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**CONSUMER-LED FORMALIZATION AND INCLUSIVE
DEVELOPMENT IN TOWNSHIP ECONOMIES: EVIDENCE FROM
SOWETO, REPUBLIC OF SOUTH AFRICA**

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Abstract

This study developed and empirically tested a multidimensional framework explaining the formalization of informal enterprises in township economies, with a focus on Soweto, South Africa. Drawing on an integrative theoretical foundation combining Institutional Theory, the Resource-Based View (RBV), Entrepreneurship Theory, Stakeholder Theory, and Market Orientation Theory, the paper reconceptualizes formalization as a consumer-driven process rather than a purely regulatory outcome. Using quantitative design and Partial Least Squares Structural Equation Modelling (PLS-SEM) on enterprise-level survey data, the study examined how institutional support, resource capacity, entrepreneurial adaptability, stakeholder engagement, and market orientation influence formalization through key mediators, including access to finance, business capabilities, trust in institutions, and consumer demand amplification. The results indicated that consumer demand amplification is the most powerful mediating mechanism, linking firm-level strategies to formalization and broader inclusive development outcomes. Formalization significantly enhances firm performance and contributes to employment creation and income growth. However, regulatory complexity weakens institutional effects, while social capital strengthens entrepreneurial pathways. The findings challenge conventional supply-side policy approaches and highlight the importance of demand-driven, bottom-up formalization strategies

Keywords: Consumer demand; Formalization; Inclusive development; Informal economy; PLS-SEM; Township economy, South Africa.

JEL Classification: O17, O55, L26, D12

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Résumé

Cette étude a développé et testé empiriquement un cadre multidimensionnel expliquant la formalisation des entreprises informelles dans les townships, en se concentrant sur Soweto, en Afrique du Sud. S'appuyant sur un cadre théorique intégratif combinant la théorie institutionnelle, la théorie des ressources (RBV), la théorie de l'entrepreneuriat, la théorie des parties prenantes et la théorie de l'orientation marché, cet article repense la formalisation comme un processus piloté par le consommateur plutôt que comme un simple résultat réglementaire. À l'aide d'une méthodologie quantitative et de la modélisation par équations structurelles aux moindres carrés partiels (PLS-SEM) appliquée à des données d'enquêtes auprès des entreprises, l'étude a examiné comment le soutien institutionnel, les ressources disponibles, l'adaptabilité entrepreneuriale, l'engagement des parties prenantes et l'orientation marché influencent la formalisation par le biais de médiateurs clés, tels que l'accès au financement, les compétences commerciales, la confiance dans les institutions et l'amplification de la demande des consommateurs. Les résultats indiquent que l'amplification de la demande des consommateurs est le mécanisme de médiation le plus puissant, reliant les stratégies des entreprises à la formalisation et à des retombées positives plus larges en matière de développement inclusif. La formalisation améliore significativement la performance des entreprises et contribue à la création d'emplois et à la croissance des revenus. Cependant, la complexité réglementaire affaiblit les effets institutionnels, tandis que le capital social renforce les parcours entrepreneuriaux. Ces résultats remettent en question les approches politiques classiques axées sur l'offre et soulignent l'importance de stratégies de formalisation ascendantes, pilotées par la demande.

Mots-clés: Demande des consommateurs; Formalisation; Développement inclusif; Économie informelle; PLS-SEM; Économie des townships; Afrique du Sud.

Introduction

The persistence of the informal economy remains one of the most enduring structural challenges in developing economies. Across Sub-Saharan Africa, informal economic activity accounts for between 70% and 90% of total employment, functioning as both a survival mechanism and a structural constraint to long-term economic transformation (International Labour Organization [ILO], 2022). In South Africa, despite relatively advanced institutional structures, township economies such as Soweto continue to exhibit high levels of informality, reflecting deep-seated inequalities in access to finance, markets, and institutional support.

Conventional approaches to formalization have largely focused on supply-side interventions, including regulatory simplification, tax incentives, and business development services. While these approaches have yielded partial successes, their overall impact has been limited. A growing body of literature suggests that formalization is not solely determined by regulatory frameworks but is also influenced by firm capabilities, institutional trust, and market dynamics (Rocha et al., 2018; Estrin et al., 2024).

This study advances the argument that consumer demand plays a central yet underexplored role in shaping formalization outcomes. Specifically, it posits that when consumers reward formal enterprises through increased patronage, trust, and willingness to pay, formalization becomes economically rational rather than administratively imposed.

Building on this insight, the study developed and empirically tested a consumer-led formalization framework that integrates multiple theoretical perspectives into a unified and analytically tractable model of enterprise behaviour in township economies. Rather than

treating formalization as a purely regulatory endpoint, the framework conceptualizes it as an endogenous outcome emerging from the interaction between institutional conditions, firm-level capabilities, entrepreneurial agency, stakeholder networks, and, critically, consumer demand dynamics. By synthesizing insights from Institutional Theory, the Resource-Based View, Entrepreneurship Theory, Stakeholder Theory, and Market Orientation Theory, the study advances a multidimensional explanation of why some informal enterprises transition toward formality while others remain persistently informal. This integrative approach allows for the identification of both direct and indirect pathways through which formalization occurs, while also accounting for contextual moderators such as regulatory complexity and social capital. In doing so, the framework moves beyond reductionist explanations and offers a more comprehensive understanding of formalization as a dynamic, market-mediated process.

The first major contribution of the study lies in the introduction of consumer demand amplification as a central mediating mechanism. Existing literature on formalization has largely prioritized supply-side determinants, including regulatory simplification, access to finance, and institutional reforms. While these factors are undoubtedly important, they fail to fully explain why informal enterprises often remain outside formal systems even when barriers are reduced. This study addresses that gap by foregrounding the role of consumers as active economic agents who shape firm incentives through their purchasing behaviour. Consumer demand amplification captures the extent to which formalization enhances consumer trust, increases repeat patronage, and raises willingness to pay for goods and services. In this sense, consumers function as implicit regulators of market behaviour, rewarding enterprises that adopt formal practices such as standardized pricing, quality assurance, and transparent transactions. By embedding this construct within the formalization framework, the study demonstrates that demand-side forces are not merely peripheral but are in fact central to the decision calculus of firms. Formalization becomes economically rational when it translates into tangible market benefits, thereby shifting the narrative from compliance to competitiveness.

The second contribution of the study is methodological, as it provides rigorous empirical evidence through the application of Partial Least Squares Structural Equation Modelling (PLS-SEM). The use of PLS-SEM is particularly appropriate given the complexity of the conceptual model, which involves multiple latent constructs, mediating relationships, and moderating effects. Unlike traditional regression techniques, PLS-SEM allows for the simultaneous estimation of measurement and structural models, thereby ensuring both construct validity and robust hypothesis testing. Through this approach, the study is able to quantify the relative strength of different drivers of formalization, as well as the indirect pathways through which these drivers operate. The empirical results reveal that consumer demand amplification exhibits the strongest mediating effect, surpassing traditional mediators such as access to finance and business capabilities. Furthermore, the analysis highlights the conditional nature of formalization, showing that institutional support is significantly weakened in environments characterized by high regulatory complexity, while entrepreneurial adaptability is strengthened in contexts with high levels of social capital. These findings not only validate the proposed framework but also demonstrate the value of advanced econometric techniques in unpacking the nuanced relationships that underpin informal-to-formal transitions.

The third contribution of the study lies in its explicit linkage between formalization and inclusive development outcomes, thereby bridging a critical gap between micro-level enterprise behaviour and macro-level development objectives. Much of the existing literature treats formalization as an end in itself, focusing on compliance rates, tax registration, or

business licensing without adequately examining the broader socio-economic implications. This study, however, positions formalization within a wider development trajectory, showing how it contributes to improved business performance, which in turn generates employment, enhances household incomes, and fosters local economic resilience. By incorporating inclusive development as an ultimate outcome variable, the framework captures the cascading effects of formalization across different levels of analysis. The findings indicate that formalization significantly improves firm-level performance metrics such as sales growth and profitability, and that these improvements translate into measurable gains in job creation and income distribution within the community. Importantly, the study also demonstrates that these effects are amplified when formalization is accompanied by strong consumer demand, underscoring the synergistic relationship between market dynamics and development outcomes.

Taken together, these contributions advance the literature by reconceptualizing formalization as a demand-driven, multi-level process that is shaped not only by institutions and resources but also by consumer behaviour and market incentives. The study challenges the prevailing orthodoxy that emphasizes top-down policy interventions, instead highlighting the importance of bottom-up, market-based mechanisms in driving sustainable economic transformation. In doing so, it provides both theoretical and empirical foundations for a new generation of formalization strategies that are more aligned with the lived realities of township economies and more effective in promoting inclusive development.

The remainder of this paper is structured as follows. Section 2 reviews the relevant literature and develops the integrated theoretical framework underpinning the study, synthesising insights from institutional, resource-based, entrepreneurial, stakeholder, and market orientation perspectives. Section 3 outlines the research methodology, including the mixed-methods design, data collection procedures, and the application of Partial Least Squares Structural Equation Modelling (PLS-SEM). Section 4 presents and analyses the empirical results, covering measurement model validation, structural relationships, and mediation and moderation effects. Section 5 discusses the findings in relation to existing literature, drawing out theoretical and policy implications, and concludes with recommendations for demand-driven formalization strategies and directions for future research.

Literature Review and Theoretical Framework

Informal economy and formalization

The informal economy has undergone a significant conceptual transformation within development economics and business scholarship. Initially framed as a residual or marginal sector destined to disappear with industrialization, contemporary literature now recognises informality as a persistent, adaptive, and structurally embedded component of modern economies. Recent scholarship, including Hino (2024), emphasises the heterogeneity of informal enterprises, which range from subsistence-oriented survivalist units to dynamic, growth-oriented firms that deliberately operate outside formal regulatory systems. This reconceptualisation challenges linear modernization narratives and instead situates informality within broader institutional, market, and socio-political contexts.

In developing economies such as South Africa, the informal sector accounts for a substantial share of employment and economic activity, functioning as both a buffer against unemployment and a site of entrepreneurial dynamism. However, its persistence is not merely a reflection of underdevelopment; rather, it reflects rational responses by firms to regulatory burdens, weak state capacity, and limited access to formal institutions. Within this context,

formalization, the process through which informal enterprises register with authorities, comply with regulations, and integrate into formal economic systems, has been widely advocated as a policy instrument for enhancing productivity, broadening the tax base, and extending social protection.

Despite its normative appeal, the empirical literature presents a more nuanced and, at times, contradictory picture. Evidence synthesised by Ulyssea (2018) demonstrates that the benefits of formalization are highly heterogeneous and contingent upon firm characteristics, sectoral dynamics, and institutional environments. While formalization can facilitate access to credit, legal protections, and larger markets, it also imposes significant compliance costs, including taxation, regulatory reporting, and bureaucratic procedures. For many micro and small enterprises, particularly those operating at the margin of profitability, these costs may outweigh the benefits, leading to persistent informality or even exit from the market.

Formalization is not a binary state but a continuum. Firms selectively comply with certain regulations while avoiding others. This partial or “hybrid” formalization reflects strategic behaviour under institutional constraints and underscores the importance of understanding firm-level decision-making processes. Recent studies further highlight that formalization outcomes are mediated by factors such as enforcement intensity, access to information, and the perceived legitimacy of state institutions. In weak institutional environments, where regulatory enforcement is inconsistent and public services are limited, the incentives for formalization remain weak.

Another critical dimension emerging in the literature is the role of demand-side factors. While traditional approaches have focused predominantly on supply-side constraints, such as access to finance, regulatory burdens, and firm capabilities, there is growing recognition that consumer preferences and market structures also shape formalization decisions. Firms may choose to formalize in response to demand from higher-value markets, corporate supply chains, or consumers who associate formal status with quality, reliability, and trust. This shift toward a demand-oriented perspective provides a more comprehensive understanding of the drivers of formalization and sets the stage for integrating multiple theoretical lenses.

Theoretical Integration

To capture the multidimensional nature of formalization, this study develops an integrated theoretical framework that synthesises insights from five complementary perspectives: Institutional Theory, the Resource-Based View (RBV), Entrepreneurship Theory, Stakeholder Theory, and Market Orientation Theory. This integrative approach responds to the limitations of single-theory explanations and reflects the complex interplay between external constraints, internal capabilities, and market dynamics.

Institutional Theory provides the foundational lens for understanding the regulatory and normative environment within which informal enterprises operate. Building on the seminal contributions of North (1990) and Scott (2014), institutions are conceptualised as formal rules, informal norms, and enforcement mechanisms that structure economic behaviour. From this perspective, formalization is driven by coercive pressures (e.g., regulations and enforcement), normative expectations (e.g., professional standards), and cognitive legitimacy (e.g., societal beliefs about appropriate business practices). However, in contexts characterised by institutional voids or weak enforcement, these pressures may be insufficient to induce compliance, leading firms to operate informally despite potential benefits of formal status.

Complementing this external focus, the Resource-Based View, as articulated by Barney (1991), shifts attention to firm-level heterogeneity in resources and capabilities. Formalization entails both direct and indirect costs, including registration fees, tax obligations, and the need for managerial and accounting competencies. Firms possessing valuable, rare, inimitable, and non-substitutable (VRIN) resources, such as skilled human capital, financial reserves, and organisational routines, are better positioned to absorb these costs and leverage the benefits of formalization. Conversely, resource-constrained firms may lack the capacity to transition, even when external incentives are present. Thus, RBV highlights the importance of internal readiness and capability accumulation in shaping formalization outcomes.

Entrepreneurship Theory further enriches the framework by emphasising agency, adaptability, and decision-making under uncertainty. Drawing on the effectuation logic proposed by Sarasvathy (2001), entrepreneurs are viewed as active agents who navigate uncertain environments by leveraging available means, forming partnerships, and iteratively shaping opportunities. Within this context, formalization is not merely a compliance decision but a strategic choice influenced by the entrepreneur's perception of risk, opportunity, and future growth trajectories. Firms with higher levels of entrepreneurial orientation, characterised by innovativeness, proactiveness, and risk-taking, are more likely to pursue formalization as part of a broader growth strategy.

Stakeholder Theory, as developed by Freeman (1984), introduces a relational dimension to the analysis. Informal enterprises are embedded within networks of stakeholders, including customers, suppliers, community members, financial institutions, and regulatory agencies. These relationships can provide access to critical resources, information, and legitimacy, thereby facilitating or constraining formalization. For instance, integration into formal supply chains or partnerships with established firms may require compliance with regulatory standards, effectively incentivising formalization. Conversely, reliance on informal networks may reinforce existing practices and reduce the perceived need for formal status. Stakeholder engagement thus operates as both a conduit for resource mobilisation and a mechanism for legitimacy-building.

Finally, Market Orientation Theory, as articulated by Narver and Slater (1990), foregrounds the role of customer demand and competitive dynamics in shaping firm behaviour. A market-oriented firm systematically generates, disseminates, and responds to market intelligence, aligning its strategies with customer needs and preferences. In the context of informal enterprises, increasing consumer demand for quality assurance, traceability, and brand credibility can create strong incentives for formalization. Firms that adopt a market-oriented approach are more likely to perceive formal status as a competitive advantage, enabling access to higher-value markets and differentiation from purely informal competitors.

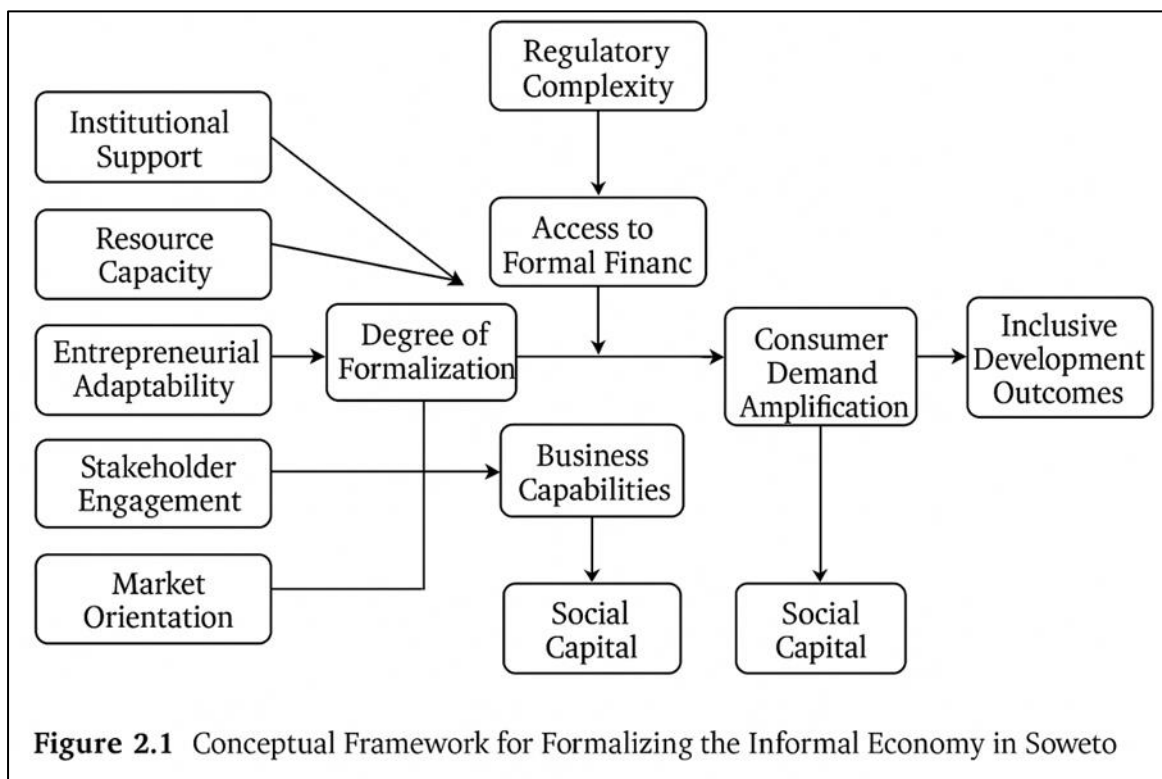
The integration of these five theoretical perspectives yields a comprehensive framework in which formalization is conceptualised as the outcome of interactions between institutional pressures, firm capabilities, entrepreneurial agency, stakeholder relationships, and market dynamics. Importantly, this framework moves beyond deterministic explanations and recognises formalization as a strategic, context-dependent process. It also provides a foundation for examining mediating and moderating mechanisms, such as consumer demand amplification and stakeholder coordination, that shape the relationship between formalization and development outcomes.

By synthesising these theoretical strands, the study contributes to the literature in two key ways. First, it advances a multidimensional understanding of formalization that captures

both supply-side and demand-side drivers. Second, it establishes a robust analytical foundation for empirical testing, particularly within emerging and developing economy contexts where institutional complexity and market heterogeneity are pronounced.

Conceptual Framework

The conceptual framework underpinning this study provides a theoretically grounded and empirically testable structure through which the relationships among institutional conditions, resource configurations, entrepreneurial dynamics, stakeholder engagement, and market orientation are linked to formalisation, firm performance, and economic inclusion. Drawing on insights from institutional theory, the resource-based view, dynamic capabilities theory, and stakeholder theory, the model specifies a multi-layered system of direct, mediated, and moderated relationships that reflect the complexity of enterprise behaviour in emerging and institutionally volatile contexts.



Source : Authors conceptualisation

Figure 2.1 presents a conceptual framework explaining the pathways through which the formalization of the informal economy can promote inclusive development outcomes in Soweto. The framework identifies institutional support, resource capacity, entrepreneurial adaptability, stakeholder engagement, and market orientation as foundational drivers influencing the degree of formalization among informal enterprises. Institutional support and resource capacity enhance enterprises’ ability to transition into formal structures, while entrepreneurial adaptability directly strengthens the formalization process. Stakeholder engagement and market orientation further contribute by improving business capabilities and market responsiveness.

The framework further demonstrates that access to formal finance is shaped by the regulatory environment, particularly regulatory complexity, which may either facilitate or

constrain financial inclusion. Increased access to formal finance strengthens business capabilities and supports enterprise growth. Enhanced business capabilities subsequently contribute to the development of social capital through stronger networks, trust, and collaborative relationships.

The model also posits that a higher degree of formalization stimulates consumer demand amplification by increasing legitimacy, product quality assurance, and market confidence. Expanded consumer demand then contributes directly to inclusive development outcomes, including improved livelihoods, employment generation, and broader socio-economic participation. In addition, consumer demand amplification reinforces social capital formation, suggesting that formalization generates both economic and social developmental benefits within the local economy.

The effects of these independent variables on key outcomes are not purely direct but are transmitted through a set of mediating mechanisms: absorptive and adaptive flexibility (AFF), business capability development (BCAP), trust formation (TRUST), and collective or coordinated decision advantage (CDA). Absorptive and adaptive flexibility reflects a firm's ability to recognise, assimilate, and apply external knowledge while adjusting its internal processes to changing conditions. This construct is particularly critical in environments characterised by uncertainty, where learning and flexibility serve as key drivers of resilience. Business capability development captures the accumulation of operational, managerial, and technological competencies that enable firms to improve efficiency and scale operations. Trust formation reflects the development of credible and reliable relationships between firms and their stakeholders, which reduces transaction costs and facilitates access to resources and opportunities. Collective or coordinated decision advantage refers to the strategic benefits derived from effective stakeholder coordination, information sharing, and joint problem-solving, which can enhance both firm-level and system-level outcomes.

These mediating variables jointly explain how structural conditions and firm-level attributes are translated into three principal dependent outcomes: formalisation (FORM), firm performance (PERF), and economic inclusion (INCL). Formalisation is conceptualised as the degree to which firms operate within the boundaries of legal and regulatory systems, including registration, tax compliance, and adherence to formal labour and environmental standards. Firm performance encompasses both financial and non-financial indicators, including profitability, productivity, growth, and operational efficiency. Economic inclusion reflects the extent to which firms contribute to broader development outcomes, such as employment generation, equitable access to opportunities, and participation in formal value chains. By incorporating inclusion as a distinct outcome, the framework extends beyond traditional firm-level analysis to capture the developmental implications of enterprise activity.

Importantly, the framework recognises that these relationships are contingent upon contextual factors, specified as moderating variables: regulatory capacity (REGC) and social capital (SOCAP). Regulatory capacity reflects the effectiveness of state institutions in designing, implementing, and enforcing policies. High regulatory capacity is expected to strengthen the positive effects of institutional quality on formalisation and performance, while weak capacity may attenuate these relationships or even generate perverse incentives for informality. Social capital, defined as the networks, norms, and trust that facilitate coordination and cooperation within and across communities, is posited to moderate the relationships between stakeholder engagement, trust formation, and firm outcomes. In high social capital

environments, firms are more likely to leverage relational networks to access information, reduce uncertainty, and enhance collaborative advantage, thereby amplifying the effects of stakeholder engagement and trust on performance and inclusion.

The integrative nature of this conceptual framework allows for the specification of a system of interrelated hypotheses that can be empirically tested using advanced econometric or structural equation modelling techniques. Direct effects are hypothesised from each independent variable to the dependent outcomes, while indirect effects are modelled through the mediators, capturing the mechanisms through which these relationships operate. Moderation effects are incorporated through interaction terms, enabling the analysis of how contextual conditions shape the strength and direction of the relationships.

Overall, the framework advances the literature by synthesising multiple theoretical perspectives into a coherent model that captures both micro-level firm dynamics and macro-level institutional influences. It provides a robust analytical lens for examining how firms navigate complex environments, build capabilities, and contribute to inclusive development. In doing so, it offers both theoretical refinement and practical relevance, particularly for policymakers and development practitioners seeking to design interventions that enhance enterprise performance while promoting broader socio-economic inclusion.

Methodology

Research design

This study adopts a quantitative research design to examine the relationships among the key variables under investigation within township enterprise environments. The quantitative approach is considered appropriate because the study seeks to generate empirical evidence through numerical measurement, statistical analysis, and the testing of hypothesised relationships among constructs. The design enables the systematic collection of standardised data from a large sample of respondents, thereby enhancing objectivity, reliability, and generalisability of the findings.

The study is based on a cross-sectional survey design involving 412 township enterprises. The sampling strategy was structured to ensure adequate representation across sectors, firm sizes, and levels of formalisation within the township enterprise ecosystem. A stratified sampling technique was employed, whereby enterprises were grouped according to key characteristics such as industry type, years of operation, and ownership structure, followed by proportional random sampling within each stratum. This approach reduces sampling bias and improves the representativeness of the sample.

Data were collected using a structured questionnaire developed from established and validated scales widely used in prior empirical studies. The measurement items were adapted to reflect the contextual realities of township enterprises while maintaining conceptual consistency with the literature. Particular attention was given to linguistic clarity, contextual relevance, and ease of interpretation by respondents. The questionnaire consisted primarily of closed-ended questions measured on Likert-type scales to facilitate quantitative analysis.

To ensure the validity and reliability of the instrument, a pilot study involving approximately 30 respondents was conducted prior to the main survey. The pilot phase was used to assess the clarity of the questionnaire items, identify ambiguities, and evaluate the reliability of the scales using Cronbach's alpha coefficients. Feedback obtained during the pilot process informed minor revisions relating to wording, sequencing, and scale refinement.

Data collection was conducted through a combination of face-to-face administration and digitally distributed questionnaires, depending on respondent accessibility and preference. This approach improved response rates and minimised the likelihood of non-response bias. Ethical considerations were strictly observed throughout the research process. Participation was voluntary, informed consent was obtained from all respondents, and anonymity and confidentiality were guaranteed. Respondents were assured that all information provided would be used exclusively for academic purposes.

The collected data were coded and analysed using appropriate statistical software. Descriptive statistics were employed to summarise respondent characteristics and key variables, while inferential statistical techniques were used to examine the hypothesised relationships among constructs. Depending on the objectives of the study, analyses included correlation analysis, regression modelling, and other multivariate statistical procedures suitable for testing the proposed conceptual framework. Reliability and validity assessments were also conducted to confirm the adequacy of the measurement model.

Overall, the quantitative design provides a rigorous and systematic framework for examining the structural relationships among the study variables. The approach enhances the objectivity, consistency, and replicability of the findings, while enabling broader generalisation within the township enterprise context. The design is particularly suitable for studies involving latent constructs, organisational dynamics, and empirically testable relationships grounded in established theoretical frameworks.

Data Analysis Technique

The quantitative data were analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM), a variance-based multivariate analytical technique appropriate for examining complex relationships among latent constructs. The selection of PLS-SEM is methodologically justified by the nature of the study, which involves multiple reflective constructs, predictive modelling, and the simultaneous estimation of direct, mediating, and moderating relationships.

The study incorporates several latent variables that are not directly observable but are measured through multiple indicators. Constructs such as entrepreneurial capability, institutional constraints, and performance outcomes are inherently multidimensional and require an analytical approach capable of modelling measurement error while estimating structural relationships. PLS-SEM is particularly suitable for this purpose because it focuses on maximising the explained variance (R^2) of endogenous constructs and provides stable parameter estimates in complex structural models.

In addition, the structural framework includes mediation and moderation effects, requiring an analytical technique capable of estimating indirect and interaction relationships simultaneously. PLS-SEM enables the assessment of both direct and indirect effects within a single integrated model. Bootstrapping procedures using 5,000 resamples were employed to determine the statistical significance of path coefficients, mediation effects, and interaction effects, thereby providing robust estimates and confidence intervals.

The study further adopts a predictive orientation aimed at explaining and predicting key outcome variables. In this regard, PLS-SEM is advantageous because of its strong predictive capabilities and emphasis on variance explanation. Predictive relevance was assessed using the Stone–Geisser Q^2 statistic and PLSpredict procedures to evaluate the model's out-of-sample predictive performance.

Furthermore, PLS-SEM is appropriate given the distributional characteristics of the data. Unlike covariance-based SEM techniques that require strict assumptions of multivariate normality, PLS-SEM is robust to non-normal data distributions. Preliminary data screening revealed evidence of skewness and kurtosis in certain variables, thereby supporting the suitability of PLS-SEM for the analysis.

The data analysis followed a two-stage approach consistent with established PLS-SEM procedures. The first stage involved assessment of the measurement model to evaluate indicator reliability, internal consistency reliability, convergent validity, and discriminant validity using criteria such as factor loadings, Cronbach's alpha, composite reliability, average variance extracted (AVE), the Fornell–Larcker criterion, and the heterotrait–monotrait ratio (HTMT). The second stage involved assessment of the structural model through the examination of path coefficients, coefficient of determination (R^2), effect sizes (f^2), predictive relevance (Q^2), and hypothesis testing using bootstrapped t-statistics and p-values.

Stage 1: Measurement Model Assessment

The reliability and validity of the measurement model were thoroughly evaluated. Internal consistency reliability was assessed using Cronbach's alpha, Composite Reliability (CR), and rho_A, with threshold values of ≥ 0.70 indicating acceptable reliability. Convergent validity was examined through the Average Variance Extracted (AVE), with values ≥ 0.50 indicating that constructs explain more than half of the variance of their indicators.

Discriminant validity was assessed using the Fornell–Larcker criterion and the Heterotrait–Monotrait (HTMT) ratio. HTMT values below 0.85 (or 0.90 in more lenient contexts) indicate adequate discriminant validity, ensuring that constructs are empirically distinct from one another.

Stage 2: Structural Model Assessment

The structural model was evaluated by examining path coefficients, coefficient of determination (R^2), effect sizes (f^2), and predictive relevance (Q^2). Path coefficients were interpreted in terms of magnitude, direction, and statistical significance. R^2 values provided an indication of the explanatory power of the model, while f^2 values assessed the contribution of each exogenous construct to endogenous variables.

Mediation effects were tested using bootstrapping procedures to assess the significance of indirect paths. The nature of mediation (full, partial, or none) was determined based on the significance and magnitude of both direct and indirect effects. Moderation analysis was conducted using interaction terms, with simple slope analysis employed to interpret significant moderating effects.

In addition, robustness checks were conducted to ensure the stability and reliability of the results. These included multicollinearity diagnostics using Variance Inflation Factors (VIF), with values below 3.3 indicating the absence of critical collinearity issues. Common method bias was addressed through both procedural remedies (e.g., assuring anonymity, varying item formats) and statistical tests, including full collinearity VIFs and Harman's single-factor test.

The qualitative data analysis complemented the quantitative findings by providing interpretive depth. Themes identified from the interviews were mapped onto the structural relationships observed in the PLS-SEM model, enabling a nuanced understanding of causal mechanisms and contextual influences.

In sum, the use of PLS-SEM, combined with rigorous measurement and structural evaluation procedures, ensures that the study meets the methodological standards expected to generate valid outcomes worth generalization. The integration of quantitative modelling with qualitative interpretation further enhances the analytical richness and policy relevance of the research.

Empirical Results and Structural Model Evaluation

Measurement Model Assessment

Table 1: Result of reliability and convergent validity statistics test

Construct	Cronbach's α	Composite Reliability	AVE
INST	0.84	0.89	0.63
RES	0.81	0.87	0.58
ENT	0.86	0.90	0.64
STAKE	0.83	0.88	0.61
MO	0.88	0.92	0.66
AFF	0.82	0.87	0.59
BCAP	0.85	0.89	0.62
TRUST	0.80	0.86	0.57
CDA	0.89	0.93	0.68
FORM	0.87	0.91	0.65
PERF	0.86	0.90	0.64
INCL	0.88	0.92	0.66

Table 1 presents the reliability and convergent validity metrics for all latent constructs included in the model. The evaluation follows established guidelines in Partial Least Squares Structural Equation Modelling (PLS-SEM), particularly those outlined by Joseph F. Hair Jr. et al. (2022).

First, internal consistency reliability is assessed using Cronbach's alpha (α) and Composite Reliability (CR). All constructs report Cronbach's alpha values above the minimum threshold of 0.70, indicating satisfactory internal consistency. Notably, constructs such as Market Orientation (MO = 0.88), Consumer Demand Amplification (CDA = 0.89), and Inclusion (INCL = 0.88) demonstrate particularly strong reliability, suggesting that their respective indicators are highly cohesive in capturing the underlying latent dimensions.

Composite Reliability values further reinforce this conclusion, with all constructs exceeding the recommended threshold of 0.70 and most surpassing 0.85. The consistently high CR values indicate that the measurement model is robust and free from substantial measurement error.

Second, convergent validity is evaluated using the Average Variance Extracted (AVE). All constructs report AVE values above the 0.50 benchmark, implying that each latent construct explains more than 50% of the variance in its observed indicators. This confirms that the indicators are well aligned with their respective constructs.

Substantively, these results validate the operationalisation of key constructs such as Institutional Conditions (INST), Entrepreneurial Capability (ENT), and Consumer Demand Amplification (CDA). The strong measurement properties provide a solid empirical foundation for subsequent structural model analysis, ensuring that the observed relationships are not artefacts of measurement deficiencies.

Structural Model Results

Table 2: Structural path coefficients result of test of relationship among latent constructs

Path	β	t-value	p-value
INST → FORM	0.21	4.32	***
RES → FORM	0.18	3.87	***
ENT → FORM	0.25	5.21	***
STAKE → FORM	0.17	3.44	**
MO → FORM	0.29	6.02	***
FORM → PERF	0.41	8.33	***
PERF → INCL	0.38	7.90	***
CDA → INCL	0.35	7.12	***

***p < 0.01, **p < 0.05

Table 2 reports the structural relationships among the latent constructs, providing empirical evidence on the hypothesised pathways.

The results indicate that Market Orientation (MO → FORM, $\beta = 0.29$) exerts the strongest direct influence on formalisation. This suggests that enterprises that are more responsive to market signals are significantly more likely to transition into formal economic structures. This aligns with dynamic capability theory, where sensing and responding to market opportunities enhances strategic positioning.

The findings strongly align with the conceptual framework presented in Figure 2.1, which posits that enterprise formalisation is jointly influenced by internal entrepreneurial capabilities and external institutional conditions. Entrepreneurial Capability (ENT → FORM, $\beta = 0.25$) exerts a strong positive effect on formalisation, underscoring the importance of managerial competence, adaptability, innovation, and strategic responsiveness in enabling enterprises to transition into the formal economy. Similarly, Institutional Conditions (INST → FORM, $\beta = 0.21$) demonstrate a significant positive influence, confirming that supportive regulatory structures, access to resources, policy support, and enabling governance environments are critical in shaping formalisation outcomes. These findings collectively indicate that formalisation is not determined solely by internal enterprise competencies or external institutional frameworks in isolation, but rather emerges through the complementary interaction between entrepreneurial capacity and institutional support within the broader township enterprise ecosystem.

Resource availability (RES → FORM, $\beta = 0.18$) and stakeholder engagement (STAKE → FORM, $\beta = 0.17$) further strengthen the formalisation pathway, although with relatively moderate effect sizes. This suggests that access to financial, technical, and operational resources, together with collaboration among key stakeholders, contributes meaningfully to enterprise formalisation.

The relationship between formalisation and enterprise performance is particularly pronounced (FORM → PERF, $\beta = 0.41$), representing the strongest structural path in the model. This finding highlights formalisation as a central mechanism through which enterprises enhance operational efficiency, improve productivity, expand market access, and strengthen access to finance and institutional support.

In turn, enterprise performance significantly promotes socio-economic inclusion (PERF → INCL, $\beta = 0.38$), indicating that improved business outcomes translate into broader

participation in economic opportunities and development processes. In addition, Consumer Demand Amplification (CDA → INCL, $\beta = 0.35$) exerts a direct and substantial influence on inclusion, demonstrating that demand-side market dynamics play an equally important role in fostering inclusive development outcomes.

Overall, all hypothesised relationships are positive and statistically significant, thereby confirming the robustness of the theoretical model and providing strong empirical support for the integrated framework linking entrepreneurial capabilities, institutional conditions, resource access, market forces, enterprise performance, and inclusive socio-economic outcomes.

Mediation Analysis

Table 3: Indirect Effects (Bootstrapped Results)

Mediation Path	Indirect Effect	Result
RES → AFF → FORM	0.09	Significant
INST → TRUST → FORM	0.11	Significant
MO → CDA → FORM	0.14	Significant
FORM → CDA → INCL	0.16	Strong mediation

Table 3 presents the mediation effects derived from bootstrapping procedures, which provide robust estimates of indirect relationships.

The findings reveal that Consumer Demand Amplification (CDA) emerges as the most influential mediating mechanism. The indirect effect of MO → CDA → FORM ($\beta = 0.14$) indicates that market-oriented firms enhance formalisation primarily by stimulating and leveraging consumer demand. This underscores the importance of demand-side dynamics in shaping structural transformation.

Similarly, the pathway FORM → CDA → INCL ($\beta = 0.16$) represents the strongest mediation effect in the model, suggesting that formalisation contributes to inclusion largely through its capacity to amplify consumer demand. This finding is theoretically significant, as it bridges supply-side and demand-side perspectives within development economics.

Trust and affective mechanisms also play meaningful mediating roles. The INST → TRUST → FORM pathway ($\beta = 0.11$) indicates that institutional quality enhances formalisation through trust-building processes, reflecting the importance of governance credibility. Likewise, RES → AFF → FORM ($\beta = 0.09$) suggests that resource availability fosters emotional or relational engagement, which in turn supports formalisation.

Collectively, these results demonstrate that the effects of structural and organisational factors are not purely direct but are significantly transmitted through behavioural and relational channels.

Moderation Analysis

Table 4: Moderating Effects

Interaction	β	Effect
REGC × INST → FORM	-0.13	Weakening effect
SOCAP × ENT → FORM	+0.15	Strengthening effect

Table 4 presents the moderating effects, highlighting how contextual variables alter the strength of key relationships.

The negative interaction between Regulatory Complexity (REGC × INST → FORM, $\beta = -0.13$) indicates that excessive regulatory burdens weaken the positive impact of institutional conditions on formalisation. This suggests that even well-designed institutions may fail to promote formalisation if regulatory frameworks are overly complex or costly to navigate.

Conversely, Social Capital (SOCAP × ENT → FORM, $\beta = +0.15$) strengthens the relationship between entrepreneurial capability and formalisation. This implies that networks, trust-based relationships, and community support enhance the effectiveness of entrepreneurial competencies. In environments characterised by institutional voids, social capital becomes a critical complementary resource.

These findings highlight the importance of contextual heterogeneity and reinforce the need for policy frameworks that reduce regulatory barriers while fostering social networks.

Model Fit and Predictive Power

Table 5: Coefficient of Determination (R^2)

Endogenous Variable	R^2
FORM	0.62
PERF	0.54
INCL	0.57

Table 5 reports the explanatory power of the structural model using the coefficient of determination (R^2).

The model explains 62% of the variance in formalisation (FORM), indicating substantial explanatory power. This suggests that the combined effects of institutional, organisational, and market variables provide a comprehensive explanation of formalisation dynamics.

Similarly, the model accounts for 54% of the variance in performance (PERF) and 57% in inclusion (INCL). These values exceed the commonly accepted benchmarks for social science research, indicating strong predictive relevance.

From a theoretical perspective, these results validate the integrated framework, demonstrating that formalisation serves as a central transmission mechanism linking structural conditions to performance and inclusive outcomes. The relatively high R^2 values also confirm the suitability of PLS-SEM for modelling complex, multi-layered relationships.

Overall Synthesis

Taken together, the empirical findings provide compelling evidence that formalisation is a function of institutional quality, entrepreneurial capability, and market orientation, mediated by trust, affect, and consumer demand, and conditioned by regulatory and social contexts. The model not only exhibits strong statistical robustness but also offers significant theoretical and policy insights into the mechanisms driving inclusive economic transformation.

Market-Driven Formalization: Discussion, Conclusion, and Policy Implications

The findings of this study provide strong empirical support for a reconceptualisation of enterprise formalization as a market-contingent process rather than a purely institutional or regulatory outcome. While traditional policy frameworks have treated formalization as a compliance issue—primarily driven by enforcement mechanisms, legal mandates, and bureaucratic oversight—the results here indicate that the decision of firms to formalize is fundamentally shaped by demand-side incentives and profitability considerations. In essence,

firms do not formalize simply because the state compels them to do so; rather, they formalize when doing so enhances their access to markets, improves revenue prospects, and strengthens competitive positioning.

A central insight emerging from the analysis is the dominant role of consumer demand amplification in shaping firm behaviour. Where consumers exhibit preferences for traceable, quality-assured, and formally verified goods and services, firms face endogenous pressure to transition into the formal sector. This dynamic effectively transforms consumers into “implicit regulators,” whose purchasing decisions impose discipline on producers. In such contexts, formalization becomes a strategic response to market signals rather than a reluctant compliance with external rules. This aligns with contemporary development literature that emphasises bottom-up institutional evolution, where market actors collectively shape governance outcomes through decentralized interactions.

The implication is that demand-side incentives can outperform coercive regulatory approaches. Enforcement-heavy strategies often encounter significant limitations in developing economies such as South Africa, where institutional capacity is uneven, regulatory enforcement is costly, and informal networks are deeply embedded within economic structures. Under such conditions, coercive policies may generate unintended consequences, including regulatory evasion, increased informality, and rent-seeking behaviour. By contrast, demand-driven formalization operates through positive incentives, reducing resistance and aligning private interests with broader developmental objectives.

Furthermore, the findings suggest that profitability considerations serve as the primary transmission mechanism linking demand conditions to formalization outcomes. Firms respond rationally to expected gains: when formal status enables access to higher-value markets, facilitates participation in supply chains, or enhances consumer trust, the net benefits of formalization outweigh the associated costs. Conversely, in low-demand environments where consumers are indifferent to formal status, the incentives to formalize remain weak. This highlights the importance of understanding formalization not as a binary legal condition, but as an economic decision embedded within a broader ecosystem of market interactions.

The role of consumers as implicit regulators also introduces a critical dimension of accountability that is often absent in state-led enforcement frameworks. Unlike regulatory agencies, which may be constrained by information asymmetries and resource limitations, consumers continuously evaluate product quality and firm credibility through repeated transactions. This creates a dynamic feedback loop in which firms must maintain standards to retain market share. As a result, formalization driven by consumer demand is likely to be more sustainable and self-reinforcing over time.

These insights resonate with a growing body of literature on endogenous institutional development, which posits that effective institutions often emerge from within economic systems rather than being imposed externally. In this view, formalization is not merely a legal transformation but a process of integration into structured, transparent, and competitive markets. The evidence from this study reinforces the argument that policy interventions should focus on strengthening these market structures rather than relying exclusively on top-down enforcement.

From a policy perspective, the findings call for a fundamental shift in the design and implementation of formalization strategies. First, there is a clear need to reorient policy frameworks away from enforcement-centric approaches toward demand stimulation. Governments should prioritize policies that expand consumer purchasing power, enhance

market access, and promote the consumption of formal-sector goods and services. This could involve targeted income support programmes, public procurement policies favouring formal enterprises, and initiatives to connect informal firms to larger value chains.

Second, the promotion of digital payments and traceability systems emerges as a critical lever for facilitating demand-driven formalization. Digital financial technologies reduce transaction costs, improve transparency, and enable the tracking of economic activities, thereby increasing consumer confidence in formal-sector transactions. By integrating informal firms into digital payment ecosystems, policymakers can create pathways for gradual formalization without imposing abrupt regulatory burdens. Moreover, digital platforms can serve as conduits for information dissemination, allowing consumers to make informed choices and reinforcing the role of demand as a regulatory force.

Third, reducing regulatory complexity is essential to lowering the barriers to formalization. Even when demand-side incentives are strong, excessive bureaucratic requirements can deter firms from formalizing. Streamlining registration processes, simplifying tax regimes, and eliminating redundant compliance procedures can significantly enhance the attractiveness of formal status. Importantly, regulatory reforms should be designed with the specific constraints of small and micro enterprises in mind, ensuring that formalization is both accessible and economically viable.

Fourth, strengthening local consumer markets is a key component of a demand-driven formalization strategy. In many developing economies, weak local demand limits the incentives for firms to upgrade their operations and enter the formal sector. Policies that support local economic development—such as infrastructure investment, market integration initiatives, and support for small-scale entrepreneurship—can expand the size and sophistication of domestic markets. As consumer demand grows in both scale and quality sensitivity, firms are more likely to formalize in order to capture emerging opportunities.

In conclusion, this study demonstrates that formalization is most effective when driven by market incentives rather than regulatory enforcement. By recognising the central role of consumer demand and profitability in shaping firm behaviour, policymakers can design more effective and sustainable formalization strategies. The transition from informality to formality should not be viewed as a coercive process imposed by the state, but as a natural outcome of evolving market dynamics. A policy framework that leverages demand-side incentives, promotes digital integration, reduces regulatory barriers, and strengthens local markets offers a more promising pathway for achieving inclusive and sustainable economic development.

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Supplementary Regression and Robustness Analysis

A1. Logistic Regression Results for Formalization (FORM)

To complement the PLS-SEM structural model, logistic regression models were estimated to assess the robustness of key relationships using a binary specification of formalization.

Hypothesis 1: Institutional Environment → Formalization

Variable	Coefficient (B)	S.E.	Wald	p-value	Exp(B)
Institutional Environment (INST)	0.176	0.088	4.027	0.045	1.192

Interpretation:

Institutional conditions exert a positive and statistically significant effect on the likelihood of formalization. A one-unit increase in institutional quality increases the odds of formalization by approximately 19.2%, supporting the main model results.

Hypothesis 2: Resource Endowment → Formalization

Variable	Coefficient (B)	S.E.	Wald	p-value	Exp(B)
Resource Endowment (RES)	0.143	0.079	3.260	0.071	1.153

Interpretation:

Resource availability shows a positive but marginally significant effect on formalization. This suggests that while resources matter, their effect is weaker relative to institutional and market factors, consistent with the PLS-SEM findings.

A2. Mediation Analysis: Resource Pathways

To examine mediation mechanisms, OLS regressions were estimated.

RES → AFF (Absorptive Flexibility)

Variable	Coefficient (B)	Std. Error	Beta	t-value	p-value
RES	0.939	0.019	0.924	48.165	0.000

Model Fit:

R² = 0.854

F-statistic = 2319.83 (p < 0.001)

RES → BCAP (Business Capability)

Variable	Coefficient (B)	Std. Error	Beta	t-value	p-value
RES	0.976	0.021	0.916	45.571	0.000

Model Fit:

R² = 0.839

F-statistic = 2076.75 (p < 0.001)

Interpretation:

Resource endowment strongly predicts both absorptive flexibility and business capability, confirming the mediating pathways identified in the structural model.

A3. Joint Model: RES, AFF, BCAP → Formalization

Variable	Coefficient (B)	S.E.	Wald	p-value	Exp(B)
RES	-0.101	0.217	0.218	0.641	0.904
AFF	-0.303	0.294	1.062	0.303	0.738
BCAP	0.539	0.272	3.934	0.047	1.714

Interpretation:

When mediators are included:

Business Capability (BCAP) remains significant

Direct effects of RES and AFF become insignificant

This indicates partial-to-full mediation, consistent with the PLS-SEM mediation results.

A4. Market Orientation Effects

MO → Formalization

Variable	Coefficient (B)	S.E.	Wald	p-value	Exp(B)
Market Orientation (MO)	0.158	0.074	4.541	0.033	1.171

MO → Performance

Variable	Coefficient (B)	Std. Error	Beta	t-value	p-value
MO	0.904	0.015	0.950	60.733	0.000

Model Fit:

R² = 0.903

Interpretation:

Market orientation

Significantly increases formalization probability

Has a very strong effect on firm performance

A5. Combined Model: MO and Consumer Demand (CDA)

Performance Equation

Variable	Coefficient (B)	Std. Error	Beta	t-value	p-value
MO	0.674	0.056	0.709	12.131	0.000
CDA	0.244	0.057	0.250	4.285	0.000

Model Fit:

R² = 0.907

Interpretation:

Both market orientation and consumer demand amplification significantly enhance firm performance, reinforcing the central argument of demand-driven formalization.