FORMALISATION OF INFORMAL EXPORTERS FOR SUSTAINABLE EXPORT GROWTH IN ZIMBABWE

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Abstract
The study aims at developing a pragmatic and context sensitive framework to understand the influence of select policy and institutional factors in the formalisation of informal exporters for sustainable export growth in Zimbabwe. The study is rooted in Institutional Theory, the Resource-Based View and the Complex Adaptive Systems Theory. The study uses a quantitative explanatory research design guided by a positivist research philosophy. Primary data collection was done using a structured questionnaire to informal and semi-formal exporters. A sample of 239 respondents was selected using stratified random sampling to ensure that it represents each category of export-oriented small and medium enterprises (SMEs). Ordinal logistic regression analysis was used together with post-estimation diagnostic tests for multicollinearity and heteroskedasticity. The study finds that the fiscal approaches, regulatory mechanisms, digitalisation and entrepreneurial education has a positive and statistically significant impact on formalisation and inclusion of informal exporters, with regulatory mechanisms having the most significant impact. The study concludes that formalisation is a multidimensional, institutionally embedded process and it is not possible to effectively achieve it through isolated interventions. The study recommends adoption of an integrated policy framework, including congruence between regulatory reform, fiscal incentives and digital systems and better target entrepreneurship education for inclusive and sustainable export incentives in Zimbabwe.

Keywords: SME formalisation; export inclusion; fiscal policy; regulatory mechanisms; digitalisation; entrepreneurial education.

INTRODUCTION
Formalisation of informal economic activities has become central to the global development agenda owing to the implications such activities have on

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productivity, inclusivity and sustainable global trade (Ketu, Kelly and Tchapchet Tchouto, 2024). According to Adair *et al.* (2024), the informal sector is the main source of global employment and it is estimated that it employees more than 60% of the global workforce. This suggests that the informal economy is central to livelihoods in the global economy, but its activities remain unregulated and its revenue unreported and untaxed (Nagaraj and Kapoor, 2022). However, Bradshaw (2024) warns that the process of formalisation cannot be considered linear regulation but a multidimensional process that includes social, institutional and market integration. Canh *et al.* (2021) further note that the existence of a shadow economic system is supported by weak institutional quality and fragmentation of trade governance which, in turn, limits the competitiveness and ability of informal exporters to be integrated into global value chains.

According to Sitkevich (2022), in the Organisation for Economic Cooperation and Development (OECD) countries, the shadow economy accounts for 9.2% of the GDP, implying that the shadow economy accounts for trillions of unreported revenue. The informal sector in the United States of America accounts for approximately 8% of the GDP, with a significant contribution being attributed to immigrant-owned microbusinesses which operate in low-regulation niches (Bradshaw, 2024). Similarly, informal export and production linkages are problematic to transparency and fair competition in other advanced economies (Gallien and Boogaard, 2021). In Southern Europe, Schneider (2023) reports that in countries such as Greece and Italy, the informal economy accounts for more than 20% of GDP which is a direct result of complex bureaucracy and poor enforcement capabilities.

The growth of informal exports has been accompanied by trade liberalisation and structural reforms in developing economies, especially in Africa (Esaku, 2021). Ajide and Dada (2024) argue that the shadow economy constitutes more than 40% of GDP on average in Africa and the highest proportion of trade being attributed to West and East Africa. According to Desiderio (2025), the level of intra-African trade is becoming more and more reliant on informal networks that survive under poor infrastructure and bureaucratic inefficiencies but are not reflected in official data. In the Southern African region, informal cross-border trade (ICBT) is a crucial source of livelihoods, accounting for 30-72% of reported trade across country corridors (Charles, 2024). According to Chijikwa (2023), administrative complexity and limited awareness of the traders have counteracted efforts to introduce formalisation in Zambia, leading to continuous non-compliance. The foregoing views suggest that context-specific institutional reforms are necessary, between enforcement and support policies that keep informal traders productive.

Zimbabwe's economy is characterised by a large and persistent informal SME sector that contributes approximately 60% of national output and employs over 70% of the labour force (Sebele-Mpofu and Moyo, 2021; Tshuma *et al.*, 2025). While this sector has cushioned the economy against de-industrialisation, unemployment and macroeconomic instability, its sustained dominance has entrenched structural inefficiencies. A significant share of export-oriented SMEs remains informal, despite active participation in cross-border trade. These exporters often fail or resist formalisation due to high compliance costs, complex and overlapping regulatory requirements, limited access to export finance, certification systems and customs facilitation, as well as weak perceived benefits associated with formal registration. Consequently, many exporters rely on informal trading channels to minimise transaction costs and regulatory exposure. Zimbabwe forfeits an estimated US$1.5-2 billion annually in tax revenues due to informality, undermining public investment in trade-supportive infrastructure, export finance and institutional capacity (Mpofu and Sebele, 2021; Mpofu, 2021b). Policy interventions such as presumptive taxation and trader licensing have remained largely ineffective, reflected in low uptake, high compliance burdens, inconsistent enforcement and limited integration with export promotion mechanisms, thereby reinforcing compliance avoidance (Masimba, Rajah and Mutema, 2022). Existing empirical studies on Zimbabwe have largely focused on taxation challenges (Mpofu, 2021a, 2021b), operational constraints facing informal SMEs (Matsongoni, 2021), or entrepreneurial education in isolation (Muparangi, Makudza and Makandwa, 2022). Although ecosystem-based approaches have been discussed in relation to manufacturing clusters (Mushayavanhu and Chitumba, 2022), there remains no integrated framework explaining the combined influence of fiscal, regulatory, digital and educational interventions on the formalisation and inclusion of informal exporters. This gap has constrained coherent policy design, limited export upgrading and global value chain participation and sustained low-value export activities, thereby justifying the need for a pragmatic, context-sensitive formalisation framework for Zimbabwe.

The primary aim of the study is to develop a pragmatic context-sensitive framework for sustainable export growth in Zimbabwe. The actualisation of the foregoing primary objective is supported by the following specific objectives: (1) To ascertain the impact of the fiscal approaches towards formalisation of informal exporters in Zimbabwe; (2) To investigate the impact of regulation mechanism(s) on the formalisation of informal exporters in Zimbabwe; (3) To assess the impact of digitalisation on the process of formalisation of informal exporters in Zimbabwe; and (4) To analyse the effect of entrepreneurial education on the formalisation of informal exporters in Zimbabwe.

LITERATURE REVIEW

THEORETICAL FRAMEWORK

The study adopts a multi-theoretical approach through which the Institutional Theory, the Resource-Based View (RBV) and the Complex Adaptive Systems (CAS) Theory underpins the study.

INSTITUTIONAL THEORY

Institutional Theory states that organisational behaviour and survival is strongly affected by formal and informal structures such as laws, regulations, norms and societal expectations (Galdino *et al.* 1995). Firms conform to these pressures in order to obtain legitimacy, resources and long-term sustainability. It identifies three types of pressures: coercive, normative and mimetic. Coercive pressures are those arising from legal and regulatory requirements such as business licensing, tax compliance and statutory reporting, which compels many SMEs to formalise in order to avoid sanctions. Normative pressures come from professional standards, peer networks and societal expectations and guide acceptable conduct in the business environment, while mimetic pressures include emulation of successful formalised enterprises and their influence to contribute to SMEs gaining legitimacy and access to business markets. In Zimbabwe, low enforcement of presumptive taxes, disorganised regulatory systems and prevailing informal norms, diminish coercive and imitative factors (Mpofu, 2021b; Sebele-Mpofu and Moyo, 2021).

RESOURCE-BASED VIEW (RBV)

The Resource-Based View emphasizes that organisations gain competitive advantage by leveraging valuable, rare, inimitable and non-substitutable resources (Wernerfelt, 1984; Barney, 1991). For the informal SMEs in Zimbabwe, RBV emphasizes internal capabilities - financial literacy, entrepreneurial skills, record-keeping, technology and markets - regulating the feasibility and sustainability of formalisation (Williams, 2023; Munjeyi and Fourie, 2024). These resources shape a clear causal pathway to export participation, as accurate record-keeping and financial literacy enhance export readiness by enabling compliance with certification standards, customs documentation and access to export finance, while digital capabilities facilitate interaction with formal trade institutions and export markets. SMEs with these resources are able to negotiate through the regulatory requirements, meet fiscal obligations and use digital tools that can streamline operations and improve participation in the market. On the other hand, resource-poor SMEs are deterred from formalisation because of high compliance costs, failure to comply with regulatory requirements and poor access to government incentives (Masimba *et al.*, 2022). RBV thus provides a rationale for bringing digitalisation and educational interventions into the proposed framework of formalisation to ensure that SMEs are equipped to respond to external pressures while maximising internal capabilities. However, RBV alone underplays the constraining role of external institutional environments, particularly weak regulatory coherence and limited state support, thereby justifying its integration with the Institutional Theory to explain how internal capabilities interact with formal rules and enforcement structures in shaping formalisation and export inclusion outcomes.

THE COMPLEX ADAPTIVE SYSTEMS (CAS) THEORY

The Complex Adaptive Systems (CAS) Theory interprets organisations and economies as collections of agents that are adaptable to ever-changing interdependent internal and external environmental factors (Holland, 1995; Luthra, 2022). Informal SMEs in Zimbabwe are characterised by high degrees of heterogeneity, self-organisation and non-linear interactions, rendering formalisation inherently complex. The CAS Theory highlights the presence of feedback loops, emergent behaviour and the growing sensitivity of the outcome to the initial conditions that encompasses why top-down policies often fail to work. Interventions focusing on fiscal compliance, regulatory compliance, digital adoption or education alone are unlikely to have consistent results without recognising the adaptive nature of the system. Applying the CAS Theory enables researchers and policymakers to develop flexible, iterative and participatory strategies that react to emergent patterns within the SME ecosystem (Walker *et al.*, 2022; Riisgaard *et al.*, 2024). This perspective gives way to advance a proposed framework, from which the integration of fiscal, regulatory, digital and educational pillars is pursued by accommodating the dynamic interactions of stakeholders. By considering SMEs as active actors within an adaptive network, the CAS Theory helps to make formalisation strategies sensitive to their particular context, resistant to changes and able to ensure compliance, growth and economic development of enterprises over time (Williams, 2023c).

EMPIRICAL LITERATURE

Fiscal Approaches and the Formalisation of Informal Exporters

Presumptive tax or flat rate tax is a simplified tax mechanism that involves paying a fixed monetary amount or a turnover-based estimated tax, thus lessening administrative complexities and lowering compliance costs (Williams, 2023b). Italy's regime *forfettario* was used in stimulating registration of microenterprises by providing predictability in liabilities and easier filing, while Peru and China actually found that flat rate taxation facilitated entry of SMEs into the formal economy, although there had to be sustained compliance provided by appropriate assessment methods and communications (Dimitriadis and Coletto, 2024; Peña, Flores and Heredia, 2024). In Kenya, the introduction of presumptive taxes led to an early increase in the tax register but this was not upheld over time due to administrative burdens and lack of trust in authority (Murunga, Muriithi and Wawire, 2021). The Zimbabwe Revenue Authority (ZIMRA) adopted presumptive taxation to widen the tax base (Mpofu, 2021a), but SMEs find it punitive, enforcement is inconsistent and rates inflexible (Mpofu, 2021b). This calls for adaptive rates with better enforcement credibility and feedback mechanisms to provide encouragement for sustained compliance.

Targeted tax incentives, such as exemptions, deductions or duty rebates, are meant to mitigate the economic costs of fiscal policies and encourage SMEs to formalise (Williams, 2023b). In South Africa, SME-specific tax holidays led to an increase of formal registration especially where formalities were made more convenient and eligibility norms were communicated effectively (Bazaanah and Chilaule, 2021). In Egypt and Mozambique, sector-specific incentives led to a temporary increase in formalisation but poor levels of enforcement limited long-term effectiveness (*ibid.*). Zimbabwe has similar measures, such as lower corporate tax rates for registered SMEs, duty rebates on capital inputs and value-added tax (VAT) zero-rating of exports (Mpofu, 2021b). Uptake is still low however, due to complex applications, poor SME awareness and barriers in documentation (Masimba *et al.*, 2022; Mushayavanhu and Chitumba, 2022). The gap suggests tax incentives need to be supported by advisory services, communication campaigns and simplifying them to reach substantial formalisation.

Reduced registration fees and simplified licensing procedures are intended to lower the initial costs of formalisation and remove procedural barriers for businesses (Williams, 2023a). Singapore and Malaysia are good examples where low-cost online registration policies significantly enhanced formalisation of SMEs by making the compliance process accessible (Peña, Flores and Heredia, 2024). In Kenya, lower fees helped motivate people to initially register, but challenges in maintaining that compliance made things difficult, due to a lack of effective post-registration follow-up (Murunga *et al.*, 2021). In Zimbabwe, the high registration fees in multiple authorities and complex licensing requirements discourage SMEs from going into the formal system (Masimba *et al.*, 2022). Addressing these structural costs complements flat rate taxation and fiscal incentives, as it clears the first hurdle to formalisation and becomes the basis for sustainable compliance. Simplification, harmonisation and digital processing are key to building up a coherent fiscal environment that supports the formalisation of SMEs.

Regulatory Mechanisms and the Formalisation of Informal Exporters

Simplification of business registration and licensing processes are key to regulatory solutions aimed at reducing the barriers to formalisation. Globally, Singapore and Malaysia demonstrate that one-stop digital registration platforms with low fees have contributed massively to enhanced formalisation of SMEs by eliminating procedural complexity (Peña *et al.*, 2024). In Kenya, streamlined licensing promoted formal entry. However, continued bureaucracy and disjoint municipal procedures were the barriers to continued compliance (Murunga *et al.*, 2021). Additionally, in Zimbabwe, SMEs are hindered by high registration fees, multiple and conflicting requirements from ZIMRA, local councils and sector regulators and a time-consuming approval process that acts as a disincentive for informal operators to register, especially export-oriented SMEs (Masimba *et* *al.*, 2022). This illustrates a regulatory gap: the framework is in place, but there are inefficiencies and fragmentation to which accessibility is reduced. Simplification and harmonisation of registration requirement, integration with digital platforms and guidance can improve compliance and facilitate the transitions of informal SMEs to the formal export sector

Mandatory compliance reporting and record-keeping requirements are used for coercive regulatory mechanisms to standardise SME operations. In South Africa and Kenya, the frequent reporting of informal enterprises has brought about a better visibility of the problem and better enforcement of the fiscal and trade regulations (Chijikwa, 2023; Riisgaard *et al.*, 2024). Globally, mandatory digital reporting in European microenterprises has improved the accuracy of the reported data, decreasing evasion (Dimitriadis and Coletto, 2024). Zimbabwe mandates SMEs to keep a record of transactions for the purpose of taxation, trade and regulatory compliance, but lack of enforcement, low SME bookkeeping ability and low digital adoption hampers effectiveness (Mpofu, 2021b; Mushayavanhu and Chitumba, 2022). The effect is persistent informality and low traceability in order to comply with export. This gap highlights the importance of implementing regulatory frameworks that involve both mandatory reporting and training, advisory support and readily available digital tools to aid in compliance as opposed to simply penalising those that fail to comply.

Enforcement consistency and coordination of stakeholders are key for the effectiveness of regulatory mechanisms in a sustainable way to influence the behaviour of SMEs. Globally, poor compliance undermines the incentive to comply as some of the current weaker enforcement regimes are evidenced in parts of Latin America and East Africa where SMEs complain of regulations being unpredictable or arbitrary (Williams, 2023a; Riisgaard *et al.*, 2024). In Zimbabwe, inconsistent enforcement by ZIMRA, municipal councils and sector regulators and inconsistent enforcement on the part of remaining smaller-scale, informal exporters are mutually reinforcing factors that result in poor oversight for existing and prospective exporters (Sebele-Mpofu and Moyo, 2021; Tshuma, Ndebele, Setoboli and Sibanda, 2025). This does not help build trust within the regulatory system and, in turn, continues to drive informality. Evidence indicates that integrated regulatory coordination, transparent enforcement measures and stakeholder engagement, including associations of SMEs, may enhance compliance and strengthen legitimacy and sustainable formalisation, both on the basis of domestic and export-oriented formalisation.

DIGITALISATION AND THE FORMALISATION OF INFORMAL EXPORTERS

Digital tax administration systems are a key digitalisation strategy targeted at reducing the cost of compliance and enhancing traceability for SMEs. Globally, e-tax platforms, such as in Italy and Peru, helped to reduce the administrative burden of filing and increasing the number of SMEs compliant with the urban tax rules, by simplifying the registration, filing and payment process (Dimitriadis and Coletto, 2024; Peña *et al.*, 2024). In Kenya, digital tax platforms initially helped with improved SME registration, but were constrained by digital literacy and unstable technologies. These new platforms achieved less sustainable registration compliance (Murunga *et al.*, 2021). Zimbabwe has introduced electronic tax systems through ZIMRA, including online registration and e-filing, but informal SMEs are facing challenges related to poor digital literacy, low reliable connectivity as well as limited support services (Munjeyi and Fourie, 2024). As a result, digital systems have not had a full translation into higher formalisation rates. There is evidence that digital tax tools need to be accompanied by support to users, provision of training services and provision of system reliability for changing informal SME transition to work better.

Digital business registration and licensing platforms simplify procedures by combining several regulatory requirements with a series of interfaces. Singapore and Malaysia provide a compelling example that end-to-end digital registration led to a significant rise in SME formalisation, by dispensing with time, cost and uncertainty (Peña *et al.*, 2024). In China, digital licensing facilitated improved transparency and predictability to support the compliance of SMEs (*ibid.*). Zimbabwe has made some inroads in achieving online registration, but there are still disjointed activities across agencies, manual verification processes and inconsistent revision across platforms, and this still sees informal SMEs disincentivised from formalising (Masimba *et al.*, 2022). The hybrid digital-manual systems continue to undermine efficiency and adds transaction costs. This points to a digitalisation gap in which the full integration and interoperability among different regulatory bodies is essential to turn registration systems into effective formalisation systems.

Digital payment systems and traceability of transactions support the formalisation by making financial transactions more visible and decreasing cash-basis informality. Evidence from India and Kenya shows that use of mobile money and digital payments helped with greater traceability of SMEs and also enhanced tax compliance in association with simplified reporting requirements (Mehra *et al.*; Murunga *et al.*, 2021). In Peru, the use of digital payments helped to promote the integration of SMEs in formal value chains (Peña *et al.*, 2024). Zimbabwe has particularly high levels of mobile money penetration, but informal SMEs still operate outside the formal reporting frameworks because of the poor linkages of the digital payment and tax systems (Munjeyi and Fourie, 2024). This limits the potential of digital finance as a formalisation tool. Strengthening the integration of financial information on payment platforms, tax reporting systems and SME advisory services could make transaction data a mechanism to support compliance rather than a perceived tool of surveillance.

Entrepreneurial Education and the Formalisation of Informal Exporters

Entrepreneurial education that emphasises regulatory and fiscal literacy is intended to promote business formalisation by reducing information asymmetries that constitute significant barriers to regulatory compliance. Evidence from Uganda and Tanzania indicates that organised training of SMEs on tax compliance, registration processes and export documentation meant that the likelihood of SMEs voluntarily formalising was greater, since the risk of non-compliance was lower (Kakaire, 2023; Riisgaard *et al.*, 2024). Globally, the efforts of the OECD countries demonstrate that fiscal literacy helps to improve SME compliance, making the perceived risks and benefits of becoming formalised clear (OECD, 2021). In Zimbabwe, many informal SMEs do not even have basic knowledge of the categories of taxes, licensing requirements and export regulations that results in risky avoidance of formal systems (Mpofu, 2021b). Existing training initiatives are fragmented and urban-centred and, therefore, training initiatives often do not have a wider reach and, therefore, impact (Muparangi *et al.*, 2022). This then weakens the outcomes of formalisation, indicating that education needs to be institutionalised, accessible and be consistent with regulatory realities to influence SME behaviour in a meaningful way.

Skills oriented entrepreneurial education enhances the ability of SMEs to comply with requirements in the formal sector, through improved operational readiness. Studies from Kenya and South Africa show that SMEs that were trained in bookkeeping, quality standards and financial management succeeded in better transitioning to the formal markets and export value chains (Bazaanah and Chilaule, 2021; Lippe *et al.*, 2025). For these reasons, these competencies lower the costs of compliance and allow SMEs to respond to demands for formal reporting and certification. In Zimbabwe, most informal SMEs have poor record-keeping and limited quality assurance, limiting their capacity to formalise and export competitively (Matsongoni, 2021; Masimba *et al.*, 2022). Entrepreneurial education initiatives exist, but these are not adequately connected to compliance requirements or export readiness (Muparangi *et al.*, 2022). This disconnect nullifies the role that education should play as a formalisation driver and calls for incisive skills development tuned to thresholds in the formal sector.

Digital entrepreneurship education helps to facilitate formalisation by facilitating access to digital tax systems, on-line registration and export platforms for SMEs. Empirical evidence from China and Peru shows that SMEs trained in digital tools had a significantly higher probability of formalising due to a decrease in the cost of interactions with the regulatory authorities (Peña *et al.*, 2024). In Africa, e-government services engagement improved for SMEs where there were support structures in place as a result of digital skills training (Williams, 2023c). Zimbabwe has implemented digital tax and registration systems but low digital literacy amongst the informal SMEs hinder the adoption (Munjeyi and Fourie, 2024). Without specific digital education, the act of digitalisation is likely to drive exclusion rather than formalisation. This shows that digital platforms alone are insufficient, that complementary digital skills training is required in order to convert technological availability into formal sector participation.

METHODOLOGY

The study adopts the quantitative, explanatory research design based on positivist research philosophy, suitable for studying causal relationships between institutional interventions and measurable formalisation outcomes. The design facilitated the systematic testing of the relationships between fiscal, regulatory, digital and entrepreneurial education interventions (independent variables) and formalisation of informal exporters (dependent variable). The study population comprised 931 informal and transitioning export-oriented SMEs operating in Harare, as identified in the ZimTrade exporter support registry and manufacturing SME listings (ZimTrade, 2024) operating in key manufacturing and export-oriented sectors that included food and beverages, textiles, metal products, chemicals and light manufacturing. These sectors were chosen because of their heavy involvement in domestic and cross-border trade. Cochran's (1977) formula was used to find the sample size at 95% C.I. and 5% margin of error that led to a minimum sample of 384 participants drawn from the Harare cohort of informal exporting SMEs. To achieve the representativeness among sectoral heterogeneity, stratified random sampling was used based on export product categories. This approach minimised sampling bias and ensured the accuracy of the diversity in informal export activities.

Primary data was gathered using a structured questionnaire, developed based on the conceptual framework and research objectives of the study. The instrument consisted of close-ended items with a five-point Likert scale (from 1- Strongly Disagree to 5- Strongly Agree) and assessed respondent's perceptions on fiscal approaches, regulatory mechanisms, digitalisation, entrepreneurial education and the outcomes of formalisation. The questionnaire was administered electronically using Google Forms platform with the distribution facilitated through email and WhatsApp platforms to maximise reach and response rates among SME operators. The use of a standardised instrument increased reliability and minimised the risk of researcher bias and allowed for efficient data capture that could be analysed quantitatively.

Data analysis was carried out using ordinal logistic regression that is econometrically appropriate for analysing ordinal Likert-scale data and does not entail the assumption of continuous measurement rigorously inherent in linear regression models (Harrell, 2015). The model analysed the impact of fiscal strategies, regulatory mechanisms, digitalisation and entrepreneurial education on formalisation of informal exporters. Formalisation was measured through an ordinal composite index of business registration, tax compliance, regulatory compliance and membership of formal export systems. Fiscal approaches were operationalised through indicators relating to tax simplicity, affordability, predictability and access to fiscal incentives; regulatory approaches through licensing requirements and clarity of regulations on exports and procedures for compliance; digitalisation approaches through the use of digital platforms for registration, tax filing and customs processes; and entrepreneurial education approaches through financial literacy, record keeping and export knowledge. Post-estimation diagnostics consisted of Variance Inflation Factor (VIF) estimations to identify multicollinearity and Breusch-Pagan test to identify heteroskedasticity which was applicable to cross-sectional data (Ali *et al.*, 2016).

FINDINGS AND DISCUSSIONS

This section presents the empirical findings on the factors that determine informal SME formalisation in Zimbabwe. Consistent with the data analysis plan, the analysis opens with post-estimation diagnostic tests relevant to cross-sectional ordinal regression, followed by the results of the ordinal logistic regression model.

FINDINGS

TEST FOR MULTICOLLINEARITY AND HETEROSKEDASTICITY

Multicollinearity was tested using the VIF test whose results are given in Table 1.

Table 1: Results of the Multicollinearity Test (VIF)

Variable	VIF
Fiscal Approaches	2.62
Regulatory Mechanisms	1.88
Digitalisation	1.54
Entrepreneurial Education	1.49

The VIF results indicate that there are no issues of multicollinearity (all independent variables have VIF < 10). This implies that the predictors are independent from each other and their estimated effects on formalisation are not biased due to inter-variable correlation. The lack of multicollinearity guarantees the robustness of the Ordinal Logistic Regression (OLR) estimates and suggests that fiscal, regulatory, digital and educational factors independently contribute to formalisation outcomes (Hair *et al.*, 2021). The results of the Breusch-Pagan Test for Heteroskedasticity are presented in Table 2.

Table 2: Results of the Breusch-Pagan Test for Heteroskedasticity

Test	χ^2	df	p-value
Breusch-Pagan	3.41	4	0.49

The results of the Breusch-Pagan test [($\chi^2(4) = 3.41$, $p = 0.49$)] shows that the p-value is non-significant ($p>0.05$), indicating no evidence of heteroskedasticity. This supports the use of OLR for the cross-sectional dataset, as the variance of errors is stable for different levels of the predictors. The reliability of the model is, therefore, enhanced because otherwise heteroskedasticity can misrepresent standard errors and significance tests (Ali *et al.*, 2016).

ORDINAL LOGISTIC REGRESSION RESULTS

Ordinal logistic regression analysis was performed in order to analyse the independent variable's influence on formalisation of informal SMEs. The results are presented in Table 3.

Table 3: Ordinal Logistic Regression Results

Predictor	Coefficient (β)	Std. Error	Odds Ratio (Exp(β))	*p*-value
Fiscal Approaches	0.58	0.18	1.79	0.002**
Regulatory Mechanisms	0.44	0.16	1.55	0.006**
Digitalisation	0.31	0.14	1.36	0.025*
Entrepreneurial Education	0.39	0.15	1.48	0.010*
Cut 1	-2.05	0.47	—	—
Cut 2	-0.78	0.44	—	—
Cut 3	0.92	0.42	—	—
Cut 4	2.21	0.49	—	—

Significance levels: *$p < 0.05$; **$p < 0.01$

DISCUSSION

Fiscal approaches have a positive and statistically significant impact on formalisation ($\beta = 0.58$, $p = 0.002$). The corresponding odds ratio of 1.79 implies that for every one-unit increase in fiscal approaches,m the likelihood of formalisation increased by 79%, other things constant. This finding highlights the importance of simplified tax systems, predictable fiscal obligations and accessible fiscal incentives in lowering the cost and uncertainty associated with being formally involved (Williams, 2023b; Dimitriadis and Coletto, 2024; Peña, Flores and Heredia, 2024). In line with institutional economics and transaction cost theory, lower compliance costs are an incentive for firms to move into the formal sector (Murunga, Muriithi and Wawire, 2021; Williams, 2023b;). In the case of Zimbabwe, a major barrier to the low uptake of fiscal incentives has been attributed to complex procedures and weak information dissemination (Mpofu, 2021b; Masimba *et al.*, 2022; Mushayavanhu and Chitumba, 2022). The results, therefore, suggest that targeted fiscal reforms can have important strengthening informalisation outcomes (Bazaanah and Chilaule, 2021; Williams, 2023b).

Regulatory mechanisms have a positive and significant association with formalisation (β = 0.44, p = 0.006). The estimated odds ratio is 1.55, indicating that a unit increase in regulatory mechanisms is associated with a 55% increase in the odds of formalisation. This underlines the importance of regulatory clarity, consistency and procedural transparency in reducing the element of uncertainty in compliance (Williams, 2023a; Peña *et al.*, 2024). The result is consistent with previous research that found that complex and unpredictable regulatory environments deter being officially involved (Bazaanah and Chilaule, 2021; Murunga *et al.*, 2021; Riisgaard *et al.*, 2024). In Zimbabwe, bureaucratic processes and erratic implementation strategies have been found to compromise regulatory effectiveness (Sebele-Mpofu and Moyo, 2021; Masimba *et al.*, 2022; Mushayavanhu and Chitumba, 2022). Comparative evidence from other developing economies also supports this finding that simplification in regulatory systems increases SME compliance (Williams, 2023a; Peña *et al.*, 2024). These findings emphasize the need to pursue coherent regulatory reform in order to help achieve sustainable formalisation.

Digitalisation positively and significantly affects formalisation (β = 0.31, p = 0.025). The odds ratio of 1.36 means that a unit increase in digitalisation increases the chances for formalisation by 36%. This suggests that digital platforms for registering, filing taxes and customs reduce administrative barriers and transaction costs (Dimitriadis and Coletto, 2024; Peña *et al.*, 2024). The finding is consistent with global evidence that digital transformation is associated with better transparency and compliance (Murunga *et al.*, 2021; Mehra *et al.*, 2023; Dimitriadis and Coletto, 2024). However, in Zimbabwe, digitalisation is still hindered by low digital infrastructure, low levels of digital literacy and unequal uptake of e-government services (Muparangi *et al.*, 2022; Munjeyi and Fourie, 2024). The results suggest that the impact of digitalisation is most effective if this is combined with fiscal and regulatory reforms (Dimitriadis and Coletto, 2024; Peña *et al.*, 2024). Investment in infrastructure and capacity-building is thus critical to the improvement of formalisation via digital means (Munjeyi and Fourie, 2024).

Entrepreneurial education also shows a positive and statistically significant impact on formalisation ($\beta = 0.39$, $p = 0.010$). The odds ratio (1.48) implies that a one-unit increase in entrepreneurial education increases the probability of formalisation by 48%. This suggests that training programmes that boost financial literacy, record keeping and knowledge of exports contributes to the ability of firms to comply with formal requirements (OECD, 2021; Kakaire, 2023; Riisgaard *et al.*, 2024). While not the strongest predictor, entrepreneurial education goes hand in hand with fiscal measurements and regulation interventions and fortifies the absorptive capacity of firms (Bazaanah and Chilaule, 2021; Kakaire, 2023; Lippe *et al.*, 2025). In Zimbabwe, limited access to business training and mentoring affects SME compliance (Masimba *et al.*, 2022; Mpofu, 2021b; Muparangi *et al.*, 2022). Evidence from similar developing countries indicates that education produces better outcomes in terms of formalisation if they are set within wider institutional reforms (Peña *et al.*, 2024; Riisgaard *et al.*, 2024).

CONCLUSION AND RECOMMENDATIONS

The study analysed the impact of fiscal policies, regulations, digitalisation and entrepreneurial education on the formalisation of informal exporters in Zimbabwe. The results proved that all four factors had statistically significant but differentiated impacts on the probability of the transition from informal to the formal export economy and, thus, formalisation is a multidimensional and institutionally-based process. The results reveal that individual policy measures are insufficient to drive a process of sustainable formalisation and, rather, a positive outcome was achieved when fiscal affordability and predictability, regulatory clarity, digital accessibility and firm-level capabilities were operational in a complementary fashion. On this basis, the study concludes that an integrated and context-sensitive policy framework is essential. Fiscal reforms are needed to balance revenue mobilisation and affordability of compliance, regulatory mechanisms are needed for proportionality and consistency, digital platforms are needed to decrease transaction costs and entrepreneurial education needed for sustaining formal participation in export markets.

While the study produced some significant empirical and policy findings, it is important to note that a number of limitations influenced the interpretation of the findings. The emphasis on informal SMEs involved in exporting limited the generalisability of results to formally established exporters, larger firms and non-exporting enterprises. In addition, the analysis was limited to selected institutional drivers relevant to the Zimbabwean context and, therefore, other potential determinants of formalisation were excluded. These limitations pointed to major directions for future research. Longitudinal studies would enable an assessment of the impact on formalisation trajectories as a result of changes in fiscal policy, regulatory reform, digital interventions and entrepreneurial education over time. Comparative studies of different Southern African Development Community (SADC) countries could add further clarity about the role of institutional quality and digital infrastructure and sectoral or scale-based disaggregation may highlight the heterogeneous policy effect and optimise the formalisation approach. The study concentrated only on informal SMEs also invested in the export business and this limited the generalisability of the findings to formally operating exporting SMEs and larger exporting organisations in Zimbabwe and beyond. The study further focused only on selected drivers of formalisation (fiscal, regulatory, digitalisation and entrepreneurial education) and this limited scope is only relevant to the Zimbabwean market where these conditions are key.

REFERENCES

Adair, P., Alazzawi, S. and Hlasny, V. (2024). Fostering Decent Jobs, Formalising Informal Employment and Spurring Job Mobility in MENA Countries. *Economic Notes, 53*(2). https://doi.org/10.1111/ecno.12240

Ajide, F. M. and Dada, J. T. (2024). Globalization and Shadow Economy: A Panel Analysis for Africa. *Review of Economics and Political Science*, *9*(2), 166-189. https://doi.org/10.1108/REPS-10-2022-0075

Ali, S. *et al.* (2016). Sufficient Sample Size and Power in Multilevel Ordinal Logistic Regression Models. *Computational and Mathematical Methods in Medicine*, *2016*. https://doi.org/10.1155/2016/7329158

Barney, J. B. (1991). Resource-based Theories ofof Competitive Advantage: A Ten-Year Retrospective on the Resource-Based View. *Journal of Management*, *27*(6), 643-650.

Bazaanah, P. and Chilaule, L. (2021). Formalisation ofof Informal Economies and Sustainable Local Development in Africa: Case ofof Egypt and Mozambique. *African J. ofof Economic and Sustainable Development*, *8*(2), 140. https://doi.org/10.1504/ajesd.2021.114534

Bradshaw, J. (2024). Beware the Informal Sector Bogeyman: A Critique ofof Formalisation. *St Antony's International Review*, *19*(2), 142-167. Retrieved from https://www.ingentaconnect.com/content/stair/stair/2024/00000019/00000002/art00008

Canh, P. N., Schinckus, C. and Dinh Thanh, S. (2021). What are the Drivers ofof Shadow Economy? A Further Evidence ofof Economic Integration and Institutional Quality. *Journal ofof International Trade and Economic Development*, *30*(1), 47-67. https://doi.org/10.1080/9638199.2020.1799428

Charles, G. (2024). Challenges of Informal Cross-Border Trade Facilitation In Tanzania: Lessons from Kigoma Border. *Journal of Borderlands Studies*, *39*(5), 791-811. Https://Doi.Org/10.1080/08865655.2023.2226400

Chijikwa, H. (2023). Does the Zambian Legal Environment Support Informal Enterprises `Transition Into the Formal Economy? *Global Journal of Management and Business Research*, 29-36. Https://Doi.Org/10.34257/Gjmbrbvol23is4pg29

Desiderio, D. (2025). Informal Solutions to Formal Barriers: Re-Evaluating Intra-African Trade Through the Lens of the Shadow Economy. *Available At SSRN 5346345*. Retrieved from Https://Papers.Ssrn.Com/Sol3/Papers.Cfm?Abstract_Id=5346345

Dimitriadis, I. and Coletto, D. (2024). Digital Labour Platforms In the Italian Domestic Sector: Approaching (In)Formalisation Processes from the Other Way Round. *Critical Sociology*. Https://Doi.Org/10.1177/08969205241295949

Dzawanda, B. and Matsa, M. M. (2023). Strategies for Survival In An Informal Economy: Illegalities of Zimbabwean Informal Cross Border Traders At Ports of Entries In Southern Africa. *International Journal of Community Well-Being*, *6*(3), 203-221. Https://Doi.Org/10.1007/S42413-023-00191-Z

Esaku, S. (2021). The Long- and Short-Run Relationship Between the Shadow Economy and Trade Openness In Uganda. *Cogent Economics and Finance*, *9*(1). Https://Doi.Org/10.1080/23322039.2021.1930886

Galdino, K. M., Molina-Sieiro, G., Lamont, B. T. and Holmes, R. M. (2023). Factor Markets, Institutional Quality and Firm Formalisation: The Contingent Effect of Economic Conditions At the Founding Stage. *International Small Business Journal: Researching Entrepreneurship*, *41*(4), 432-461. Https://Doi.Org/10.1177/02662426221101021

Gallien, M. and Boogaard, V. Van Den. (2021). *Rethinking Formalisation: A Conceptual Critique and Research Agenda*. Retrieved from Https://Opendocs.Ids.Ac.Uk/Articles/Report/Rethinking_Formalisation_A_Conceptual_Critique_and_Research_Agenda/26431798

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P. and Ray, S. (2021). An Introduction to Structural Equation Modeling. In *Springer* (Pp. 1-29). Https://Doi.Org/10.1007/978-3-030-80519-7_1

Hakeem, I. B. and Musa, I. (2024). Small and Medium-Scale Businesses' Contribution to the Formalization of the Informal Sector Businesses and Its Impact on Inclusive Economic Growth. *International Journal of Management and Organisational Research*, *4*(3), 1-17. Retrieved from https://www.researchgate.net/profile/Ibrahim-Musa-39/Publication/391485431_Small_and_Medium-Scale_Businesses'_Contribution_To_The_Formalization_Of_The_Informal_Sector_Businesses_And_Its_Impact_On_Inclusive_Economic_Growth/Links/681a27c3bfbe974b23c35cc8/Sm

Harrell, F. E., Jr. (2015). *Ordinal logistic regression*. In *Regression modeling strategies: With applications to linear models, logistic and ordinal regression, and survival analysis* (pp. 311–325). Springer International Publishing. https://doi.org/10.1007/978-3-319-19425-7_13

Holland, J. H. (1995). Hidden Order. *Business Week-Domestic Edition*, *21*(1), 93-136. Retrieved from https://www.academia.edu/Download/95656325/_Helix_Books_John_Holland_Hidden_Order_How_Adaptation_Builds_Complexity_Helix_Books_Basic_Books_1996_.Pdf

Kakaire, A. (2023). Formalization of Informal Sector Business Enterprises and Accessibility to Social Security Services by Workers in Uganda's Informal Sector. *Journal of Management Scholarship*, *2*(1). https://doi.org/10.38198/jms/2.1.2023.11

Ketu, I., Kelly, A. M. and Tchapchet Tchouto, J. E. (2024). Does Economic Complexity Reduce the Size of the Shadow Economy in African Countries? *SN Business and Economics*, *4*(1). https://doi.org/10.1007/S43546-023-00610-5

Magidi, M. (2024). The Transformation of Zimbabwe's Informal Economy: From Petty Trade to Vibrant Sector. *Journal of Asian and African Studies*. https://doi.org/10.1177/00219096241275388

Masimba, J., Rajah, N. and Mutema, E. P. (2022). Harnessing the Growth of the Informal Sector to Promote Local Economic Development in the Gweru Urban. *The Dyke*, *15*(3), 1-21. https://doi.org/10.10520/EJC-DYKE_V15_N3_A1

Matsongoni, H. (2021). Challenges Faced by the Informal Small to Medium Enterprises-A Case Study of the Manufacturing Sector in Zimbabwe. *International Journal of Entrepreneurship*, *25*(4), 1939-4675. Retrieved from https://www.academia.edu/download/115894968/challenges - faced-by-the-informal-small-to-medium-enterprises--a-case-study-of-the-manufacturing-sector-in-zimbabwe.pdf

Mehra, G., Arora, R., Prakash, R., & Banerjee, A. (2023). *Approaches to improving the circular economy paradigm in e-waste management in India through informal–formal sector integration*. In B. Debnath, A. Das, P. A. Chowdary, & S. Bhattacharyya (Eds.), *Development in e-waste management: Sustainability and circular economy aspects* (pp. 209–222). Boca Raton, FL: CRC Press. https://doi.org/10.1201/ 9781003301899-16

Mpofu, F. and Sebele, Y. (2021). Informal Sector Taxation and Enforcement in African Countries: How Plausible and Achievable are the Motives Behind? A Critical Literature Review. *Open Economics*, *4*(1), 72-97. https://doi.org/10.1515/openec-2020-0114

Mpofu, F. Y. S. (2021a). *A Critical Review of the Taxation of the Informal Sector in Zimbabwe*. (June), 6. Retrieved from https://www.researchgate.net /profile/Favourate-Sebele/publication/358581317_A_critical_review _of_the_taxation_of_the_informal_sector_in_Zimbabwe/links/620a24 0787866404a168f85d/A-critical-review-of-the-taxation-of-the-informal-sector-in-Zimbabwe.pdf

Mpofu, F. Y. S. (2021b). Taxing the Informal Sector through Presumptive Taxes in Zimbabwe: An Avenue for a Broadened Tax Base, Stifling of the Informal Sector Activities or Both. *Journal of Accounting and Taxation*, *13*(3), 153-177. https://doi.org/10.5897/Jat2021.0469

Munjeyi, E. and Fourie, H. (2024). A Framework for Digitalising Tax Revenue Collection for the Informal Economic Sphere in Zimbabwe. *Cogent Economics and Finance*, *12*(1). https://doi.org/10.1080/233 22039.2024.2409427

Muparangi, S., Makudza, F. and Makandwa, G. (2022). Entrepreneurial Education: A Panacea to Formalisation of the Informal Sector. *Management of Sustainable Development*, *14*(2), 11-16. https://doi.org/10.54989/msd-2022-0010

Murunga, J., Muriithi, M. K. and Wawire, N. W. (2021). Estimating the Size of the Informal Sector in Kenya. *Cogent Economics and Finance*, *9*(1). https://doi.org/10.1080/23322039.2021.2003000

Mushayavanhu, T. P. and Chitumba, C. (2022). Enabling Entrepreneurial Ecosystem Framework as a Panacea to Formalisation of Manufacturing MSEs in Harare, Zimbabwe. *Journal of Research and Innovation for Sustainable Society*, *4*(2), 55-75. https://doi.org/10.33727/Jriss.2022.2.7:55-75

Nagaraj, R. and Kapoor, R. (2022). What is 'Formalisation' of the Economy? India's Quest to Shrink its Informal Sector. *India Forum*. Retrieved from https://www.theindiaforum.in/article/what-formalisation-economy

OECD (2021). Designing Effective Microfinance Schemes for Inclusive Entrepreneurship.

Peña, J., Flores, A. and Heredia, J. (2024). Exploring the Influence of Digitalisation on the Formalisation Process of Informal Businesses: A Comparative Strategic Management in China and Peru. *International Journal of Business Environment*, *15*(3-4), 408-428. https://doi.org/10.1504/IJBE.2024.139705

Riisgaard, L. *et al.* (2024). Challenging the Formality Bias: The Organization of Informal Work, Working Relationsand and Collective Agency in Kenya and Tanzania. *Development Policy Review*, *42*(1). https://doi.org/10.1111/dpr.12729

Schneider, F. (2023, October 5). Do Different Estimation Methods Lead to Implausible Differences in the Size of Nonobserved or Shadow Economies? A Preliminary Answer. *Annual Review of Resource Economics*, Vol. 15, pp. 257-277. Annual Reviews Inc. https://doi.org/10.1146/annurev-resource-090822-114308

Sebele-Mpofu, F. Y. and Moyo, N. (2021). An Evil to be Extinguished or a Resource to be Harnessed - Informal Sector in Developing Countries: A Case of Zimbabwe. *Journal of Economics and Behavioral Studies*, *13*(3(J)), 53-72. https://doi.org/10.22610/jebs.v13i3(j).3154

Sitkevich, D. (2022). Shadow Economy: to Legalise or to Tolerate? *Journal of New Economy*, *23*(3), 6-22. https://doi.org/10.29141/2658-5081-2022-23-3-1

Williams, C. C. (2023a). *E-government tools to formalise the informal economy*. In *Formalization of the informal economy: An e-government approach* (pp. 57–104). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-37928-4_3

Williams, C. C. (2023b). *Formalization of the Informal Economy*. Retrieved from https://books.google.com/books?hl=en&lr=&id=tTzWEAAAQBAJ&oi=fnd&pg=PR5&dq=strategies+for+the+formalisation+of+the+informal+sector&ots=fvHO8Hqo4a&sig=SsBTiQMqUc4D5Y8Krs9ISVIJv_k

Williams, C. C. (2023c). Theorising an E-government Approach Towards Formalising the Informal Economy. In *Springer* 21-56). https://doi.org/10.1007/978-3-031-37928-4_2

ZimTrade. (2024). *Trade Directory 2024*. Harare, Zimbabwe.