



**EXPLORING THE IMPLEMENTATION AND
BENEFIT OF DIGITAL REFORMS IN TAX ADMINISTRATION:
NATIONAL REVENUE AUTHORITY (NRA) SIERRA LEONE**

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Abstract:

Most tax administrations around the world have now resorted to digitalization due to continuous technological innovation, business change, and the need to improve services, optimize operational efficiency, and increase tax compliance and revenue collections. Digitalizing tax administration is creating changes in the way tax is administered and taxpayers' compliance with the NRA. It is essential to embrace the opportunities of reforming tax administration through digitalization even though there will be institutional and budgetary challenges that will need to be overcome; its benefits are enormous and continuous. Tax administration will lose its core objective of remaining an efficient and effective source of government revenue if it does not follow the trend of digitalization. This study explores digitalization as a reform in tax administrations and the benefits therein. It focuses on the NRA administration, processes, and procedures and the implementation of digitalization as a way to improve efficacy and efficiency in tax administrations. This study will use the exploratory, qualitative, and ex-facto design, and data collection will be done through the Monitoring and Research (MRP) Department within the NRA, secondary sources such as literature from contemporary studies, and the internet. This paper reviews how the NRA was able to implement three digital reforms, namely, the Integrated Tax Administration System (ITAS), the Electronic Cash Register (ECR), and the Automated System for Customs Data (ASYCUDA World) that

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boost compliance on wider coverage and revenue performance to meet the much-needed government expenditures. With the introduction of these reforms, the government, through the NRA, has been able to mitigate tax avoidance and evasion, making tax administration simple and easy with taxpayers able to file tax returns anywhere, anytime, with more efficient and effective administrative processes and procedures and an increase in government revenue is evident. It is recommended that the tax administration make a tremendous effort to reach a broader social and political consensus and also acknowledge the political feasibility of future reforms as a precondition for successful implementation.

Keywords: automated system for customs data, tax administration, electronic cash register, benefits, implementation

1. Introduction

Tax administration is responsible for the management of taxpayers' obligations with revenue authorities. Its primary tax is to ensure that the right amount of tax is paid at the right time, providing the government with the needed revenue to deliver goods and services as planned. An effective and efficient tax management system is critical for both emerging and developed economies since adequate revenue collection is an essential determinant of economic growth (Martinez-Vazquez *et al.*, 2022; Akgun, Cournède, & Fournier, 2017). An administration that achieves this task is effective. On the other hand, an administration that does so at a reasonable, minimal cost to the government is efficient. Tax administrations are expected to impose minimal costs on taxpayers and maintain a business-friendly and even-handed environment (Jimenez *et al.*, 2013). In addition, the pertinent role of tax administrations around the world is to raise tax revenues in accordance with existing tax laws (Martinez-Vazquez *et al.*, 2022).

The most prevalent use of Information Technology (IT) systems in tax administration has been to support tax administration tasks of processing returns and payments and collecting relevant information. Digitalization continues to support tax administration and enable tax administration to move away from heavy manual processing and directing resources to facilitation, monitoring, and enforcement. Digitalization has been widely accepted as the springboard for sustainable economic development and cross-border tax administration and management (Ajala & Adegbe, 2020). Tax reform is the process through which a country changes how taxes are levied, mobilized, and utilized by the government of the day to improve tax administration or provide social or economic benefits, thereby resulting in economic growth (Besley & Persson, 2009).

Formulating a new law that governs taxation, changes in tax administration as well as minimizing loopholes for tax evasion are some of the factors that lead to improvement in tax revenue collections. In developing countries, especially in Africa, tax reforms revolve around matters related to economic policies while focusing particularly

on the design of tax structure and tax management. With this in mind, tax reforms are torn between the equivalents of the structure and development policy, including issues such as the impact of the alternative taxes on saving and investment and the resultant challenges for the macro balance (domestic and foreign) of the economy. The concerted effort to reform the tax system must contend with the headache of ensuring fairness in the spreading of tax incidence. While at it, the stakeholders also needed to address the concerns of the management's reasonableness of the tax system and ensure that the policies do not influence economic realities.

According to the International Monetary Fund (1990), tax administration is tax policy. However, the effectiveness of the institutional design is significantly conditioned by tax laws. Ambiguity and complexity in tax laws make it challenging for tax administrations to administer in terms of costs to enforce, taxpayers' services, and increased compliance costs. Hence, simplifying tax laws should be the first and most important measure to ensure and improve efficiency and effectiveness in tax administration. Moreover, recent global trends are also significantly affecting tax administration effectiveness. Pressures such as globalization and technological changes, the increasing relevance of data management, and the renovation of economic activities are compelling digitalization and restricting tax administrations in developing countries. According to Alm & Duncan (2014), more than ever, tax administration in the era of digitalization will need to rely on financial sufficiency and managerial efficiency. From recent trends, tax administrations will have to direct budget spending to support the digitalization of tax services and increase considerable investments in human capital to prepare staff for the technological challenges ahead. There are numerous studies done on the National Revenue Authority (NRA) in Sierra Leone, some of which are the strategic management process, the relationship between risk profiling and revenue performance, the improvement of service quality measurement for sustainable tax administration, the effectiveness of revenue collection strategies, and tax-payer non-compliance behaviour. Others include responses to challenges in the implementation of customs reforms and mobilization, studies on the effectiveness of taxpayers' education as a revenue collection strategy, and the effect of reform programs on staff morale at NRA. However, there is a gap in research at the NRA on the implementation and benefits of digital reforms in tax administrations in Sierra Leone.

This study provides an overview of the main trends in the use of digitalization in tax administration, the various digitalization implemented by the government through the National Revenue Authority (NRA), the impact on the administration, the challenges the authority faces to enhance compliance, taxpayers' services and measures to increase voluntary compliance. In this study, we focused on the implementation and benefits of digital reforms in tax administrations in Sierra Leone.

2. Research Objectives, Research Question and Research Methodology

2.1 Research Objectives

This study aims to explore the implementation and benefits of digital reforms in tax administration in Sierra Leone.

2.2 Research Question

How can the implementation of digital reforms benefit tax administration in revenue collections?

2.3 Research Methodology

This research was predominantly exploratory; hence, a qualitative research methodology was used, and data collection was done through secondary means by the NRA's Monitoring, Research, and Planning Department. In addition, information was also obtained through the internet and related articles.

3. Literature Review

Governments use taxes for a variety of purposes. They are raised to meet the public expenditure for the provision of goods and services and transfer payments. They are used in fiscal policy to regulate aggregate demand in the economy, as well as bring about greater equity in the distribution of income and welfare in the country. Furthermore, taxes are imposed to control the volume of imports into the country to achieve a balance of payment equilibrium. In tax reform, governments are generally concerned that their tax system facilitates the attainment of several public policy objectives. Besides raising adequate revenue for the government, the tax system must spread its burden equitably and avoid the misallocation of resources. Tax reform should not disrupt the pattern of production, trade, consumption, saving, and investment. In addition, the tax system should also be administratively feasible to facilitate compliance and collection. It is challenging to satisfy all these objectives simultaneously.

The digitization of tax administration has been resounding and applauded by most emerging and developed economies for its pivotal role (Perrou, 2018; Ajala & Adegbe, 2020) as a way of mobilizing revenue that mitigates fraud and collusion to commit fraud and tax evasion. However, the successful implementation of digital government policies should be the concerted efforts of multiple organizations to collaborate toward shared objectives and responsibilities (Dawes & Pardo, 2002). The digitalization of tax administrations has been well underway for years (Maija Arimo, 2022) and is an effective and efficient way of tax administration. OECD has published several reports and papers on the matter, and in April 2022, it launched the first phase of a new global Inventory of Tax Technology Initiatives (ITTI). ITTI contains information on how 76 tax administrations have implemented digital solutions and use leading technology tools. This should help fill the information gap and accelerate the

digitalization of tax administrations across different jurisdictions. Along with the digitalization of the economy, tax administrations also face the journey of digital transformation. The effective and efficient implementation of digitization of tax administration is also dependent on management and organizational culture and factors such as leadership, sponsorship, and management philosophy (Pardo, 1998; Burt, 1997; Larson, 1992) can affect the success or failure of collaborative systems.

Before digitalization, tax administrations depended on reports and forms mostly submitted on paper and occasionally electronically; that was tax administration and its dominance in the last decades. Before, tax compliance was rarely built into processes and systems that multinational enterprises used, and this resulted in more active steps to be taken to understand, process, and report issues on tax. Tax administrations were manually processing huge amounts of data from businesses especially large or multinational businesses with limited or no technology. This creates potential risk because of limited information. The reporting process was manual. Trying to understand transactions and finding pieces of evidence to support them was always difficult and almost impossible. The aforementioned limitations of manual tax administration led to the digitization of tax administration

Historically, the most prevalent use of IT systems in tax administrations has been to underpin the core tax administration tasks of processing returns and payments and collecting relevant information (Jimenez, *et al.*, 2013). It continues to provide support for the core tax components, which enable tax administrations to move away from manual processing and directing resources to facilitation, monitoring, and compliance. With IT, voluntary compliance is facilitated by having many interactions with taxpayers. This tax system is called e-tax. The system includes aiding electronic registration, filing, payment information gathering, dissemination, etc. Modern IT systems provide tax administration's audit and collections function in gathering information to look for areas where there is non-compliance and poses huge a risk to revenue about compliance performance system. Information Technology also facilitates decision-making by providing the correct information to management.

Three paradigms are, to a greater extent, universally acceptable by tax authorities around the world, and these include the enforcement paradigm, the service paradigm, and the trust paradigm (Prichard *et al.*, 2019). These three paradigms are respectively simplified as follows: 'catch and punish' through auditing is the enforcement paradigm, which can be referred to as a traditional form of tax administration; the facilitation of compliance through sensitization and low compliance cost approach is referred to as the service paradigm; the second approach sometimes overlaps with the third paradigm that encourages the citizens to build trust in the system and voluntarily be in compliance with the tax laws. These paradigms have their limitations and benefits, which can significantly contribute to more efficient collections and overall higher compliance (Prichard *et al.*, 2019). The paradigm selected for use by a given system depends on the overall efficiency and effectiveness of any tax administration, as well as institutional design and organizational structure. Therefore, making such design a fundamental issue meriting

review and improvement (Martinez-Vazquez, 2022) on a need basis and based on the current trend of tax administration improvements bench-marks acceptable around the world.

For many aspects of tax compliance, there is a debate in the literature as to how the effective operation of the tax system by the tax authorities influences taxpayers' compliance behaviour as researchers from different countries have been unable to achieve agreement about this issue, which appears to differ from country to country. Therefore, different countries have proposed and developed different solutions to the relationship between taxpayer compliance and their operation of the tax system.

The role of the tax authority in minimizing the tax gap and increasing voluntary compliance is very important. Hasseldine and Li (1999), illustrated this, placing the government and the tax authority as the main party that needs to be continuously efficient in administering the tax system to minimize tax evasion. The government plays a central role in designing the tax systems itself and the specific enforcement and collection mechanisms (Hasseldine and Li, (1999). Furthermore, Natrah (1989), suggested that to increase compliance, maximize tax revenue, and be respected by taxpayers, a government must first have an economic tax system that is practicable; they must discourage tax evasion and not induce dishonesty; they must avoid the tendency to dry up the source of the tax and should avoid provoking conflict and raising political difficulties; they should also have a good relationship with the international tax regime and also proffer that Tax knowledge and tax complexity are viewed as contributing factors towards non-compliance behaviour among taxpayers.

The literature review clearly articulates the importance of tax administration using digitization, although it is not immune to limitations. The traditional approach to tax enforcement has been a universal challenge that the world is grappling with and is predominant in environments where both evasion and corruption have been above average (Moore & Prichard, 2017). At the same time, the improvement of taxpayer services to lower compliance costs goes hand in hand with improving overall compliance (Martinez-Vazquez, 2022). In the digital and globalized era, the enforcement paradigm, the service paradigm, and the trust paradigm offer profound challenges and significant opportunities for tax administrations to improve their efficacy and efficiency in revenue collection (Martinez-Vazquez, 2022); hence research on the implementation of digital tax administration and its benefits is worth undertaking.

4. Functions of Tax Administration

The central system of recording in a tax administration and pivotal for automation and processing are the main tax systems. Technological support is provided at varying levels for tax administration functions. Functions of tax administration include:

- Registration,
- return, payment, and refund processing,
- taxpayer accounting,

- audit,
- objection and appeal.

4.1 Registration

A high-quality taxpayer registration and identification system is crucial for optimal tax system performance. In the digital era, tax administrations need sophisticated tools to record information about taxpayers, withholding agents, and third parties that provide information about the activity and transactions of other taxpayers (Martinez-Vazquez, 2022).

This is the process by which information, including personal information of a taxpayer, such as name, address, entity type, legal status, etc. is collected. This information allows tax administration to be well informed of the taxpayers where they are located and whether they are active or inactive. Contemporary tax systems also collect compliance information such as taxpayers' activity types, estimated turnover, and a plan of future compliance activities. Tax administrations, during registration, issue a unique taxpayer number known as a taxpayer identification number (TIN) and a registration certificate, and they provide the taxpayer with information on how to comply with filing and payment obligations.

The storing and maintenance of TINs, the automatic issuance of TINs and certificates, and the automatic determination of taxpayer filing requirements are the basic functionality of a tax IT system. Registration with effective tax IT systems using TIN facilitates information sharing and exchange between government agencies. This eases the detection of non-compliance, integrates registration across taxes that allows a single view of the taxpayer during audit collections, centralises the database that allows for effective non-compliance monitoring, and provides a single facility for taxpayers' registration for all tax types to make compliance easy. It also allows taxpayers to interface with the e-tax system and online registration can be done. A centralised database for registration enables effective planning and rationalisation of staffing and resources based on the geographical location and size of active taxpayers. Most of these activities/functions would be impossible without IT.

4.2 Return, Payment, and Refund Processing-

Filing returns and payments are the primary obligations of taxpayers. These two functions require huge efforts from the taxpayers as well as the tax administration. The smooth flow of these functions reduces costs to tax administrations, helps reduce risks to tax revenue, and increases certainty with the taxpayer. This improves taxpayers' perceptions of fairness and facilitates voluntary compliance.

Tax IT systems must quickly and accurately capture and validate data from paper and electronic documents to transactions when handling the processing of returns and payments. Payment processing transactions may be entered into the system, but in most, countries, payments are allowed to be done through the banks and then processed by the tax administration and reflected electronically in the taxpayers' accounts automatically.

4.3 Taxpayers Accounting

Tax administrations keep accounts of taxpayers' balances, liabilities, interests, penalties, refunds owned, etc. Proper taxpayer accounting enables other tax administration functions. Contemporary tax administrations keep taxpayers' balances by tax type and by reporting period and allow a single look at the taxpayer for all taxes for compliance or maybe offsetting of tax liabilities.

Information Technology makes it easy for taxpayers' records to be timely, accurate, and automatically updated when processing returns, payments, refunds, tax assessments, penalties, and interest. Tax-related transactions are recorded in an accounting system for balancing, reconciliation, and reporting. All taxpayer historical data, such as payments, liabilities, penalties, and interest, are stored electronically and are automatically accessible.

4.4 Audit

Audit plays a significant part in tax administration; it monitors compliance returns and provides information support. Today, tax administrations prepare audit plans largely on staffing levels and previous audit experience and select returns that pose the greatest risk to revenues, subjecting non-compliance taxpayers to audits and letting them aware of the costs of non-compliance while rarely subjecting compliance taxpayers to audits. Audits are data-driven and can be comprehensive at times and may involve face-to-face interviews, inspections of taxpayers' records and premises, financial ratio analysis, sometimes third-party validation, an inspection of books and records, and a walk-through of the test.

IT tax system assists tax administration with audit planning by automatically quantifying the risk that each taxpayer poses to revenues and automatically selecting high-risk taxpayers for audit. The system will select cases and the audit workflow process, and, in some cases, it will do so by automatically forwarding audit cases to auditors based on the auditor's proficiency and availability. Also, the rapid initiation of investigations in cases of potential taxpayer fraud is incorporated into the business and system process. Audit reports need to be archived for appeals and objections.

4.5 Objections and Appeal

Objections and appeals should always be the right of taxpayers in circumstances where they are not satisfied with an assessment raised during an audit. They should have the right to object and appeal to the tax administration and outside the tax administration, such as in a court of law. This allows the taxpayer a recourse avenue, provides a central role in establishing a perception of fairness, and gives rise to voluntary compliance. The opportunity for automation is limited since objections and appeals are the only recourse actions available to taxpayers on generated special cases and would require special consideration. A manual view of the process is taken by many countries but IT can support the objections and appeals function by providing access to taxpayer account information, transactions, etc., tracking the status of objections and appeals cases, and

registering the results of appeals. The e-tax system allows the electronic filing of objections and provides online information updates to the taxpayer concerning the objection process.

5. The Implementation and Benefits of Digital Reforms in Tax Administrations in Sierra Leone

5.1 Digital Transformation of the National Revenue Authority –Sierra Leone

In a bid to meet the growing expenditure of the government budget and the pledge by the government to increase domestic revenue by 20% of domestic product by 2023, the National Revenue Authority (NRA) has embarked on a series of activities geared towards committing a reality. Practical and concrete steps have been taken within the institution to breathe life into words and actualize the president's dream.

The digital revolution, which has swept the world in the last two decades, leaving societies cashless but moneyed, is breezing across the west coast of Africa. The NRA, which is the body saddled with the responsibility of collecting revenue, streamlining, and mainstreaming revenue mobilization, has begun taking tangible steps to enhance its operational structures and processes.

Recently, three fundamental reforms have commenced in the NRA that will, in the medium- and long-term, bolster revenue generation and increase public confidence. Hence, below are the reforms:

- The ASYCUDA World,
- The Electronic Cash Register (ECR),
- The Integrated Tax Administration System (ITAS).

These tax reforms are within the short- and long-term scope of NRA, and NRA believes that these tax reforms will lead to revenue generation once enacted and implemented.

5.2 The ASYCUDA World

This was introduced in Sierra Leone in April 2010 as part of the NRA Modernisation Programme. Financial support was from the United Kingdom Department for International Development (DfID). ASYCUDA is a computerized customs management system that covers most foreign trade procedures. The system handles manifests and customs declarations, accounting procedures, and transit and suspense procedures. It generates trade data that can be used for statistical economic analysis. The ASYCUDA software was developed in Geneva by UNCTAD. ASYCUDA considers international codes and standards developed by the International Organisation for Standardisation (ISO), the World Customs Organisation (WCO), the Data Model, and the United Nations. The ASYCUDA can also be configured to suit the national characteristics of individual customs regimes, National Tariffs, and legislation. It also provides Electronic Data Interchange (EDI) between traders and Customs using prevailing standards such as XML.

The Automated System for Customs Data (ASYCUDA World), launched in 2010, is a web-based program allowing businessmen to start their transaction documents with the NRA from any part of the world and at any time. It eases the burden on particular importers who buy goods from different parts of the world, paving the way for them to check the customs duties for their goods and initiate engagement with the NRA as long as there is a connection where they are. Hence, this is closely related to Gupta *et al.* (2021), who state that technology development is structurally changing information processes across the government and the private sector. Tax Administrations are no exception and, therefore, are becoming digital. Today, more than ever, their job is to manage, interpret, and exploit information effectively and efficiently.

From another point of view, The Organization for Economic Co-operation and Development (OECD) (2020) proffers that the Forum on Tax Administration (FTA) created in 2002 bringing together commissioners and tax administration officials from 53 OECD and non-OECD countries, including all members of the G20. In this light, the vision is to create and influence relevant global trends and develop new ones to enhance tax administration worldwide. It does so by:

- Providing a unique global forum where the commissioner and their team can share experience and expertise on tax administration issues.
- Harnessing the collective strength of tax administration globally, including through developing joint programs of action on key tax administration issues.
- Developing and promoting world-class products and standards for effective, efficient, and fair tax administration.

5.3 Why ASYCUDA World in Sierra Leone

It is an upgrade to Asycuda ++, as it is web-based, allowing users to use it and process customs transactions from anywhere and anytime. It is possible to attach and submit commercial documents electronically. The key to its implementation is to reduce the costs of doing business both on the side of traders and customs. This is to reduce clearance time and avert some of the challenges experienced with Asycuda ++.

5.4 ASYCUDA World and ASYCUDA ++

ASYCUDA ++ is a client-server technology application implying that users' computers should be installed with client software to access the central server. To ensure a smooth connection to the server, NRA facilitated a VPN for external users to access the NRA network. On the other hand, ASYCUDA World is internet or web-based, and the server is accessed through the internet. External users do not necessarily need a VPN or installation of client software on their computers but need the internet to access the system from anywhere as long as there is internet connectivity.

5.5 Electronic Cash Register (ECR)

ECR is a system comprising a Certified Invoicing System (CIS) and a Sales Data Controller (SDC) or Electronic Signature Device (ESD) connected as one system. The

SDC/ESD is a device connected to the CIS for signing on the receipt, storing receipt information, and sending receipt information to the NRA server.

The ECR is an electronic cash ledger that contains cash payments made to a business by a taxpayer, including GST payments. It is intended to create a platform for NRA to monitor small business houses' transactions to track their tax liabilities and for prediction of turnover. It contains both software and hardware components that will be inextricably linked to the NRA.

5.6 Legislation of the ECR

Section 25 (1, 2, and 3) of the Finance Act 2018 gives the NRA the authority to install Electronic Fiscal devices on business premises.

Section 34 of the Goods and Services Tax (GST) Act 2009 is amended by repealing and replacing section 34 with the following:

- 1) Every registered GST business shall, in the ordinary course of business, maintain an electronic cash register as may be specified by the commissioner-general for invoicing and recording all transactions.
- 2) GST registered supplier who makes taxable supplies shall be required at the time of supply to issue the recipient with an original GST invoice, whether from the printed booklet or an electronic cash register for all supplies.
- 3) Where the GST-registered supplier who makes taxable supplies fails, at the time of the supply during purchase, to issue the recipient with an original GST invoice for the supply, the customer shall be required to request a GST invoice or electronic cash register system-generated sales receipt specified under subsection 5.
- 4) A GST invoice and a sales receipt shall contain the information prescribed by the commissioner-general.

5.7 Benefits of the ECR

This is a system set for all goods and services tax (GST) registered businesses, and it is a technological system (software and devices) that the NRA uses to monitor business transactions and improve the quality of sales tax or GST. The following are the key reasons:

- To automate the GST invoice process,
- To automate NRA systems and processes,
- To enhance voluntary compliance,
- The system is simpler and faster than the manual procedure.

5.7.1 Eligibility to use the ECR and Interaction

All businesses registered for GST are liable and eligible to use the ECR. The following will be required to interact with the ECR:

- Certified invoicing system or point of sales (POS),
- Internet connection,

- Sales control data device,
- Electricity,
- Taxpayer identification number.

5.7.2 Security and Confidentiality

The system is highly secured and has enhanced security features with end-to-end encryption, which cannot be decoded during data transmission.

NRA offers support through taxpayers' services in all Domestic Tax Offices (DTD) country-wide. Taxpayers may also seek help through NRA's call centre through the following phone number +23288139139.

5.8 Integrated Tax Administration System (ITAS)

Crown Agents joined a consortium of revenue management firms in 2019 and commenced the implementation of the Integrated Tax Administration System for NRA-SL. The introduction of the ITAS will significantly enhance operations in tax administration as follows:

- Allow for better compliance as a result of simplified payment processes for the taxpayer
- Enhance transparency of operations along the tax administration/revenue management chain
- It will also improve budget preparation.

The ITAS is primarily introduced to reform revenue management practices in Sierra Leone by addressing systematic gaps in reporting, receipting, and collections. This is part of a move to bring national institutions one step closer to complete self-sufficiency. ITAS is a generic term used to describe a modern computer system that automates end-to-end tax processes.

5.8.1 Why ITAS

NRA is largely operated in a manual environment and data generated in the process are also substantially manual, lacking a computer system with rudimentary registration and accounting for taxpayers' assessments and payments. Manual processes and data present a multitude of challenges with the security of data, access to extensive data and data integrity, extraction of data for analysis and reporting, etc. However, going digital will enhance efficiency and effectiveness in tax administration. ITAS is intended to support all aspects of tax administration and provides reports that fully comply with laws, regulations, standards, principles, etc.

The ITAS will be of benefit to businesses and NRA in the following ways such as there will be electronic communications such as alerts and notifications, fairness and equity, faster tax refunds, increase in revenue collections, improved revenue forecasting, reliable data for decision making and setting policies, etc.

6. Discussion

Tax enforcement is a universal challenge and predominant in countries where both evasion and corruption traditionally have been above average (Martinez-Vazquez, 2022). On the other hand, the improvement of taxpayer services to lower compliance costs goes hand in hand with improving overall compliance (Martinez-Vazquez, 2022). The benefits, challenges, and implications of implementing digital taxes in developing countries, especially African countries, are scarcely explored in literature because the implementation is in its infancy, with only a few countries that have applied these taxes (Kelbesa, 2020). The few countries that have applied digital taxes have done so in recent years of which Sierra Leone is not an exception.

Rukundo (2020) states that for African countries, the digitalisation of the tax base is a challenge due to the weak technical capacities of revenue authorities. Digital transformation of the NRA tax administration is one of the biggest challenges in the NRA administration transformation. This digital transformation was required by external factors, for instance, the increase in fiscal deficits should be met by new sources, improved compliance, and increased revenue collections. In an effort by the NRA to search for ways to achieve the revenue needed by the government of Sierra Leone, NRA has moved to digital ways of collecting data and information. The digital platform enables more sophisticated analyses and, hence, better tax collections. NRA, moving towards digitalisation, has faced huge challenges and has seen potential benefits or opportunities. One of the challenges for tax administration all over the world is that there is no recipe for the digitalisation of tax administration. There are a lot of challenges the NRA has undergone over the years. Firstly, it was to get the political will, and then move in getting the IT infrastructures and technologies, the staff and their proficiencies, managing the risks that are involved, and getting the financial resources and communication. These challenges are enormous, and NRA still struggles to put some in place as there are many problems with system breakdowns, errors, mistakes, etc. Experiences have shown that the digitalisation of tax administration is a difficult task and requires radical changes in its organisation. Digitalisation is a power system. However, tax administrations sometimes see it as complex and unsuccessful. This often emerges as a result of tax administrations like other sectors/industries wanting to create their own electronic and IT management system whereby a lot of money, effort, and technology will be spent.

In the implementation of the ECR, there were instances where taxpayers resisted the ECR machines, and the commissioner had to notify taxpayers of the consequences of their actions.

However, there are many opportunities to transform to digitalization, such as an increase in tax revenue. Direct digital taxes present an opportunity for African governments to extend revenue mobilization and widen their tax bases. They have also improved public confidence and trust in the fairness and transparency of the tax system (Becker, 2021).

7. Conclusion

Digitalization and tax administration have the benefit of increasing the revenue base of the government, contributing to increasing per capita income, creating employment opportunities, encouraging, import substitution, foreign direct investment, and multi-national corporations' effectiveness and efficient utilization of local and international tax laws synchronization (Leyira *et al.*, 2017 Ajala & Adegbe, 2020). It is pertinent to ensure stable tax revenues to meet the significant budgetary heads such as healthcare, infrastructure, and education (Andrew, 2011). The increasing tax revenue leads to economic growth and development (Besley and Persson, 2009; Gaspar *et al.*, 2016; Milios, 2021, Schlotterbeck, S., 2017; Andrew, 2011).

Customs reform and modernization initiatives inevitably include elements of trade facilitation. According to the World Trade Organization, trade facilitation can be defined as 'the simplification and harmonization of trade procedures, activities, practices, and formalities involved in the clearance process for the movement of goods in international trade (Dongo *et al.*, 2020; WTO, 2015). However, recently, the definition of trade facilitation has been broadened to include the transparency and professionalism of customs authorities, harmonization of various standards, and conformity to international or regional regulations (Grainger, 2011). According to the African Development Report (2010), Trade facilitation is a process that includes improvements in the simplification of trade procedures and documentation, harmonization of trade practices and rules, improvements in the transparency of information and procedures, recourse to new technologies promoting international trade, and transaction security.

Electronic monitoring of cargo allows customs officers to have a full view of the cargo in transit, and it can be speculated that it is unlikely that such goods can be diverted to the market without tax payment (Grainger, 2011).

The digital economy is what the world is moving to facilitate transactions and businesses; therefore, tax authorities need to embrace the digital era. This will force tax authorities to replace traditional methods of tax administration with electronic tools for effective business transactions around the world. Sierra Leone National Revenue Authority sees that with digitalisation, the administration will be faster, stronger, more effective, efficient, and better. The full accomplishment of NRA digitisation will help combat abuse, minimise tax evasion, and improve the quality of tax reporting and tax revenue mobilisation.

Although technology is primary and very significant, the human factor should not be ignored in digital administration. Taxpayers should be provided with all the necessary assistance required to fulfill their obligations with authority, such as timely control over the fulfilment of taxpayers' obligations and efficient collection of their obligations. Tax authorities all over are faced with similar challenges in tax administrations, especially with the adoption of international standards.

Tax enforcement is a universal challenge and predominant in countries where both evasion and corruption traditionally have been above average; on the other hand,

the improvement of taxpayer services to lower compliance costs goes hand in hand with improving overall compliance (Martinez-Vazquez, 2022).

Conflict of Interest Statement

This research is free from any conflict of interest and has no anticipated ethical issues.

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