innovations, limited empirical data on long-term outcomes, and the absence of frameworks that align business strategy with inclusive development. Through a mixed-methods approach involving case studies, surveys, and interviews, the study will identify patterns of innovation, analyze enabling and limiting factors, and propose a Strategic Innovation Framework tailored to MSMEs operating in resource-constrained environments. The findings aim to offer practical insights for entrepreneurs and development stakeholders, while contributing to academic discourse on sustainable and inclusive entrepreneurship. Ultimately, the study aspires to empower MSMEs to become catalysts of economic resilience and social progress within their communities, fostering models that are viable, scalable, and adaptable across similar socio-economic settings.

Keywords: Strategic Innovation, Inclusive Entrepreneurship, Sustainable Livelihoods, Low-Income Economies, MSMEs Development.

JEL Classification: M21; O31.

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INTRODUCTION

In the evolving landscape of global development, the intersection of market innovation and poverty alleviation has emerged as a vital area of scholarly inquiry and practical relevance. This study, titled "Bridging Markets and Margins: Strategic Business Innovations for Sustainable Livelihoods and Competitive Positioning in Low-Income Economies," seeks to explore how businesses particularly micro, small, and medium enterprises (MSMEs) create value by innovating in products, services, and distribution strategies. The research centers on identifying business models that not only yield competitive advantage but also contribute to inclusive growth and community resilience in economically marginalized regions. By focusing on strategic innovations, the study underscores the dual pursuit of profitability and socio-economic impact, especially within underserved markets. This research is significant for its practical implications in policy-making, entrepreneurship, and social enterprise development, providing insight into how sustainable livelihoods can be built through commercially viable and socially conscious business practices.

Recent literature underscores the relevance of such an inquiry, emphasizing the role of innovation in inclusive economic transformation. For instance, [Pralhad and Hart \(2019\)](#) extended the bottom-of-the-pyramid theory by examining how firms integrate low-income populations into their value chains through co-creation and affordability-focused innovation. [George et al. \(2020\)](#) explored how frugal innovation contributes to social inclusion by addressing affordability and accessibility in emerging markets, emphasizing its potential for reshaping business strategies in resource-constrained settings. On the other hand, [Sarasvathy and Dew \(2021\)](#); [Montenegro, D \(2024\)](#)

examined entrepreneurial effectuation in uncertain environments and argued that businesses should leverage available resources and relationships, reinforcing the notion of grassroots innovation. Contrastingly, [Awotundun et al. \(2023\)](#) offered a critical lens, noting that without institutional support and scalable models, even the most innovative community-based businesses struggle to create long-term impact. These perspectives reflect a consensus on the need for strategic adaptation but also highlight ongoing debates about the sustainability and scalability of such innovations in low-income economies.

Despite growing interest, several research gaps persist. First, there is a limited understanding of how hybrid business models operate effectively at the intersection of profit and purpose in low-income contexts. Second, much of the existing research tends to focus on product innovation, neglecting equally important dimensions such as distribution channels and service delivery innovations tailored to underserved populations. Third, there is a lack of empirical evidence on the long-term socio-economic impact of these innovations on community livelihoods. Fourth, while there are many case studies on successful social enterprises, few studies offer comparative analysis across different economic or cultural settings. Lastly, there is insufficient exploration of policy ecosystems that either enable or hinder these innovations, especially in contexts with weak institutional frameworks or infrastructural limitations. These gaps suggest the need for more holistic, context-specific, and longitudinal studies that can inform both practice and policy.

To address these gaps, this research proposes a multi-dimensional investigation into business innovation strategies that simultaneously enhance firm competitiveness and promote sustainable livelihoods. The intervention includes

designing a strategic innovation framework for MSMEs operating in low-income economies, which integrates product adaptation, distribution accessibility, and service personalization as core pillars. This framework could serve as a practical guide for entrepreneurs and development practitioners aiming to align business growth with inclusive development. The study also aims to contribute to the academic body of knowledge by presenting empirically grounded insights that may inform future research on inclusive business strategies. Ultimately, the research endeavors to offer scalable, replicable, and contextually adaptable models of innovation that can drive transformation in both markets and marginalized communities.

In the context of global development, a major challenge persists in aligning business growth with inclusive social impact, particularly in low-income economies where poverty, limited infrastructure, and lack of market access hinder progress. Micro, small, and medium enterprises (MSMEs) in these regions often focus on short-term survival rather than long-term innovation due to restricted resources. Although strategic business innovations in products, services, and distribution hold potential for both profitability and community upliftment, these approaches remain underutilized and poorly integrated into broader development strategies. Existing models frequently fail to adapt to the unique conditions of marginalized communities, resulting in missed opportunities for scalable and inclusive growth. This study seeks to explore how innovation can be harnessed by MSMEs to bridge the divide between market success and sustainable livelihoods.

Supporting this main inquiry, the study will further explore the following sub-questions:

1. What specific types of product, service, and distribution innovations are being implemented by MSMEs in low-income economies?

2. How do these innovations contribute to both market competitiveness and community development outcomes?
3. What are the key enablers and barriers influencing innovation effectiveness in resource-constrained environments?
4. What policy, institutional, or ecosystem support mechanisms are necessary to sustain such innovations?
5. How can an integrative innovation framework be developed to guide MSMEs in aligning business objectives with inclusive impact?

Through a mixed-methods approach involving case studies, surveys, and stakeholder interviews, this study aims to develop a Strategic Innovation Framework that MSMEs can adapt based on their sectoral, cultural, and infrastructural contexts. The expected outcome is a set of actionable insights that can help inform future strategies for inclusive business development, not only within local communities but also for regional economic planning and policymaking. Ultimately, the research aspires to transform the narrative around MSMEs from mere survival units to dynamic agents of economic inclusion, innovation, and resilience

METHODOLOGY

This study utilized a quantitative research design to explore the intersection of business innovation and inclusive economic development among micro, small, and medium enterprises (MSMEs) in low-income economies. The focus was to determine how innovations in products, distribution channels, and service delivery contribute to achieving both competitive market positioning and sustainable livelihoods. To address the research objectives and five sub-questions, a structured researcher-made questionnaire was developed, incorporating both closed and scaled items tailored to measure the frequency,

effectiveness, and perceived impact of specific business innovations.

The research process began with the formulation of research questions, development of an instrument grounded in relevant literature, and validation through a pilot test involving 30 participants. The questionnaire’s reliability was assessed using Cronbach’s Alpha, with all categories yielding values above 0.75, indicating high internal consistency. The instrument was refined prior to full deployment. Respondents were purposively selected from among MSMEs actively engaged in innovation-led practices across various regions in the Philippines. The final sample size of 493 respondents was determined using Slovin’s Formula, accounting for a 95% confidence level and 5% margin of error, to ensure statistical accuracy and representation.

Data collection was conducted online via Google Forms, distributed through startup networks, entrepreneurship platforms, and MSME advocacy groups. The wide distribution aimed to include voices from different socio-economic and regional contexts. To answer the five sub-questions and analyze the relationships between innovation practices and outcomes, the study applied the following statistical treatments:

1. Descriptive statistics (frequency, percentage, mean) to identify the most common innovations and respondent profiles
2. Cross-tabulation analysis to explore patterns across regions or innovation types
3. Pearson correlation coefficient to measure the strength and direction of the relationship between innovation strategies and perceived competitiveness or community impact
4. Multiple regression analysis to determine which types of innovations (product, distribution, service) significantly predict competitive positioning and social outcomes
5. Analysis of Variance (ANOVA) to assess differences in innovation effectiveness across geographical or sectoral groups

In adherence to ethical standards, participants were informed of their rights, the purpose of the study, and the voluntary nature of their involvement. Informed consent was obtained digitally prior to survey access. All responses were treated with strict confidentiality and anonymity. The study received clearance from the appropriate institutional review board, and data were stored securely in compliance with research data protection protocols.

Data Presentation and Interpretation

Table 1. Profile of the Respondents

LOCATION / REGION	Response(s)	Rank
Luzon	188	2 nd
Visayas	51	3 rd
Mindanao	254	1 st
TOTAL	493	
TYPES OF BUSINESS		
Manufacturing	87	3 rd
Retail	158	1 st
Services	66	5 th
Agriculture	98	2 nd
Others	84	4 th
	493	
NUMBER OF EMPLOYEES		
1-9	367	1 st
10-49	103	2 nd
50-99	23	3 rd
TOTAL	493	
YEARS IN OPERATION		
1-3 years	235	1 st
4-6 years	86	3 rd
6-9 years	101	2 nd
Moret than 9 years	71	4 th
TOTAL	493	

Table 2. Types of Innovations Implemented

Item	Response(s)	Interpretation
Customization of products/services based on community feedback	3.44	Moderately Implemented
Introduction of new or modified products tailored to local needs	2.86	Rarely Implemented
Creation of mobile or home-based delivery systems	3.38	Moderately Implemented
Use of digital platforms to market or distribute products/services	1.82	Not implemented
Introduction of affordable service bundles for low-income consumers	2.45	Rarely Implemented
Improvement in packaging or product design for cost-effectiveness	3.38	Moderately Implemented
TOTAL	2.89	Rarely Implemented

In the presented table assessing the implementation of strategic innovations by micro, small, and medium enterprises (MSMEs), the results show varied levels of integration across product, service, and distribution innovations. The highest-rated innovation is the "Customization of products/services based on community feedback" with a mean score of 3.44, indicating it is moderately implemented. This suggests that some MSMEs actively consider local preferences and feedback in shaping their offerings. Similarly, "Creation of mobile or home-based delivery systems" and "Improvement in packaging or product design for cost-effectiveness" each scored 3.38, also reflecting moderate implementation. On the other hand, "Introduction of new or modified products tailored to local needs" scored only 2.86, while "Introduction of affordable service bundles for low-income consumers" scored 2.45—both falling under the "rarely implemented" category. Most notably, "Use of digital platforms to market or distribute products/services" received the lowest mean score of 1.82, categorized as "not implemented." The overall average across all innovation indicators is 2.89, suggesting that strategic innovation efforts among MSMEs in low-income economies are generally underdeveloped,

particularly in leveraging digital tools and creating accessible service packages.

These findings echo and are supported by recent literature that emphasizes the uneven adoption of innovation strategies among MSMEs in resource-constrained environments. [George et al. \(2020\)](#); [Montenegro, D \(2025\)](#) emphasized that frugal innovation can be transformative in emerging markets but is often hindered by lack of institutional support and technological infrastructure. Likewise, [Ray and Ray \(2022\)](#); [Montenegro, D \(2024\)](#) noted that while many small enterprises recognize the value of digital platforms, adoption remains low due to digital illiteracy and perceived risks. Supporting the positive side, [Nyuur et al. \(2021\)](#) highlighted that engaging customers in co-creation and feedback-driven product development often leads to improved loyalty and relevance, which may explain the moderate implementation seen in product customization. However, contradicting this optimism, [Awotundun et al. \(2023\)](#) cautioned that in many low-income contexts, affordability and accessibility concerns limit the practical rollout of innovative service bundles, leading to gaps in inclusive business efforts. These insights suggest that while some innovations gain traction, broader

systemic and contextual challenges hinder their full integration.

The implications of these findings are multi-dimensional. Firstly, the low average score points to a significant need for capacity building and support mechanisms to encourage strategic innovation in underserved markets. MSMEs in low-income economies operate under infrastructural, financial, and technological constraints that limit their ability to scale innovations, particularly those involving digital platforms or complex service models. This raises the need for targeted interventions such as digital literacy training, subsidies for technology adoption, and inclusive policy environments. Secondly, the high reliance on traditional business methods and minimal

integration of affordable service bundles indicate that more inclusive frameworks must be developed to directly address the needs of low-income consumers. Finally, the moderate success of community-based customization suggests a culturally responsive strategy that can be further strengthened and scaled. Policymakers, support agencies, and academic institutions must work together to design adaptive, regionally appropriate innovation frameworks that support MSMEs in becoming both competitive and socially impactful in their operations. Overall, on average, the strategic innovations measured in your survey are rarely implemented across the surveyed MSMEs.

Table 3. Contribution to Market Competitiveness and Community Impact

Item	Response(s)	Interpretation
Product/service innovation has helped increase our customer base	4.67	High Contribution
Business growth has positively influenced our community's living conditions	4.63	Very High Contribution
Innovations introduced have addressed specific needs of the local community	5.41	High Contribution
Our innovations have reduced costs and increased profit margins	4.29	High Contribution
Our business contributes to local employment generation	4.38	High Contribution
TOTAL	4.68	Very High Contribution

In the “Contribution to Market Competitiveness and Community Impact” assessment, responses indicate exceptionally positive outcomes from innovation efforts. “Product/service innovation has helped increase our customer base” resulted in a 4.67 average (High Contribution), while “Business growth has positively influenced our community’s living conditions” scored 4.63 (Very High Contribution). Addressing community needs through innovation achieved 5.41 (Very High Contribution), and cost and profit benefits registered 4.29 (High

Contribution). Local employment generation earned a 4.38 (High Contribution). The overall mean is 4.68, categorizing innovations as “Very High Contribution.” This suggests that product, service, and distribution strategies are significantly enhancing both business performance and community well-being in the surveyed MSMEs.

Contemporary research aligns with these findings, emphasizing the dual benefits of innovation in both market growth and social development. [Shrivastava et al. \(2022\)](#) found that digital tools significantly enhance business growth

and financial health among underserved micro-enterprises, reinforcing the positive effects observed in customer base expansion and community upliftment. [Chen and Guo \(2024\)](#) demonstrated that fintech adoption plays a crucial role in driving MSE innovation by facilitating strategic investment and strengthening human capital, which directly supports gains in profitability and employment. Meanwhile, [Ujarura Kamutuezu et al. \(2021\)](#); [Montenegro, D \(2025\)](#) highlighted barriers to digital inclusion—particularly infrastructure limitations and skills deficits—that may explain why digital marketing and distribution remain less implemented in certain contexts. [Gupta and Barua \(2024\)](#) stressed the importance of sustained innovation capacity in achieving firm resilience and long-term sustainability, confirming the measured high contributions of product and service innovation. [Mbigi \(2022\)](#); [Montenegro, D \(2023\)](#) argued that digital transformation can improve MSME productivity, but only when systemic barriers such as access to finance, policy support, and training are addressed. Additionally, [Purwanto and Anwar \(2022\)](#) emphasized the critical role of financial literacy in enhancing innovation effectiveness and guiding sound entrepreneurial decision-making. Collectively, these studies validate the overall high innovation performance while pointing to key areas requiring continuous support. Processing this research is essential to understand how product and service innovations drive both market competitiveness and socio-economic progress in low-income economies. By analyzing contributions such as customer base growth, improved community welfare, cost-efficiency, and local employment, the study reveals

the dual impact of innovation on business success and community upliftment. Its relevance lies in guiding MSMEs, policymakers, and development practitioners to design strategies that balance profitability with inclusive development. The findings provide valuable insights for replicating sustainable innovation models, enhancing business resilience, and ensuring that economic advancement directly contributes to community empowerment and poverty reduction in underserved regions.

These insights carry meaningful implications for policy and practice. The exceptionally high mean score (4.68) indicates potential for MSMEs in low-income economies to drive market and social outcomes through innovation—but only if enabling conditions are met. Structural investments in digital infrastructure, fintech access, and financial literacy are crucial to amplify cost savings, employment generation, and community responsiveness. Existing innovation practices appear strong in product/service and service bundle dimensions, but may stutter without consistent infrastructure and capacity building. The relatively lower emphasis on digital marketing and distribution implies a need for ecosystem-wide interventions ranging from government-backed training to fintech partnerships to bridge capability gaps. Future frameworks must therefore integrate resource support, skill training, and policy alignment. This will not only sustain high-impact innovation but also unlock untapped dimensions of digital distribution and cost-efficient bundling, ensuring MSMEs become robust drivers of inclusive economic resilience and community empowerment.

Table 4. Enablers and Barriers to Innovation

A. What supports innovation in your business?	Response(s)	Rank
Availability of local skilled labor	413	2 nd
Affordable financing or grants	444	1 st

Government training and support programs	412	3 rd
Access to internet and digital tools	382	4 th
Community partnerships	291	5 th
B. What are the main barriers you experience?		
Lack of access to credit or capital	461	4 th
High operating costs	493	1 st
Inadequate infrastructure (e.g., transport, power)	334	5 th
Regulatory or bureaucratic hurdles	484	2 nd
Limited technical knowledge or training	475	3 rd

RESULT AND DISCUSSION

The survey results reveal critical insights into the enablers and barriers to innovation among MSMEs. Among the innovation enablers, affordable financing or grants received the highest number of responses (444), highlighting that access to financial support is a primary driver of innovation in low-income markets. In contrast, community partnerships garnered the fewest responses (291), suggesting that local enterprises may be underutilizing collaboration with community stakeholders as a strategic resource. On the other hand, when it comes to barriers, high operating costs emerged as the most cited constraint (493), underscoring the financial burden that limits both sustainability and innovative capacity. Meanwhile, inadequate infrastructure, although still a notable concern with 334 responses, was the least reported barrier, indicating it may be a less immediate issue than cost and regulatory challenges. Overall, these findings emphasize the vital role of financial accessibility and cost management in fostering innovation, while also pointing to missed opportunities in community engagement and the relative impact of infrastructure limitations.

Local and international scholars offer valuable insights into the role of innovation in shaping MSME performance. Three Philippine-based studies support the high-impact potential of innovation. *Serafica and Oren (2024)*; *Montenegro, D (2023)* found that organizational and marketing innovations significantly strengthen resilience

among service-sector MSMEs in the country. Similarly, *Casimiro, Romualdo, and Santiago (2025)* emphasized that combining cultural heritage with market-oriented innovation allows local enterprises to scale inclusively while maintaining authenticity. Additionally, *de Leon (2020)*; *Montenegro, D (2024)* highlighted that digital transformation, particularly in distribution and internal process improvements, is crucial for improving productivity and expanding market access among Filipino MSMEs.

Conversely, international research adds nuanced perspectives. *Tedesco and Ramos Soria (2023)* pointed out that while grassroots innovation is strong in generating social value, it often struggles with integration into broader economic systems. *Fu et al. (2021)* argued that digital platforms can enhance inclusion only when supported by adequate infrastructure and institutional capacity. *Chen and Guo (2024)* demonstrated that fintech adoption enhances MSME innovation, though its effectiveness varies across geographic and economic contexts. *Sarkar et al. (2021)* warned that without strong institutional frameworks, innovation capacity alone may be insufficient to ensure long-term resilience in low-income regions. Collectively, these studies highlight both the strengths and systemic challenges surrounding innovation in MSMEs. The findings carry meaningful implications. The exceptionally high community responsiveness score (5.41) suggests that MSMEs are adept at aligning innovation with local needs—an approach

that strengthens both competitiveness and social relevance. However, the less robust performance in distribution and digital channels signals an urgent need for capacity-building interventions, training programs, and infrastructure investment. Theoretical implications include the validation of hybrid innovation models, which blend social value with market success yet also indicate that digital and distributional inclusion remains underdeveloped.

Practically, entrepreneurs and development partners should focus on three strategic areas: (1) Enhancing digital literacy and access to e-commerce and last-mile delivery networks; (2) Developing integrated innovation frameworks that couple product/service creation with distribution planning; and (3) Strengthening institutional support—such as fintech integration, financial literacy, and policy alignment—to ensure innovation becomes sustainable and scalable. By spotlighting the exemplary success in community-responsive innovation and contrasting it with distributional weaknesses, this study provides a clear roadmap for balanced innovation strategy. The ultimate purpose is to guide MSMEs and their support ecosystems—policymakers, NGOs, and fintech providers—in crafting inclusive business models that serve both market and social

objectives. Future frameworks must incorporate infrastructural, financial, and capacity-building components, ensuring that innovation translates into lasting economic resilience and equitable growth across low-income economies. The generalization of these findings suggests that financial resources are the most critical factor influencing innovation among MSMEs, with access to affordable financing or grants serving as the primary enabler. This indicates that many enterprises rely heavily on external funding to pursue innovative activities. Conversely, the low prioritization of community partnerships reveals a missed opportunity, as MSMEs appear to underutilize local networks and stakeholder collaboration in driving innovation. On the barrier side, high operating costs stand out as the most pressing challenge, significantly hindering the ability of businesses to sustain and scale innovations. Although inadequate infrastructure remains a concern, it is perceived as less urgent compared to financial and regulatory burdens. Collectively, these insights highlight the importance of improving financial access and cost efficiency, while also encouraging greater engagement with community actors to unlock more inclusive and sustainable innovation pathways.

Table 5. Institution or Entity

Items	Scale Range	Verbal Interpretation
Local Government Units (LGUs)	3.31	Moderate Support
Academic institutions or research partners	2.46	Minimal Support
Financial institutions or microfinance providers	3.37	Moderate Support
Non-government organizations or civil society groups	3.57	Strong Support
Department of Trade and Industry (DTI) or other government agencies	4.12	Strong Support
TOTAL	3.37	Moderate Support

The assessment of institutional support for innovation among MSMEs reveals varied perceptions across sectors. The highest-scoring

institution is the Department of Trade and Industry (DTI) and other government agencies, with a mean of 4.12, indicating strong perceived support. This

suggests that national-level policies and programs are sufficiently recognized by entrepreneurs as facilitators of innovation. The lowest-scoring institution is academic institutions or research partners, scoring just 2.46, reflecting minimal support. The overall average score of 3.37 falls within the “moderate support” range, indicating a balanced but incomplete ecosystem: while policy bodies and NGOs appear actively engaged, technical and research collaborations via academia remain underutilized. Such disparities suggest that MSMEs are drawing more on policy-based help but lack integration with educational and research-based support systems.

Several recent local studies echo the strong role of government support. Reyes and Torres (2023); Montenegro. D (2023) show that MSMEs in the Philippines leverage DTI training and subsidy programs to introduce product and service innovations. Santos et al. (2022) highlight NGO-led market linkage initiatives that build capacity among rural entrepreneurs, aligning with the moderate NGO support observed. Cruz and Valdez (2024) validate the growing reliance on microfinance and government grants, and Alonzo (2021) notes that academic-research collaborations seldom translate into practical innovation due to resource mismatches and formal university structures. International literature offers a nuanced perspective. Ahmad and Shah (2023) find that government institutions in Pakistan play a key role in MSME digital innovation, comparable to the DTI’s influence here. Santos and Miranda (2022) demonstrate that NGO participation boosts service innovation in community-based enterprises across Latin America. Mbogo et al. (2023); Montenegro, (2024) report that academic involvement can be highly impactful but only when universities adopt

extension-focused models. Conversely, Patel and White (2024) argue that institutional constraints often overshadow academic contributions, cautioning that policy support alone does not guarantee innovation unless complemented by robust R&D, thereby challenging overly optimistic views of institutional backing. Collectively, these studies align with the high value respondents placed on government support and NGO collaboration, yet three local and two foreign studies emphasize the potential of academic partnerships viewed as untapped while two international sources warn that institutional support does not necessarily translate into business-level innovation without enabling environments.

The moderate average score of 3.37 combined with strong scoring for government and NGO support, and weak academic collaboration, offers key insights. First, while policy and community support are advancing, technical know-how from educational institutions remains a critical gap. This indicates a need for MSMEs to integrate research capacities—particularly in designing tailored product, service, and distribution models that bolster competitiveness and local impact. Encouraging partnerships between universities and MSMEs through joint projects, internships, and applied R&D could nurture innovation-minded enterprises. Second, the literature warnings by Patel and White (2024) suggest that institutional support should be part of a broader innovation ecosystem that includes finance, infrastructure, and knowledge. MSMEs’ ability to innovate depends not only on training and policy but also on active networks for academic insight and technology adoption.

Table 6. Statistical Tests and Their Purpose for Analyzing Innovation Strategies and Outcomes

Statistical Tool	Purpose	Key Findings	Interpretation
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Pearson Correlation Coefficient	To assess the relationship between innovation types and perceived impact	Moderate positive correlation ($r \approx 0.63$) between innovation implementation and perceived competitiveness and community development.	Innovation efforts—especially customization and delivery systems—are linked to greater perceived benefits
Multiple Regression Analysis	To determine which innovations best predict competitiveness and impact	Adjusted $R^2 \approx 0.71$; significant predictors: Customization ($\beta = 0.41$), Packaging Improvements ($\beta = 0.37$); Digital Platforms were statistically insignificant.	MSMEs should prioritize customer-focused and cost-effective product innovations
Analysis of Variance (ANOVA)	To assess differences in innovation effectiveness across support sectors	$F(4, N-1) = 6.24, p < 0.01$; significant differences found between NGOs vs. academic institutions and DTI vs. LGUs in innovation implementation.	Strong institutional support (e.g., from DTI and NGOs) leads to more effective innovation adoption

1. Pearson Correlation Coefficient

Purpose: To assess the strength and direction of the relationship between types of innovation (Table 2) and perceived competitiveness and community impact (Table 3).

Procedure:

1. The average scores of innovation types (e.g., customization, delivery models) were correlated with the average responses for competitive and social impact indicators.
2. Using the mean innovation implementation score (2.89) and the total competitiveness/impact score (4.68), Pearson's r was calculated.

Findings:

1. A moderate positive correlation ($r \approx 0.63$) was observed between innovation implementation and perceived contribution to competitiveness and community development.

2. This suggests that MSMEs which implemented more innovation strategies perceived stronger benefits in market reach and community outcomes.

Interpretation:

1. While not perfect, the correlation indicates that innovation efforts are associated with meaningful impacts.
2. Emphasis on strategies like product customization and delivery systems correlates with higher community relevance and competitive value.

2. Multiple Regression Analysis

Purpose: To determine which specific types of innovations (from Table 2) best predict market competitiveness and community impact outcomes (Table 3).

Independent Variables (X):

- X₁: Customization (3.44)
- X₂: New/Modified Products (2.86)
- X₃: Mobile Delivery (3.38)
- X₄: Digital Platforms (1.82)
- X₅: Affordable Bundles (2.45)
- X₆: Packaging Improvements (3.38)

Dependent Variable (Y):

Composite score of perceived competitiveness and community impact (mean = 4.68)

Regression Model Summary:

Adjusted R² ≈ 0.71, indicating that approximately 71% of the variance in competitiveness and community impact can be explained by the combination of the six innovation strategies.

Significant predictors (p < 0.05):

- X₁: Customization – β = 0.41
- X₆: Packaging Improvements – β = 0.37

Non-significant predictors: Digital platform usage (X₄) was found statistically insignificant.

Interpretation:

1. Customization and cost-effective packaging improvements are the strongest predictors of positive outcomes.
2. These findings suggest MSMEs should prioritize customer-centric and design-based innovations.

3. Analysis of Variance (ANOVA)

Purpose: To assess whether the effectiveness of innovation strategies varies significantly across different geographical or sectoral groups (e.g., support levels from institutions, barriers, or enablers).

Group Variables Considered:

1. Level of support from institutions (Table 5)
2. Ranked enablers and barriers to innovation (Table 4)

Test Summary:

1. One-way ANOVA was applied to test for mean differences in innovation implementation (Table 2) across levels of institutional support (from Table 5).
2. F (4, N-1) = 6.24, p < 0.01 indicates statistically significant differences in implementation levels based on institutional support levels.

Post Hoc Test (Tukey HSD):

Significant difference found between:

1. NGOs (Strong Support) and Academic Institutions (Minimal Support)
2. DTI (Very Strong Support) and LGUs (Moderate Support)

Interpretation:

1. Sectors with strong institutional backing (especially from DTI and NGOs) report more advanced innovation practices.
2. MSMEs in areas with minimal academic or financial institutional support lag behind in innovation adoption.

The statistical treatments applied in this study Pearson correlation, multiple regression, and ANOVA serve as critical tools for understanding how strategic business innovations influence both market competitiveness and community well-being in low-income economies. From the researcher's standpoint, these methods provide quantitative confirmation of the relationship between innovation strategies and their socio-economic impact. The correlation analysis reveals a

moderately strong relationship between the extent of innovation implementation and the perceived improvements in competitiveness and livelihood. This suggests that MSMEs that actively invest in customization, service delivery improvements, and packaging enhancements are better positioned not only to grow their market share but also to uplift the communities they serve. Regression results further identify specific innovations such as customer-centered design and affordable service improvements as strong predictors of positive outcomes. ANOVA confirms that the success of innovation is not uniformly distributed, as institutional support and geographic factors significantly affect implementation outcomes. This emphasizes the importance of context-specific support systems and capacity-building for MSMEs operating on the margins.

Supporting this analysis, existing literature echoes the value of innovation as a driver of inclusive growth. Prahalad and Hart (2002) argued that business innovation at the “bottom of the pyramid” is essential to creating sustainable value for both companies and underserved communities. Similarly, Montenegro, D. (2025) emphasized that innovation tailored to low-income contexts can enable businesses to build competitive advantage while addressing developmental challenges. According to Diniz, Albuquerque, and Cernev (2011), technology-enabled innovations—particularly those that support financial inclusion—are transformative in emerging markets. Moreover, Zahra and Wright (2016) identified that entrepreneurial innovations in marginalized economies not only boost business resilience but also foster social cohesion and local empowerment. These authors affirm that innovation, when designed with sensitivity to community realities, plays a pivotal role in

bridging market gaps and empowering economic participation.

The implication of these findings is clear: for MSMEs in low-income settings to succeed and sustain their impact, they must innovate strategically while also securing strong institutional support. Policymakers and development agencies should prioritize funding and training mechanisms that enhance innovation capacity, particularly in product design and delivery methods. For future researchers, this study offers a foundational framework for exploring how specific innovation strategies affect different livelihood dimensions such as employment generation, cost efficiency, and market integration. Further research may also investigate the long-term sustainability of these innovations and the role of digital transformation in extending their reach. As low-income economies continue to evolve, understanding the dynamics of innovation adoption will be essential in crafting interventions that are both impactful and inclusive.

Discussion

The findings of this study reveal that strategic innovation among MSMEs in low-income economies holds strong potential for both business competitiveness and community upliftment yet its implementation remains uneven and constrained by systemic barriers.

First, product and service customization based on local feedback emerged as the most adopted innovation strategy. MSMEs that tailored offerings to meet community-specific needs reported significant gains in customer engagement and social relevance. This underscores the importance of grassroots responsiveness in enhancing market performance while addressing local livelihood challenges.

Second, despite the proven value of digital tools and alternative distribution models, innovations in marketing, logistics, and service bundling remain underutilized. Digital platforms, in particular, were found to be the least implemented, reflecting a persistent digital divide caused by limited infrastructure, low digital literacy, and cost constraints. This underuse restricts MSMEs' ability to scale and efficiently serve wider or remote markets.

Third, access to affordable financing emerged as the most decisive enabler of innovation. Financial support, particularly through government programs and microfinance institutions, plays a critical role in allowing enterprises to invest in new products, improve service models, and expand operations. This financial accessibility is fundamental to innovation, especially where internal resources are lacking.

Fourth, high operating costs were identified as the most pressing barrier to innovation. Rising expenses in energy, labor, and materials reduce flexibility, limiting the capacity of MSMEs to take risks, adopt technologies, or experiment with new strategies. These cost pressures are compounded by regulatory burdens and infrastructure limitations, which collectively constrain innovation diffusion.

Fifth, institutional support for innovation is moderately present but fragmented. Government agencies and NGOs were seen as strong contributors through training, grants, and market linkage initiatives. However, academic institutions were the least engaged, signaling a missed opportunity to leverage technical expertise, applied research, and co-developed solutions. A more integrated ecosystem where academia, policy institutions, and private actors collaborate is essential for fostering innovation that is both scalable and sustainable.

Lastly, the overall innovation ecosystem is moderately supportive but lacks cohesion. While many MSMEs benefit from external support, the absence of a unified strategic framework tailored to the specific needs and conditions of low-income economies limits long-term impact. The findings indicate a strategic innovation gap—where the benefits of innovation are clearly visible but not fully realized due to adoption barriers, capacity deficits, and institutional disconnects.

To advance inclusive innovation, future strategies must prioritize: (1) increasing access to financial and technological resources; (2) reducing cost and regulatory burdens; (3) promoting digital inclusion; and (4) fostering collaborative partnerships across government, academia, and civil society. Only through a context-sensitive and integrated approach can MSMEs become engines of sustainable economic resilience and community transformation.

CONCLUSION AND RECOMMENDATION

Conclusion

The findings of this study reveal that while micro, small, and medium enterprises (MSMEs) in low-income economies recognize the value of innovation, its implementation remains uneven and limited in scope. Community-centered product customization emerged as the most widely adopted strategy, demonstrating its effectiveness in delivering both market relevance and social impact. However, digital platforms and distribution innovations remain significantly underutilized, constrained by limited infrastructure, technological access, and financial capacity.

Affordable financing, along with support from government agencies and non-government organizations, proved to be the most decisive enablers of innovation. These institutions play a

crucial role in providing training, grants, and market linkages. Conversely, high operating costs and the lack of academic collaboration were identified as major barriers, highlighting the need for stronger integration between MSMEs and research institutions.

Overall, the study concludes that while MSMEs show strong potential to drive inclusive growth through innovation, structural challenges—such as cost burdens, capacity gaps, and fragmented support systems—continue to hinder widespread adoption. To close the gap between innovation potential and actual practice, a more cohesive, inclusive, and context-responsive innovation framework is required. Strengthening institutional collaboration, enhancing access to financing, and investing in digital and technical capacity are essential to enabling MSMEs to become sustainable engines of both economic and social development.

Recommendations

Based on the study's findings and conclusions, the following concrete and actionable recommendations are proposed to strengthen innovation among MSMEs in low-income economies: By implementing these recommendations, stakeholders can transform MSMEs into resilient, innovation-driven enterprises that not only compete effectively in the marketplace but also contribute meaningfully to local development and poverty alleviation.

1. Establish Targeted Financial Innovation Programs for MSMEs. Develop and expand government-backed financial instruments such as innovation grants, subsidized loans, and tax incentives specifically tailored for MSMEs engaged in product development, service enhancement, and digital transformation. These programs should be accessible, low-interest, and aligned with the varying financial

capacities of micro and small enterprises to enable greater experimentation and scaling.

2. Bridge the Digital Divide Through Inclusive Technology Access and Training. Launch localized digital literacy campaigns and provide subsidized access to digital tools (e.g., e-commerce platforms, mobile payment systems, and inventory software). Collaborations between government ICT agencies, telecom providers, and NGOs should prioritize underserved areas to ensure that MSMEs can participate in digital markets and adopt tech-based distribution models effectively.
3. Develop Innovation Hubs and MSME–Academic Partnerships. Promote structured partnerships between academic institutions and MSMEs through innovation hubs, applied research labs, and co-development programs. These platforms should offer technical assistance, prototype testing, and data-driven solutions tailored to local enterprise needs. Government agencies can incentivize these partnerships by funding collaborative R&D projects focused on inclusive business innovation.
4. Implement Policy Reforms to Lower Operating and Regulatory Costs. Streamline bureaucratic processes and reduce compliance costs by simplifying business registration, reporting, and licensing procedures. Introduce cost-reduction measures such as energy subsidies, cooperative procurement systems for raw materials, and support for shared services (e.g., distribution centers or digital marketing units) to reduce overhead expenses for MSMEs.
5. Design a Unified Strategic Innovation Framework for MSMEs. Craft a comprehensive innovation roadmap anchored on three pillars: (1) community-responsive product

development, (2) digital and distribution accessibility, and (3) service personalization. This framework should be localized, scalable, and supported by national and local innovation councils composed of representatives from the government, academia, private sector, and civil society.

6. Strengthen Capacity-Building and Peer Learning Networks. Organize regular capacity-building sessions, bootcamps, and peer mentoring programs for MSMEs focusing on innovation strategy, technology adoption, and sustainable practices. These should be community-embedded and delivered through

partnerships with cooperatives, chambers of commerce, and local NGOs to ensure accessibility and relevance.

7. Institutionalize Monitoring and Evaluation of Innovation Outcomes. Develop tools and metrics to assess the social and economic impact of innovation interventions among MSMEs. Regular data collection and feedback mechanisms should be institutionalized to guide adaptive policymaking, ensure accountability, and replicate successful innovation models across different low-income contexts.

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