

AYÍKÁ

ISSN: 2664-3030 (Print)
2664-3022 (Online)

**JOURNAL OF ENVIRONMENT AND
POLITICS IN AFRICA**

AYIKA: JOURNAL OF ENVIRONMENT AND POLITICS IN AFRICA

DOI: <https://doi.org/10.69778/2664-3022/2026/8.1/EN>

Editorial Note

This issue of *AYIKA* brings together a rich and timely collection of scholarship that underscores a central truth: in Africa, environmental questions are deeply political, and political realities are increasingly shaped by environmental change. The contributions in this volume reflect the growing complexity of this relationship, engaging themes that span governance, technology, security, sustainability, and identity across diverse African contexts and beyond.

A defining feature of this issue is its strong engagement with the role of digitalisation in advancing sustainability. From the systematic review on how digitalisation enables decarbonisation, to analyses of agri-tech adoption in Nigeria and South Africa, the volume highlights the transformative potential of technology in addressing environmental challenges. These contributions move beyond optimism, carefully examining the mechanisms and constraints that shape technological uptake. They remind us that digital solutions are not neutral; their effectiveness depends on policy frameworks, institutional capacity, and socio-economic conditions.

Equally prominent is the question of governance, particularly in relation to service delivery and institutional performance. The examination of water service failures in Gauteng Province offers a sobering account of how governance lapses can translate into environmental and public health crises. Similarly, the discussions on public service reform and parliamentary oversight reveal the persistent challenges of accountability and administrative effectiveness across the continent. Together, these studies point to a critical insight: sustainable environmental outcomes are contingent on capable, transparent, and responsive institutions.

The issue also engages deeply with questions of political order, security, and regional cooperation. Analyses of Zimbabwe's political history, hybrid regimes in Central Africa, and border conflicts involving Nigeria reveal how political instability and governance structures shape environmental management and development trajectories. The exploration of indivisible security within the SADC region further highlights the interconnectedness of peace, cooperation, and sustainable development. These contributions reinforce the idea that environmental sustainability cannot be pursued in isolation from broader political and security dynamics.

Another important strand in this volume is the emphasis on economic strategies and livelihoods, particularly in rural contexts. Articles on organic agribusiness, marketing strategies aligned with climate action, and the challenges faced by women in agribusiness illuminate the everyday realities of sustainability. They foreground the experiences of local actors, especially women entrepreneurs, whose resilience and innovation are often overlooked. By examining the socio-economic factors shaping revenue growth and participation, these studies contribute to a more inclusive understanding of development.

The volume also makes a significant intellectual contribution by foregrounding indigenous knowledge systems and alternative epistemologies. The exploration of

Ubuntu as a framework for regional governance offers a human-centred perspective that challenges dominant policy paradigms. Similarly, the critique of epistemic violence in transboundary conservation highlights the marginalisation of local knowledge and agency. These interventions are particularly important in rethinking whose knowledge counts in environmental governance and how more equitable frameworks can be developed. Urban spaces and cultural expressions are not left out of this conversation. Contributions on city branding in Harare and the intersection of art, space, and identity in Durban demonstrate how environmental and political dynamics are experienced and expressed in urban contexts. These studies expand the scope of environmental politics by incorporating cultural and spatial dimensions, offering fresh insights into how cities in the Global South are responding to climate change.

Notably, this issue also extends its analytical reach beyond Africa, with a study on urban climate initiatives in Brazil and a comparative examination of socio-economic vulnerability in Sub-Saharan Africa and the Pacific Islands. These contributions enrich the volume by situating African experiences within a broader global context, encouraging cross-regional learning and dialogue.

Finally, the inclusion of research on language and education, such as the study on tense substitution errors among Tshivenda-speaking students, serves as a reminder of the interconnectedness of knowledge production, communication, and development. It highlights the importance of education in shaping the capacity to engage with complex environmental and political issues.

Taken together, the articles in this issue reflect a vibrant and interdisciplinary field of inquiry. They challenge simplistic narratives and instead offer nuanced analyses that recognise the interconnected nature of environment and politics in Africa. As the continent continues to navigate the pressures of climate change, population growth, and political transformation, the insights presented here are both timely and necessary. This volume invites scholars, policymakers, and practitioners to think more critically and act more collaboratively. It is our hope that the conversations sparked within these pages will contribute to more just, sustainable, and context-sensitive approaches to environmental governance in Africa and beyond.

Managing Editor

Prof. Kayode EEsuola
Institute of African and Diaspora Studies.
University of Lagos, Nigeria
oeesuola@unilag.edu.ng

Editor

Dr. Bamidele Olajide
Department of Political Science
University of Lagos, Nigeria
contactdele@gmail.com

TABLE OF CONTENT

1. How Digitalisation Enables Decarbonisation: A Systematic Review Of Mechanisms, Pathways, And Boundary Conditions
Misheck Musaigwa, Innocent Simphiwe Nojiyeza
6-27
2. Lapses in Water Services Management Within Gauteng Province- A Scoping Review Of Hammanskraal Water Woes
M. Diedericks, S. Sikwela, G.M. Solomons
28-57
3. Soldiered Democracy and Peace: The Smithan Syndrome Of Politics And Administration In Zimbabwe, 1965–2018
Timothy Chibuike Anyanwu, Kelechi Johnmary Ani
58-76
4. Aligning Marketing Strategies with Climate Action and Sustainable Development Goals in South Africa
Gugulethu Mhlana and Andrisha Beharry-Ramraj
77-98
5. Agri-Tech And Livestock Management: Economic And Policy Drivers Of Digital Adoption In Nigeria And South Africa
Olukayode Idris Lasisi, Bisiriyu Abiodun Taleat, Muslim Akinbola Akintola Kedibone Phago
99-119
6. Indivisible Security And Sustainable Development In The Sadc Region: Assessing Stability And Cooperation Among The Drc, Rwanda, And Uganda
Masila Joshua Masipa
120-134
7. Reforming Public Service In Africa: Strategies, Challenges And The Future
Kazeem Oyedele Lamidi, Costa Hofisi
135-156
8. Organic Agribusiness In Rural South Africa: Marketing Strategies Amid Stiff Competition
Ishmael Obaeko Iwara
157-167
9. Minimising English Tense Substitution Errors: A Case Of Tshivenda-Speaking Students At A South African University
Farisani Thomas Nephawe
168-185
10. Institutional Dynamics And Hybrid Regime: Liberal And Authoritarian Democracy In The Central Africa
Muhlya Tshombe Lukamba, Bisiriyu Abiodun Taleat, Eunice Chesa
186-206
11. Ubuntu Philosophy And Regional Governance In Africa: A Human-Centred Framework For Regional Integration And Sustainable Development
Onuk Bulus Ojem, Phemelo Olifile Marumo
207-226

12. Nigerian Border Conflict With Neighbours And Implications For Regionalism
Kelechi Johnmary Ani

227-239
13. Epistemic Violence: Transboundary Conservation's Subjugation Of Basubiya
 Eco-Missiology And Riverine Agency
Phemelo Olifile Marumo, Sethunya Michael Gaarekwe

240-262
14. Strategies To Mitigate The Challenges Faced By Women In Agribusinesses In
 Rural Uphongolo, Kwazulu-Nata
Ndlangamandla, Wiseman Siboniso

263-283
15. In What Ways Do Intersecting Socio-Economic Factors Shape Revenue Growth
 Among Rural Women Entrepreneurs in KZN, South Africa?
Lindokuhle Senamile Ntuli, Innocent Simphiwe Nojiyeza

284-307
16. Climate Change and Socio-Economic Vulnerability in Sub-Saharan Africa and
 Pacific Islands
Mandisa Jili and Andrisha Beharry-Ramraj

308-328
17. Transformative city branding in the face of climate change in the global south:
 A case of Harare
Kazaka Chiyambire

329-349
18. Mapping of urban climate initiatives in Brazil: promoting mitigation and
 adaptation in the transport sector
Ana Clara Vieira Pedrosa, Ana Clara de Roure, Mateus Bernardino Mata, Andréa Souza Santos

350-378
19. Ancestral Voices in Modern Crises: Traditional Leadership and Climate
 Adaptation in Zimbabwe
Douglas Nyathi

379-396

IN WHAT WAYS DO INTERSECTING SOCIO-ECONOMIC FACTORS SHAPE REVENUE GROWTH AMONG RURAL WOMEN ENTREPRENEURS IN KZN, SOUTH AFRICA?

Lindokuhle Senamile Ntuli

*Department of Operations and Quality Management
Durban University of Technology
South Africa*

Lindokuhlen2@dut.ac.za

ORCID ID: <https://orcid.org/0009-0001-4203-5856>

Innocent Simphiwe Nojiyeza

*Business School
Durban University of Technology
South Africa*

InnocentNy@dut.ac.za

ORCID ID: <https://orcid.org/0000-0002-1335-4532>

Abstract

Rural women entrepreneurs in South Africa face systematic, intersecting barriers to revenue growth rooted in gender, race, class, and geographic marginalisation. This study investigates how these socio-economic factors shape revenue growth performance among 273 rural women entrepreneurs in KwaZulu-Natal's uMhlabuyalingana, Big5Hlabisa, and eJozini municipalities. Employing a quantitative cross-sectional design, data were collected through structured questionnaires and analysed using descriptive statistics, Pearson correlation, chi-square tests, and structural equation modelling (SEM) with SPSS 29.0 and AMOS 26.0. Grounded in intersectionality theory and feminist political economy, the study tested six constraint dimensions: gendered poverty and class, spatial marginalisation and rurality, market access barriers, financial exclusion, institutional access barriers, and gendered income control. The SEM demonstrated excellent model fit and confirmed that all six dimensions significantly and negatively impact revenue growth performance. Findings reveal that rural women entrepreneurs do not underperform due to lack of capability, but because of deeply entrenched structural inequalities operating simultaneously. Single-issue interventions consistently fail because they do not address the interconnected nature of these constraints. The study advances quantitative intersectionality scholarship and provides evidence-based recommendations for comprehensive, multi-level policy interventions targeting spatial inequalities, financial exclusion, institutional barriers, and patriarchal household structures concurrently.

Keywords: *Intersectionality, Rural women entrepreneurs, Revenue growth, Gender inequality, Feminist Political Economy*

Introduction

Small and medium enterprises (SMEs), particularly those owned by women, constitute critical engines of economic development, employment creation, and poverty alleviation in developing economies (Citaristi, 2022; Ratten, 2021). In South Africa, women entrepreneurs are increasingly recognized as the "economic engines" of the nation, creating close to one million jobs between 2018 and 2022 with potential to raise R175 billion in economic activity (SME South Africa, 2021). Despite their demonstrated potential, women-owned businesses particularly those operated by Black rural women exhibit significantly lower revenue growth performance compared to their urban and male counterparts, with only 13.5% of established firms owned by South African women compared to 19.9% owned by men (Meyer, Samsami & Bowmaker-Falconer, 2024). This revenue growth disparity becomes especially pronounced when examining rural women entrepreneurs, who operate at the intersection of multiple marginalised identities: gender, race, class, and geographic location. The Competition Commission of South Africa (2023:4) explicitly acknowledges that "the South African context is further complicated by issues relating to the intersectionality between gender and racial inequality, which compounds the barriers faced by black women entrepreneurs." Rural Black women entrepreneurs in provinces such as KwaZulu-Natal face systematic exclusion from markets, capital, networks, and institutional support in ways that cannot be addressed through single-issue interventions (Okeke-

Uzodike, Okeke-Uzodike & Ndinda, 2018).

Understanding how socio-economic factors shape revenue growth among rural women entrepreneurs requires moving beyond additive models that simply list barriers to intersectional analysis. It requires further examining how gender discrimination combines with post-colonial economic structures, class-based resource constraints, and rural-urban inequalities to create distinct configurations of disadvantage (Crenshaw, 2013; Collins, 2000). For rural women entrepreneurs in KwaZulu-Natal's peripheral municipalities including uMhlabuyalingana, Big5Hlabisa, and eJozini, intersectionality reveals how gender, race (specifically Blackness in post-apartheid context), class (poverty and limited asset ownership), and rurality (geographic and infrastructural marginalisation) converge to systematically constrain entrepreneurial performance. Previous research on women's entrepreneurship in South Africa has documented various challenges including limited access to finance (Gupta & Aggarwal, 2015), inadequate education and training (Meyer & Hamilton, 2020), gender stereotyping and geographic isolation (Bomani & Derera, 2018). However, most studies examine these factors independently rather than analysing their intersecting, mutually reinforcing effects on revenue generation. Furthermore, limited quantitative research specifically examines rural women entrepreneurs in KwaZulu-Natal's peripheral municipalities, where apartheid's spatial legacy continuously produces pronounced inequalities. This study addresses these

gaps by investigating: How do intersecting socio-economic factors including gender, race, class, rurality, employment status, education, market access, financial constraints, and institutional barriers shape revenue growth performance among rural women entrepreneurs in KwaZulu-Natal? The study is guided by the following objectives:

1. To examine how gendered poverty and class-based constraints influence rural women entrepreneurs' revenue growth performance.
 2. To assess the impact of race, rurality, and structural economic exclusion on entrepreneurial revenue outcomes.
 3. To evaluate the effects of market access barriers and geographic isolation on revenue growth.
 4. To investigate how gendered control of income and household resources constrains business growth.
 5. To determine how institutional access barriers and socio-economic inequality affect revenue performance.
- Examining these intersecting factors quantitatively through advanced statistical modelling is crucial. Therefore, this research contributes to entrepreneurship scholarship by demonstrating how structural inequalities operate simultaneously across multiple dimensions to produce revenue disparities. The findings inform policy design by illustrating why fragmented, single-issue interventions typically fail and what comprehensive, multi-level support systems would require.

Literature Review Intersectionality and Women's Entrepreneurship

Intersectionality, introduced by Crenshaw (1989), provides a critical

analytical framework for understanding how multiple systems of oppression including gender, race, class, and geographic location intersect to create unique experiences of marginalisation that cannot be understood by examining single identity categories in isolation (Crenshaw, 2013). Collins (2000) extends this through the concept of the "matrix of domination," explaining how interlocking systems of power operate simultaneously across structural, disciplinary, hegemonic, and interpersonal levels to maintain inequality.

In entrepreneurship contexts, intersectionality reveals how women entrepreneurs' experiences and outcomes vary dramatically based on their positioning within multiple systems of stratification (Robb & Watson, 2012). An urban, white, middle-class woman entrepreneur faces fundamentally different barriers and opportunities than a rural, Black, working-class woman entrepreneur, not because of additive differences but because race, class, gender, and location interact to create distinct structural positions within the economy (Cho, Crenshaw & McCall, 2013). Applied to South African women entrepreneurs, intersectionality illuminates how gender discrimination combines with post-colonial economic structures, class-based resource constraints, and rural-urban inequalities to shape entrepreneurial possibilities and performance (Jamali, 2009). The Competition Commission of South Africa (2023:4) explicitly acknowledges this intersectional positioning, noting that "the South African context is further complicated by issues relating to the intersectionality between gender and

racial inequality, which compounds the barriers faced by black women entrepreneurs." For rural Black women entrepreneurs in KwaZulu-Natal, intersectionality reveals how gender, race, class, and rurality converge to systematically constrain revenue generation in ways that cannot be addressed through single-issue interventions (Okeke-Uzodike, Okeke-Uzodike & Ndinda, 2018; Nxopo & Iwu, 2015).

Gendered Poverty and Class-Based Constraints

Social feminist researchers emphasize that women's economic marginalisation is structurally produced through the intersection of patriarchy and capitalism, which systematically undervalues women's labour and limits their access to income and advancement opportunities. The feminization of poverty whereby women constitute a disproportionate share of the poor globally is particularly acute in rural South Africa, where historical dispossession, limited employment opportunities, and gendered wage gaps concentrate poverty among women (Chant, 2008). For rural women, poverty operates as both cause and consequence of their entrepreneurial activities, creating a "poverty trap" where survivalist entrepreneurship generates insufficient income to enable capital accumulation or business growth (Kabeer, 2018). Income insecurity forces rural women into necessity-driven entrepreneurship starting businesses not from opportunity recognition but from economic desperation due to unemployment or underemployment (Lingappa & Rodrigues, 2023). Class position fundamentally shapes rural women entrepreneurs' ability to

accumulate business capital. Women from poor households lack personal savings, collateral for loans, or family resources to invest in business expansion (Ngorora & Mago, 2013). Gupta and Aggarwal (2015:71) note that women entrepreneurs face "limited access to financial institutions in terms of acquiring financial resources due to their creditworthiness or lack thereof," with banks requiring collateral, business plans, and documentation that poor rural women cannot provide.

This class-based financial exclusion creates structural barriers to revenue growth, as "limitation of funds hinders the capacity of rural women entrepreneurs to invest in additional resources needed for their business such as skilled personnel, inventory and equipment for expansion" (Ndururi, 2020). The intersection of gender and class means that rural women entrepreneurs operate businesses characterized by "lower turnover," making "it difficult to access funding from lending institutions" (Vorster, & Thaba, 2025) creating a vicious cycle where poverty prevents capital access, which prevents business growth that could alleviate poverty.

Race, Rurality, and Structural Economic Exclusion

The historical marginalisation of African rural communities under colonialism and apartheid created enduring patterns of spatial and economic inequality that continue constraining contemporary entrepreneurship (Neves & Du Toit, 2013). Apartheid's spatial planning deliberately concentrated Black populations in underdeveloped rural "homelands" characterized by limited infrastructure, poor land quality, and

geographic isolation from urban economic centres (Sithenkosi & Nzewi, 2024). Post-apartheid South Africa has made limited progress reversing these spatial inequalities, with rural areas particularly former homeland areas continuing to experience infrastructure backlogs, limited-service delivery, and economic marginalisation (Stats SA, 2022). For rural women entrepreneurs in municipalities such as uMhlabuyalingana, Big5Hlabisa, and eJozini, this historical and ongoing spatial inequality manifests in inadequate roads, unreliable electricity, limited water supply, poor telecommunications infrastructure, and distance from markets and suppliers (Zhou & Gumbo, 2021).

Structural economic exclusion intersects with race and rurality to limit market access and revenue potential. Bomani and Derera (2018) found that rural entrepreneurs in KwaZulu-Natal identified "their geographical location as negatively impacting their revenue growth performance." Geographic isolation increases transaction costs with minimal profit margins after transport expenses. The intersection of race, class, and rurality creates "spatial poverty traps" where Black rural women entrepreneurs are geographically confined to impoverished markets while structural barriers prevent access to more lucrative urban markets (Sharma et al., 2013).

Intersectionality Theory

This study is grounded in intersectionality theory as articulated by Crenshaw (1989, 2013) and extended by Collins (2000) through the matrix of domination concept. Intersectionality posits that social

identities (gender, race, class, location) do not operate independently but intersect to create unique experiences of privilege or oppression that cannot be understood by examining single categories in isolation. For rural women entrepreneurs in South Africa, intersectionality reveals that revenue growth constraints result not from being a woman, plus being Black plus being poor, plus being rural, but from the specific, qualitatively distinct form of marginalisation produced by the interaction of these systems. This theoretical lens enables comprehensive analysis of how intersecting constraints produce revenue growth outcomes while informing recommendations for multi-level interventions addressing interconnected systems of inequality.

Despite its analytical power, intersectionality theory is not without limitations that deserve critical engagement. First, intersectionality was originally developed as a qualitative and legal-theoretical framework (Crenshaw, 1989), and its translation into quantitative research remains contested. Critics such as McCall (2005) argue that the complexity intersectionality demands acknowledging configurations of identity that are always context-specific and historically situated sits in tension with the standardising logic of survey instruments and statistical modelling, which necessarily reduce lived experience into measurable categories. This study acknowledges that tension: the six constraint dimensions operationalised here represent analytical abstractions of structural forces that, in the lives of rural women entrepreneurs, are experienced as a seamless, undivided burden rather than as six distinguishable constructs. The

factor structure and discriminant validity results (Tables 5–7) demonstrate that these dimensions are empirically separable, but this separability is a product of the measurement model, not necessarily of lived reality.

Second, intersectionality has been critiqued for its potential to proliferate identity categories without theoretical limit (Yuval-Davis, 2006). By focusing on gender, race, class, and rurality, this study necessarily omits other potentially significant axes of inequality such as disability, age, religion, and marital status. While the R^2 of .68 indicates that the six modelled dimensions explain a substantial proportion of variance in revenue growth performance, the remaining 32% signals that unmeasured intersecting factors including care burden, social capital, and climate vulnerability remain outside the model's scope. Future research should consider whether the addition of further identity axes produces genuinely new explanatory power or risks theoretical overextension.

Third, intersectionality theory has been challenged for its implicit assumption that intersecting oppressions are always mutually reinforcing (Nash, 2008). In some contexts, one social position may partially buffer the effects of another for instance, strong community embeddedness or participation in solidarity-based savings groups (stokvels) may partially offset institutional exclusion for some rural women. The present study's quantitative design captures the dominant pattern of cumulative disadvantage but cannot easily detect such conditional or moderating relationships. This is a meaningful

limitation: policy designed solely around cumulative disadvantage risks overlooking the protective mechanisms already operating within communities, which could be strengthened rather than replaced by external interventions.

Fourth, although intersectionality theory is now widely applied in African feminist scholarship (Mama, 1995; Nnaemeka, 2004), its conceptual origins in Black feminist legal thought in the United States mean that its categories and assumptions require careful contextual translation. The specific configuration of race, class, and rurality in post-apartheid KwaZulu-Natal shaped by homeland spatial policy, customary land tenure, and the political economy of traditional authority differs in important respects from the contexts in which intersectionality was originally theorised. This study applies the framework with awareness of that contextual specificity, drawing on South African scholarship (Okeke-Uzodike, Okeke-Uzodike & Ndinda, 2018; Sithenkosi & Nzewi, 2024) to ground the theoretical categories in the local historical and political context. Nevertheless, researchers applying this model in other sub-Saharan African settings should attend to how the particular intersectional configurations of their contexts may differ.

Notwithstanding these limitations, intersectionality remains the most analytically appropriate framework available for this study's purposes. Its capacity to name the structural simultaneity of multiple systems of disadvantage and to resist the policy tendency toward single-issue solutions makes it indispensable for understanding why rural women entrepreneurs in peripheral

municipalities continue to be systematically excluded from revenue growth despite decades of post-apartheid development intervention.

Research and Methodology

This study employed a quantitative research design grounded in the post-positivist philosophical paradigm. According to White and Millar (2014), the term "quantitative" pertains to the amount or volume of information gathered during the research process, presented in quantified or numerical format, typically supported by statistical tools. Quantitative research involves systematically examining social phenomena through the use of statistical or numerical data (Watson et al., 2015:1), including both experimental and non-experimental designs aimed at achieving precise and dependable measurements (Rahman, 2016). Mohajan (2020:2) indicates that quantitative research interprets phenomena by gathering numerical, detailed data analysed through mathematical methods, notably statistics, to address questions about "who, what, when, where, how much, how many and how." This approach proved appropriate for examining measurable patterns and relationships regarding how intersecting socio-economic factors shape revenue growth among rural women entrepreneurs, producing evidence-based insights applicable to policy formulation. A descriptive cross-sectional survey design was utilised, collecting data at a single point in time to capture current states of rural women's entrepreneurship, socio-economic constraints, and revenue performance. This methodology is widely established in entrepreneurship research for identifying behavioural patterns,

assessing strategic responses, and informing intervention design (Saunders et al., 2019).

The target population comprised rural women entrepreneurs operating businesses in three peripheral municipalities of KwaZulu-Natal: uMhlabuyalingana (far northern coastal region), Big5Hlabisa (inland rural region), and eJozini (northwestern border region). These municipalities were selected because they represent former homeland areas characterized by persistent poverty, infrastructure deficits, and economic marginalisation reflecting apartheid's spatial legacy. A simple random sampling strategy was employed. The target population comprised women entrepreneurs operating businesses in the three municipalities. A comprehensive sampling frame was developed using municipal databases of registered and informal businesses, with ethical approvals and gatekeeper permissions secured. The total population of women entrepreneurs across the three municipalities was 862.

Sample size was determined using Yamane's (1967) formula:

$$n = \frac{N}{1 + N(e)^2}$$

- n = sample size
- N = total population (862)
- e = margin of error (0.05 for 95% confidence level)

Calculation:

$$\begin{aligned} n &= \frac{862}{1 + 862(0.05)^2} \\ &= \frac{862}{1 + 862(0.0025)} \\ &= \frac{862}{1 + 2.155} = \frac{862}{3.155} \\ &\approx 273 \end{aligned}$$

The sample was proportionally allocated across municipalities using the formula:

$$n_i = \frac{N_i}{N} \times n$$

- N_i = population of each municipality
- n_i = allocated sample for each municipality

This yielded: uMhlabuyalingana (113), Big5Hlabisa (34), and eJozini (126). Simple random sampling was employed within each municipality. Sampling frames were developed listing all eligible women entrepreneurs, and computer-generated random numbers were used to select participants, ensuring equal probability of selection and minimizing selection bias (Salkind, 2018).

Data Analysis Methods

The quantitative data were analysed using the Statistical Package for the Social Sciences (SPSS) version 29.0 for Windows, selected for its robustness and user-friendly capacity for data screening, cleaning, and statistical analysis (McCormick & Salcedo, 2020). In addition, Analysis of Moment Structures (AMOS) version 26.0 was employed to conduct structural equation modelling (SEM). Multiple analytical techniques were applied to address the study objectives. Descriptive statistics were used to summarise respondents' characteristics and key variables. Reliability analysis was conducted using Cronbach's alpha coefficients to assess the internal consistency of multi-item scales measuring socio-economic constraints, with a minimum acceptable threshold of $\alpha \geq 0.70$. Pearson correlation analysis examined the relationships between socio-economic constraint variables and revenue growth performance to

identify the strength and direction of associations. Chi-square tests of independence were used to determine statistically significant associations between categorical variables, including entrepreneurial challenges, access to resources, and business performance indicators; this test was appropriate given the largely categorical nature of Likert-scale data and the absence of normality assumptions. Hypothesis testing was conducted at a 5% significance level ($\alpha = 0.05$), with null hypotheses rejected where the computed chi-square statistic exceeded the critical value or where p-values were below 0.05. Factor analysis using Principal Component Analysis with Varimax rotation was applied to identify underlying dimensions within intersecting socio-economic constraints, with the Kaiser Meyer Olkin measure and Bartlett's Test of Sphericity used to confirm sampling adequacy and factorability. Finally, SEM using AMOS 26.0 enabled simultaneous examination of multiple relationships among socio-economic factors and their collective influence on revenue growth performance, providing a comprehensive assessment of the structural relationships within the proposed model: Assessment of measurement models (Confirmatory Factor Analysis); testing of structural relationships among latent constructs; examination of direct and indirect effects; Model fit evaluation using multiple indices (χ^2/df , CFI, TLI, RMSEA, SRMR); Path coefficient estimation with significance testing.

Model Fit Criteria

χ^2/df ratio < 3.0 (excellent fit); Comparative Fit Index (CFI) ≥ 0.90 (acceptable), ≥ 0.95 (excellent); Tucker-Lewis Index (TLI) or Non-

Normed Fit Index (NNFI) ≥ 0.90 (acceptable), ≥ 0.95 (excellent); Root Mean Square Error of Approximation (RMSEA) ≤ 0.08 (acceptable), ≤ 0.06 (excellent); Standardized Root Mean Square Residual (SRMR) ≤ 0.08 (good fit).

Descriptive Statistics for Intersecting Constraints

Table 1: Means, Standard Deviations, and Internal Consistency for Constraint Dimensions (N=273)

Construct	M	SD	Cronbach's α	Number of Items
Gendered Poverty & Class (GPC)	4.23	0.67	0.85	10
Spatial Marginalization & Rurality (SMR)	4.31	0.62	0.82	8
Market Access Barriers (MAB)	4.42	0.58	0.88	9
Financial Exclusion (FE)	4.38	0.61	0.91	11
Institutional Access Barriers (IAB)	4.19	0.71	0.87	11
Gendered Income Control (GIC)	3.87	0.84	0.83	8
Revenue Growth Performance (RGP)	2.14	0.79	0.89	7

Source: Authors’ Own Creation

The descriptive statistics reveal critically important patterns. All constraint dimensions exhibited high mean scores ($M > 3.87$), indicating that rural women entrepreneurs strongly agreed that they faced severe barriers across all measured dimensions. Market Access Barriers ($M=4.42$) and Financial Exclusion ($M=4.38$) were rated as most severe, followed closely by Spatial Marginalization ($M=4.31$) and Gendered Poverty ($M=4.23$). Even the lowest-rated constraint, Gendered Income Control ($M=3.87$), still reflected strong agreement that patriarchal household structures limited business autonomy. In stark contrast, Revenue Growth Performance exhibited a very low mean ($M=2.14$, $SD=0.79$), indicating that respondents reported poor revenue growth outcomes characterized by stagnant or declining revenues, low profitability, and minimal reinvestment capacity. This dramatic contrast high constraint

severity combined with low revenue performance provides preliminary evidence supporting the study's hypothesis that intersecting socio-economic barriers systematically constrain entrepreneurial outcomes. All reliability coefficients exceeded the 0.70 threshold (range: $\alpha=0.82$ to $\alpha=0.91$), confirming excellent internal consistency and measurement reliability across all constructs. The high reliabilities indicate that items within each construct coherently measured the intended dimensions, providing confidence in subsequent analyses.

Correlation Analysis

Table 2: Pearson Correlation Matrix (N=273)

Variable	1	2	3	4	5	6	7
1. GPC	1						

2. SMR	.6 4	1					
3. MAB	.5 8	.7 1	1				
4. FE	.7 2	.6 3	.6 7	1			
5. IAB	.5 6	.5 9	.6 2	.6 8	1		
6. GIC	.4 8	.4 2	.5 1	.5 4	.4 7	1	
7. RGP	- 7	- 1	- 4	- 1	- 8	- 2	1

$p < .01$ (2-tailed)

Source: Authors’ Own Creation

The correlation matrix reveals that all constraint dimensions were significantly and positively correlated with each other (r range: .42 to .72, all $p < .01$), demonstrating that these barriers do not operate independently but form an interconnected system of disadvantage. For example, Gendered Poverty correlated strongly with Financial Exclusion ($r = .72$), indicating that class-based poverty directly translates into credit market exclusion. Similarly, Spatial Marginalization correlated highly with Market Access Barriers ($r = .71$), confirming that geographic isolation produces market access difficulties. These strong

intercorrelations empirically validate intersectionality theory's core premise: multiple systems of oppression operate simultaneously and reinforce each other. A rural woman entrepreneur experiencing spatial marginalisation simultaneously faces market access barriers, financial exclusion, and institutional barriers not as separate, additive problems but as interlocking constraints that compound each other's effects. All constraint dimensions exhibited strong, significant negative correlations with Revenue Growth Performance (r range: -.52 to -.74, all $p < .01$). Market Access Barriers showed the strongest negative relationship ($r = -.74$), followed closely by Financial Exclusion ($r = -.71$) and Gendered Poverty ($r = -.67$). Even the weakest correlation, Gendered Income Control ($r = -.52$), remained substantial and highly significant. These findings provide robust empirical evidence that intersecting socio-economic constraints systematically depress revenue growth performance. Entrepreneurs facing higher levels of market access barriers, financial exclusion, spatial marginalisation, gendered poverty, institutional barriers, and patriarchal income control consistently reported lower revenue growth, reduced profitability, and constrained business expansion.

Chi-Square Test Results: Categorical Associations

Table 3: Chi-Square Tests of Independence for Key Associations

Association Tested	χ^2	df	p-value	Interpretation
Education Level × Access to Finance	67.42	16	<.001	Significant association: higher education improves finance access

Municipality Institutional Support Access ×	48.35	8	<.001	Significant geographic variation in support access
Business Registration Status × Revenue Growth	52.18	12	<.001	Registered businesses report better revenue performance
Marital Status × Gendered Income Control	41.27	12	<.001	Married women experience higher income control by spouses
Years Operating Market Access ×	38.94	16	.001	Longer-operating businesses develop better market connections
Household Size × Revenue Reinvestment	44.62	12	<.001	Larger households constrain reinvestment capacity

Source: Authors’ Own Creation

All chi-square tests revealed statistically significant associations ($p<.001$), confirming systematic relationships between demographic/business characteristics and constraint experiences or performance outcomes. Women with higher education levels (matric or post-secondary) were significantly more likely to access formal credit and financial services compared to those with primary education or less. This finding highlights how educational disadvantage itself, a product of historical, racial and gender discrimination perpetuates financial exclusion, creating intergenerational poverty cycles. Significant differences existed across municipalities in institutional support access, with uMhlabuyalingana entrepreneurs

reporting better awareness and utilization of government programmes compared to Big5Hlabisa, potentially reflecting differential municipal capacity and LED unit effectiveness. Formally registered businesses exhibited significantly better revenue growth compared to informal enterprises, suggesting that despite bureaucratic barriers, formalization provides access to markets, credit, and support programmes that enhance performance. Married women reported significantly higher levels of male household control over business income compared to single or widowed women, confirming that patriarchal household structures systematically constrain married women's business autonomy and reinvestment capacity.

Factor Analysis: Validating Intersecting Constraint Dimensions

Table 4: KMO and Bartlett's Test

Test	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.887

Bartlett's Test of Sphericity - Approx. Chi-Square	6,842.37
Df	1,431
Sig.	<.001

Source: Authors' Own Creation

The KMO statistic of 0.887 indicated excellent sampling adequacy, well exceeding the 0.70 threshold and approaching the 0.90 benchmark for "marvellous" adequacy. Bartlett's Test of Sphericity was highly significant

($\chi^2=6,842.37$, $p<.001$), rejecting the null hypothesis that the correlation matrix was an identity matrix and confirming that variables were sufficiently correlated for factor analysis.

Table 5: Principal Component Analysis – Factor Loadings and Variance Explained

Construct / Item	F1 GPC	F2 SMR	F3 MAB	F4 FE	F5 IAB	F6 GIC	h²
<i>Factor 1: Gendered Poverty & Class (GPC)</i>							
GPC1 – Income insufficient for business capital	.81	.12	.09	.18	.11	.07	.71
GPC2 – Lack of collateral limits loan access	.78	.15	.11	.21	.08	.09	.69
<i>Factor 2: Spatial Marginalization & Rurality (SMR)</i>							
SMR1 – Poor roads increase transport costs	.14	.83	.17	.10	.13	.08	.74
SMR2 – Geographic isolation limits supplier access	.10	.79	.19	.12	.09	.11	.68
<i>Factors 3–6 (representative items)</i>	—	—	≥.73	≥.76	≥.74	≥.77	≥.58
Eigenvalue	8.43	6.91	6.24	5.87	5.12	3.76	—
% Variance Explained	14.6%	12.0%	10.8%	10.2%	8.9%	6.5%	—

Cumulative Variance	14.6%	26.6%	37.4%	47.6%	56.5%	63.0%	—
---------------------	-------	-------	-------	-------	-------	-------	---

Note: Extraction method: Principal Component Analysis; Rotation method: Varimax with Kaiser Normalization. Bold loadings $\geq .40$ indicate primary factor assignment. Six factors were extracted based on eigenvalues > 1.0 . No item cross-loaded above .35 on a secondary factor. Total variance explained = 63.0%.

Source: Authors’ Own Creation

The principal component analysis yielded a clean six-factor solution that provides important empirical grounding for the study's intersectional framework. Together, the six factors account for 63.0% of the total variance in the item pool, with each factor contributing meaningfully to that explanation: Gendered Poverty and Class (F1) emerged as the strongest dimension, explaining 14.6% of variance (eigenvalue = 8.43), followed by Spatial Marginalization and Rurality (F2) at 12.0% (eigenvalue = 6.91). The remaining four factors Market Access Barriers, Financial Exclusion, Institutional Access Barriers, and Gendered Income Control each explained between 6.5% and 10.8%, confirming that no single constraint dimension dominates the structural landscape. This relative distribution of variance is itself theoretically significant: it suggests that while class-based poverty and geographic isolation carry the heaviest explanatory weight, all six systems of constraint are independently operative, none is so negligible as to collapse into another.

The factor loadings reinforce the structural integrity of each dimension. Items loaded strongly on their hypothesised factors (all primary

loadings $\geq .73$) with no cross-loadings exceeding .35, indicating that respondents reliably distinguished between, for example, the material experience of insufficient income (GPC1, loading = .81) and the spatial experience of poor road infrastructure (SMR1, loading = .83). This discriminability matters theoretically: intersectionality theory argues that systems of oppression are qualitatively distinct even when they co-occur and reinforce one another. The factor structure provides quantitative support for the claim that rural women entrepreneurs experience gendered poverty and spatial marginalisation as separate, nameable burdens, not as an undifferentiated mass of disadvantage. The communality values (h^2) across items range from .68 to .74 for the reported items, indicating that the six-factor model captures between 68% and 74% of the variance in each individual item. This is particularly noteworthy for items like SMR1 ($h^2 = .74$), where poor road infrastructure a quintessentially material, infrastructure-level constraint is nonetheless well-explained by the broader multi-dimensional model. It confirms that the structural constraints are not only theoretically coherent but empirically robust across diverse item content.

Table 6: Fornell–Larcker Criterion Matrix

Construct	GPC	SMR	MAB	FE	IAB	GIC
-----------	-----	-----	-----	----	-----	-----

GPC	.83					
SMR	.64	.81				
MAB	.58	.71	.80			
FE	.72	.63	.67	.82		
IAB	.56	.59	.62	.68	.79	
GIC	.48	.42	.51	.54	.47	.76

Note: Bold diagonal values = AVE. GPC = Gendered Poverty & Class; SMR = Spatial Marginalization & Rurality; MAB = Market Access Barriers; FE = Financial Exclusion; IAB = Institutional Access Barriers; GIC = Gendered Income Control. All AVE values (.76–.83) exceed the highest inter-construct correlation in the corresponding row/column, satisfying the Fornell–Larcker criterion (N=273).

Source: Authors' Own Creation

Table 7: Heterotrait-Monotrait (HTMT) Ratio Matrix

Construct	GPC	SMR	MAB	FE	IAB	GIC
GPC	—					
SMR	.74	—				
MAB	.67	.82	—			
FE	.83	.73	.77	—		
IAB	.64	.68	.71	.79	—	
GIC	.55	.48	.59	.62	.54	—

Source: Authors' Own Creation

The Fornell-Larcker criterion reveals that while constructs are meaningfully correlated (as intersectionality theory predicts they should be), each construct retains a distinct variance core that is not shared with others. The AVE for Gendered Poverty and Class (.83) exceed its correlation with Financial Exclusion (.72) the highest inter-construct correlation in the matrix, meaning that despite poverty and financial exclusion being deeply intertwined in lived experience, they measure distinguishable structural mechanisms; one rooted in class position and asset poverty, the other in formal credit market exclusion. This distinction matters for policy; addressing class-based poverty alone does not automatically resolve formal

financial exclusion, and the discriminant validity data support that claim statistically.

The HTMT ratios add a further layer of precision. The highest ratio FE to GPC at .83 sits just below the conservative .85 threshold, which is consistent with the theoretical expectation that these two constructs share the most conceptual proximity within the intersectional matrix. The fact that even this closest pair remains discriminable provides confidence that the six dimensions are not merely different labels for the same underlying deprivation, but structurally separable systems that happen to co-occur. This has direct implications for intervention design: the data support the argument

that each constraint dimension requires its own targeted response, even as all six must be addressed simultaneously. Taken together, the PCA results, communalities, Fornell-Larcker values, and HTMT ratios collectively validate

the study's core methodological choice to model intersectionality as six distinct but correlated structural dimensions rather than collapsing them into a composite index or a smaller number of factors.

Table 8: Structural Model Fit Indices

Fit Index	Value	Recommended Threshold	Interpretation
χ^2	1,847.26	---	---
Df	847	---	---
χ^2/df	2.18	<3.0 (excellent)	Excellent fit
CFI	0.94	≥ 0.90 (acceptable), ≥ 0.95 (excellent)	Good to excellent fit
TLI/NNFI	0.93	≥ 0.90 (acceptable), ≥ 0.95 (excellent)	Good fit
RMSEA	0.066	≤ 0.08 (acceptable), ≤ 0.06 (excellent)	Acceptable fit
SRMR	0.058	≤ 0.08 (good fit)	Good fit
GFI	0.91	≥ 0.90 (acceptable)	Acceptable fit

Source: Authors’ Own Creation

The structural model demonstrated excellent overall fit across multiple indices. The χ^2/df ratio of 2.18 was well below the 3.0 threshold, indicating excellent fit. The CFI (0.94) and TLI/NNFI (0.93) both approached or exceeded the 0.90 benchmark for acceptable fit, with CFI nearing the 0.95 threshold for excellent fit. The RMSEA of 0.066 fell within the acceptable range (≤ 0.08), while the SRMR of 0.058 indicated good fit (≤ 0.08). The GFI of 0.91 exceeded the 0.90 acceptability threshold. These multiple fit indices collectively confirm that the hypothesized model adequately

represents the relationships in the observed data, providing confidence in the structural path estimates. The acceptable to excellent model fit indices indicate that the proposed structural model provides a reliable representation of the relationships among the variables under study. This suggests that the identified factors significantly influence entrepreneurial performance, and the model can be confidently applied to understand and improve the performance of rural women entrepreneurs in KwaZulu-Natal.

Table 9: Structural Path Coefficients and Hypothesis Testing (N=273)

Structural Path	Standardized β	SE	t-value	p-value	R ²	Hypothesis	Decision

Direct Effects on Revenue Growth Performance							
Gendered Poverty → RGP	-0.42	0.048	-8.75	<.001		H1	Supported
Spatial Marginalization → RGP	-0.38	0.052	-7.31	<.001		H2	Supported
Market Access Barriers → RGP	-0.51	0.045	-11.33	<.001		H3	Supported
Financial Exclusion → RGP	-0.46	0.047	-9.79	<.001		H4	Supported
Institutional Barriers → RGP	-0.33	0.054	-6.11	<.001		H5	Supported
Gendered Income Control → RGP	-0.29	0.051	-5.69	<.001		H6	Supported
Model Variance Explained							
Revenue Growth Performance					0.68	H7	Supported

Source: Authors' Own Creation

Note: β = Standardized path coefficient; SE = Standard error; RGP = Revenue Growth Performance. All paths significant at $p < .001$.

Discussion

The findings of this study provide robust empirical support for all seven hypotheses, confirming that intersecting socio-economic factors systematically and substantially constrain revenue growth performance

among rural women entrepreneurs in KwaZulu-Natal. The excellent model fit ($\chi^2/df=2.18$, CFI=0.94, TLI=0.93, RMSEA=0.066) and substantial variance explained ($R^2=0.68$) demonstrate that the intersectional theoretical framework accurately

captures the structural determinants of entrepreneurial outcomes in this marginalised population. The descriptive and correlational analyses established the foundational architecture of disadvantage within which rural women entrepreneurs operate. All six constraint dimensions recorded alarmingly high mean scores, with Market Access Barriers ($M = 4.42$) and Financial Exclusion ($M = 4.38$) rated most severely, confirming that these women face acute, pervasive barriers across every measured dimension of their entrepreneurial environment. Critically, this near-uniform severity of constraints existed in stark contrast to a Revenue Growth Performance mean of just 2.14, providing powerful preliminary evidence that structural oppression translates directly into economic underperformance. The Pearson correlation matrix further revealed that all constraint dimensions were significantly and positively intercorrelated ($r = .42$ to $.72$, all $p < .01$), demonstrating that these barriers do not operate independently but form an interlocking system of disadvantage in which each constraint amplifies the others empirically validating intersectionality theory's core premise that multiple systems of oppression are mutually constitutive rather than merely additive.

The structural path analysis and supplementary chi-square tests deepened this understanding by quantifying the specific contribution of each constraint to entrepreneurial underperformance. Market Access Barriers emerged as the dominant structural predictor ($\beta = -0.51$), followed by Financial Exclusion ($\beta = -0.46$), Gendered Poverty ($\beta = -0.42$),

Spatial Marginalization ($\beta = -0.38$), Institutional Barriers ($\beta = -0.33$), and Gendered Income Control ($\beta = -0.29$) all significant at $p < .001$ and all hypotheses supported. The chi-square analyses further confirmed that education level, business registration status, marital status, household size, and municipal location each bore significant associations with constraint experiences and performance outcomes, revealing important contextual heterogeneity beneath the aggregate findings. Together, these results establish unambiguously that the entrepreneurial underperformance of rural women in KwaZulu-Natal is not a product of individual deficiency but of a deeply entrenched structural system that simultaneously excludes them from markets, capital, institutions, geographic opportunity, and household economic autonomy.

Theoretical Contributions

This research makes significant theoretical contributions to entrepreneurship scholarship and intersectionality studies. The strong intercorrelations among constraint dimensions (r range: $.42$ to $.72$) provide quantitative evidence that systems of oppression do not operate independently but form an interconnected matrix, (Collins, 2000). The finding that gendered poverty correlates $.72$ with financial exclusion, for example, demonstrates that capitalism and patriarchy operate as mutually reinforcing systems rather than separate, additive barriers. While qualitative research has richly documented intersectional experiences, this study advances quantitative intersectionality analysis by employing SEM to simultaneously model multiple oppression systems and their collective

effects. The approach demonstrates that intersectionality is not merely a qualitative concept but can be rigorously operationalised and tested using advanced quantitative methods. The $R^2=0.68$ finding indicating that 68% of revenue growth variance is explained by structural constraints challenges mainstream entrepreneurship theory's focus on individual characteristics (personality traits, human capital, motivation). The data demonstrate that entrepreneurial outcomes for marginalised groups are overwhelmingly determined by structural positioning within systems of power rather than individual attributes. The finding that Market Access Barriers ($\beta=-0.51$) and Financial Exclusion ($\beta=-0.46$) exhibited stronger effects than Institutional Barriers ($\beta=-0.33$) or Gendered Income Control ($\beta=-0.29$) provides quantitative evidence about relative constraint severity. This enables strategic prioritization of interventions while maintaining recognition that all dimensions require simultaneous attention given their interconnection.

Research Limitations

This study is subject to several limitations that should be considered when interpreting its findings. First, the cross-sectional design prevents the establishment of definitive causal directionality, as data collected at a single point in time cannot capture changes in constraints or performance over time; longitudinal designs would strengthen causal claims. Second, the geographic confinement to three municipalities within uMkhanyakude District Municipality, while strengthening internal validity through contextual depth, limits the generalisability of findings to other

rural, provincial, or international contexts. Third, although the structural model explained 68% of variance in revenue growth performance, the remaining 32% indicates that important variables including entrepreneurial self-efficacy, household care burden, social capital networks, and climate-related disruptions were not captured within the current framework. Fourth, the reliance on self-reported Likert-scale data introduces the possibility of social desirability bias, particularly for sensitive items concerning household income control. Fifth, while the study advances quantitative intersectionality analysis, the survey instrument necessarily reduces complex, context-specific experiences of oppression into standardised response categories, potentially obscuring the very nuance that intersectionality theory was designed to illuminate. Future research should address these limitations through longitudinal designs, broader geographic comparisons, inclusion of omitted variables, and mixed-methods approaches that pair structural equation modelling with in-depth qualitative inquiry.

Future research should prioritise longitudinal study designs that track rural women entrepreneurs over time to establish definitive causal relationships between structural constraints and entrepreneurial performance. Comparative studies extending beyond uMkhanyakude District Municipality to other rural provinces in South Africa and sub-Saharan African contexts would test the broader generalisability of the intersectional entrepreneurship model. Scholars should incorporate currently omitted variables including entrepreneurial self-efficacy, household care burden, social capital, and climate

vulnerability to more comprehensively explain the variance in revenue growth performance not accounted for in the current model. Mixed-methods research combining structural equation modelling with in-depth qualitative inquiry would deepen understanding of how intersecting constraints operate at the individual, household, and community levels simultaneously. Finally, research exploring the role of cooperative enterprise models, traditional leadership structures, and community-based collective action as potential mitigating mechanisms against structural exclusion would provide valuable insights for designing contextually appropriate and sustainable development programmes targeting rural women entrepreneurs in deeply marginalised settings.

Practical Implications

The practical implications of this study call for coordinated, ground-level action across multiple stakeholder groups. Financial institutions should replace collateral-based lending with group lending schemes and mobile banking solutions accessible to remote rural women, while Local Economic Development offices must decentralise their services directly into communities to eliminate geographic barriers to institutional support. Training programmes need to move beyond standalone workshops and deliver integrated, locally relevant capacity-building that addresses financial literacy, market access, digital skills, and cooperative enterprise development simultaneously, scheduled around women's domestic responsibilities. Government investment in rural road infrastructure, reliable electricity, and affordable broadband connectivity is essential, as

physical infrastructure deficits undermine all other entrepreneurial development efforts. Community-level programmes addressing patriarchal household norms are equally necessary, given that male control over business income was found to significantly suppress reinvestment capacity and business growth. Collectively, these practical measures reinforce the study's central argument that no single intervention is sufficient sustainable improvement in rural women's entrepreneurial performance demands simultaneous, coordinated action across financial, institutional, infrastructural, technological, and social dimensions.

Conclusion and recommendations

This study provides robust empirical evidence that rural women entrepreneurs' revenue outcomes are systematically constrained by interlocking systems of oppression operating simultaneously across multiple dimensions. The structural equation model demonstrated excellent fit and revealed that six intersecting constraint dimensions gendered poverty and class, spatial marginalisation and rurality, market access barriers, financial exclusion, institutional barriers, and gendered income control collectively explain 68% of the variance in revenue growth performance. These findings confirm that rural Black women entrepreneurs in South Africa do not underperform due to lack of motivation, capability, or entrepreneurial skill; rather, their revenue growth is systematically depressed by structural inequalities embedded in post-apartheid economic systems, apartheid's spatial legacy, patriarchal household structures, capitalist financial markets, and

institutional biases. The strong intercorrelations among constraints empirically validate intersectionality theory's core premise: multiple systems of oppression operate not independently but as interlocking, mutually reinforcing matrices of domination. A rural woman entrepreneur experiencing geographic isolation simultaneously faces market access constraints, financial exclusion, institutional barriers, and household patriarchy not as separate problems but as interconnected systems that compound each other's effects. This intersectional reality explains why single-issue interventions microfinance alone, business training alone, market linkages alone consistently fail to produce sustainable revenue growth for marginalised entrepreneurs. The descriptive findings provide concrete evidence of constraint severity: 67.4% of respondents cannot access formal credit; 71.8% lose between 50% and 60% of revenues to transportation costs; only 23.1% are aware of government support programmes; 58.2% of married women experience male control over business profits; and 69.6% earn less than R3,000 monthly, well below the poverty line. These are not individual failures but systemic outcomes of structural inequalities that demand comprehensive, multi-level interventions.

This study makes three contributions to the scholarly literature. First, it advances quantitative intersectionality research by demonstrating that the framework can be rigorously operationalised through SEM, moving beyond qualitative documentation to generate precise, policy-relevant effect estimates. Second, it extends entrepreneurship theory in developing

economies by demonstrating that structural positioning within systems of power not individual human capital deficits is the primary determinant of entrepreneurial underperformance among marginalised groups. Third, it provides the first quantitative evidence of the intersectional constraint architecture facing rural women entrepreneurs specifically in KwaZulu-Natal's former homeland municipalities, a context that has been largely overlooked in existing scholarship. The study also acknowledges important limitations: the cross-sectional design precludes causal inference; the geographic scope limits generalisability; and the quantitative approach, while providing systemic evidence, cannot fully capture the nuanced lived experience of intersecting oppressions as understood within intersectionality's qualitative tradition.

The study recommends several integrated strategies to improve the performance of rural women entrepreneurs in KwaZulu-Natal:

- Financial inclusion should be enhanced by introducing alternative credit systems such as group-based lending, government-backed guarantees, and mobile banking solutions, which can provide easier access to funding and build long-term financial independence.
- Training programmes should be decentralised and adapted to rural contexts by establishing community-based training hubs. These programmes should be practical, delivered in local languages, and designed around women's daily responsibilities to ensure accessibility and participation.

- Investment in digital infrastructure and skills development is essential. Expanding internet access, reducing data costs, and providing digital literacy training can enable rural women to participate in e-commerce and access broader markets.
- Regulatory and institutional processes should be simplified to support rural women entrepreneurs. This includes introducing mobile-based business registration, reducing compliance costs, and creating one-stop support centres to improve access to government services.
- There is a need for coordinated development that combines physical infrastructure improvements with efforts to address social and cultural barriers. This includes investing in basic infrastructure such as roads, electricity, and water, while also promoting gender equality and challenging norms that limit women's control over business income.

Ethical Considerations

The research received ethical clearance from Durban University of Technology Institutional Research Ethics Committee. All ethical procedures were strictly observed including informed consent, confidentiality and anonymity, beneficence and non-maleficence.

Acknowledgments

The authors acknowledge the women entrepreneurs who generously shared their time and experiences, as well as the municipal officials and women's association leaders who facilitated this research.

References

- Agarwal, B. (1994). *A field of one's own: Gender and land rights in South Asia*. Cambridge University Press.
- Bomani, M., & Derera, E. (2018). Towards developing a strategic framework for stimulating rural entrepreneurship in KwaZulu-Natal, South Africa: A case study of three municipalities. *International Journal of Economics and Finance Studies*, 10(1), 150-166.
- Chant, S. (2008). The “feminisation of poverty” and the “feminisation” of anti-poverty programmes: Room for revision? *The Journal of Development Studies*, 44(2), 165–197.
- Cho, S., Crenshaw, K. W., & McCall, L. (2013). Toward a field of intersectionality studies: Theory, applications, and praxis. *Signs: Journal of Women in Culture and Society*, 38(4), 785–810.
- Citaristi, I. (2022). Organisation For Economic Co-Operation And Development—OECD. In *The Europa Directory of International Organizations 2022* (pp. 694-701). Routledge.
- Collins, P. H. (2000). *Black feminist thought: Knowledge, consciousness, and the politics of empowerment* (2nd ed.). Routledge.
- Competition Commission. 2023. *A growing, deconcentrated and inclusive economy*. South Africa: Available: https://www.compcom.co.za/wp-content/uploads/2025/02/Competition-Commission_Annual-Report.pdf (Accessed 14 January 2026).
- Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory, and antiracist politics. *University of Chicago Legal Forum*, 1989(1), 139–167.
- Crenshaw, K. (2013). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. In *Feminist legal theories* (pp. 23-51). Routledge
- Federici, S. (2012). *Revolution at point zero: Housework, reproduction, and feminist struggle*. PM Press.
- Gupta, S., & Aggarwal, A. (2015). Opportunities and challenges faced by women entrepreneurs in India. *Journal of Business and Management*, 17(8), 69-73.
- Jamali, D. (2009). Constraints and opportunities facing women entrepreneurs in developing countries: A relational perspective. *Gender in Management: An International Journal*, 24(4), 232–251.
- Kabeer, N. (2018). Gender, livelihood capabilities and women's economic empowerment: reviewing evidence over the life course.
- Kabeer, N., Assaad, R., Darkwah, A., Mahmud, S., Sholkamy, H., Tasneem, S., & Sulaiman, M. (2013). Paid work, women's empowerment and inclusive growth: Transforming the structures of constraint.

- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610.
- Lingappa, A. K., & Rodrigues, L. L. (2023). Synthesis of necessity and opportunity motivation factors in women entrepreneurship: A systematic literature review. *Sage Open*, 13(1), 21582440231159294.
- Mama, A. (1995). *Beyond the masks: Race, gender and subjectivity*. Routledge.
- Mayoux, L. (2001). Tackling the downside: Social capital, women's empowerment and micro-finance in Cameroon. *Development and change*, 32(3), 435-464.
- McCall, L. (2005). The complexity of intersectionality. *Signs: Journal of Women in Culture and Society*, 30(3), 1771–1800.
- Meyer, N., & Hamilton, L. (2020). Female entrepreneurs' business training and its effect on various entrepreneurial factors: evidence from a developing country. *International Journal of Economics and Finance Studies*, 12(1), 135-151.
- Meyer, N., Samsami, M., & Bowmaker-Falconer, A. (2024). Women's entrepreneurship in South Africa: What does the future hold. *Global Entrepreneurship Monitor (GEM) South Africa Special Report*. Stellenbosch University. Available online: <https://edhe.co.za/wp-content/uploads/gem-womens-special-report-electronic-single-compressed-1717418321.pdf> (accessed on 20 July 2025).global
- Mohajan, H. K. (2020). Quantitative research: A successful investigation in natural and social sciences. *Journal of Economic Development, Environment and People*, 9(4), 50–79.
- Nash, J. C. (2008). Re-thinking intersectionality. *Feminist Review*, 89(1), 1–15.
- Ndururi, G. J. (2020). *Influence of entrepreneurial intangible resources on growth of women-owned micro and small enterprises in central Kenya counties* (Doctoral dissertation, JKUAT-COHRED).
- Neves, D., & Du Toit, A. (2013). Rural livelihoods in South Africa: Complexity, vulnerability and differentiation. *Journal of Agrarian Change*, 13(1), 93–115.
- Ngorora, G. P. K., & Mago, S. (2013). Challenges of rural entrepreneurship in South Africa: insights from nkonkobe municipal area in the Eastern Cape Province. *International Journal of Information Technology and Business Management*, 16(1), 1-11.
- Nnaemeka, O. (2004). Nego-feminism: Theorizing, practicing, and pruning Africa's way. *Signs: Journal of Women in Culture and Society*, 29(2), 357–385.
- Nxopo, Z., & Iwu, C. G. (2015). The unique obstacles of female entrepreneurship in the tourism industry in Western Cape, South Africa. *Commonwealth Youth and Development*, 13(2), 55-71.
- Okeke-Uzodike, O. E., Okeke-Uzodike, U., & Ndinda, C. (2018). Women entrepreneurship in Kwazulu-Natal: A critical review of government intervention policies and programmes. *Journal of International Women's Studies*, 19(5), 147-164.

- Rahman, M. S. (2016). The advantages and disadvantages of using qualitative and quantitative approaches and methods in language “testing and assessment” research: A literature review. *Journal of Education and Learning*, 6(1), 102–112.
- Robb, A. M., & Watson, J. (2012). Gender differences in firm performance: Evidence from new ventures in the United States. *Journal of Business Venturing*, 27(5), 544–558.
- Salcedo, J., & McCormick, K. (2020). *SPSS statistics for dummies*. John Wiley & Sons.
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson.
- Sharma, M., Chaudhary, V., Bala, R., & Chauhan, R. (2013). Rural entrepreneurship in developing countries: Challenges, problems and performance appraisal. *Global Journal of Management and Business Studies*, 3(9), 1035-1040..
- Sithenkosi, L., & Nzewi, O. I. (2024). A Blueprint to Dismantle Apartheid Spatial Differentiation? A Reflection on 25 Years of the White Paper on Local Government. *Commonwealth Youth and Development*, 21(2), 21-pages.
- SME South Africa. 2021. Where to Access Funding For Women-Owned Businesses. Available: <https://smesouthafrica.co.za/where-to-access-funding-for-women-owned-businesses-in-south-africa/> (Accessed 10 March 2025).
- Stats SA. 2022. *Economic, social and political empowerment are critical for achieving gender equality in SA*. Available: <https://www.statssa.gov.za/?p=15833> (Accessed 12 June 2023).
- Vorster, S., & Thaba, S. C. (2025). Exploring funding options for female entrepreneurs in rural areas in South Africa. *Administrative sciences*, 15(10), 375.
- Watson, G., Ye, K., & Sherif, A. (2015). Quantitative and qualitative: A hierarchical perspective. In *Research methods for business and social science students* (2nd ed., pp. 1–16). SAGE Publications.
- White, L. and Millar, R. 2014. Quantitative approaches. *Evidence-based health practice*, Article ID: 453–471.
- Yuval-Davis, N. (2006). Intersectionality and feminist politics. *European Journal of Women's Studies*, 13(3), 193–209.
- Zhou, H., & Gumbo, V. (2021). The role of size and age on firm growth: Evidence from Manufacturing SMMEs in KwaZulu-Natal province, South Africa. *African Journal of Inter/Multidisciplinary Studies*, 3(1), 144-160.