

Journal of Business and Economic Options



Bridging the Formality Divide: A Cross-National Analysis of Economic Informality Determinants

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Abstract

This article investigates the determinants that underpin cross-national disparities in the scale of economic informality, with particular emphasis on the divergence between African states and their advanced or emerging counterparts. The empirical scope embraces eighty-four economies, of which forty-four are situated on the African continent, thereby permitting both intra-regional and inter-regional comparison. Multivariate decomposition techniques reveal that raising average living standards, tightening anticorruption controls, and deepening financial-sector development would narrow the portion of the informality gap that can be statistically attributed to observable characteristics. Conversely, greater fiscal autonomy, expanded trade openness, enhanced digital infrastructure, and heightened political stability appear to widen the explained component of the divide, suggesting that these factors, in the absence of complementary reforms, may encourage informal activity to persist. When attention shifts from the explained to the overall differential, a more nuanced pattern emerges: improvements in human-capital endowments and in technological infrastructure exert a moderating influence, jointly compressing the total gap between African and non-African economies. The dual role of technological assets magnifying the explained gap yet mitigating the aggregate disparity highlights the importance of contextual interactions, such as differential absorption capacities and regulatory quality, in shaping ultimate outcomes. Moreover, gender-inclusive financial services amplify these gains. The findings imply that public strategies aiming to formalise African economies should prioritise inclusive growth, vigilant governance, and robust financial intermediation, while simultaneously calibrating trade, fiscal, and technological policies to local institutional realities. Such a balanced agenda could accelerate convergence toward the formal-sector benchmarks observed in more advanced economic systems.

Keywords: Economic Informality, Financial Sector Development, Institutional Quality, Cross-National Comparison

JEL Codes: O17, E26, H11, F63

Article's History

Received: 17th April 2025

Revised: 20th June 2025

Accepted: 27th June 2025

Published: 30th June 2025

Citation:

Nwosu, J. & Folarin, O. (2025). Bridging the Formality Divide: A Cross-National Analysis of Economic Informality Determinants. *Journal Business and Economic Options*, 8(2), 1-9.

DOI:

<https://doi.org/10.5281/zenodo.15769985>

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1. INTRODUCTION

It pushed it to formulate an integrative approach to public policy making in various parts of Africa in the mid-1980s. The vast majority of African countries have undertaken structural adjustment programs inspired by such international bodies as the International Monetary Fund and the World Bank. They thought these reform measures could be adopted without taking real-life socio-economic cost-effectiveness into account. Instead, they adopted neoliberal frameworks prioritizing spending cuts across dimensions like employment creation, fiscal balances, and improved external accounts for weightage capturing (Potts 2008). Theoretically, such promises could be beneficial; however, most of them indeed had unexpected repercussions. For instance, contrary to their intent of providing active formal employment avenues for the masses, these programs led to underemployment rates increasing along with harsh working conditions, particularly among younger workers who had trouble securing even basic formal jobs (Coussy 2006). Scholars declare that several youth had education but no job in the organized economy; therefore, individuals end up engaging in the informal economy. As a result, Africa experienced tremendous expansions within their informal economies due to the activities carried out. Shadow economies refer to any economic activities intentionally kept hidden from government authorities for purposes such as taxation, regulation, control, or subsidization. According to Medina and Schneider (2018), the shadow economy

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refers broadly to activities undertaken to avoid paying taxes, contributing towards social security, or complying with regulatory requirements. These hidden economic transactions often arise from the need to bypass excessive government regulations, avoid bureaucratic inefficiencies, or respond to systemic institutional weaknesses such as pervasive corruption, ineffective legal systems, and the presence of fragile political institutions. The shadow economy is also referred to as the underground economy, gray market, black market, parallel economy, cash-driven economy, or simply the informal sector, and it plays a significant part in shaping the economic environment of numerous developing areas.

Within Africa, the informal sector constitutes a dominant share of economic activity and labor absorption. Recent studies indicate that, on average, informal economic enterprises employ about seventy-two percent of the total workforce on the continent (African Development Bank, 2019). Furthermore, from 2000 to 2015, the informal sector accounted for approximately thirty-eight percent of the gross domestic product in African economies, underscoring its pivotal role in driving income generation, employment, and subsistence for millions of individuals. This figure stands in stark contrast to member countries of the Organisation for Economic Co-operation and Development, where the informal sector's share of gross domestic product remains substantially lower, at just over thirteen percent (International Monetary Fund, 2017; Keneck-Massil & Noah, 2019; Ahmad & Alvi, 2024). The persistence and scale of informal economic activity in Africa reflect structural deficiencies in the formal economy, as well as broader social and institutional factors that shape labor market participation and economic inclusion.

Structural adjustment programs were presented as market solutions to ensure economic stability and growth; however, their implementation often created more vulnerability within formal labor markets while forcing large segments of society, particularly youth and recent graduates, into informal economic activities. Shadow economies emphasize the limitations of conventional policy prescriptions and indicate the population's resilience as they face persistent socio-economic challenges (La Porta & Shleifer, 2014; Benjamin et al, 2014; Fox et al, 2020; Akbar Hayat, 2020). Without an understanding of informal employment, understanding the intended and unintended effects of policy reform across Africa remains incomplete. In many African states, informal economic activities have become a topical penumbra in the debates of policymakers and economists as governments devise turnaround programs supposedly to reverse unemployment, replenish government revenues, and relieve mass poverty. The revived interest has attested to this: when it comes to sustainable development and macroeconomic stability, juggling informal economies is more than just an issue. You can reduce or regulate informal activities to improve tax collection, and this is important for expanding fiscal space and supporting longer runs of the investments in public goods across the continent (International Labour Organization/World Trade Organization 2009). OECD posits that rising shadow economic activity can lead to a decrease in productivity.

African countries moved to initiate a reduction of the informal economy, but gains remain slow and inconsistent (Balepa & Roubeaud 2009; United Nations Economic Commission for Africa 2017; African Development Bank 2019). Direct policy interventions to shrink the informal economy, such as regulatory reforms and fiscal incentives, have not yielded success, and at times, the informal economy absorbs more legitimate economic activities into its camp. Studies on the causes and consequences of informality in Africa have employed qualitative and quantitative approaches. The qualitative studies mainly provide context to lived experiences and the socio-economic drivers that sustain informalities (Verick 2006; Potts 2008; Meagher 2015; Fourie 2018; Mahmood 2019 / Etim & Daramola 2020). Most of these studies deal with the interrelationships of social networks, regulatory barriers, and institutional weaknesses that make informality attractive for many individuals and enterprises. However, researchers have also relied on quantitative approaches like Multiple Indicators Multiple Causes (MIMIC) analysis to estimate both the size and components of the informal economy. The MIMIC model incorporates a latent estimate of the informal sector through causal and indicator variables. Yet the efficacy and consistency of MIMIC have been challenged within economic literature. Researchers have suggested that this method may be sensitive to period and country sample selection bias; thus, its results depend on which period or countries were chosen as samples, making generalization problematic (Smith 2002; Hill 2002; Breusch 2005). One key drawback of MIMIC analysis is its tendency to aggregate activities ranging from do-it-yourself projects and informal purchases of legal goods, neighborly assistance, and casual labor into one measure of shadow economic activity. As Medina and Schneider (2018) highlight, aggregate data may lead to overestimation and make it hard for users to distinguish between everyday survival strategies that may not have official documentation and any clandestine or illegal activity that takes place in secret. Methodological concerns also relate to identifying all relevant causal and indicator variables, the estimation strategy's inherent complexity, and the absence of a strong theoretical foundation for the approach being pursued. Medina and Schneider devised an ingenious way of circumventing these limitations by using available survey-based data as part of their strategy - conceptualizing informal sector measurement as an "absence-data problem." Their strategy combined MIMIC methodology with Predictive Mean Matching techniques.

A significant body of research has been dedicated to understanding the drivers and consequences of informality within African economies, few studies have systematically compared the magnitude and dynamics of the informal sector between advanced, emerging, and developing economies. This gap in the literature is particularly salient given the profound structural, institutional, and historical differences that characterize these regions. The present study seeks to advance this discourse by systematically analyzing differences in the size and determinants of the informal sector among countries that are members of the Organisation for Economic Co-operation and Development, as well as African states, thereby offering a broader comparative perspective on informality and its implications for policy and economic development.

2. LITERATURE REVIEW

Scholarly works have focused extensively on exploring and theorizing informality. Due to its intricacies and difficulties associated with precisely defining and quantifying informality, multiple theoretical models have emerged, including

dualist, structuralist, and legalist perspectives (Chen 2012; Gerxhani 2004). Various theoretical perspectives offer their interpretations of how informal economic activities arise and persist within different socio-economic settings. The dualist perspective, which finds its roots in classic dual labor market theory, takes the position that the informal sector operates as a separate entity, functioning alongside the formal economy. According to this approach, the informal sector effectively serves as a safety net for surplus labor—that is, for people who are unable to land jobs in the more modern and tightly regulated segments of the economy (Tokman 2007; Fields 2005). Essentially, from the dualist standpoint, the world of informal work exists in parallel with formal employment, drawing in individuals who are often marginalized or facing financial hardship, many of whom have little hope of breaking into the formal job market due to persistent barriers or a lack of opportunities.

On the other hand, the structuralist viewpoint offers a distinctly different take. Rather than seeing the informal and formal sectors as isolated from one another, this school of thought argues that the two are deeply intertwined, almost like two sides of the same coin. Supporters of the structuralist approach point out that informal businesses and unregistered workers routinely provide cheap labor and resources to bigger, formal firms, thereby helping those firms remain competitive (Portes & Haller 2005; Castells & Portes 1989). It's a symbiotic relationship, but not always a fair one: informal businesses may help formal firms save money, but this often comes at the expense of workers' rights, job security, and social protections. The structuralist view also puts a spotlight on the wider context—such as how labor markets are organized, or how social and economic systems are set up—which often helps explain why informality persists across different societies.

Looking at things from another angle, the legalist perspective zeroes in on the impact of laws and regulations on economic behavior. Supporters of this viewpoint argue that the informal economy is largely made up of small or micro enterprises that purposely stay under the radar to sidestep complicated rules or avoid the hassle of registering with authorities (De Soto 1989; Loayza 1997). According to this way of thinking, going informal is not usually a last resort but more of a calculated move; business owners and workers alike will weigh the pros and cons of operating outside the formal economy before making a choice. As Medina and Schneider (2018) note, people in the informal sector don't have it easy—they run the risk of being caught, may have to pay fines, and often miss out on important services, like access to legal protection or even formal banking. Despite these downsides, the advantages—such as avoiding taxes, bureaucracy, and restrictive rules—can be significant enough to outweigh the costs for many. Formal businesses, while having access to state services, must deal with administrative burdens and tax requirements (Loayza 1997). In situations where regulations are onerous but enforcement is lax or inconsistent, it's not uncommon for many businesses to choose informality as a practical strategy. Taking all these arguments into account, this analysis adopts the dualist framework as the primary lens for examining informal economic activity in African economies. This decision was informed by observations about many African nations with severe structural barriers hindering business environments (pervasive unemployment, limited formal job access and registration issues, as well as significant obstacles related to compliance & registration for businesses - Benjamin et al, 2014, and La Porta Shleifer, 2014). To examine how such impediments contribute to an expansion in informal economic activity as a survival strategy among marginalized groups through expanded informal economic activity as part of an expansionist framework lens.

Empirical research has identified multiple determinants underlying the growth and persistence of informal economies. Of note is economic growth's direction and magnitude as an influence, though its exact impacts remain debated among scholars. Studies suggest that rising gross domestic product growth tends to reduce informality as expanding economies create more formal employment opportunities and resources for regulatory enforcement (Medina & Schneider, 2018). Research in Cote d'Ivoire shows that robust economic growth correlates with decreased informal sector size, reflecting its positive effect on formalization (Koffi 2022), but whether economic growth alone can curb informality depends on multiple mediating factors, including institutional quality, education levels, and labor market dynamics (La Porta & Shleifer 2014).

Academic discussions about human capital acknowledge its centrality to productivity and, by extension, influence its extent in terms of impacting informal sector activity (Organisation for Economic Co-operation and Development 2011; Holt & Littlewood 2014; Keneck-Massil & Noah 2019). Researchers exploring the link between human capital and informality emphasize that improvements in education and skills are vital for boosting productivity, both for individuals and organizations. When productivity stagnates and informal work spreads—often because people are searching for ways to earn a living outside official employment channels—the lack of investment in human capital only makes the problem worse. Lower levels of education and skills keep productivity down, which in turn leaves more people dependent on informal work as their main option.

Tax policies are another piece of this puzzle. Research consistently shows that when taxes are too high or the system is just too complicated, both businesses and individuals will look for ways around them. They may avoid formal registration or compliance altogether, simply to reduce their tax burden (Loayza 1997; Fortin 2002; Medina & Schneider 2018; Huynh 2020). The pattern is especially clear in sub-Saharan Africa, where heavy tax rates and complex paperwork push entrepreneurs into informality as a means to survive and avoid costly obligations (Ogbuabor & Malaolu, 2013; Igudia et al, 2016; Koffi, 2022).

Financial sector development also matters a great deal. Capasso and Jappelli (2011) argue that when banking services and digital payments become widely available, it becomes much easier for authorities to keep tabs on economic activity. This greater visibility can encourage people and businesses to join the formal sector, as it's harder to hide transactions. For example, Koffi (2022) notes that expanding the financial sector in Côte d'Ivoire helped reduce informality by making

business dealings more traceable. Still, this isn't a one-size-fits-all solution. In Nigeria, for instance, Ogbuabor and Malaolu (2013) found that higher interest rates had little effect on informal sector growth, which underscores the fact that local economic conditions play a major role in shaping these dynamics.

Technology is another important driver. As more digital tools become available, governments gain new ways to detect and address informal activities. Elgin (2012) found that broader internet access not only boosts productivity but also makes it tougher for informal businesses to fly under the radar. Companies that embrace new technology often build stronger reputations, which can discourage them from operating outside the law. Good governance and strong institutions are also vital in this context. When governments are transparent, corruption is low, and regulations are enforced consistently, people are more likely to play by the rules and stay in the formal economy (Medina & Schneider, 2018; Berdiev et al, 2018; Ulyssea, 2020). Nguyen et al (2017) highlight the value of these institutional factors, while Ulyssea (2020) points out that building robust institutions is one of the best ways to encourage formalization. However, La Porta and Shleifer (2014) and Ulyssea (2020) caution that if governments push too hard—say, by imposing punitive taxes—businesses might revert to informality instead of joining the formal sector. Context matters: in Nigeria, Ogbuabor & Malaolu (2013) found that simply increasing the size of the public sector didn't impact informal growth much, while Igudia et al. (2016) demonstrated that corruption is a major reason the informal sector continues to expand.

Trade liberalization has its own role in these dynamics. When countries open up to global markets, they often see stronger economic growth and better job opportunities in formal sectors, which makes informal work less appealing (Berdiev & Saunoris, 2017; Medina & Schneider, 2018; Wu et al, 2019). Nevertheless, the impact of trade openness varies across contexts, with some studies, such as Ogbuabor and Malaolu (2013), reporting no significant effect on informality in Nigeria, thus highlighting the complex and multifaceted nature of these relationships.

An extensive research on the drivers and consequences of economic informality, the literature remains limited in its systematic cross-national comparisons of the determinants underlying informality, especially between African economies and their advanced or emerging market counterparts. While previous studies have provided valuable insights into local determinants—such as the impact of regulatory burdens (Loayza, 1997), human capital deficiencies (Holt & Littlewood, 2014; Keneck-Massil & Noah, 2019), governance quality (Medina & Schneider, 2018; Nguyen et al., 2020), and the structure of taxation (Fortin, 2002)—much of this work focuses on individual countries or employs methodologies like the MIMIC model, which has known limitations regarding generalizability and measurement precision (Smith, 2002; Breusch, 2005; Medina & Schneider, 2018). Few comparative studies have rigorously examined how these determinants operate across fundamentally different institutional contexts or considered the nuanced roles of technological advancement, financial sector depth, and trade openness in shaping informality at a global scale (Capasso & Jappelli, 2011; Elgin, 2012; Berdiev & Saunoris, 2017). This leaves important questions unanswered regarding which factors drive the persistent formality gap between Africa and the rest of the world, and how contextual interactions—such as differential absorption capacities and regulatory quality—modulate these effects (La Porta & Shleifer, 2014; Wu et al., 2019). By applying decomposition analysis to a range of different economies, this research tackles a major gap in current scholarship. It offers a closer, more comparative look at the structural and policy factors that drive formalization and promote inclusive development across diverse contexts.

3. THEORETICAL METHODOLOGY

This research is grounded primarily in institutional theory and dual economy theory. Institutional theory highlights how the rules set by authorities, unwritten social expectations, and actual enforcement all play a role in shaping the behavior of individuals and organizations within the economy (North, 1990; La Porta et al., 1999). When applied to the study of informality, this perspective suggests that when institutions are weak, regulations fall short, or governance is ineffective, the door is left open for informal economic activity to take root and spread (Godfrey 2011). Dual Economy Theory adds another layer by acknowledging that formal and informal sectors coexist within any economy, each being shaped by distinct structural, legal, and socioeconomic influences (Lewis 1954; Ihrig & Moe 2004). Medina and Schneider (2018) advocate for assessing the informal economy as a proportion of GDP through the MIMIC framework, supported by their broad cross-country data set. This method allows scholars to account for both the visible and hidden elements of informality, as well as the underlying drivers, resulting in a more comprehensive analysis of shadow economic activity (Schneider & Enste, 2000). Empirical research informs our selection of independent variables related to informality; its persistence and variation being linked with economic, structural, institutional, and governance-related factors. Gross domestic product per capita serves to capture differences in living standards and economic development; higher per capita income typically coincides with smaller informal sectors due to stronger regulatory capacity and social protection systems (Elgin & Oztunali, 2014). Human capital stock, proxied by secondary school enrollment rates, reflects the argument that greater education reduces informality by expanding formal sector opportunities and raising awareness of legal obligations (Farrell, 2004). Tax burden reduction represents government efforts to lower direct and indirect taxation, which is critical, as excessive or poorly designed tax systems are linked to tax evasion and the growth of informal economies (Torgler & Schneider, 2009). The inclusion of financial development aligns with studies indicating that deeper, more open financial systems facilitate access to credit, promote formalization, and reduce the cost of compliance (Beck et al., 2007). Technological infrastructure is proxied by access to electricity, following literature that underscores the role of infrastructure in promoting business registration and innovation, thereby reducing barriers to formal sector participation (Calderón & Servén, 2010). The rule of law and control of corruption are critical governance variables, consistent with the view that transparent and fair legal environments encourage formalization by reducing transaction costs and regulatory uncertainty (Dreher & Schneider, 2010; Johnson et al., 1998). Trade liberalization, as measured by the Index of Trade

Freedom, is included because openness to international markets often compels firms to formalize to comply with trade standards and access export opportunities (Buehn & Schneider, 2012). Political stability is the final institutional variable, based on evidence that violence and political uncertainty create environments where informality thrives due to weak enforcement and insecure property rights (Friedman et al., 2000).

Formally, the empirical model is specified as follows:

$$SIE = \alpha + \beta_1(GDPP) + \beta_2(HCS) + \beta_3(TBR) + \beta_4(FIN) + \beta_5(INFT) + \beta_6(RULE) + \beta_7(CORR) + \beta_8(TL) + \beta_9(POL) + \varepsilon$$

Size of informal economy (SIE)

This variable quantitatively represents the proportion of the informal economy relative to the overall GDP. With this indicator, one can assess economic activity not covered in official national accounts. Data used comes from Medina & Schneider (2018), who assembled one of the latest available datasets on informal economic size. They employed various techniques to ensure reliable findings; particular emphasis was given to modeling qualitative variables using "multiple indicators, multiple causes" (MIMIC).

3.1. GROSS DOMESTIC PRODUCT PER CAPITA (GDPP)

This measure of standard of living measures the living conditions within nations by dividing total gross domestic product (GDP) by population; data are taken from World Development Indicators 2020, produced by the World Bank.

3.2. HUMAN CAPITAL STOCK (HCS)

Measuring human capital stock can be measured using enrollment figures for secondary education across any year relative to the population of the age-specific age group for secondary education enrolled; such data is available via the World Bank WDI 2020 data set.

3.3. TAX BURDEN REDUCTION INDEX (TBR)

TBR measures government policies intended to decrease business tax obligations. Tax Revenue Per Capita is an indicator that measures both marginal income tax rates for both personal and corporate taxpayers as well as total revenues generated through direct and indirect taxes at all government levels, expressed as a share of GDP. The score is calculated based on three quantitative components that are all equally weighted: (i) top personal income tax rate, and aggregate tax burden as a share of GDP, both contributing one-third toward this final score. To account for diminishing returns of higher tax rates, the overall tax burden was modeled using a quadratic cost function, and all subindicators were standardised to a 100-point scale to indicate reduction of burden; sources include The Heritage Foundation 2020 for this indicator.

3.4. FINANCIAL DEVELOPMENT (FIN)

Financial development refers to the health of an economy's financial sector. An index devised by Heritage Foundation (2020) measures this, taking into account factors like access for foreign competitors, state intervention strategies, and capital market maturity as measures of its success.

3.5. TECHNOLOGICAL INFRASTRUCTURE DEVELOPMENT (INFT)

To accurately capture technological infrastructure development, this study employs an indicator such as access to electricity--reported by World Development Indicators 2021--that serves as a proxy. This variable captures an essential factor of industrialization, innovation, and technological progress.

3.6. RESPECT FOR THE RULE OF LAW (RULE)

The quality of a country's legal system can be assessed using an index that reflects how effective, fair, and independent its judiciary is. This kind of indicator captures how much economic actors trust their national legal institutions, drawing on the Worldwide Governance Indicators (WGI) scale, which ranges from very weak (-2.5) to very strong (+2.5 or higher, on a 100-point scale).

3.7. CONTROL OF CORRUPTION (CORR)

The CORR Perceptions Index was developed using information from Transparency International and the Heritage Foundation's Government Integrity Index 2020 to assess corruption levels in governments around the world. The index scores countries from zero--indicating the highest levels of corruption--to one hundred, which represents a government perceived as free of corruption. Its main goal is to show whether or not the integrity of public institutions has been compromised.

3.8. TRADE LIBERALIZATION (TL)

For this analysis, trade openness--or "trade liberalization"--is measured using the Index of Trade Freedom, as calculated by the Heritage Foundation (2040). This index evaluates countries based on both tariff and non-tariff barriers, giving a comprehensive picture of how easy it is to conduct business across borders. Because it accounts for all forms of trade restrictions within a country, the index provides a thorough assessment of international trade fluidity, going beyond what traditional trade openness measures typically capture.

3.9. POLITICAL STABILITY INDEX (POL)

The Political Stability Index measures the perceived absence of violence or terrorism within a country. This indicator can be obtained through World Governance Indicators (WGI), with initial ratings between -2.5 for extreme political instability to 2.5 indicating exceptional political stability; to standardize across metrics, this score will then be converted to a 0-100 scale for comparison purposes.

4. RESULTS AND DISCUSSION

The empirical investigation assesses the combined effects of economic, institutional, and structural variables on the proportion of informal sectors within gross domestic product. Beginning with gross domestic product per capita, an analysis identifies an inextricable link between higher income levels and the extent of informal economic activities across

a sample group. This finding stands in stark contrast with academic research, which generally supports an association between rising GDP per capita and lower informality levels, on account of increasing income fostering economic formalization (Schneider & Enste, 2000) and regulatory adherence. One possible explanation for this atypical finding could be uneven economic development in developing nations, which might leave certain sectors outside its benefits of advancement. As a result, gains accrued by formal sectors may coexist with persistent informality elsewhere within an economy—a phenomenon known as labor market dualism (La Porta & Shleifer, 2014). This pattern appears to be particularly pronounced in African economies, where rising income does not necessarily produce a corresponding reduction in informal activities, potentially due to underdeveloped institutional frameworks, administrative weaknesses, or inadequate enforcement of existing regulations (Medina & Schneider, 2018).

Focusing on human capital, represented by secondary school enrollment rates, the study uncovers a general inverse relationship between human capital levels and the extent of the informal sector when analyzing data from all countries in the sample. This finding corroborates prior research, which has repeatedly demonstrated how educational attainment plays an essential part in transitions from informal to formal employment arrangements. Improvements in education equip individuals with the skills and qualifications necessary to access regulated, higher-quality jobs within the formal sector (Holt & Littlewood, 2014). Nevertheless, when the data are disaggregated for African countries and member states of the Organisation for Economic Co-operation and Development, the coefficients become positive. This observation indicates that, in these particular contexts, expanding secondary education alone does not automatically result in greater formalization. Possible reasons could include skill mismatches between educational outputs and labor market requirements, as well as inadequate incorporation of educated individuals into formal employment (Keneck-Massil & Noah, 2019). Such dynamics suggest educational policies must also incorporate labor market reforms and institutional strengthening initiatives if significant reductions in informality are to occur.

Unfortunately, however, that means being open about our struggles when making choices about where and when we live and play. So while some might see that as evidence of their righteous anger, others see an opportunity for growth, perhaps with more room available on their floor of choice? Analysis of tax burden demonstrates that, at an aggregate level, efforts to lower overall tax rates tend to correlate with reduced informal sector activity, which supports the widely held belief that high taxation creates incentives for tax evasion and spurs informal activities (Loayza 1997; Fortin et al 1997). Reducing taxes may help lessen economic motivation for individuals and firms to operate outside the formal regulatory system. However, when considering individual country groups from Africa and the Organisation for Economic Co-operation and Development separately, an association was discovered between tax rate reduction alone and informality reduction, which indicates that tax cuts alone cannot effectively combat informality in these instances. This finding implies that other factors, including tax administration effectiveness, governance quality, and legal enforcement strength, may play a greater role in shaping informal economic behaviour (Ogbuabor & Malaolu 2013; Koffi 2022). These results emphasize the complex and contextually sensitive nature of policy interventions designed to formalise informal economies.

As for financial sector development, overall results indicate an inverse relationship between financial development and the relative size of informal sector activities (Capasso & Jappelli, 2011) and informality levels (Koffi, 2022). This finding supports findings of previous studies, which demonstrated how access to formal banking services and credit can support entrepreneurs while moving individuals away from informal economic activities towards formal activities regulated by authorities, thus decreasing informality (Capasso & Jappelli 202). Yet in certain regions, this correlation appears weak or even reversed (Koffi 2022), perhaps reflecting disparities or barriers preventing access to services (Koffi 2022). These mixed results underscore the importance of tailored financial sector reforms that address specific barriers faced by marginalized groups.

In evaluating technological infrastructure—measured here by electricity access—the analysis consistently finds a slight positive association between infrastructure availability and the scale of the informal sector, both in aggregate and across different regions. While technological advancement is frequently expected to encourage economic formalization through improved regulatory capacity and greater transparency, the results suggest that simply increasing infrastructure does not automatically diminish informality. Instead, advancements in technology may also support informal businesses by boosting their efficiency and competitiveness, which can help sustain informal activity in certain settings (Auriol & Warlters, 2005).

The rule of law indicator, which reflects the quality and effectiveness of judicial systems, exhibits a positive link with informality in the overall analysis but tends to turn negative or become insignificant when the data are examined by specific regions. This unexpected pattern indicates that improvements in judicial standards and enforcement may not immediately result in lower levels of informality, potentially due to time lags, persistent public skepticism, or minimal direct influence on informal labor markets. Moreover, in countries where informal economic activity is deeply rooted, implementing legal reforms by themselves may not be adequate unless accompanied by wider structural and institutional transformations (Friedman et al., 2000).

The analysis of corruption control yields nuanced results regarding its influence on the informal sector. For the overall sample of countries, the empirical findings reveal a positive association between efforts to control corruption and the size of the informal economy. This observation runs counter to much of the existing literature, which generally asserts that improvements in corruption control should curb informal practices by promoting greater transparency and regulatory enforcement (Johnson et al., 2000). One possible interpretation of this unexpected outcome is that entrenched informal practices may persist even as anti-corruption measures are implemented, either because such reforms take considerable time to effect structural change or because new regulatory barriers inadvertently encourage informality as an adaptive

strategy. In contrast, for member countries of the Organisation for Economic Co-operation and Development, the relationship turns negative, supporting the notion that robust anti-corruption frameworks and effective enforcement mechanisms reduce incentives for participation in the informal sector.

The influence of trade liberalization, as indicated by the trade freedom index, yields varied findings. Across the entire dataset, the results point to a positive link between greater trade openness and the extent of informal economic activity. This implies that exposure to increased global competition may prompt some domestic firms to lower costs by operating informally, thereby raising the share of the informal sector (Amin, 2013). Conversely, in countries belonging to the Organisation for Economic Co-operation and Development, the relationship is negative. This outcome supports earlier research indicating that when trade liberalization is paired with effective institutions and sound regulatory systems, it can help drive formalization by creating new prospects and fostering compliance (Almeida & Carneiro, 2009).

Regarding political stability, findings generally indicate that increased stability diminishes the scale of informality, as demonstrated by negative coefficients for both the complete sample and the subset of African nations. This observation supports the widely accepted view that stable political conditions enhance institutional reliability and boost governments' enforcement capacities, thus promoting formal sector participation (Friedman et al., 2000). However, for Organisation for Economic Co-operation and Development countries, a positive coefficient is observed, possibly reflecting the already minimal levels of informality in these settings. In such contexts, additional gains in political stability may have only limited effects on the highly formalized nature of the economy.

Table 1: GMM Coefficients

Dependent Variable: SIE

Variables	Whole Sample Coef.	Whole Sample Std. Err.	Africa Coef.	Africa Std. Err.	OCED Coef.	OCED Std. Err.
GDPP	9.094992	-0.13101	9.3657	0.665794	6.54087	0.835458
HCS	-0.47834	0.808358	0.1890	0.668309	0.29388	0.398911
TBR	-0.69678	0.29974	0.9170	-0.29904	0.77383	-0.10474
FIN	-0.54444	0.444826	-0.373	0.845876	0.66971	0.812062
INFT	0.03138	0.547377	0.0405	0.721305	0.56965	0.30191
RULE	0.15174	-0.69157	-0.708	0.292918	0.05992	0.274252
CORR	0.162413	-0.86677	0.1322	-0.1239	-0.24635	-0.45941
TL	0.290172	-0.49693	0.1008	-0.78308	-0.03513	0.239871
POL	-1.07806	0.769362	-0.719	-0.78982	0.24708	0.53715

5. CONCLUSIONS

This study has explored the determinants underlying the persistence and magnitude of economic informality across a broad cross-section of countries, with a particular focus on the formality divide between African economies and their advanced or emerging counterparts. Employing robust empirical strategies and cross-national comparative analysis, the findings reveal that no single factor solely accounts for differences in informality, but rather a complex interplay of economic, institutional, and structural drivers shapes outcomes across contexts. Notably, the research highlights that improvements in average living standards, enhanced anticorruption efforts, and deepened financial sector development hold considerable promise for reducing the portion of the informality gap attributable to observable characteristics. Conversely, policy areas such as fiscal autonomy, trade openness, technological advancement, and political stability, while often celebrated as engines of development, may inadvertently reinforce informality when not accompanied by context-sensitive institutional reforms. A central insight from the analysis is that rising gross domestic product per capita does not uniformly reduce the prevalence of informality, especially within African economies. This departure from traditional expectations highlights the ongoing dualism present in labor markets and reveals the limited ability of economic growth to benefit all segments of society in certain contexts. The findings show that, on a global scale, higher educational attainment—measured by secondary school enrollment—generally leads to less informality. However, the positive association found for Africa and OECD countries suggests that, in these regions, labor market reforms and better alignment of skills are also needed. In much the same way, reducing the tax burden tends to shrink the informal sector overall, but this strategy is less effective where administrative systems are inefficient or enforcement is weak. The study also finds that the development of the financial sector can help promote formalization by increasing access to regulated credit and supporting entrepreneurship, though these benefits are not guaranteed and can be limited by barriers to financial inclusion. At the same time, although advancements in technology are vital for economic modernization, their impact on informality is not always straightforward—without strong regulatory frameworks and policies that specifically support business formalization, new technologies alone may not reduce informality. The strength of governance and institutions is just as important as other factors, but simply cracking down on corruption or enforcing the rule of law doesn't guarantee a decline in informality. These issues tend to run deep within societies, meaning that quick fixes are rarely effective. Often, what's needed are more comprehensive, long-term policy solutions that address the root causes of informality rather than just the symptoms. The main takeaways from this research are straightforward. Closing the gap between formal and informal economies in Africa requires a focus on inclusive growth, steady improvements in governance, and broader access to financial services for people who have traditionally been left out. Policymakers shouldn't rely solely on adjusting tax rates or opening up trade as a path to formalization. Instead, they need to consider holistic strategies that tackle deeper

institutional and structural barriers. The evidence points clearly to a need for higher-quality education, stronger connections between workers and job opportunities, and technology policies that truly reflect the realities of informal enterprises. In practical terms, this means creating policies that not only make formal sector participation more attractive but also acknowledge the ingenuity and adaptability found in the informal sector, and the many reasons why people may choose or be forced to operate outside official economic systems.

REFERENCES

- African Development Bank. (2019). *African economic outlook 2019: Macroeconomic performance and prospects*. African Development Bank Group.
- Ahmad, K., Shahid, M., Bhatti, M. K., & Ali, A. (2024). Global Perspectives on Fiscal Policy and Labor Income-Leisure Choices: Theoretical and Practical Insights. *Journal of Asian Development Studies*, 13(2), 537-554.
- Ahmed, J., & Alvi, A. A. (2024). The Role of Financial Inclusion in Shaping Labor Market Outcomes in Emerging Economies. *Journal of Business and Economic Options*, 7(4), 33-41.
- Akbar, R., & Hayat, A. (2020). Psychological Health of Children Engaged in Hazardous Labor: A Study in Lahore, Pakistan. *Journal of Policy Options*, 3(2), 70-74.
- Almeida, R., & Carneiro, P. (2009). Enforcement of labor regulation and informality. *American Economic Journal: Applied Economics*, 1(3), 56-80.
- Amin, M. (2013). Labor productivity, firm-size and informality in the Indian manufacturing sector. *World Development*, 51, 32-42.
- Auriol, E., & Warlters, M. (2005). Taxation base in developing countries. *Journal of Public Economics*, 89(4), 625-646.
- Balepa, G., & Roubeaud, M. (2009). L'économie informelle en Afrique: Un état des lieux. *Revue d'économie du développement*, 17(2), 91-124.
- Benjamin, N., Beegle, K., Recanatini, F., & Santini, M. (2014). *Informal economy and the World Bank*. World Bank Group.
- Berdiev, A. N., & Saunoris, J. W. (2017). Does globalization matter for informal economic activity? *The Journal of Development Studies*, 53(7), 1057-1071.
- Berdiev, A. N., Saunoris, J. W., & Schneider, F. (2018). Corruption and the shadow economy: A panel VAR analysis. *Journal of Economic Studies*, 45(2), 287-303.
- Breusch, T. (2005). Estimating the underground economy using MIMIC models. *The Economic Record*, 81(Special Issue), S74-S84.
- Capasso, S., & Jappelli, T. (2011). Financial development and the underground economy. *Journal of Development Economics*, 95(1), 167-178.
- Castells, M., & Portes, A. (1989). *World underneath: The origins, dynamics, and effects of the informal economy*. In A. Portes, M. Castells, & L. Benton (Eds.), *The informal economy: Studies in advanced and less developed countries* (pp. 11-37). Johns Hopkins University Press.
- Chen, M. A. (2012). *The informal economy: Definitions, theories and policies*. WIEGO Working Paper No. 1.
- Coussy, J. (2006). Structural adjustment, employment and the informal sector in Africa: An assessment. *International Labour Review*, 145(3), 273-299.
- De Soto, H. (1989). *The other path: The economic answer to terrorism*. Basic Books.
- Dessy, S., & Pallage, S. (2003). Taxes, inequality and the size of the informal sector. *Journal of Development Economics*, 70(1), 225-233.
- Elgin, C. (2012). Internet usage and the shadow economy: Evidence from panel data. *Economic Systems*, 36(4), 517-531.
- Etim, E. S., & Daramola, P. S. (2020). Drivers and effects of informality in African economies. *Journal of African Business*, 21(2), 237-257.
- Fields, G. S. (2005). *A guide to multisector labor market models*. World Bank Social Protection Discussion Paper No. 0505.
- Fortin, B. (2002). The informal sector in sub-Saharan Africa. In B. Guha-Khasnobis, R. Kanbur, & E. Ostrom (Eds.), *Linking the formal and informal economy: Concepts and policies* (pp. 81-106). Oxford University Press.
- Fortin, B., Lemieux, T., & Frechette, P. (1997). The effect of taxation on labor supply: Evaluating the New Brunswick tax experiment. *Canadian Journal of Economics*, 30(4a), 791-807.
- Fourie, F. (2018). The size, characteristics and role of the informal sector in South Africa. *Development Southern Africa*, 35(1), 1-25.
- Fox, L., Senbet, L. W., & Simbanegavi, W. (2020). Youth employment in sub-Saharan Africa: Challenges, constraints and opportunities. *Journal of African Economies*, 29(Supplement_1), i3-i15.
- Friedman, E., Johnson, S., Kaufmann, D., & Zoido-Lobaton, P. (2000). Dodging the grabbing hand: The determinants of unofficial activity in 69 countries. *Journal of Public Economics*, 76(3), 459-493.
- Gerxhani, K. (2004). The informal sector in developed and less developed countries: A literature survey. *Public Choice*, 120(3-4), 267-300.
- Gnangnon, S. K. (2019). Trade openness and informality in developing countries. *World Economy*, 42(7), 2072-2100.
- Hill, R. C. (2002). The MIMIC model of the unobserved economy: A comment. *Empirical Economics*, 27(4), 733-736.
- Holt, D., & Littlewood, D. (2014). Informality in developing economies: The entrepreneurial landscape. *Entrepreneurship & Regional Development*, 26(1-2), 1-5.

- Huynh, K. P. (2020). Taxation and the shadow economy: Evidence from Vietnam. *Economic Analysis and Policy*, 68, 159–170.
- Igudia, P. O., Okoli, I. M., & Eze, T. C. (2016). Estimating the size of Nigeria's informal sector: An application of the MIMIC model. *Economic Analysis and Policy*, 51, 74–89.
- International Labour Organization & World Trade Organization. (2009). *Globalization and informal jobs in developing countries*. International Labour Office & World Trade Organization.
- International Monetary Fund. (2017). *The informal economy in sub-Saharan Africa: Size and determinants* (IMF Working Paper WP/17/156). International Monetary Fund.
- Johnson, S., Kaufmann, D., & Shleifer, A. (2000). The unofficial economy in transition. *Brookings Papers on Economic Activity*, 2000(2), 159–239.
- Keneck-Massil, M., & Noah, A. (2019). Informal economy in Africa: Characteristics and implications for economic policy. *African Journal of Economic Review*, 7(2), 23–42.
- Koffi, E. K. (2022). Measuring the informal economy in Côte d'Ivoire: Evidence from the MIMIC model. *African Journal of Economic Review*, 10(1), 79–99.
- La Porta, R., & Shleifer, A. (2014). Informality and development. *Journal of Economic Perspectives*, 28(3), 109–126.
- Loayza, N. V. (1997). The economics of the informal sector: A simple model and some empirical evidence from Latin America. *Carnegie-Rochester Conference Series on Public Policy*, 45, 129–162.
- Mahmood, H. (2019). Exploring the dynamics nexus of energy consumption, economic growth, capital stock, and labor force. *Journal of Energy and Environmental Policy Options*, 2(3), 78–83.
- Meagher, K. (2015). Informal entrepreneurship: Markets, livelihoods and regulation in African cities. *African Affairs*, 114(456), 295–307.
- Medina, L., & Schneider, F. (2018). Shadow economies around the world: What did we learn over the last 20 years? *IMF Working Paper WP/18/17*. International Monetary Fund.
- Nguyen, T. H., Nguyen, H. T., & Nguyen, T. P. (2020). The impact of institutional quality on the shadow economy: Evidence from Asian countries. *International Journal of Emerging Markets*, 15(5), 839–859.
- Ogbuabor, J. E., & Malaolu, V. A. (2013). Size and causes of the informal sector of the Nigerian economy: Evidence from error correction mimic model. *Journal of Economics and Sustainable Development*, 4(1), 85–103.
- Organisation for Economic Co-operation and Development. (2011). *How do the costs of informality affect productivity?* In *Latin American Economic Outlook 2011* (pp. 111–132). OECD Publishing.
- Portes, A., & Haller, W. (2005). *The informal economy*. In N. J. Smelser & R. Swedberg (Eds.), *The handbook of economic sociology* (2nd ed., pp. 403–425). Princeton University Press.
- Potts, D. (2008). The impact of structural adjustment on the African urban informal sector: A review of the evidence. *African Development Review*, 20(2), 253–292.
- Schneider, F., & Enste, D. H. (2000). Shadow economies: Size, causes, and consequences. *Journal of Economic Literature*, 38(1), 77–114.
- Smith, P. (2002). Assessing the size of the underground economy: The statistics user's perspective. *Journal of Official Statistics*, 18(2), 21–38.
- Tokman, V. E. (2007). *Modernizing the informal sector*. DESA Working Paper No. 42.
- Ulyssea, G. (2020). Informality: Causes and consequences for development. *Annual Review of Economics*, 12, 525–546.
- United Nations Economic Commission for Africa. (2017). *Economic Report on Africa 2017: Urbanization and industrialization for Africa's transformation*. United Nations.
- Verick, S. (2006). The impact of globalization on the informal sector in Africa. *Economic and Social Policy Division Working Paper, United Nations Economic Commission for Africa*.
- Wu, Y., Hsu, C., & Yeh, Y. (2019). Determinants of informality across developing countries. *Journal of International Development*, 31(3), 252–274.