

# The Untapped Potential of Digital IDs in Zambia: The Key to Efficient Taxes and Expanded Revenue

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## Abstract

This paper assesses the extent to which Zambia’s Integrated National Registration Information System (INRIS) can enhance domestic resource mobilization (DRM) through its integration with the Zambia Revenue Authority’s tax administration system. Zambia continues to face persistent compliance gaps, a narrow tax base, and limited revenue space due to debt obligations and reduced external financing, underscoring the urgency of strengthening DRM. Evidence from global and regional experiences, including Ghana, Uganda, Nigeria, and Kenya, demonstrates that integrating digital identification systems into tax administration improves taxpayer registration, reduces duplication, expands coverage, and enhances compliance.

Using a desk-based methodology, the study reviews existing literature on digital ID–tax administration system integration in selected countries, alongside a qualitative analysis of Zambia’s reforms, including Value Added Tax (VAT) withholding, mandatory Taxpayer Identification Number (TPIN) registration, and Smart Invoicing.

Findings show that while these initiatives have improved compliance at specific points, they remain fragmented. In contrast, linking INRIS with ZRA’s tax administration system offers an opportunity to create a unified, verifiable taxpayer register capable of addressing informality and improving fiscal sustainability.

The study concludes that digital IDs can transform Zambia’s tax system by promoting efficiency, equity, and sustainability. To realize this potential, five focused policy actions are recommended: i) accelerating INRIS rollout; ii) integrating INRIS with ZRA systems; iii) strengthening inter-agency coordination; iv) enhancing digital literacy and public awareness; and v) ensuring financial and institutional sustainability.

These reforms would expand Zambia’s tax base while aligning with the National Digital Transformation Strategy (2023–2027), providing a pathway toward inclusive and resilient economic development.



# 1. Introduction

Zambia's fiscal position remains under significant strain. Despite recent progress in securing a debt restructuring agreement with official and private creditors, a large share of government revenues continues to be absorbed by debt service obligations and public administration costs. This leaves limited fiscal space to invest in growth-enhancing and social sectors such as health, education, and infrastructure (Mbewe et al., 2024). At the same time, the global financial environment is tilting inward, with advanced economies adopting more protectionist policies and reducing concessional financing flows to the Global South. As external resources dwindle, Zambia's reliance on robust domestic resource mobilization (DRM) becomes paramount for sustaining public service delivery and advancing national development goals (ZIPAR, 2025).

Furthermore, Zambia's revenue performance is undermined by persistent challenges of low compliance, widespread tax evasion, and structural inefficiencies within the tax system. According to Zambia Revenue Authority (ZRA) statistics<sup>1</sup>, significant revenue leakages are associated with under-declaration, informal sector non-compliance, and weak enforcement capacities. The country's tax-to-Gross Domestic Product (GDP) ratio (i.e., 16.2 percent of GDP in 2022) has consistently trailed regional peers, reflecting both the narrowness of the tax base and difficulties in bringing the informal economy into the tax net. These challenges have compounded Zambia's fiscal vulnerabilities, limiting the government's ability to meet its development financing needs.

One underexplored yet transformative solution lies in leveraging digital identification systems to strengthen taxpayer registration and compliance. Zambia's Integrated National Registration Information System (INRIS) is the national and civil registration management system which is intended to provide biometric-enabled National Registration Cards (NRCs) for all citizens and residents. It is being implemented through the Ministry of Home Affairs and Internal Security and aims to provide secure, verifiable digital identity documents (IDs).

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<sup>1</sup> ZRA Town Hall Presentation on 2024 Budget Performance held at Mulungushi International Conference Center on 21<sup>st</sup> January 2025.



If systematically integrated with ZRA's taxpayer administration system, INRIS could become a cornerstone of efficient revenue administration, improving taxpayer identification, reducing duplication, and closing loopholes that enable evasion. Evidence from other countries demonstrates the potential impact of such reforms and suggests that Zambia can leverage INRIS to address systemic inefficiencies and strengthen its fiscal capacity.

## 1.1 Research Problem and Objectives

Despite notable reforms in Zambia's tax system, revenue performance remains below potential. A lagging tax-to-GDP ratio and persistent gaps in taxpayer identification, compliance, and enforcement continue to erode fiscal capacity. Fragmented databases and the absence of a unified identity verification framework hinder the ZRA's ability to effectively track, monitor, and expand the taxpayer base.

These challenges raise a critical research problem: to what extent can Zambia's INRIS catalyze improvements in tax compliance and DRM through digital integration with Zambia's tax administration system?

Guided by this overarching question, this paper pursues the following specific objectives:

1. To assess the potential of INRIS as a tool for strengthening taxpayer identification and tax compliance in Zambia.
2. To draw lessons from international experiences on digital ID integration with tax administration systems.
3. To evaluate the opportunities and constraints in integrating INRIS with Zambia's tax administration system.
4. To propose actionable policy measures for leveraging digital IDs to enhance efficiency, equity, and sustainability in Zambia's domestic revenue mobilization.

Building on these objectives, this paper seeks to make three contributions: First, it evaluates the potential of INRIS as a tool for strengthening DRM in Zambia by enhancing taxpayer identification and compliance. Second, it draws lessons from international experiences with



digital ID–tax integration to inform Zambia’s policy direction. Third, it offers policy recommendations for implementing digital ID systems to enhance efficiency, equity, and fiscal sustainability.

By placing INRIS’s function at the intersection of fiscal reform, digital transformation, and economic resilience, this study underscores the untapped potential of digital IDs as a key instrument for Zambia’s DRM agenda.

## **2. Legal and Policy Framework on Digital Transformation in Zambia**

Zambia has taken bold steps to position itself as a digitally driven economy, with a suite of policies and laws that establish the foundations for digital transformation. At the core of this agenda is the National Digital Transformation Strategy (2023–2027), which provides an overarching framework for embedding digital technologies across all sectors. The strategy explicitly identifies digital identity systems as a critical enabler of service delivery, financial inclusion, and revenue mobilization.

Complementing this strategy is the National ICT Policy (2023), which underscores the government’s recognition of ICT as a driver of inclusive socio-economic growth. In addition, the Science, Technology and Innovation (STI) Policy (2025) provides a broad innovation framework that supports digital solutions, including identity systems, as part of Zambia’s industrialization and modernization goals.

On the legislative side, the Data Protection Act (2021) and the Cyber Security Act (2025) provide the necessary safeguards for the secure and trustworthy use of digital technologies. These instruments create the legal foundations for protecting personal information, regulating digital transactions, and fostering public trust in digital platforms. Meanwhile, the National Artificial Intelligence (AI) Strategy (2024–2026) demonstrates Zambia’s willingness to embrace emerging technologies and align them with development priorities.

Together, these frameworks form a comprehensive legal and institutional environment that is conducive to the rollout of a national digital identity system. They also align with



broader regional and global agendas, such as the African Union Digital Transformation Strategy for Africa (2020–2030) and the World Bank’s Identification for Development (ID4D) initiative.

Nevertheless, challenges remain. Implementation has been uneven, with gaps in interoperability, institutional coordination, and integration between ICT frameworks, and fiscal systems. Without bridging these gaps, the transformative potential of digital IDs, particularly in enhancing tax compliance, curbing evasion, and strengthening DRM, will remain underutilized.

Moreover, Zambia’s progress toward digital transformation is tempered by low digital literacy and uneven access to internet services. According to the Zambia Information and Communications Technology Authority (ZICTA, 2023), only a fraction of the population possesses basic digital literacy skills, and internet usage stands at approximately 25 percent, with urban usage (48 percent) outpacing rural areas (11 percent). These disparities highlight the need for inclusive design and capacity-building efforts to ensure that initiatives such as INRIS deliver equitable benefits across all segments of society.

### **3. Methodology**

This study adopts a desk research design, relying exclusively on secondary data sources to evaluate the potential of Zambia’s INRIS for strengthening DRM. The methodology combines a review of existing literature with an analytical framework that maps the causal linkages between digital ID systems and revenue outcomes.

#### **3.1 Review of Existing Literature**

The study undertakes a desk-based review of existing literature. The approach prioritizes analytical relevance by focusing on policy lessons for Zambia from comparable contexts. Sources include peer-reviewed academic publications, government reports, and policy documents from national and international organizations. Particular attention is given to country case studies that provide empirical insights for Zambia. Sources were selected for their relevance to the following thematic areas: a) Design and functionality of digital ID



systems; b) Integration of IDs with tax systems; and c) Documented impacts on taxpayer identification, compliance, and revenue mobilization.

### 3.2 Analytical Framework

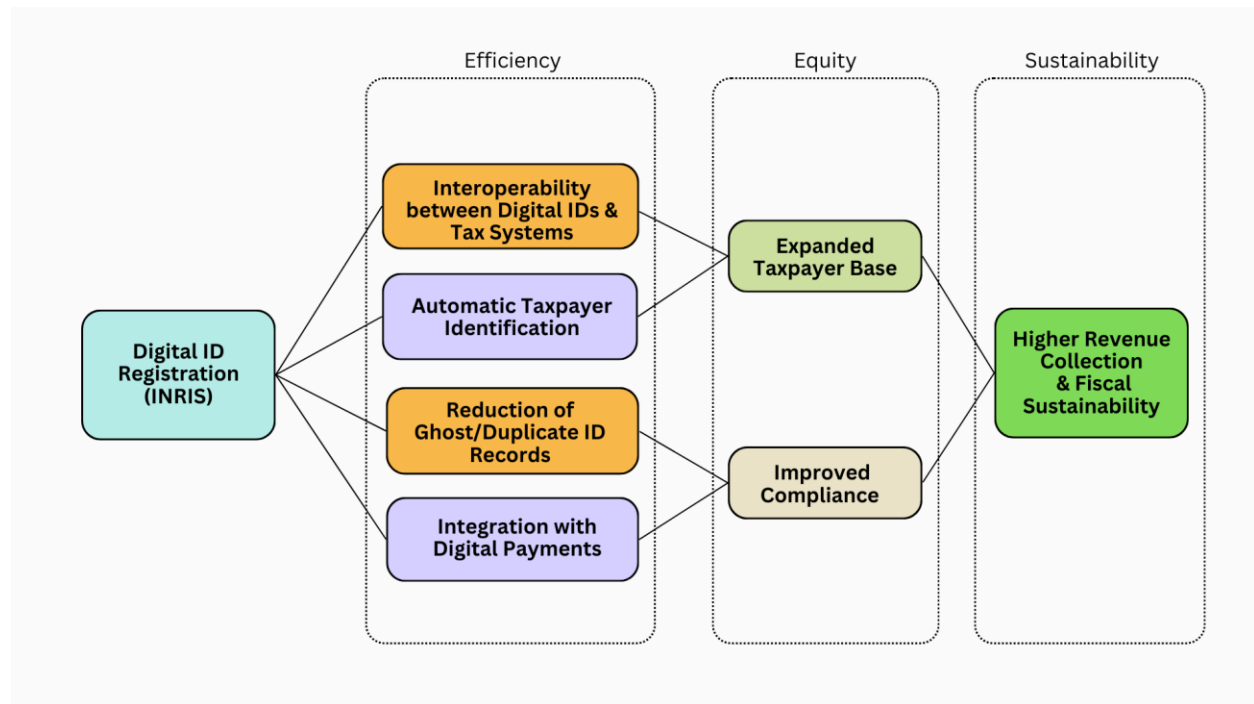
To guide the analysis, a causal framework was developed linking digital ID registration to enhanced revenue collection outcomes. The framework consists of three sequential stages:

- **Inputs:** Digital ID registration under INRIS provides a foundational database of citizens and residents. When linked with the ZRA's taxpayer administration system, this creates opportunities for automated identification and enhanced record management.
- **Processes:** Interoperability between digital IDs and tax systems enables accurate taxpayer identification, reduces duplicate or ghost records, and facilitates integration with digital payment platforms. These mechanisms enhance compliance monitoring and lower tax administrative inefficiencies.
- **Outcomes:** Improved taxpayer profiling and expanded coverage broaden the tax base and increase voluntary compliance. In the longer term, this contributes to higher revenue collection and fiscal sustainability.

Three cross-cutting evaluative lenses are applied throughout the framework (Efficiency, Equity, and Sustainability). Efficiency captures cost reductions and streamlined processes; Equity addresses inclusion of informal sector actors and fairness in taxation; and Sustainability reflects the long-term resilience of DRM and alignment with Zambia's digital transformation agenda. The analytical framework is presented in Figure 1, showing the flow from digital ID registration to ultimate fiscal outcomes.



Figure 1: Analytical Framework Linking Digital ID Registration to Revenue Collection



## 4. Literature Review

### 4.1 Global Perspectives

Globally, digital ID systems have emerged as powerful enablers of tax compliance, particularly in advanced economies where they facilitate seamless integration with government and financial infrastructures. Evidence from a host of countries has also shown that the integration of digital IDs with financial systems improves compliance, curbs evasion, and broadens the tax base.

In Estonia, for instance, the national digital ID system, known as e-ID, underpins a highly digitized public administration framework that allows for real-time data exchange between citizens, businesses, and state agencies. This system supports automated tax filing and compliance monitoring, reducing administrative burdens and evasion risks by enabling instant verification of taxpayer identities across services (McKinsey, 2019; OECD, 2022). Similarly, Singapore's SingPass digital ID integrates with the MyInfo platform, allowing secure access to government services, including tax-related transactions, which has



streamlined compliance processes and enhanced trust through robust authentication mechanisms (McKinsey, 2019).

In India, the Aadhaar system exemplifies large-scale implementation in a diverse economy, linking over 1.2 billion unique biometric IDs to taxpayer records. Aadhaar's linkage with bank accounts and the Taxpayer Identification Number (TIN) has facilitated automatic data retrieval for tax purposes, reducing errors in civil statistics and enabling the inclusion of previously unregistered individuals into the formal economy (McKinsey, 2019). This integration is expected to boost India's tax-to-GDP ratio by 4.0 to 6.0 percent of GDP by 2030 through simplifying onboarding for financial services and enhancing the traceability of transactions.

Globally, such integrations have shown potential to unlock economic value by addressing bottlenecks in formalization and inclusion. The above experiences also underscore the importance of interoperability, data protection, and public trust in sustaining effective digital ID systems (McKinsey, 2019).

Interoperability ensures seamless data exchange across sectors, as seen in Estonia. While, data protection is critical for safeguarding user privacy during ID authentication (McKinsey, 2019; OECD, 2022). Moreover, building public trust for ease of adoption requires transparency, as emphasized in the African Union's Interoperability Framework for Digital ID. The framework advocates for minimum data capture and voluntary enrollment to mitigate exclusion risks (African Union, 2022).

## 4.2 Regional Experiences

Several African countries have experimented with digital identity and integrated tax administration systems, providing valuable lessons on the potential of digital IDs to strengthen compliance and DRM in Zambia.

According to Santoro, Scarpini, and Okiya (2025), Ghana's rollout of the Ghana Card, a biometric national identification system, has been central to Ghana's recent tax administration reforms. By linking the Ghana Card with the Tax Identification Number



(TIN), the Ghana Revenue Authority (GRA) simplified taxpayer registration and reduced duplication. Early evidence indicates that the integration has expanded the taxpayer register and provided the GRA with enhanced capacity to monitor compliance.

In Uganda, Scarpini et al. (2024) examined inter-institutional data sharing between the National Identification and Registration Authority (NIRA) and the Uganda Revenue Authority (URA). The study shows that linking the national ID with taxpayer registration improved the quality of the URA's database by reducing errors, eliminating duplicate records, and enabling the onboarding of previously unregistered individuals. This strengthened URA's ability to expand the tax base and pursue compliance more effectively.

Efobi et al. (2019) studied the Integrated Tax Administration System (ITAS) in Nigeria, focusing on small business use. The ITAS, which relies on taxpayer identification integrated with national ID records, enhanced accessibility to tax services by reducing manual processes and increasing transparency in interactions with the Federal Inland Revenue Service (FIRS). The study found that while adoption challenges persisted among small businesses, ITAS supported better compliance and improved revenue administration.

Otieno and Abdul (2019) analyzed the impact of the Integrated Tax Management System (iTax) on Value Added Tax (VAT) performance among large taxpayers in Nairobi County. Their study shows that the integration of taxpayer information systems reduced errors in VAT filing, improved real-time reporting, and enhanced compliance monitoring by the Kenya Revenue Authority (KRA). As a result, VAT revenue performance among large taxpayers improved after the adoption of iTax.

The country experiences highlight the potential of digital IDs and integrated tax systems in enhancing taxpayer registration, reducing identity duplication, improving compliance monitoring, and ultimately expanding DRM through improved compliance. While challenges remain, evidence demonstrates that digital IDs can serve as a foundation for more efficient and equitable tax systems in Africa.



**Table 1: Digital ID and Integrated Tax Administration Experiences in Selected African Countries**

Country	Reform / System	Key Findings	Impact on Revenue Collection	Source
Ghana	Ghana Card linked with TIN	Reduced duplication, expanded taxpayer register	Broadened tax base, improved compliance monitoring	Santoro, Scarpini & Okiya (2025)
Uganda	NIRA–URA data sharing	Reduced errors, eliminated duplicates, expanded registration	Strengthened URA’s ability to expand tax base and pursue compliance	Scarpini et al. (2024)
Nigeria	Integrated Tax Administration System (ITAS)	Improved accessibility, reduced manual processes, increased transparency	Supported better compliance, improved administration of small business taxes	Efobi et al. (2019)
Kenya	Integrated Tax Management System (iTax)	Reduced filing errors, enabled real-time reporting, improved monitoring	VAT revenue performance improved among large taxpayers	Otieno & Abdul (2019)



### 4.3 Zambia's Domestic Revenue Mobilization Challenges

Zambia's DRM continues to be constrained by persistent compliance gaps, a narrow tax base, and heavy reliance on a limited pool of formal taxpayers<sup>2</sup>. As of 2023, the taxpayer population stood at nearly five million, with 92 percent (4.6 million) being individuals and 8 percent (404,682) mostly businesses (ZRA, 2023). While taxpayer registration appears high on paper, active compliance remains low, with widespread evasion and under-declaration of income, especially in the informal sector (Resnick, 2018).

According to the Zambia Labor Force Survey (2024), the informal economy accounts for an estimated 71 percent of the total workforce in Zambia and contributes an estimated 40 percent of GDP (IMF, 2025). Despite representing the bulk of business and household-level transactions, informal operators remain largely outside the tax net. They lack verifiable identification and minimal interaction with formal institutions, creating significant barriers for ZRA to include them in the tax base. This mirrors regional patterns where informal sector non-compliance severely undermines DRM (Resnick, 2018; Seck, 2023). The result is an over-reliance on Pay-As-You-Earn (PAYE) and corporate taxes from a small pool of formal firms, leaving substantial untapped potential and exposing government revenue to shocks from employment and business downturns as experienced in 2019/2020 during the covid-19 pandemic and in 2023/2024 due to the drought and energy crisis.

Structural inefficiencies compound the challenge. Weak enforcement capacity, under-declaration of earnings, and limited data sharing between institutions contribute to revenue leakages (ZRA, 2022; FIC, 2023). Zambia's fiscal position underscores the gravity of these gaps; with debt servicing and administrative expenditures absorbing the majority of revenues, little remains for social and development spending. In this context, boosting compliance and expanding the tax base is not just a technical challenge but a fiscal imperative.

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<sup>2</sup> ZRA Town Hall Presentation on 2024 Budget Performance held at Mulungushi International Conference Center on 21<sup>st</sup> January 2025.



Recent innovations by ZRA have shown promise. TaxOnline, Smart Invoicing, and other digital tools introduced by ZRA have reduced manual processes, enhanced transparency, and identified new businesses not previously captured in the taxpayer database (ZRA, 2023). However, coverage remains uneven<sup>3</sup>, especially among small and medium enterprises, and systemic barriers limit the effectiveness of these reforms. As global evidence shows, digital integration between civil registration and tax administration is key to overcoming such challenges (OECD, 2022; McKinsey, 2019).

For Zambia, the integration of the INRIS with ZRA's tax administration system offers a pathway to address these challenges holistically. By ensuring digitally verifiable taxpayer identification, INRIS could close compliance gaps, broaden the tax base, and reduce reliance on a narrow group of formal taxpayers, thus contributing to a more equitable and sustainable fiscal framework.

#### **4.4 Empirical Insights on Compliance Initiatives in Zambia**

Several empirical studies have examined Zambia's efforts to improve tax compliance and broaden its revenue base. These studies offer useful lessons that, while not directly about digital-IDs, illustrate the challenges and opportunities in designing compliance-enhancing reforms that can be adopted in an INRIS-tax integrated system.

##### **4.4.1 Withholding VAT Mechanism**

A study by Adu-Ababio et al. (2025) evaluated Zambia's introduction of the VAT withholding system, which designated selected firms as agents responsible for withholding and remitting VAT on transactions with suppliers. The authors found that this mechanism significantly improved compliance by raising VAT collections and reducing irregular filing patterns. This evidence demonstrates that enforcement-oriented reforms, even in limited areas of the tax system, can yield substantial improvements in compliance. Though following the introduction of Smart Invoicing, ZRA suspended the withholding VAT mechanism to pave the way for its implementation across all sectors.

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<sup>3</sup> As at the submission of this paper, Smart Invoicing was only rolled out to VAT compliant businesses.



#### **4.4.2 Taxpayer Enforcement Measures**

Another study by Pumulo and Yohane (2025) highlighted the importance of strengthening taxpayer identification and enforcement through simplifying tax procedures. Using survey evidence, they analyzed the benefits and challenges of tax enforcement mechanisms and their effect on taxpayer compliance. The findings indicated that initiatives such as pre-filled tax returns from electronic invoicing, automation of Tax Clearance Certificates, and the application of artificial intelligence (AI) for fraud detection, among others, positively influence tax compliance rates. However, the study identified implementation gaps and called for stronger institutional capacity to improve compliance. These lessons resonate with the potential of digital IDs to streamline tax returns and close registration and compliance gaps.

#### **4.4.3 Technology-Driven Compliance Tools**

Finally, Maboshe et al. (2025) assessed the role of technology in promoting tax compliance, focusing on taxpayer awareness and attitudes toward tax online services. Their study found that while technology such as TaxOnline and TaxOnApp improve compliance by reducing opportunities for fraud, uptake is constrained by digital literacy challenges and infrastructural limitations among small and medium enterprises. The authors emphasized that sustained sensitization and capacity-building are critical for maximizing the effectiveness of such systems. This reinforces the broader point that digital reforms must be accompanied by inclusive strategies to avoid marginalizing underserved segments of the population.

### **4.5 Identified Gaps and Contribution of this Paper**

Despite recent efforts to enhance DRM in Zambia, significant gaps in the taxation system persist, undermining its effectiveness. Current compliance measures remain fragmented, with challenges including a low tax-to-GDP ratio, substantial revenue leakage from domestic and cross-border transactions, and persistent low compliance, particularly in the informal sector.



This paper contributes by advocating for the integration of digital IDs, particularly through the INRIS, to consolidate fragmented compliance measures into a more efficient, equitable, and sustainable framework for revenue mobilization. By linking national digital IDs to ZRA's tax administration system, Zambia could address identification barriers, broaden the tax base, and reduce leakages, unlocking potential economic value through enhanced interoperability and data sharing.

## 5. Discussion of Findings

The evidence presented in this study underscores the significant potential of digital identification systems in strengthening Zambia's DRM efforts. Across global and regional experiences, a consistent pattern emerges: integrating digital IDs into tax systems enhances taxpayer identification, reduces duplication, curtails fraud, and expands the tax base (Santoro, Scarpini & Okiya, 2025; Scarpini et al., 2024). However, while such findings are well-documented in comparative literature, their implications for Zambia must be understood in light of the country's institutional, technological, and socio-economic realities.

In Zambia, current reforms such as the mandatory TPIN registration for bank account holders, TaxOnline, and Smart Invoicing, have achieved measurable gains but remain fragmented in their reach and enforcement (Albrecht & Siame, 2023; Maboshe et al., 2025). A unified digital identification system can help overcome this fragmentation by providing a single, verifiable reference point for taxpayer identification across multiple platforms. Yet this will require sustained political commitment and careful sequencing of reforms that prioritize inclusion and public sensitization, which would therefore maximize adoption and compliance.

By comparison, countries like Ghana and Uganda demonstrate how linking national digital ID systems to tax administration can address persistent compliance gaps and improve taxpayer registration (Santoro, Scarpini & Okiya, 2025; Scarpini et al., 2024). Nigeria and Kenya further illustrate that integrated tax systems enable greater transparency, improved filing, and enhanced VAT performance (Efobi et al., 2019; Otieno & Abdul, 2019). These



lessons are directly relevant to Zambia's context, where ZRA continues to face low compliance, narrow tax coverage, and challenges in monitoring informal sector activities.

Notably, the discussion highlights that the benefits of digital ID integration extend beyond efficiency gains. They also provide dividends in equity and sustainability. By creating a unified system that captures informal sector actors, digital IDs could reduce inequities in Zambia's tax system, where the burden currently falls disproportionately on formal workers and businesses (ZIPAR, 2023). Sustainability is advanced through better enforcement capacity and revenue certainty, especially during this period when Zambia is undergoing debt restructuring and facing limited fiscal space.

## **5.1 Implementation Risks and Considerations**

Integrating INRIS with ZRA's tax administration system offers strong potential but faces notable implementation risks. Institutional coordination remains the foremost challenge: overlapping mandates among the Ministry of Home Affairs, Smart Zambia Institute, and ZRA could slow implementation unless a clear governance framework and binding data-sharing agreements are in place.

Evidence from Uganda and Nigeria suggests that successful digital ID integration depends heavily on administrative capacity, inter-agency coordination, and citizen trust in data protection frameworks (Scarpini et al., 2024; Efobi et al., 2019). Zambia will therefore need to ensure that complementary investments match INRIS' implementation.

Political economy dynamics and resource constraints also threaten progress. Linking tax systems and digital IDs enhances transparency and may face resistance from actors who benefit from informality. Sustained political will and change management are essential to build public confidence. Moreover, establishing secure and interoperable platforms demands significant investment in ICT infrastructure, maintenance, and human capacity. These costs could be mitigated through public-private partnerships (PPPs) and targeted donor support.



Equity and inclusion must underpin the reform. Large gaps in internet access and digital literacy, particularly among rural and low-income citizens, risk excluding those most affected by informality. Incorporating offline solutions, mobile outreach, and user-friendly local-language interfaces will ensure that INRIS' integration strengthens Zambia's financial and digital inclusion agenda. Additionally, clear legal safeguards such as those articulated in the Data Protection Act (2021) and the Cyber Security Act (2025) will need to be considered.

Ultimately, integrating digital IDs into Zambia's tax administration system offers transformative potential. The findings point to an essential strategic lesson: digital IDs are not merely a technical infrastructure but a fiscal governance tool. Zambia's opportunity, therefore, is to design INRIS' integration in a way that not only improves efficiency but also advances the broader goals of fiscal equity and citizen participation.

## **6. Conclusion and Recommendations**

This study set out to examine how Zambia's Integrated National Registration Information System (INRIS) can strengthen Domestic Resource Mobilization (DRM) by improving taxpayer identification and compliance. Guided by this objective, the analysis combined empirical evidence with Zambia's policy and institutional context to evaluate the opportunities and constraints of linking INRIS to the Zambia Revenue Authority's (ZRA) tax administration system.

### **6.1 Key Conclusions**

Zambia's current tax compliance reforms, while effective in specific domains, are insufficient to comprehensively address compliance gaps. The findings demonstrate that digital ID integration can serve as a systemic reform, addressing longstanding challenges of fragmented databases, weak enforcement, and limited coverage of the informal sector.

Successful implementation depends less on technology itself than on institutional coordination, trust, and inclusive design. Outcomes will also require complementary



measures, including ICT infrastructure investment, enhanced digital literacy skills, careful sequencing, and safeguards to protect citizens' data.

For Zambia, INRIS offers an opportunity to create a unified, verifiable taxpayer register that supports efficiency, equity, and sustainability in DRM.

## 6.2 Recommendations

- 1. Accelerate the INRIS Rollout:** The Ministry of Home Affairs and Internal Security should fast-track the nationwide rollout of biometric NRCs, ensure INRIS is fully interoperable with other government platforms, and functions as the foundational digital ID system for Zambia.
- 2. Integrate INRIS with ZRA Systems:** The ZRA and Smart Zambia Institute should develop a secure interface between INRIS and the TaxOnline platform to automate taxpayer identification and improve tax compliance monitoring.
- 3. Strengthen Inter-Agency Data Coordination:** Establish a formal data sharing framework between public revenue, financial, and civil registry institutions, backed by legal protocols and clear accountability lines.
- 4. Invest in Digital Literacy and Public Awareness:** Expand digital literacy programs, particularly for individuals, SMEs, and informal sector participants. Materials should be multilingual to raise awareness of the INRIS project, build trust, and improve the adoption of biometric NRCs and digital tax services for all citizens.
- 5. Ensure Financial and Institutional Sustainability:** Mobilize blended financing, including donor and private-sector partnerships, to fund relevant ICT infrastructure, system maintenance, and staff capacity-building to operationalize digital ID-tax integration.

Collectively, these recommendations promote efficiency, enhance equity, and ensure sustainability. The effective integration of INRIS will not only improve resource mobilization but also advance the national goals of economic resilience and digital transformation.



## References:

African Union. (2022). *AU Interoperability Framework for Digital ID*. Report, African Union, Addis Ababa.

Adu-Ababio, K., Koivisto, A. & Kumwenda, A. (2025). *Assessing the Impact of Withholding VAT Intervention in Zambia*. Available at SSRN: <http://dx.doi.org/10.2139/ssrn.5227575>.

Alonso, C., Bhojwani, T., Hanedar, E., Prihardini, D., Una, G. and Zhabska, K. (2023). *Stacking Up the Benefits: Lessons from India's Digital Journey*, IMF Working Paper WP/23/78, International Monetary Fund.

Efobi, U., Becroft, I., Belmondo, T. and Katan, A. (2019). *Small Business Use of the Integrated Tax Administration System in Nigeria*, African Tax Administration Paper 8, International Centre for Tax and Development.

Financial Intelligence Centre (2023). *Trends Report 2023*, Report, Government of the Republic of Zambia, Lusaka.

Government of the Republic of Zambia (GRZ) (2023). *Digital Transformation: Change Management Strategy for Public Service 2023 to 2026*, Government Printers, Smart Zambia Institute.

Government of the Republic of Zambia (GRZ) (2023). *National Digital Transformation Strategy*, Government Printers, Ministry of Technology and Science.

International Monetary Fund (2025). *Zambia: Selected Issues*, IMF Country Report No. 25/242 (August, 2025).

Maboshe, K., Simbanegavi, K and Nanyinza, N (2025). *An In-Depth Analysis of the Digital Era's Influence in Tax Compliance within The Zambia Revenue Authority (ZRA)*. International Journal of Research Publication and Reviews, 6(1), 5273–5287.

Mbewe, M., Masilokwa, I., Humann, T., Kalikeka, M., Kessler, M. And Mwamba, S. (2024). *The Road to Zambia's 2020 Sovereign Debt Default*, Report, Zambian Institute for Policy Analysis and Research (ZIPAR) & Finance for Development Lab (FDL).



McKinsey Global Institute. (2019). *Digital identification: A key to inclusive growth*. McKinsey & Company Report.

Ministry of Home Affairs and Internal Security, Zambia. (2023). *Progress report on the Integrated National Registration Information System (INRIS)*. Government of the Republic of Zambia. Available at: <https://www.mohais.gov.zm/?p=2673>

Nsangu, E. and Haabazoka, L. (2024). *A Study of the Effect of Mobile Money Services on Tax Compliance in Zambia: A Case of MFEZ and CBD Lusaka*, African Journal of Commercial Studies, 4(2): 81-92.

Organisation for Economic Co-operation and Development (OECD). (2022). *Tax Administration 3.0 and the Digital Identification of Taxpayers: Initial Findings*. OECD Forum on Tax Administration.

Otieno, E. O. and Abdul, F. (2019). *Integrated Tax Management System and Performance of Value Added Taxes of Large Taxpayers, Nairobi County, Kenya*, The International Journal of Business and Management 7(11): 162 – 168.

Presidential Delivery Unit (2023). *INRIS implementation framework and milestones*. Office of the President, Government of the Republic of Zambia. Available at: <https://www.pdu.gov.zm/digital-ids>.

Pumulo, K and Yohane, R. (2025). *An Evaluation of Enforcement Measures on Taxpayer Compliance: A Case of the Zambia Revenue Authority*, African Journal of Commercial Studies, 6(3): 215-225.

Resnick, D. (2018). *Tax Compliance and Representation in Zambia's Informal Economy*, International Growth Centre Working Paper, S-41418-ZMB-1.

Santoro, F., Munoz, L., Prichard, W., & Mascagni, G. (2022). *Digital financial services and digital IDs: What potential do they have for better taxation in Africa?* ICTD Working Paper 137. Institute of Development Studies.



Santoro, F., Scarpini, C. and Okiya, S. (2025). *The Potential of Digital ID Systems for Tax Administration: The Case of Ghana*, ICTD Working Paper 39. Institute of Development Studies.

Scarpini, C., Santoro, F., Waiswa, R., Arewa, M., and Nabuyondo, J. (2024). *Enhancing Taxpayer Registration with Inter-Institutional Data Sharing – Evidence from Uganda*, ICTD Working Paper 35. Institute of Development Studies.

Seck, M. (2023). *Digital Identity: Empowering the Future*. Presentation, United Nations Economic Commission for Africa (UNECA). Presented in February 2023.

World Bank. (2017). *Global ID Coverage, Barriers, and Use by the Numbers: Insights from the ID4D-Findex Survey*. World Bank Group, Identification for Development (ID4D). Surveys completed in 2017.

World Bank. (2019). *ID4D Practitioner's Guide: Digital Identification Systems*. Washington, D.C.: World Bank Group.

Zambia Revenue Authority. (2023). *Annual Report 2022*. Zambia Revenue Authority: Available at <https://www.zra.org.zm/wp-content/uploads/2023/05/ZRA-Annual-Report-2022-compressed.pdf>.

Zambia Revenue Authority. (2024). *Annual Bulletin 2023: Tax Statistics in Zambia 2023*. Zambia Revenue Authority: Available at <https://www.zra.org.zm/download/2023-annual-bulletin-pdf/>

Zambia Statistics Agency (2024). *2024 Labour Force Survey*. Report, ZamStats, Lusaka.

Zambia Information and Communications Technology Authority (2023). *2022 National Survey on Access and Usage of ICT by Household and Individuals: A Demand Side Assessment of Access and Usage of ICTs in Zambia*. Report, ZICTA, Lusaka.

Zambia Institute for Policy Analysis and Research. (2024). *Development Finance Assessment for Zambia*. Report, Zambia Institute for Policy Analysis and Research & United Nations Development Program.



Zambia Institute for Policy Analysis and Research. (2025). *2025 Mid-Year Analytical Report: Sustaining Livelihoods Through Financial Headwinds*. Report, Zambia Institute for Policy Analysis and Research & UNICEF.

