



**NATIONAL DEFENCE UNIVERSITY-KENYA  
NATIONAL DEFENCE COLLEGE - KENYA**

**RESEARCH PROJECT**

**THIRD PARTY DATA SHARING AND TAX COMPLIANCE FOR  
ECONOMIC SECURITY IN KENYA**

**NAOMI W. NDIRANGU**

**ND601/0034/2022**

**MAY 2023**

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SECURITY IN KENYA**

**NAOMI W. NDIRANGU**

**ND601/0034/2022**

**A Research Project in Partial Fulfilment of the Requirements for the Degree of Master of  
Arts in National Security and Strategy**

**May 2023**

## DECLARATION

I, Naomi Wairimu Ndirangu, hereby declare that this research project is my original work and has not been presented for a degree in any other University.


Signed \_\_\_\_\_

Date 28/04/2023

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This project has been submitted for examination with my approval as University Supervisor;

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## **DEDICATION**

This research project is dedicated to my family members for their support and contribution in my education.

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## LIST OF ABBREVIATIONS/ ACRONYMNS

CbCR	Country-by-Country reporting
CCPA	California Consumer Privacy Act
CRS	Common Reporting Standard
DRM	Domestic Resource Mobilization
FATCA	Foreign Account Tax Compliant Act
G20	Group of Twenty
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
IMF	International Monetary Fund
IRS	Internal Revenue Services
IT	Information Technology
KRA	Kenya Revenue Authority
OECD	Organization for Economic Co-operation and Development
PAYE	Pay As You Earn
PPP	Purchasing Power Parity
SDGs	Sustainable Development Goals
SMEs	Small and Medium Enterprises
SRI	Servicio de Rentas Internas (The Internal Revenue Service's - Ecuadorian Tax Authority)
TIN	Taxpayer Information Number
UN	United Nations
UNDP	United Nations Development Program
UNGA	United Nations General Assembly
US	United States
VAT	Value Added Tax

## ABSTRACT

Third-party data sharing involves the exchange of data between entities that are not directly involved in a transaction or relationship. In the context of tax compliance, it typically involves the sharing of information by employers, financial institutions, and other entities with tax authorities. This paper reviewed the sharing of taxpayer specific information between Government agencies or Public Sector in Kenya, a concept that has emerged over the last few years with automation of the revenue services such as online registration and filing of tax declarations. This is due to the fact that, despite the recent focus towards strengthening sharing of information and information exchange, the area of impact of an integrated data approach towards revenue mobilization has largely remained un-noticed in public finance literature. This paper provides an overview of information sharing, through third party data sharing to enhance tax compliance. This was achieved through review of practical concepts and issues on third party data sharing, theorizing on impact of information sharing and providing insights for enhanced tax compliance, increased revenue collection and ultimately enhanced revenue mobilization for the country. Relatedly, the paper also discusses how the systems used for automatic third party data sharing combined with data analytics can help improve compliance.

The researcher selected participants for the study using purposive sampling based on specific criteria. The responses from the questionnaires were examined and analyzed to identify any connections or relationships among and between categories. The resulting data was then summarized and organized into a coherent whole to describe and interpret the findings related to the principal-agent relationship. One significant finding was that third party data sharing has a significant impact on tax compliance through provision, to tax authorities, of access to more information about taxpayers. Key recommendation is that there is need for enactment and legislation of laws and policies that promote inter-agency sharing of data as well as improvement of the data sharing frameworks in order to enhance tax compliance, and the country's revenue collection and thereby improve the country's economic security.

## CHAPTER ONE - INTRODUCTION

### 1.0 Introduction

Revenue authorities across the world have realized the immense potential of harnessing third party data to reduce tax non-compliance and hence increase tax revenue collected. Access and use of information from government agencies, such as land registries, company registration and licensing bodies, motor vehicle departments, electricity and water supply agencies as well as from banks and insurance agencies, suppliers to various taxpayers and other related personal information, is vital to tax authorities in authenticating the correctness of tax return information filed by taxpayers. The Covid-19 pandemic accelerated the need for tax authorities to strengthen their third-party access and utilization capabilities, through use of technology, to inform compliance levels, counter tax evasion and improve customer service to taxpayers.<sup>1</sup>

The unprecedented levels of data generated globally as companies digitalize, calls for tax authorities to enhance their capabilities in collection, processing, analysis and interpretation of data, to remain effective in their revenue collection efforts. Moreover, tax administrations leverage on data analytics, data visualizations and interpretation to solve problems, make informed decisions and thus enhance efficiency in revenue administration and improve revenue collection.<sup>2</sup> This data-driven approach to decision-making also offers tax authorities an opportunity to improve tax compliance through identification, processing and use of available information with astuteness.

In Kenya, the Income Tax Act requires individuals who earn income from activities within the country and meet specific income thresholds to file a tax return in compliance with the regulations outlined in the law. The tax preparation process is based on the principle-agent theory, which aims to ensure taxpayer participation. In this model, the government, represented by the revenue authority, acts as the principal and requires taxpayers to submit accurate and compliant tax returns as their agent. Anyone who acts on behalf of the taxpayer, such as a tax consultant, is considered an agent for both the taxpayer and the government. Through the Kenya Revenue Authority, the country administers a self-assessment tax system, where the taxpayers personally and voluntarily

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<sup>1</sup> OECD. (2021). "Tax Administration: Digital Resilience in the Covid-19 Environment". Retrieved from <https://www.oecd.org/coronavirus/policy-responses/tax-administration-digital-resilience-in-the-covid-19-environment-2f3cf2fb/#section-d1e1571>

<sup>2</sup> Alfredo Collosa (2021). Use of Big Data in Tax Administrations. CIAT, Inter-American Center of Tax Administrations. <https://www.ciat.org/use-of-big-data-in-tax-administrations/?lang=en>

account for their taxes and thus their responsibility to file their tax returns annually and make the necessary payments. Failure to comply with this mandatory requirement, whether through error or willful intent, can result in financial penalties, legal prosecution, and significant revenue loss for the government every year. Despite the severe consequences of non-compliance, the issue of taxpayers failing to comply with tax obligations has been a persistent problem for the Kenya Revenue Authority for many years. Scholars have engaged in ongoing debates regarding the root causes of non-compliance among taxpayers.

For the financial year 2020/21, the tax compliance in Kenya, in terms of payment of tax and filing tax returns, stood at 88 percent and 68 percent respectively.<sup>3</sup> Scholars have suggested that a pre-filled tax system can minimize or eliminate the role of the tax preparer, thereby easing the burden of self-preparation and increase taxpayer compliance.<sup>4</sup> However, while the authority has introduced on-line filing to ease the filing burden as well as enhancement in technology, compliance has not improved over the years. The Kenya Revenue Authority has further sought to obtain third party data – both internally and externally in order to further its tax administration capabilities and improve tax compliance. This has however been met by various challenges, especially following the enacted of the Data Protection Act, 2019 amongst other third party data sharing limitations.

## **1.1 Background of the Study**

The principal objective of a revenue authority is to collect taxes and duties due in accordance with the law in a manner that will preserve confidence in the tax system and its administration.<sup>5</sup> In Kenya, The Kenya Revenue Act provides the mandate of the revenue authority as “to assess, collect and account for all revenue in accordance with the written law and the identified provisions of the written laws.” Consequently, weaknesses in a tax system or taxpayers’ actions - due to ignorance, negligence, carelessness or deliberate tax evasion - may result to non-compliance with the tax laws. The Organization for Economic Co-operation and Development (OECD) implores the Revenue authorities to develop strategies and structures that maximize overall compliance

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<sup>3</sup> Kenya Draft-National-Tax-Policy – 16.06.2022

<sup>4</sup> Bankman, Joseph, Clifford Nass, and Joel Slemrod. (2015). "Using the “Smart Return” to Reduce Tax Evasion." In *Proceedings. Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association*, vol. 108, pp. 1-23. National Tax Association.

<sup>5</sup> OECD, E. (2004). "Compliance risk management: Managing and improving tax compliance." In *Forum on Tax Administration, Centre for Tax Policy and Administration*.

within the tax laws.<sup>6</sup> While revenue authorities ensure that taxpayers understand their responsibilities under the tax laws, taxpayers are expected to meet their obligations. Tax obligations differ across taxpayers, taxation roles and jurisdictions. Tax compliance essentially relate to the extent a taxpayer meets these obligations.

Compliance is categorized into four broad areas of taxpayers' obligations namely: Taxpayer registration, timely filing of requisite tax information, accurate and complete declaration/reporting, and on-time payment of relevant tax obligations. Non-compliance arises where there is failure to meet any one of these obligations. Largely, for most revenue authorities, it is the taxpayers' responsibility to determine the relevant tax liability and ensure that they meet requirements on tax payment.<sup>7</sup> In which case, tax compliance, cast in its simplest terms, refers to the degree to which taxpayers conform to the tax law. However, a second measure for tax non-compliance, "tax-gap" if defined from different tax authorities' perspectives as the difference between the actual tax collected and the total tax that should be collected.<sup>8</sup> According to the US Fiscal authority, Inland Revenue Service (IRS), tax-gap is the difference between what the taxpayers should to pay and what they actually pay on a time. This definition is furthered by Holmgren, 2013<sup>9</sup> who regard tax-gap as the difference between the true tax liability in any period and the total tax voluntarily paid on time.

### **1.1.1 Consequences of Non-Compliance**

Non-compliance has various consequences including penalties for the taxpayers, criminal prosecution, as it deprives the government of revenue.<sup>10</sup> When individuals or companies do not pay their taxes or underreport their income, the government misses out on the revenue that would have been collected. The Organization for Economic Co-operation and Development (OECD) estimates that global tax revenue losses due to tax evasion and other forms of non-compliance

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<sup>6</sup> OECD, E. "Compliance risk management: Managing and improving tax compliance.

<sup>7</sup> Barr, N.A., James, S.R., & Prest, A.R. (1977). *Self-Assessment for Income Tax*. London, Heinemann - as cited by James, Simon, and Clinton Alley. "Tax compliance, self-assessment and tax administration." (2002).

<sup>8</sup> Raczkowski, Konrad. (2015). Measuring the Tax Gap in the European Economy. *Journal of Economics and Management*. 21. 58-72.

<sup>9</sup> Holmgren, R. D. "The internal revenue service needs to improve the comprehensiveness, accuracy, reliability, and timeliness of the tax gap estimate." *Department of the Treasury, Washington, August 21*, no. 1 (2013).

<sup>10</sup> Van Rikxoord, Tina Marie. "The Influence of Power, Trust, and Technology on Perceptions of Pre-filled Tax Systems: A Phenomenological Study of US Taxpayers." PhD diss., Northcentral University, 2018.

range from \$100 billion to \$240 billion annually.<sup>11</sup> Additionally in a study of tax non-compliance in the United States, researchers estimated that the tax gap - the difference between the amount of tax owed and the amount actually paid - was \$441 billion in 2019.<sup>12</sup> Other ramifications include legal penalties, financial sanctions, and reputational damage. According to the Internal Revenue Service (IRS), tax non-compliance can lead to civil or criminal penalties, including fines, imprisonment, and seizure of property. A study conducted by the Tax Justice Network estimated that tax evasion costs governments around the world more than \$427 billion in lost revenue annually.

Non-compliance with tax laws can also result in interest charges, late payment penalties, and other financial sanctions imposed by tax authorities. Non-compliance with tax laws can damage a company's reputation, particularly if it becomes public knowledge. A report by the Tax Justice Network highlighted the negative impact on the reputation of companies such as Google, Apple, and Amazon, which were accused of using complex tax structures to reduce their tax bills.<sup>13</sup>

Tax authorities face a number of challenges in preventing or combating tax non-compliance. Some of these challenges include the complexity of tax laws, limited resources, and the increasing use of digital technologies by taxpayers to hide their income or assets. The IMF identifies complexity of tax laws that make it difficult to identify non-compliance and enforce tax regulations as one of the challenges to combat non-compliance. Additionally, the ability to investigate and prosecute cases of tax non-compliance is limited due to underfunded and understaffed authorities around the world. The increasing use of digital technologies by taxpayers to hide their income or assets is another challenge. A report by the OECD noted that the use of digital platforms and cryptocurrencies can make it harder for tax authorities to track and tax economic activity.<sup>14</sup>

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<sup>11</sup> OECD. (2021). Tax Revenue Implications of the Covid-19 Crisis: Updated OECD Estimates. Retrieved from <https://www.oecd.org/tax/tax-policy/tax-revenue-implications-of-the-covid-19-crisis-updated-oecd-estimates-january-2021.pdf>

<sup>12</sup> Internal Revenue Service. (2021). Tax Gap Estimates for Tax Years 2011-2013. Retrieved from <https://www.irs.gov/statistics/enforcement-examinations-criminal-investigation/tax-gap-estimates-for-tax-years-2011-2013>

<sup>13</sup> Tax Justice Network. (2021). The Cost of Tax Abuse: A Briefing Paper. Retrieved from <https://www.taxjustice.net/wp-content/uploads/2021/03/The-Cost-of-Tax-Abuse-A-Briefing-Paper.pdf>, and Tax Justice Network. (2018). The State of Tax Justice 2018. Retrieved from <https://www.taxjustice.net/wp-content/uploads/2018/11/The-State-of-Tax-Justice-2018.pdf>

<sup>14</sup> OECD. (2021). Tax Challenges Arising from Digitalisation - Interim Report 2021: Inclusive Framework on BEPS. Retrieved from <https://www.oecd.org/tax/beps/tax-challenges-arising-from-digitalisation-interim-report-2021-2b33e68e-en.htm>

The biggest challenge tax authorities' face to reduce tax non-compliance or tax-gap is the requirement of access to information. In many cases, taxpayers may be reluctant to provide accurate information about their income or assets, or they may be able to hide this information using offshore accounts or other means. The OECD has noted that one of the key challenges in addressing tax non-compliance is obtaining access to relevant information, particularly in cases involving cross-border transactions or offshore accounts.<sup>15</sup> A study by the World Bank found that access to information is particularly important in developing countries, where tax authorities may lack the resources or capacity to collect and analyze data effectively.<sup>16</sup> Similarly, the Tax Justice Network also highlighted the importance of information sharing and transparency in combatting tax non-compliance, particularly in cases involving multinational corporations.<sup>17</sup> Information is critical in the pursuit of appropriate tax policies and reduction of tax non-compliance and tax-gap.<sup>18</sup> All these environmental and contextual factors that affect tax compliance such as, emergence of the global economy,<sup>19</sup> growth in international trade, digitalization coupled with e-commerce and innovations in business structures and financial obligations call for an increased demand on revenue authorities' change of business model to deliver on their mandate.<sup>20</sup>

Developing countries' tax collection approximates 15 percent of GDP compared to the 40 percent average collection by advanced economies<sup>21</sup>. Many low-income countries have low tax revenues levels that are neither sufficient to provide basic services to their citizens nor yield significant progress towards attainment of the UN's sustainable development goals<sup>22</sup>. The UN Sustainable Development Goals (SDGs) address key global issues including hunger, inequality and climate change, while calling explicitly on the business world and other organizations to contribute to

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<sup>15</sup> OECD. (2019). Fighting Tax Crime: The Ten Global Principles. Retrieved from <https://www.oecd.org/tax/crime/fighting-tax-crime-the-ten-global-principles-9789264310044-en.htm>

<sup>16</sup> World Bank. (2018). The Changing Wealth of Nations 2018: Building a Sustainable Future. Retrieved from <https://openknowledge.worldbank.org/handle/10986/30424>

<sup>17</sup> Tax Justice Network. (2018). The State of Tax Justice 2018. Retrieved from <https://www.taxjustice.net/wp-content/uploads/2018/11/The-State-of-Tax-Justice-2018.pdf>

<sup>18</sup> Raczkowski, Konrad. (2015). *Measuring the Tax Gap in the European Economy*.

<sup>19</sup> James, Simon, and Clinton Alley. "Tax compliance, self-assessment and tax administration." (2002).

<sup>20</sup> OECD, E. "Compliance risk management: Managing and improving tax compliance." In *Forum on Tax Administration, Centre for Tax Policy and Administration*. 2004.

<sup>21</sup> Akitoby, Bernardine. 2022. "Raising Revenue". *International Monetary Fund*. <https://www.imf.org/en/Publications/fandd/issues/2018/03/akitoby>.

<sup>22</sup> "Innovations In Tax Compliance". 2022. *The World Bank*. <https://www.worldbank.org/en/topic/macroeconomics/brief/innovations-in-tax-compliance>.

sustainable development. Taxation is central to the attainment of the SDGs since a strong tax system sustains funding of the SDGs. Specifically, SDG 17 call for partnerships between governments and the private sector to mobilize private resources to deliver the SDGs<sup>23</sup>. On one hand, taxes are necessary for governments to achieve essential environmental and social investments, and on the other hand, taxes influence the organizations of the SDGs. This is articulated tax-related business actions such as ‘paying fair share of taxes’, ‘prevent using tax avoidance mechanisms’, and ‘engaging in responsible tax practices from tax planning and public transparency undertaking impact assessments of corporate tax policy and practice’.

Tax collection in the low-income countries are characterized by inequality, coupled with high tax evasion rates by corporations and the rich as well as disproportionate tax burden on low-income groups. The tax collection systems in many low-income countries are often marked by significant inequality and a lack of transparency, leading to an uneven distribution of the tax burden. This can lead to a situation where wealthy individuals and corporations are able to avoid paying their fair share of taxes through a variety of loopholes and other means, while the burden of taxation falls disproportionately on low-income groups. One of the main factors contributing to this situation is the lack of effective tax enforcement mechanisms in many low-income countries. This can lead to widespread tax evasion, particularly among corporations and the wealthy, who may be able to afford expensive tax lawyers and other professionals who can help them minimize their tax liabilities. At the same time, low-income individuals and small businesses may lack the knowledge or resources to take advantage of tax loopholes, and thus end up paying a disproportionate share of their income in taxes.

Another factor contributing to the inequality in tax collection is the lack of progressive taxation systems in many low-income countries. Instead of taxing the wealthy at higher rates than the poor, many low-income countries rely heavily on regressive taxes such as value-added taxes (VATs) or sales taxes, which tend to hit low-income groups hardest. This can make it difficult for low-income individuals and families to make ends meet, while the wealthy are able to continue accumulating wealth without contributing their fair share to society. These challenges of tax collection in low-

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<sup>23</sup> Taxation and the Sustainable Development Goals Conference Report (English). Platform for Collaboration on Tax Washington, D.C. : World Bank Group.  
<http://documents.worldbank.org/curated/en/860581538762337418/Taxation-and-the-Sustainable-Development-Goals-Conference-Report>

income countries are complex and multifaceted, and require a concerted effort from policymakers, tax administrators, and other stakeholders to address. This may involve improving tax enforcement mechanisms, creating more progressive tax systems, and increasing transparency and accountability in the tax collection process.

Mobilizing of domestic resources through broadening and deepening of the tax base lessens a country's burden on external borrowing and propels government accountability, responsiveness and institutional capacity<sup>24</sup>. This can have significant benefits for a country's economic and social development. By increasing the amount of revenue that a government is able to collect from its citizens and businesses through taxes, a country can reduce its reliance on external borrowing and decrease the burden of debt on future generations. This promotes macroeconomic stability and reduces the risk of financial crises.

In addition, a strong and effective tax system can help to promote government accountability, responsiveness, and institutional capacity. By ensuring that all citizens and businesses are paying their fair share of taxes, a government can demonstrate its commitment to fairness and equity. This can help to build trust between citizens and their government, and can promote a sense of shared responsibility for the country's development.<sup>25</sup> Moreover, a well-functioning tax system can provide a reliable and predictable source of revenue for the government, allowing it to better plan and implement public policies and programs. This can help to strengthen institutions, build capacity, and improve governance more broadly. By investing in key areas such as education, healthcare, infrastructure, and social protection, a government can help to reduce poverty, promote inclusive growth, and create opportunities for all citizens.

Mobilizing of domestic resources through broadening and deepening of the tax base is a critical component of sustainable development. It can help to reduce the risks associated with external borrowing, promote government accountability and responsiveness, and build the institutional capacity needed to drive long-term economic and social progress.

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<sup>24</sup> Ibid 2

<sup>25</sup> Van Rikxoord, Tina Marie. "The Influence of Power, Trust, and Technology on Perceptions of Pre-filled Tax Systems: A Phenomenological Study of US Taxpayers." PhD diss., Northcentral University, 2018.

### 1.1.2 Tax Collection in Kenya

The Kenya Revenue Authority, KRA, was founded on July 1, 1995, by an act of Parliament, the KRA Act Cap 469, as a central agency for the assessment and collection of tax, the administration and enforcement of revenue laws, and provisions for related purposes.

It is responsible for administering and enforcing the revenue provisions outlined in the Act's first schedule. The primary statutes are the Income Tax Act (Chapter 470), the Value Added Tax Act, 2013, the East African Customs Management Act, ECMA and the Excise Act. The authority is tasked with collecting income on behalf of the government. For the financial year 2020/21, tax revenues accounted for 67.7 percent of the total government revenue with 29.1 percent generated through other sources.<sup>26</sup> The tax revenue trend for KRA is as indicated in the table herein.

**Table 1: Tax Revenue Collection Trend in Kenya, 2017/18 - 2021/22 – In Kshs. Billion**

	2017/18	2018/19	2019/20	2020/21	2021/22
<b>TOTAL TAX REVENUE</b>	1,410.08	1,543.78	1,455.52	1,669.00	2,031.00

Source – Kenya Revenue Authority and the Treasury

The trend demonstrates that tax collection has been on an upward trajectory, with the exception of FY 2019/20 when the Covid-19 pandemic adversely impacted on the collection. KRA seeks to promote compliance with Kenya's tax, trade, and border legislation and regulation by promoting the standards outlined in the taxpayers charter and responsible enforcement by highly motivated and professional staff, thereby maximizing revenue collection at the lowest possible cost for Kenyans' socioeconomic well-being. The Taxpayers Charter outlines five primary obligations on taxpayers, with the first as filing of timely returns/custom entries. The second is the filing of accurate reports on all returns/entries, the third being voluntary payment of the required taxes on timely basis and the forth being cooperation with revenue officers as much as possible and to allow them the freedom to carry out their lawful duties. Another expectation of the taxpayers is that they are to disclose and produce all relevant information, records, and documents to tax officials.

Kenya Revenue Authority recorded a historic collection of Kshs. 2.031 Trillion for the financial year 2021-22 exceeding targets stated in the Budget estimates. The Authority attributed this collection to various strategies including active enforcement of tax laws in fighting against tax

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<sup>26</sup> Kenya National Bureau of Statistics Economic Survey 2022

evasion through collaboration with the multiagency team, partnership with other global jurisdictions to exchange tax information and the employment of technology to seal revenue loopholes, with data and intelligence as the basis for voluntary compliance and tax base expansion. The Commissioner General, KRA, at the end of the financial year 2021-2022 expressed that legally, KRA is permitted to utilize various databases to not only increase the tax base but also to pursue suspected tax frauds. Bank statements, Import records and Motor vehicle registration details are part of the databases they have access. Moreover, they have in the past accessed information from Kenya Power records, Water bills and Stamp duty records to support their tax compliance efforts.<sup>27</sup> This demonstrates the revenue authority's effort towards utilization of third party data sources to enhance tax compliance in the country.

### **1.1.3 Digitalization and Use of Third Party Data to Improve Tax Compliance**

The rise of digital economy is creating many challenges for tax administrations. They therefore must focus on adapting and reinventing policies to stay ahead of the game and ensure they are regulating the existing economy<sup>28</sup>. The use of advanced analytics enables a holistic view of a taxpayer, which in turn allows the tax authority personalize taxpayer services through segmentation. Tax administrations, influenced by the VUCA environment, dramatically upped their digital transformation pace. The recent Covid-19 pandemic, uncertain revenue estimates and an increased need to finance these budget deficits has exacerbated the digital transformation within tax administrations. Digital transformations imply a shift from passiveness and reactive relations in dealing with taxpayers, to proactive partnerships in improving business environment and thus enhance their tax compliance. This implies a change in mindset requiring collaboration with other government agencies.

OECD (2020) in their survey of tax administrations, established that many tax administrations digitally transformed by centering their operations on the customer – taxpayer – with at least 9/10 taxpayers submitting their tax returns through on-line platform. In New Zealand, the Revenue Authority linked with pensions department, social service agencies and veteran affairs to identify

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<sup>27</sup> KRA Admin, "Kra Exceeds Revised Target, Records Highest Revenue Growth in History," KRA, July 7, 2022, <https://www.kra.go.ke/news-center/press-release/1752-kra-exceeds-revised-target,-records-highest-revenue-growth-in-history>.

<sup>28</sup> Krieger, Tina. "An Economic Model of Fair Taxation in the Digital Age." In *European Scientific Conference of Doctoral Students*, p. 93. 2020.

cases of individuals exempted from filing tax returns. Estonia's e-tax system, through use of Government and third party data, enables 95% of the taxpayer population file and pay requisite taxes efficiently. The taxpayers are empowered with transparency and privacy features for restriction on information sharing. The IRS, with authority under the Internal Revenue Code (IRC), has an information-sharing program through partnership with federal, state and municipal government agencies to enhance voluntary compliance with tax laws. The various agencies are permitted by law to share their information with the IRS through programs that allow leveraging of resources, support of taxpayers to improve compliance and communication and support in identification of information and reporting on emerging tax issues.

The Internal Revenue Service, IRS receives tax returns from a large number of individual taxpayers, roughly 88 million, who report wage and investment income, and about 45 million small business and self-employed taxpayers. To ensure the accuracy of the information reported by these taxpayers, the IRS performs various checks. These checks include verifying computations on tax returns, requesting additional information about items on the returns, and comparing information provided by third parties to the income reported by taxpayers on their returns (known as document matching). The document matching program is a highly effective method for identifying underreported income and has resulted in billions of dollars in tax revenue. Additionally, this program has led to increased voluntary compliance among taxpayers, making it a cost-effective way for the IRS to promote tax compliance..<sup>29</sup> To protect taxpayers' confidentiality rights, the information-sharing program is subject to disclosure. In Brazil, the tax authority uses AI to identify inconsistencies between taxpayers filed earnings vis-à-vis those in similar industry. In Australia, use of third party data matching allows the tax authority alert taxpayer to correct identified errors in their tax return declarations.

The above examples provide justification that real time third-party data exchanges, especially those within the public sector have great impact in improving speed of customer service, enhancing tax compliance and ultimately, mobilization of revenue.

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<sup>29</sup> Brostek, Michael. "Taxpayer Information: Increased Sharing and Verifying of Information Could Improve Education's Award Decisions. Report to the Committee on Finance, US Senate." (2003).

## 1.2 Statement of the Research Problem

Uncollected tax revenue due to taxpayer noncompliance has significant ramifications for the government, given that taxes are the government's major source of revenue. Statistics obtained from the Kenya National Bureau of Statistics, KNBS, indicate that for the financial year 2020/21, tax revenues accounted for 67.7 percent of the total government revenue with 29.1 percent generated through other sources.<sup>30</sup> The uncollected tax revenues thus create a critical problem for the government in meeting its obligations. The government is limited in its capacity to fund public services and investments crucial for economic development and social welfare, increases the burden of financing public services and investments disproportionately on those who pay taxes, creates a perception of impunity and weaken the rule of law, and can exacerbate the problem of public debt. It is therefore essential for governments to prioritize efforts to strengthen tax collection systems, improve compliance, and reduce tax evasion in order to promote sustainable and inclusive development.

This uncollected tax is attributed to noncompliance in filing of tax returns and payment of tax, which stood at 68 percent and 88 percent respectively for the financial year 2020/21.<sup>31</sup> This lack of compliance is mostly due to a variety of issues that make it difficult for taxpayers to complete returns and pay their taxes on time. Among the issues include insufficient taxpayer information sharing among National and County Government departments, the technical and complicated nature of tax rules and processes, taxpayer indifference, high compliance costs, and an insufficient taxpayer education program.

Different scholars, including Bankman, Nass, and Slemrod, 2015 have proffered solutions to promote tax compliance such as use of third-party data sharing systems that enable pre-filing of tax returns to provide a moderate reduction in taxpayer cost of compliance and ultimately increase compliance. However, most have not addressed the concern on how third-party data can be fully utilized for compliance purposes. Moreover, challenges abound on the sharing of third party data among the national and county agencies as well as other inhibition that limit the effectiveness of third part data sharing.

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<sup>30</sup> "Kenya National Bureau of Statistics Economic Survey", 2022

<sup>31</sup> DRAFT-NATIONAL-TAX-POLICY-16.06.-2022

The Covid 19 pandemic has given tax administrations a fore taste of what digital transformation offers, and has also proved to be an impetus for greater possibilities for seamless digital integration and information sharing with other public sector entities. Access to data by state agencies such as law enforcement and the Kenya Revenue Authority is a subject of debate despite their obvious role in discharging their duties on fight against terrorism and revenue collection. Hedged in a period when the Kenyan Government is seeking to centralize its digital database, the notion of consent seems to be a barrier to improved service delivery for these institutions. Specifically, in the case of tax compliance and revenue enhancement, the Data Protection Act inhibits the Kenya Revenue Authority's efforts in seamless access to data that ensures efficient identification of potential areas for tax compliance and/or revenue enhancement.

Further, the area of impact of data and information sharing through an integrated approach, towards revenue mobilization has largely remained un-noticed in public finance literature. This paper will provide an overview of third party information sharing through review of practical concepts and issues, understanding recent policy review on Data Protection, theorizing on impact of sharing and providing insights on the its role for enhanced tax compliance, increased revenue collection and ultimately enhanced revenue mobilization for the country.

### **1.3 Research Questions**

The study is guided by the following research questions:

- i. What is the relationship between tax compliance and economic security in Kenya?
- ii. How does the profile and challenges of third party data sharing influence economic security in Kenya?
- iii. To what extent does third party data sharing influence tax compliance for economic security in Kenya?

### **1.4 Study Objectives**

#### **1.4.1 General Objective**

The general objective of this study is to examine the role of third party information sharing on tax compliance in Kenya.

#### **1.4.2 Specific Objectives**

The study seeks to specifically address the following research objectives:

- i. To examine the relationship between tax compliance and economic security in Kenya.

- ii. To assess the profile and challenges of third-party data sharing in Kenya.
- iii. To evaluate the influence of third-party data sharing on tax compliance for economic security in Kenya
- iv. To suggest ways and means to improve tax compliance through third-party data sharing in Kenya.

## **1.5 Literature Review**

This section explores literature on the independent and the dependent variables while exploring their relationship from studies undertaken in similar areas of study. This will relate the study to the larger dialogue on tax compliance and the influence of third party data sharing, filling in gaps, comparing results of related finding and extending such studies<sup>32</sup>.

It is two pronged – Theoretical Literature review (discussing key debates through selection of theories) and Empirical literature review (in line with specific objectives – cascaded from the Global, to Regional to Local perspectives). Both of which capture gaps in literature.

### **1.5.1 Theoretical Literature review**

This section will discuss key debates through selection of various theories. The researcher discusses the principle-agent theory, through its underlying assumptions, and its value in explaining the government-taxpayer relationship. Included also is the description of how this theory guides the study. To explain tax compliance behaviour, other theories are discussed such as the theory that characterizes compliance as a function of utility based rational choice to psychological and behavioural attributes of taxpayers by proponents including Allingham, & Sandmo, 1972, Lubian & Zarri, 2011 and Mohdali & Pope, 2014. Other heterogeneous theories including the consummate theory of compliance behaviour by Alm & Torgler, 2011 is advanced.

#### **1.5.1.1 The Economics-of-Crime Theory of Tax Compliance**

The work of Becker (1968) and his economics-of-crime model, as initially applied to tax compliance by Allingham and Sandmo (1972), and Srinivasan (1973), forms the foundation of virtually all research on tax compliance. The model assumes that a reasonable person would maximize the expected utility of the tax evasion wager (or lottery), by evaluating the advantages

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<sup>32</sup> Creswell, John W, and Creswell, J. David. (2018). Research design: qualitative, quantitative, and mixed methods approach/John W. Creswell, Ph.D., Department of Family Medicine, University of Michigan, and J. David Creswell, PhD, Department of Psychology, Carnegie Mellon University. Fifth edition. Los Angeles: SAGE

of successful cheating against the uncertain possibility of being caught and punished. This leads to the conclusion that individuals pay taxes out of fear of being discovered and punished where they don't report all of their income. Audit and fine rates are thus viewed to impact on tax compliance, augmented by the approach that individuals pay taxes out of fear for being disclosed and subsequent retribution.<sup>33</sup> The model, however, has received criticism for a number of flaws. Among them is the assumption that individuals understate their income, particularly in cases where employer withholds and third-party information are lacking. Moreover, the reason people pay taxes, not the reason they evade them, is the pursuit of tax compliance behavior. This implies therefore that other elements or effects not covered by the conventional approach have an impact on the compliance behaviour.

#### **1.5.1.2 The Principal – Agent theory**

This theory has Bosse & Phillips (2016) and Simon (1990) among its proponents.<sup>34</sup> The principal-agent theory is a theoretical framework that explains how one party, called the principal, can motivate another party, called the agent, to act in the principal's best interests, even though the two parties may have different goals or incentives. The theory has several key tenets that provide a foundation for understanding the principal-agent relationship. The theory assumes that there is asymmetric information between the principal and the agent. This means that the two parties have different information, knowledge, or expertise about a given task or situation. There also exists a goal misalignment between the principal and the agent. They have different goals, preferences, or incentives that may not always align.

The theory also assumes that the agent is risk-averse and seeks to minimize the risk of a negative outcome or loss. Moreover, it is often difficult to specify and enforce all the terms of a contract between the principal and the agent, leading to incomplete contracts. The agent may have an incentive to take actions that benefit themselves but are not in the best interest of the principal, which is referred to as moral hazard. Additionally, the principal may have difficulty selecting the best agent for the job, due to incomplete or asymmetrical information, which is called adverse selection. Lastly, the costs of monitoring and enforcing the contract between the principal and the

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<sup>33</sup> Alm, James. "What motivates tax compliance?." *Journal of Economic Surveys* 33, no. 2 (2019): 353-388.

<sup>34</sup> Bosse, Douglas A., and John S. Phillips. "Tax compliance: A review of the principal-agent theory and its application." *Journal of Accounting Literature* 37 (2016): 55-86 and Simon (1990)

agent can be high, which is referred to as agency costs, reducing the overall efficiency of the relationship. The principal-agent theory has broad applications in various fields, including corporate governance, public policy, and international relations. By understanding the principal-agent relationship and the factors that influence it, scholars and practitioners can design mechanisms that align the interests of the principal and the agent, reduce the agency costs, and promote optimal outcomes.

According to Bosse and Phillips (2016), tax compliance, which refers to the extent to which taxpayers fulfill their legal obligation to pay taxes and file tax returns, can be analyzed through the principal-agent theory. The government is the principal, and the taxpayers are the agents. The government relies on taxpayers to report their income accurately and pay the correct amount of taxes, while taxpayers expect the government to use tax revenues efficiently and fairly.<sup>35</sup> However, ensuring tax compliance faces several challenges, which can be understood through the lens of the principal-agent theory. For example, there may be asymmetric information between the government and taxpayers regarding income and assets, making it difficult for the government to ensure that taxpayers are reporting their income accurately (Alm & Torgler, 2006).<sup>36</sup> Similarly, there may be a goal misalignment between the government and taxpayers, as taxpayers may have an incentive to minimize their tax liability, while the government seeks to maximize tax revenue (Frey & Feld, 2002).<sup>37</sup> Furthermore, there may be moral hazard and adverse selection issues in tax compliance, as some taxpayers may have an incentive to evade taxes or engage in other forms of noncompliance, while others may be more honest and willing to comply.<sup>38</sup> Additionally, the costs of monitoring and enforcing tax compliance can be high, leading to agency costs.<sup>39</sup>

To promote tax compliance, the government can use various mechanisms that align the interests of the government and taxpayers, reduce agency costs, and promote optimal outcomes. For

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<sup>35</sup> Bosse, Douglas A., and John S. Phillips. "Tax compliance: A review of the principal-agent theory and its application." *Journal of Accounting Literature* 37 (2016): 55-86.

<sup>36</sup> Alm, James, and Benno Torgler. "Culture differences and tax morale in the United States and in Europe." *Journal of Economic Psychology* 27, no. 2 (2006): 224-246.

<sup>37</sup> Frey, Bruno S., and Lars P. Feld. "Deterrence and morale in taxation: An empirical analysis." CESifo Working Paper No. 760, 2002.

<sup>38</sup> Murphy, Kevin J. "The economics of tax evasion: A survey." *Journal of Economic Literature* 42, no. 1 (2004): 1-37

<sup>39</sup> Slemrod, Joel. "Cheating ourselves: The economics of tax evasion." *Journal of Economic Perspectives* 21, no. 1 (2007): 25-48

example, the government can use tax incentives, penalties, and education campaigns to encourage tax compliance (Kirchler, 2007).<sup>40</sup> The government can also use technology, such as electronic filing and data analytics, to improve tax administration and reduce the costs of monitoring and enforcement (Torgler, 2011).<sup>41</sup> By understanding the principal-agent relationship in tax compliance, the government can design policies and strategies that promote greater compliance, leading to higher tax revenue and improved economic outcomes.

To simplify tax return preparation and reduce the compliance burden on taxpayers, third party data can be used to prefill tax returns, which allows direct interaction between the principal and the agent (government). This approach eliminates the need for taxpayers to purchase tax software or engage a tax preparer. As a result, compliance may increase. However, there are some scholars who criticize the principal-agent theory for being too simplistic and not contributing enough to organizational theory in comparison to more complex theories.<sup>42</sup> This theory is supported by evidence and as such, the next section review critical empirical literature.

## **1.5.2 Empirical Literature Review**

Different empirical literature presents varying empirical evidence on tax compliance responsiveness based on use of third-party data. This section will thus discuss different empirical literature presented against each objective to enable understanding on the role of third-party data sharing on tax compliance for economic security in Kenya.

### **1.5.2.1 Taxation and Economic Security**

Seen under state centrism lens, economic security is one of the four key instruments of national power namely: Diplomatic, Information, Economic and Military (DIME). It encompasses a wide range of topics, from the provision of essentials for human survival to the country's national economic development agenda. Buzan avers that economic security is necessary for military security since it establishes a nation's resource capacity. Economic security is used as a barometer to measure the general security of the state. Barry Buzan defines security as “freedom from military, economic, political, environmental and societal threats.” The conventional state-centric

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<sup>40</sup> Kirchler, Erich. *The economic psychology of tax behavior*. Cambridge University Press, 2007.

<sup>41</sup> Torgler, Benno. "Tax morale, rule-following, and trust." In *Information, Society and Justice*, edited by Adam J. Jacobs and Michael A. Wenzel, 191-207. Springer, 2011.

<sup>42</sup> Perrow, Charles. "Economic theories of organization." *Theory and society* (1986): 11-45

definition of national security has given way to one that is more inclusive and emphasizes human security. This makes the term national security “interdisciplinary, encompassing aspects of politics, economics, socio-culture, technology, the environment, and the military.”<sup>43</sup>

Economic security gained in stature as an area of interest following its inclusion as a key component of the human security domain as expounded in the United Nations Development Programme (UNDP) Human Development Report of 1994.<sup>44</sup> The concept of human security elevated the focus of security to the level of the individual, rather than states, signifying a new paradigm of sustainable human development. Traditionally security threats were mainly derived from sources that were external to the state, and national security revolved around the security of the state as sovereignty and territorial borders were considered inviolable. The change in paradigm meant that emerging security issues joined the security framework.

The UNDP highlighted the link between economic security and human security in several of its reports. While the concept of human security emphasized the importance of protecting individuals from a range of threats, including poverty, disease, and violence, and promoting their well-being and dignity, the UNDP viewed economic security as a key aspect of human security, as it provides individuals with the means to meet their basic needs and protect themselves from economic shocks and vulnerabilities. The report highlighted the importance of promoting social protection systems that provide a safety net for individuals and households in times of economic hardship, such as through social assistance programs, unemployment insurance, and access to healthcare. These systems can help to reduce poverty and inequality and promote resilience to economic shocks, which in turn can enhance human security. In this way promoting economic security can contribute to broader goals of sustainable development, such as reducing poverty and hunger, promoting gender equality, and ensuring access to education and healthcare. In this sense, economic security is not only a means to an end but is also a critical aspect of human well-being and dignity in its own right.

Economic security is a complex and multifaceted concept that is defined differently by various scholars. One perspective defines economic security as a set of conditions that protect a country's

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<sup>43</sup> Buzan, B. (2008). “People, States and Fear. An Agenda for International Security Studies in the Post-Cold War Era. 1st Edition 1981, 2<sup>nd</sup> Edition. Harvester Wheatsheaf, 1991 and 2008”

<sup>44</sup> UNDP, “Human Development Report 1994: New Dimension of Human Security”, 1994, New York <https://hdr.undp.org>

economy from external and internal threats. This view emphasizes the importance of ensuring that the national economic system is resilient and able to withstand shocks from both economic and political sources. Another perspective defines economic security as the state of a country's economy that allows for the protection of its vital interests. This view emphasizes the importance of ensuring that the country's economy and institutions of power are strong enough to guarantee the protection of national interests, social development, and defense potential even under unfavorable conditions.

The objects of protection in this view can include the national economy, specific regions or sectors of the economy, legal entities and individuals as subjects of economic activity, as well as the vital interests of people, communities, and state institutions from internal and external threats and dangers. A third perspective views economic security as the ability of the economy to effectively satisfy social needs at interethnic and international levels. This view emphasizes the importance of ensuring that the economy can provide for the needs of society while also taking into account the diversity of ethnic and international interests. Overall, economic security is a crucial concept that is essential for the well-being of individuals, societies, and countries, and its definition may vary depending on the perspective of the scholar or analyst.<sup>45</sup>

Studies on the nexus between tax compliance and economic security are widely available in literature. Most of these studies have established a substantial positive association between tax compliance and economic growth. However, there have been studies that have established a negative impact of taxation on economic growth. One example is the case of Sweden in the 1970s and 1980s, where high taxes led to a significant decline in economic.<sup>46</sup> Similarly, in France, high taxes were cited as a factor in the country's low economic growth.<sup>47</sup> Another example is the case of the United States in the 1930s, where a significant increase in taxes contributed to the prolongation of the Great Depression.<sup>48</sup> Additionally, some studies have suggested that high taxes

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<sup>45</sup> Anofrikov, Sergey, and Vera Afonchikova. "Tax Crimes As Threat To Economic Security of the State." *Economic and Social Development: Book of Proceedings* (2019): 331-336.

<sup>46</sup> Bergh, A., & Henrekson, M. (2011). Government size and growth: A survey and interpretation of the evidence. *Journal of Economic Surveys*, 25(5), 872-897

<sup>47</sup> Sapir, A., Wolff, G. B., & Ainouche, A. (2013). Convergence in eurozone: Reality or fiction? *European Economy-Economic Papers*, 491

<sup>48</sup> Ohanian, L. E. (2009). What – or who – started the Great Depression? *Journal of Economic Theory*, 144(6), 2310-2335.

can discourage investment and entrepreneurship, which can have negative effects on economic growth.<sup>49</sup>

However, it is important to note that the relationship between taxation and economic growth is complex, and the impact of taxation can vary depending on a variety of factors, including the specific tax policies in question, the level of economic development, and the overall economic and political context. While high taxes may have a negative impact on economic growth in some cases, they can also provide important revenue for government spending on public goods and services that can contribute to long-term economic growth and development.

Taxation becomes a human security issue when it impacts people's ability to access basic needs and services, creates or perpetuates inequalities, and undermines the government's ability to fulfill its obligations to protect citizens' rights and well-being. In many low- and middle-income countries, tax revenue is a critical source of funding for public services such as healthcare, education, and social protection. When tax revenues are low due to widespread tax evasion and non-compliance, governments may struggle to provide these services to their citizens, particularly those who are most vulnerable and marginalized. This can lead to a range of negative impacts on human security, including limited access to healthcare, education, and other essential services, as well as reduced economic opportunities and increased poverty and inequality.

When the tax burden falls disproportionately on low-income households and small businesses, existing inequalities are exacerbated, new ones created and can undermine social cohesion and trust in government, which are critical components of human security. Similarly, the lack of government revenue due to tax evasion and non-compliance can limit the government's ability to invest in key areas that contribute to human security, such as infrastructure, disaster preparedness, and environmental protection. This can leave citizens vulnerable to a range of risks, including natural disasters, health epidemics, and environmental degradation. As such, it is important for governments to prioritize efforts to strengthen tax collection systems, improve compliance, and reduce tax evasion in order to promote sustainable and inclusive development and enhance human security.

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<sup>49</sup> Arnold, J., Brys, B., Heady, C., Johansson, A., Schwellnus, C., & Vartia, L. (2011). *Tax policy for economic recovery and growth*. *Economic Journal*, 121(550), F59-F80; and Feld, L. P., & Heckemeyer, J. H. (2011). FDI and taxation: A meta-study. *Journal of Economic Surveys*, 25(2), 233-272.

Tax revenue collected in any country often influence its economic growth and development. Taxes continue to be one of the crucial factors in regulating nation income in emerging and developed nations. In this regard, tax evasion has substantial effects, especially given the significant global cost of non-compliance by taxpayers.<sup>50</sup> Taxation influences government financial decisions, as it is the main source of infrastructure development, public funding, and provision of public service, all of which contribute to economic growth. Due to the existence of a challenging taxpayer class in both developed and developing nations that avoid tax payment or under-declare income in order to decrease their tax obligations, tax compliance is rarely at 100%.<sup>51</sup>

The main factor contributing to a nation's underdevelopment is tax non-compliance through evasion, which leaves a huge tax gap in government revenue. This generates a significant loss of revenue for the government, putting pressure for provision of efficient public services.<sup>52</sup> When individuals and businesses evade taxes, they reduce the amount of revenue that the government is able to collect, leading to significant loss of funds that could be used for public services and investments. This can create a vicious cycle in which the lack of government revenue leads to underinvestment in key areas such as health, education, infrastructure, and social protection, which in turn can perpetuate poverty and inequality and impede economic growth and development. Moreover, tax evasion can create a sense of unfairness and erode trust in the government, which can make it more difficult for the government to mobilize support for its policies and programs. This can hamper economic development, as citizens may be less likely to comply with tax laws and may be less willing to invest in the country.

Economic growth is a primary macroeconomic goal for both developed and developing countries. It is defined as an increase in an economy's capacity to create goods and services from one period to the next. Governments are tasked with the responsibility of providing certain essential infrastructure for citizens, such as economic stabilization, income redistribution, and economic service supply. Its capacity to satisfy these tasks is primarily determined by the amount of income

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<sup>50</sup> Werekoh, Eugene Adjei. "The Effects of Taxation on Economic Development: the Moderating Role of Tax Compliance Among SMEs." (2022).

<sup>51</sup> Mainoma, Muhammad Akaro, Godwin Emmanuel Oyedokun, Suleiman A. Salihu Aruwa, Taiwo Olufemi Asaolu, and Rafiu Oyesola Salawu. "Taxation for Economic Development." (2022).

<sup>52</sup> Rashid, Md. Harun Ur & Uddin, Noman & Hossain, Syed & Haque, Md. (2022). Good governance and tax evasion: mediating effect of socioeconomic conditions. *Asia-Pacific Journal of Regional Science*. 6. To read full paper, click on the link: <https://rdcu.be/cMVuR>. 10.1007/s41685-022-00242-x.

generated by the government through the various (internal and external) sources available to it. One of these sources is taxes, which is one of the tools for increasing the potential of public sector performance and repayment of public debt.

Taxation is critical to a nation's goal for self-sufficiency and meeting economic regulation obligations. Tax revenues are utilized as the principal source of government income to carry out basic government functions such as providing adequate roadways, keeping law and order, protecting against foreign invasion, and regulating commerce and business to promote social and economic stability. The provision of these social services and infrastructure contributes significantly to a company's total operating expenditures. It suggests that corporations may expand their operations rather than seeking to deliver these services and infrastructures for themselves. Foreign investors can be enticed to invest in a country through taxation, as well as tax reductions and incentives. This is due to the fact that they allow investors to fully recover their money during such periods and reinvest it in order to function on a larger scale. Capital allowances can help businesses recuperate their capital expenses. All of this results in an expanded economy and, as a result, economic growth.<sup>53</sup>

Taxes, particularly in the context of the COVID-19 pandemic crisis, and measures such as "greening" tax systems and combatting tax evasion and avoidance, play a significant role in promoting sustainable and equitable growth. Many countries continue struggling to earn enough income to support their own growth.. Countries that collect less than 15% of GDP in taxes must enhance revenue collection in order to cover the basic needs of their citizens and enterprises. This level of taxes is a critical tipping point for a state's sustainability and growth. As of 2018, 48% of the International Development Association (IDA)-funded countries, including Blend nations, and 69% of Fragile and conflict-affected states (FCS) fell below the 15% threshold.<sup>54</sup> Many developing nations are refocusing on taxation in order to lessen their reliance on aid or a single source of money for growth. This is because failure to collect tax revenues can exacerbate the problem of public debt. When governments are unable to raise enough revenue through taxes, they may resort to borrowing to fund their expenditures. This can lead to a vicious cycle of debt accumulation,

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<sup>53</sup> Werekoh, Eugene Adjei. "The Effects of Taxation on Economic Development: the Moderating Role of Tax Compliance Among SMEs." (2022).

<sup>54</sup> "Innovations In Tax Compliance". 2022. *The World Bank*.

<https://www.worldbank.org/en/topic/macroeconomics/brief/innovations-in-tax-compliance>.

which can have negative implications for macroeconomic stability, investor confidence, and long-term growth prospects for the country. The Task Force on Tax and Development of the OECD (2010) and the G-20 (Keen, 2012) both emphasize the importance of tax collection in developing nations.<sup>55</sup>

### **1.5.2.2 Profile of Third-Party Data Sharing**

Reliable tax systems that are built on visible, verifiable quantities depend on information to operate. In self-assessment systems, the taxpayer provides the tax authority with a significant quantity of information that must be verified by the latter, which can be done by audit or third-party information reports. The term "third-party information-reporting" refers to a requirement that certain third parties (such as companies, financial institutions, and government organizations that do not deal with taxes) report payments (and other tax-related transactions) and payee information to the tax authority (typically with a taxpayer identifying number). This data may then be compared to the tax that was actually submitted, identifying suspicious returns and enabling for further enforcement measures.

Third-party data can help mitigate some of the challenges that tax authorities face in preventing or combating tax non-compliance. By accessing this data, tax authorities may be able to identify cases of non-compliance more easily and accurately, without relying solely on information provided by taxpayers. The OECD for example has highlighted the importance of using third-party data to improve tax compliance and reduce the tax gap, particularly in cases involving offshore accounts or cross-border transactions.<sup>56</sup> Additionally, a study by the International Center for Tax and Development found that third-party data can be particularly useful in developing countries, where tax authorities may lack the capacity to collect and analyze data on their own.<sup>57</sup>

Coordination between the party giving the information report and the party responsible for remittance is required for successful evasion, but—and here is the key—their motives and readiness to falsify the data are unlikely to be the same (incentives can even act in different directions). As a result, a functional information reporting system discourages noncompliance by

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<sup>55</sup> *ibid*

<sup>56</sup> OECD. (2019). Fighting Tax Crime: The Ten Global Principles. Retrieved from <https://www.oecd.org/tax/crime/fighting-tax-crime-the-ten-global-principles-9789264310044-en.htm>

<sup>57</sup> International Center for Tax and Development. (2017). Tax Compliance and Third-Party Information: The Experience of Developing Countries. Retrieved from <https://www.ictd.ac/publication/tax-compliance-and-third-party-information-the-experience-of-developing-countries/>

raising the risk of detection for a given amount of tax authority resources. In practice, for such arrangements to be efficient enough to be appealing to revenue authorities, third-party electronic reporting of information reports and the use of a high-integrity taxpayer identifier are required to facilitate the matching of information reports with tax authority records.<sup>58</sup>.

In a study examining the digitalization measures of tax administration in the OECD context, with special focus on Germany, Tina Krieger, guided by the agency theory, established that digitalization measures promote compliant behaviour as a complement to one another. The digitalization measures in the study included: Data and analytics as instruments to directly reduce information asymmetry, digital services and administration to can resolve conflicting objectives, and behavioral insights and design use in building trust<sup>59</sup>. The use of third-party data has become increasingly important in the digital age, where taxpayers may have more opportunities to hide income or assets using digital technologies. A report by the European Commission noted that third-party data can help tax authorities identify cases of non-compliance involving digital platforms or cryptocurrencies.<sup>60</sup>

Artificial intelligence technology is increasingly permeating the field of public service and government affairs. China has developed artificial intelligence in the taxation system with automation of key tax-related transactions, such as online filing of tax returns and invoice management. Through the Golden Tax Project, they envisage an intelligent taxation system with the capabilities of tax collection management, an intelligent question-answering system, use of big data to analyze taxpayer associations, establish a credit scoring system to inform tax risk and potential areas of audits and investigation through network analysis<sup>61</sup>. By March 2019, the Golden Tax Phase III Project had only realized data merger for national tax, and was able to corroborate company's income, costs and profit, match virtual invoicing, and partially identify profit related

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<sup>58</sup> Slemrod, Joel, and Christian Gillitzer. "Insights from a Tax-systems Perspective." *CESifo Economic Studies* 60, no. 1 (2014): 1-31

<sup>59</sup> Krieger, Tina. "An Economic Model of Fair Taxation in the Digital Age." In *European Scientific Conference of Doctoral Students*, p. 93. 2020.

<sup>60</sup> European Commission. (2018). Communication from the Commission to the European Parliament and the Council: Further Steps to Foster Tax Transparency. Retrieved from [https://ec.europa.eu/info/sites/default/files/tax-transparency-communication-2018\\_en.pdf](https://ec.europa.eu/info/sites/default/files/tax-transparency-communication-2018_en.pdf)

<sup>61</sup> Zhou, Lingyan. "Opportunities and challenges of artificial intelligence in the application of taxation system." In *2019 International Conference on Economic Management and Cultural Industry (ICEMCI 2019)*, pp. 201-206. Atlantis Press, 2019.

risk. However, data, such as on real estate and business registrations from other government departments was yet to be integrated into the database. Subsequently, the taxpayer profile is not complete and thus exists the risk of tax evasion.

### **1.5.2.3 Third Party Data Sharing Limitations and Tax Compliance**

Even if all taxpayers were completely truthful, any tax system need an administrative structure with a bureaucracy to compute tax liabilities and record and verify remittance. However, not all taxpayers are honest, and they are not required to arrange their affairs in a way that benefits the tax authority. As a result, some taxpayers go to great efforts to limit the magnitude of their tax liabilities. In in response to avoidance and evasion, all tax authorities believe it is worthwhile to devote resources in order to reduce revenue loss as well as any unfavorable efficiency, horizontal or vertical equity repercussions. The tax authorities review their administrative costs while taking into account, not only the size, tangibility and mobility of the taxbase, but also the extent of information sharing with other agencies<sup>62</sup>.

Third-party data sharing then becomes an important tool for governments to improve tax compliance and reduce tax evasion. By accessing data from sources such as financial institutions, employers, and other third parties, tax authorities are better able to identify cases of non-compliance and target their enforcement efforts more effectively. However, there are limitations to third-party data sharing that can affect its effectiveness in promoting tax compliance. One key limitation is privacy concerns. Sharing sensitive financial and personal data with government authorities can raise concerns about data privacy and security.<sup>63</sup> Artificial intelligence technology for example rely on big data support to identify, match, and predict data to achieve accurate tax payment services. As more and more data is collected, the privacy of personal information cannot be guaranteed, and the risk of information disclosure increases<sup>64</sup>. This challenge can be addressed by ensuring that appropriate safeguards are in place to protect the privacy and confidentiality of the data, and that data sharing is done in compliance with applicable laws and regulations.

Another limitation is the quality and completeness of the data. Third-party data sources may not always be accurate or complete, which can lead to incorrect or incomplete assessments of

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<sup>62</sup> Slemrod, Joel, and Christian Gillitzer. "Insights from a Tax-systems Perspective." *CESifo Economic Studies* 60, no. 1 (2014): 1-31

<sup>63</sup> Zhou, L. (2019). "Opportunities and challenges of artificial intelligence in the application of taxation system."

<sup>64</sup> Ibid

taxpayers' compliance. In addition, some taxpayers may be able to evade detection by hiding their activities from third-party data sources or by using complex structures or offshore accounts to conceal their income and assets. There may also be legal and regulatory barriers to data sharing, including cross-border transactions. These barriers can limit the ability of tax authorities to access relevant data and thus create challenges in coordinating enforcement efforts across jurisdictions.

#### **1.5.2.4 Third Party Data Sharing and Tax Compliance**

Tax collection information is mostly given by tax authorities through self-assessment by taxpayers. Self-assessment is a taxation system in which individuals are responsible for calculating and submitting to the tax authorities their own taxable income, deductions, and obligations. The phrase "self-assessment" highlights the individual's responsibility in determining their own tax burden rather than depending only on an employer or tax agent to conduct tax computation and payment. Taxpayers are obliged to prepare a tax return and submit it to the appropriate tax body under the self-assessment method.<sup>65</sup>

The taxpayer's income from numerous sources, including as work, self-employment, investments, and rental properties, is often detailed in the self-assessment tax return. It also records information about any deductions, allowances, or tax incentives that the taxpayer may be eligible. The taxpayer is responsible for determining their tax due appropriately based on the information given and for adhering to all applicable tax rules and regulations. After submission of the tax return, the tax authority examines the information given and determines the tax due. If the tax authority agrees with the taxpayer's assessment, a tax invoice specifying the amount of tax payable is issued. However, if irregularities or errors are discovered during the review process, the tax authority may conduct additional investigations or audits to verify the correctness of the taxpayer's computations.<sup>66</sup>

The self-assessment tax system lays a high level of responsibility on the taxpayer to keep correct records, stay up to date on tax legislation, and satisfy filing deadlines. Failure to meet self-

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<sup>65</sup> Night, S., & Bananuka, J. (2020). The mediating role of adoption of an electronic tax system in the relationship between attitude towards electronic tax system and tax compliance. *Journal of Economics, Finance and Administrative Science*, 25(49), 73-88.

<sup>66</sup> Taing, H. B., & Chang, Y. (2021). Determinants of tax compliance intention: Focus on the theory of planned behavior. *International journal of public administration*, 44(1), 62-73.

assessment standards might have serious consequences. However, tax officials are unable to evaluate information submitted by taxpayers because information exchange across government agencies has not been implemented. Taxpayers frequently desire to pay less when there is knowledge asymmetry. This type of information asymmetry has made it difficult for taxpayers to grasp the taxation substance and tax burden imposed by the tax authorities, while the tax authorities lack knowledge about the taxpayer's organizational structure and company activities. This type of information asymmetry affects the accuracy of tax administrative mandates, breaches the principle of tax fairness and justice, and harms the tax authorities' image.<sup>67</sup>

Under the current international tax regime, where multinational corporations engage in cross border transactions, taxpayers may have an informational advantage over tax authorities since the latter lacks prior knowledge of the real facts and circumstances of the taxable case, whilst the taxpayer has significant incentives not to divulge all relevant information. This is especially the case where taxpayers wish to guard against the risk that trade secrets or commercially confidential information will be improperly revealed by governments to foreign competitors, harming their ability to compete. However, governments often assert the need for “tax competitive” rules to support their domestic industries’ efforts to engage in cross-border activities<sup>68</sup>. In 2013, the OECD also began an ambitious plan to counter “base erosion and profit shifting” (BEPS) by multinational firms. BEPS refers to the many international tax avoidance plans that firms adopt to legally reduce their global tax liabilities, often by shifting paper profits to tax havens<sup>69</sup>.

Kleven carried out a study on the Scandinavian tax systems and established that these have a wide coverage of third-party information reporting and specifically, well developed information trails that allows a low level of tax evasion.<sup>70</sup> However, he argues that despite the evidence obtained that third-party information is crucial for tax compliance; by itself, it does not reveal if variation in such information is key in explaining differences in the tax take across countries. Fasano examined the Italian tax authority and established that the use of third-party data has improved the ability of

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<sup>67</sup> Ibid

<sup>68</sup> Cockfield, Arthur J. "How countries should share tax information." *Vand. J. Transnat'l L.* 50 (2017): 1091.

<sup>69</sup> Plan, OECD Action. *On Base Erosion and Profit Shifting*. OECD Publishing: Paris, France, 2013.

<sup>70</sup> Kleven, Henrik Jacobsen. "How can Scandinavians tax so much?." *Journal of Economic Perspectives* 28, no. 4 (2014): 77-98.

Italian tax authorities to identify cases of tax evasion and to collect additional tax revenue.<sup>71</sup> A 2021 study by the International Monetary Fund (IMF) examined the potential of data analytics in addressing tax evasion and avoidance. The study noted that third-party data can be particularly useful in identifying cases of offshore tax evasion and in improving tax compliance among small and medium-sized enterprises (SMEs).<sup>72</sup>

In a study of how self-employed taxpayers in the United States reacted to new information reporting requirements implemented in 2011, researchers discovered that, in the short run, the introduction of Form 1099-K had no effect on the aggregate net income reported. There was also no discernible increased deterrent impact when compared to prior information reporting by schedule C filers. Electronic payments received by enterprises (e.g., credit card payments and payments through online commerce platforms such as eBay) are reported by the corporations processing these payments under this new reporting system. The authors conducted a large-scale investigation, connecting 2.5 million new information returns (1099-Ks) submitted in 2012 to over a million Schedule C taxpayers' tax returns. While this was not expected, the 1099-K reporting only covers a narrower range of transactions than the existing information-reporting regime in the United States applicable to service providers.<sup>73</sup>

Slemrod et al 2015 made many observations in his investigation. First, many forms of information reporting on corporate revenues and costs contain incomplete and noisy information, this is in contrast to information reporting on wages, financial income, and social transfers. To utilize such information for identifying noncompliance, the government frequently need additional information that is difficult to get. Overall, observing taxpayers who file tax returns only when required to do so, whose self-declared receipts closely match third-party reported receipts, and/or whose expenses closely match receipts, such patterns may indicate a proclivity for tax evasion.<sup>74</sup>

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<sup>71</sup> Fasano, G. (2022). The use of third-party data to detect tax evasion: Evidence from Italy. *Journal of Financial Crime*, 29(1), 44-61.

<sup>72</sup> IMF. (2021). *Data Analytics and Tax Administration: Selected Case Studies*. Retrieved from <https://www.imf.org/en/Publications/Policy-Papers/Issues/2021/08/02/Data-Analytics-and-Tax-Administration-Selected-Case-Studies-501226>

<sup>73</sup> Slemrod, Joel. "Tax compliance and enforcement: New research and its policy implications." (2016).

<sup>74</sup> Cui, Wei. "Information Reporting and State Capacity." In *Proceedings. Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association*, vol. 109, pp. 1-35. National Tax Association, 2016.

In an Ecuadorian study that was closely analogous in principle and approach to the one conducted in the United States by Slemrod et al, the researchers acquired both VAT and income tax returns from 87,000 Ecuadorian firms for the three years 2008-2010. The study requires the participation of the Ecuadorian tax authorities as well as access to significant (albeit private) information from Ecuadorian firms' income tax and VAT reports, demonstrating strong coordination between academia and government institutions. The authors made a simple but peculiar assumption: they regarded annexes linked to the firms' VAT returns, containing details of the firms' sales to and purchases from firms that are VAT taxpayers (B2B transactions), as giving third-party information about these consumers and vendors firms' costs and revenues for income tax requirements. They then investigated how Ecuadorian firms react to this sort of "information reporting." Carrillo *et al* initially attempted to link income tax returns with B2B transaction data from VAT reports. They discovered (not unexpectedly) that companies' self-reported revenues and expenses are greater on average than those reported on third-party VAT returns, while 24% (23%) of firms claimed lower revenues (costs) than those reported on third-party returns.

Carrillo *et al* then investigated a specific policy intervention. The Ecuadorian tax authorities (SRI) identified around 8,000 enterprises in 2011 and 2012 whose self-reported income in 2008, 2009, or 2010 was much lower than revenue recorded by third-party sources. The SRI notified these businesses of the anomalies and requested that they submit a revised tax return to remedy the mismatch. The SRI did not give the informed businesses with information on the third-party reported amount for firms with discrepancies in 2008. Firms that had disparities in 2009 and 2010 were advised of the third-party reported amount. In response, a tiny percentage of companies in our sample of alerted taxpayers submitted modified tax filings. concentrated on this sample and observed two findings that clearly suggest strategic activity on the side of the amending businesses. First, the reporting of discrepancies resulted in significant increases in reported revenues on the changed returns. When companies were provided a particular third-party reported revenue number (for the 2009 and 2010 tax years), "35% of all firms that filed an amendment adjusted reported revenues in order to match the indicated amount exactly".<sup>75</sup>

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<sup>75</sup> Carrillo, P., D. Pomeranz, and M/ Singhal. (2014). "Tax me if you can: Evidence on firm misreporting behavior and evasion substitution." *Working Paper, Harvard University* .

Chen *et al* also investigated the use of third-party data in combating tax evasion in Australia. They observed that using third-party data increased the identification of unreported income and helped to reduce the tax gap. Cross-matching VAT invoices on a systematic basis, so transforming VAT remittance into a kind of information reporting when it would not otherwise be, may play a role in avoiding VAT fraud and evasion in the flawed VAT systems of the real world. There is actually a lot of dispute among officials all around the world over this issue. Several countries, particularly China and South Korea, have made significant investments in invoice cross-matching technologies.<sup>76</sup>

Table 2 below provides a summary of empirical studies on the effects of third party data sharing and reporting.

**Table 2: Summary of Empirical Studies**

<b>Study</b>	<b>Country/Year</b>	<b>Third-Party Data sharing method used/ Type of Study</b>	<b>Empirical Analysis</b>	<b>Variable of interest</b>	<b>Main Results</b>
Chen, J., English, L., & Braithwaite, J. (2021)	Australia			The use of third-party data in addressing tax non-compliance	The use of third-party data has led to a significant increase in the detection of under-reported income and has helped to close the tax gap
Fasano, G. (2022).	Italy, 2022			The use of third-party data to detect tax evasion	The use of third-party data has improved the ability of

<sup>76</sup> Cui, Wei. (2016). "Information Reporting and State Capacity." In *Proceedings. Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association*, vol. 109, pp. 1-35. National Tax Association.

					Italian tax authorities to identify cases of tax evasion and to collect additional tax revenue
Mainoma, M. A., Oyedokun, G. E., Aruwa, S. A. S., Asaolu, T. O., & Salawu, R. O. (2022)	Nigeria 2020		Descriptive survey and review of Revenue Statistics in Africa 2020	Role of taxation in economic development	Taxation is a tool for economic management and development
Zikmundova, K., & Stavarek, D. (2019)	Russia 2019	Expert Survey		Taxation and Economic Security	Taxation is a key tool for ensuring the economic security system, as it not only provides financial resources to almost all components of the economic security but also is a tool of impact on economic and social processes
Kleven <i>et al</i> (2011)	Denmark 2007	Third party reporting information on general	Analysis of tax returns	Tax evasion measured by the adjustment of net income	Tax evasion for income subject to third party

		taxable income			reporting information is close to 0.3% while substantial for self-reported income (37%)
Pomeranz (2015)	Chile 2008	Third-party reporting information on overall taxable income	Difference-in-difference estimation evaluating the effect of a letter campaign (implemented by the Chilean Fiscal Authority)	Tax evasion measured by: -VAT payments per month -Probability of increasing sales (compared to the previous year)	7.6% increase (1% significance level) - 1.326 monetary amount in Chilean pesos  -1.33% increase (1% significance level) for final sales  - insignificant effect for intermediate sales
Carrillo <i>et al.</i> (2017)	Ecuador 2008–2012	Third-party reported earnings	Analysis of companies responses to notifications by tax authorities	Tax evasion measured by: -Reported revenues -Reported costs	Increase by 92.7 cents per dollar of indicated third-party revenue (1%

					significance level)  Increase by 96 cents on average per dollar of revenue adjustment (1% significance level)
Slemrod <i>et al.</i> (2017)	USA 2004–2012	Third-party reported small business sales	Trend analysis  Random growth model (on a subset of taxpayers reporting receipts equal to the amount reported on Form 1009-K)	Tax evasion measured by reported net income  Tax evasion measured by:  Reported receipts  Reported expenses	No sharp break in 2011 in aggregate reported value due to Form 1009-K  24% increase (5% significance level), due to Form 1009-K  13% increase (5% significance level), due to Form 1009-K
Beck <i>et al.</i> (2014)	102 countries 2002–2010	Credit information sharing and bank branch penetration	Probit and Tobit regressions	Tax evasion measured by:  1. Likelihood of corporate tax evasion	-16.6% decrease (1% significance level) due to

				2. Tax Evasion rate	credit information sharing -12.3% decrease (1% significance level) due to bank branch penetration
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**1.6 Hypotheses**

Based on the research objectives identified and guided by literature, the following hypothesis have been developed for testing;

- H0<sub>1</sub>: Tax compliance has no influence on economic security in Kenya.
- H0<sub>2</sub>: The profile and challenges of third party data sharing do not affect economic security in Kenya.
- H0<sub>3</sub>: Third party information sharing does not influence tax compliance in Kenya.

**1.7 Justification of the study**

The study is important for policy makers, academicians and the general public as expounded below.

**1.7.1 Policy Makers**

The information intensive era we live in, calls for a shift towards greater government openness in quantity of data shared, quality and timeliness in the sharing of this information, ease in access to this information and the extent stakeholder use the information to create public value. Where a country is building digital government strategies, policy makers and strategists provide support to the government by promoting understanding and development of an open government ecosystem that recognizes the roles of different actors and value creation of information sharing for enhancing tax compliance and thereby improving revenue collection.

### **1.7.2 Academicians**

The Study will add to the growing body of knowledge in revenue administration and tax compliance. Studies on third party data sharing and information sharing have mainly focused on international exchange of information, with minimal reference to domestic – inter-government agents - information sharing and its impact on compliance. Moreover, even with regard to the international information sharing, the focus has largely been on OECD member countries and thus this study will provide resourceful for an African context academic discourse for scholars. The study will also be pertinent for scholars and researchers who wish to continue exploring on ways for sharing experience and contribute to ongoing research on information/data sharing within the public sector for tax compliance purposes.

### **1.7.3 General Public**

Every revenue authority faces varied operating environments within which they administer their tax system with respect to policy, legislation and administrative practices and culture. As such, the study will provide an understanding on the value for information sharing to ease the burden of non-compliance on taxpayers, while increasing the tax revenue collection – translating to higher economic growth and thus better standards of living for the Kenyan citizenry.

## **1.8 Theoretical Framework**

The theoretical framework section identifies the key theories on data/information sharing namely: Theory of information sharing and the Social Exchange Theory. For purposes of this study, the underpinning theory of focus will be the information sharing theory.

### **1.8.1 Information Sharing Theory**

The Information sharing theory as proffered by Constant D, Kiesler S & Sprouli L 1994<sup>77</sup>, draws its roots from the Social Exchange and Psychological factors such as reciprocity, feelings, attitudes and self-identity to assess how individuals intentions influence sharing of information (Zaheer & Trkman, 2017)<sup>78</sup>. The theory is also based on the premise that information sharing is influenced by an organizations culture and policies as well as by an individual’s personal factors such as reciprocity and power – also referred to as rational self-interest. Social and organizational context

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<sup>77</sup> Constant, David, Sara Kiesler, and Lee Sprouli. "What's mine is ours, or is it? A study of attitudes about information sharing." *Information systems research* 5, no. 4 (1994): 400-421.

<sup>78</sup> Zaheer, Nadia, and Peter Trkman. "An information sharing theory perspective on willingness to share information in supply chains." *The International Journal of Logistics Management* 28, no. 2 (2017): 417-443.

attitudes also influence information sharing behavior (Zaheer & Trkman, 2017)<sup>79</sup>. They further argue that the attitudes and intentions for data sharing and influenced by economic anticipated motivational rewards or benefits, expected reciprocity, self-worth sense and an organization operating environment.

The information sharing theory proposes that the exchange of information between individuals or groups significantly impacts their perceptions, attitudes, and behaviors. According to this theory, sharing information not only enhances individuals' knowledge but also influences their decision-making processes and social interactions. Information can be shared through various channels, such as face-to-face communication, written documents, digital platforms, or social media. The theory emphasizes the significance of information flow in shaping individual and collective behavior. It suggests that access to accurate and relevant information enables individuals to make informed decisions, collaborate effectively, and engage in productive interactions with others. Furthermore, information sharing contributes to the formation of social norms, group cohesion, and the diffusion of innovations within a community or organization.<sup>80</sup>

The application of information sharing theory in taxation can have several implications for both tax authorities and taxpayers. Tax authorities can empower taxpayers with knowledge, which foster compliance through collaboration, and leverage technology to enhance enforcement efforts. Simultaneously, taxpayers can benefit from access to accurate information, improved communication channels, and opportunities to learn from their peers, leading to a more efficient and transparent tax system.

Tax authorities can promote information sharing by providing educational resources to taxpayers. This includes clear and accessible guidelines, tax calculators, and explanatory materials that help taxpayers understand their tax obligations, deductions, and exemptions. By improving taxpayer knowledge, individuals can make more informed decisions, accurately report their income, and comply with tax laws. The theory can also be applied for effective communication between tax authorities and taxpayers. Tax authorities can use various channels, such as official websites, helplines, and online platforms, to provide up-to-date information and address taxpayer queries.

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<sup>79</sup> Ibid

<sup>80</sup> Smith, John, and Laura Johnson. 2018. "The role of information sharing in shaping attitudes and behaviors." *Journal of Communication* 42, no. 3 (2018): 345-362.

Open lines of communication enable taxpayers to seek clarifications, obtain guidance, and share relevant information with tax authorities, promoting transparency and reducing errors in tax reporting.

Encouraging information sharing and collaboration among taxpayers can foster compliance. Tax authorities can promote the sharing of best practices and experiences through workshops, seminars, or online forums. By facilitating discussions among taxpayers, individuals can learn from each other, gain insights into tax planning strategies, and develop a better understanding of their obligations. Additionally, information sharing can be facilitated through digital platforms and advancements in technology. Tax authorities can leverage data analytics and machine learning techniques to identify patterns, detect non-compliance, and target enforcement efforts effectively. Moreover, secure and controlled data sharing between tax authorities and other government agencies can help improve compliance by ensuring accurate reporting of income and assets.

The Social Exchange Theory assumes that individuals evaluate costs and benefits before making a decision on sharing information with others – with cost classified as either opportunity cost – time and effort - or actual resource loss (Molm, 1997)<sup>81</sup>. Bock et al. (2005)<sup>82</sup> furthered the information sharing theory to include personal belief and institutional structures as impacting on information sharing. In both cases, cost and benefits are key determinants for information sharing. Benefits and cost of social exchange behavior, as advanced by Heo & Chang, 2018<sup>83</sup>, are determined through expected rewards.

The social exchange theory is a sociological and psychological framework that explores the dynamics of social relationships and interactions based on the principles of mutual benefits and costs. <sup>84</sup>According to this theory, individuals engage in social exchanges to maximize rewards while minimizing costs. The concept of reciprocity plays a central role, as individuals expect a fair and equitable exchange of resources, support, or favors in their relationships. In the context of

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<sup>81</sup> Molm, Linda D. "Risk and power use: Constraints on the use of coercion in exchange." *American Sociological Review* (1997): 113-133.

<sup>82</sup> Bock, G., Zmud, R., Kim, Y., & Lee, J. (2005). Behavioral intention formation in knowledge sharing: examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS Quarterly*, 87-111.

<sup>83</sup> Heo, Jun, and Chen-Wei Chang. "Factors influencing intention to accept location-based mobile advertising among young mobile user segments: a social exchange perspective." *International Journal of Mobile Communications* 16, no. 6 (2018): 607-623.

<sup>84</sup> Thibaut, J., & Kelley, H. (1959). *The social psychology of groups*. Wiley

taxation, the social exchange theory can offer insights into the dynamics between taxpayers and tax authorities, as well as the broader societal implications. Tax authorities can aim to create a fair and reciprocal relationship with taxpayers, fostering trust, compliance, and cooperation. Understanding the dynamics of social exchanges and incorporating principles of fairness, trust, incentives, and deterrence can contribute to building a more effective and efficient tax system.

## **1.9 Research Methodology**

### **1.9.1 Introduction**

This section will discuss the methodology adopted in the study on the role of third party data sharing on tax compliance for economics security in Kenya. The section describes the research design, research philosophy, population, sample and the sampling techniques, data collection methods, data analysis and data presentation methods employed in the study.

### **1.9.2 Research Philosophy**

Research philosophy is a system of a researcher's thought, through which new and reliable knowledge on a research object is obtained. It is the principle of research, encompassing choice of research strategy, problem formulation, data collection, processing and analysis<sup>85</sup>. Three main types of research philosophies are advanced: Positivism, Interpretivism and Realism. Positivism, relates to the idea of objectivism, concerns observations and experiments, and is used for collection of numerical/quantitative data. The social world is objectively viewed, with a researcher disassociating themselves from personal views to work independently on the subject of research<sup>86</sup>. The Interpretivism or Constructivism worldview is an approach to qualitative research with researchers developing subjective meanings (varied and multiple) of their experiences<sup>87</sup>. Researchers recognize that their interpretations are influenced by their personal, cultural and historic background and experience. The process of research is inductive with application of open-ended questions. The third worldview is the Pragmatic approach, which, unlike positivism that

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<sup>85</sup> Žukauskas, Pranas, Jolita Vveinhardt, and Regina Andriukaitienė. "Philosophy and paradigm of scientific research." *Management culture and corporate social responsibility* 121 (2018).

<sup>86</sup> Creswell, John W, and Creswell, J. David. (2018). *Research design: qualitative, quantitative, and mixed methods approach*/John W. Creswell, Ph.D., Department of Family Medicine, University of Michigan, and J. David Creswell, PhD, Department of Psychology, Carnegie Mellon University. Fifth edition. Los Angeles: SAGE

<sup>87</sup> Ibid - Creswell, John W, and Creswell, J. David. (2018).

arises from antecedents, it emanates from actions, situations and consequences. It does not commit to one philosophical approach or reality but rather applies mixed method research, qualitative and quantitative, thus different forms of data collection and analysis<sup>88</sup>.

This study adopted a positivism approach since it identifies and describes associations, as well as cause and effect relationships between variables. Positive findings form the basis for additional research, necessary revisions and additional testing may be undertaken should data not in support of theory. Specifically, since the study is scientific in nature, seeking to establish the role of third party data sharing on tax compliance for economics security in Kenya, Positivism is adopted. Positivism is chosen because the study is scientific in nature by attempting to establish how data sharing within the public sector impacts on tax compliance, with three hypotheses developed for testing. In addition, the study employed scientific method in sample selection, data analysis and drawing of conclusions<sup>89</sup>.

### **1.9.3 Research design**

Research design is a comprehensive plan detailing specific direction for procedures in a research study. It is a blueprint for scientific research directed at testing specific hypotheses and must spell out the development of instrument, sampling procedures, pre-test and data collection techniques<sup>90</sup>. A researcher selects qualitative, quantitative or mixed methods or research designs<sup>91</sup>. Qualitative design is conducted in various ways including narrative chronology, interviews, abstract theory of process, patterns of behavior, language or actions, and case studies – with data collection being highly descriptive. Quantitative design involves describing and measuring the degree or association between two or more variables or set of scores while providing answers to the questions of who, what, when, where, and how associations with a particular research problem<sup>92</sup>. It may provide qualitative or numeric description of events. The mixed method, in a research study, involves integration of the quantitative and qualitative research and data<sup>93</sup>.

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<sup>88</sup> Ibid

<sup>89</sup> Ibid - Creswell, John W, and Creswell, J. David. (2018).

<sup>90</sup> Saunders, Mark NK, and Frank Bezzina. "Reflections on conceptions of research methodology among management academics." *European management journal* 33, no. 5 (2015): 297-304.

<sup>91</sup> Creswell, John W, and Creswell, J. David. (2018)

<sup>92</sup> Blumberg, Boris, Donald Cooper, and Pamela Schindler. *EBOOK: Business Research Methods*. McGraw Hill, 2014.

<sup>93</sup> Creswell, John W, and Creswell, J. David. (2018)

The quantitative approach design was adopted in this study since the focus of the study is to determine the role of third party data sharing (independent variable) on tax compliance (dependent variable). The approach enables the study use quantitative data to establish common characteristics on phenomenon under study with statistics on third party data sharing and tax compliance variables analyzed quantitatively to test hypotheses. Moreover, the approach describes what exists and subsequent discovery of new details will augment and set the stage for further studies<sup>94</sup>.

#### 1.9.4 Population

Population refers to all people or items with attributes for study<sup>95</sup>, or the sum total of all elements from which a researcher makes inferences<sup>96</sup>. The Population of study were all KRA employees while the target population for this study were the Revenue Officers in KRA’s Domestic Tax Department who specifically deal with data analysis to inform tax compliance, who are based in various tax offices across the country (See Table 1).

**Table 3: Target Population**

<b>Location of Officers</b>	<b>Total Officers</b>
<b>At the head office</b>	18
<b>Stations within Nairobi</b>	23
<b>Stations out of Nairobi</b>	14
<b>Other Compliance Officers</b>	30
<b>Total</b>	<b>85</b>

#### 1.9.5 Sampling Design

A sampling design provides a plan guiding cases selection for observation. It maps out processes undertaken to develop the study’s sample.<sup>97</sup> It thus refers to the method used to select respondents. The test of a sample design is how well it represents the population characteristics it implies.

<sup>94</sup> Ibid

<sup>95</sup> Saunders, Benjamin, Julius Sim, Tom Kingstone, Shula Baker, Jackie Waterfield, Bernadette Bartlam, Heather Burroughs, and Clare Jinks. "Saturation in qualitative research: exploring its conceptualization and operationalization." *Quality & quantity* 52, no. 4 (2018): 1893-1907.

<sup>96</sup> Blumberg, Boris, Donald Cooper, and Pamela Schindler. *EBOOK: Business Research Methods*. McGraw Hill, 2014

<sup>97</sup> Saunders, Benjamin, Julius Sim, Tom Kingstone, Shula Baker, Jackie Waterfield, Bernadette Bartlam, Heather Burroughs, and Clare Jinks

Where the elements of a population are less than 200, it is recommended that a census be used.<sup>98</sup> In this case, since the total population was less than 200, a census was used.

### **1.9.6 Sampling Frame**

A sampling frame is “an accessible section of the target population from which a sample is drawn”.<sup>99</sup> The sampling frame consisted of the officers dealing with data analysis within the domestic taxes department to inform tax compliance.

### **1.9.7 Sampling Techniques**

Sampling technique refers to all methods and procedures the researcher uses in selecting a sample size. It can apply probability or non-probability methods or both<sup>100</sup>.

### **1.9.8 Sample Size**

A sample, is a subsection of the population selected that represents characteristics of a population. - a subset of the population that is a true representative of the entire population to be studied<sup>101</sup>. The study will adopt purposive sampling, with officers dealing with data analysis for tax compliance purposes identified as the sample population, since the census technique was adopted by examining all the elements of the population for study.

### **1.9.9 Data Collection Methods**

The questionnaire is one of the most prevalent data collection methods in social science research<sup>102</sup>. Both primary and secondary data are used in this study, with the secondary data drawn from literature review of studies previously undertaken in similar areas. Secondary data, through review of literature was used for the analysis of the objective linking tax compliance to economic security. In the case for Kenya, tax collection trend was reviewed as well as the tax contributions to GDP of the country were analyzed to assess the extent of this relationship. Primary data was obtained through use of structured questionnaires – closed-ended. The closed ended questionnaire had a five-point Likert scale to measure the respondents answers’ in the second part of the tool, with an additional comments from the respondents.

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<sup>98</sup> Israel, Glenn D. "Determining sample size." (1992): 2017.

<sup>99</sup> Saunders, Mark NK, and Frank Bezzina.

<sup>100</sup> Blumberg, Boris, Donald Cooper, and Pamela Schindler. *EBOOK: Business Research Methods*. McGraw Hill, 2014.

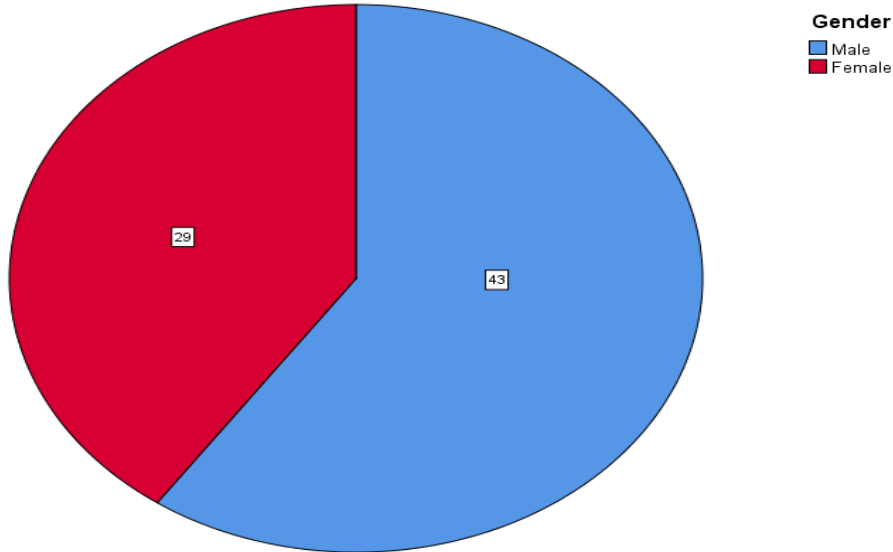
<sup>101</sup> Ibid

<sup>102</sup> Rowley, Jenny. "Designing and using research questionnaires." *Management research review* (2014).

### 1.9.9.1 Demographic Statistics

The figures herein present the demographic statistics of the population under study of the participants in the study undertaken. Figure 1 illustrates the distribution of participants. There were twenty-nine females and forty three males who participated.

**Figure 1 – Distribution of Participants**



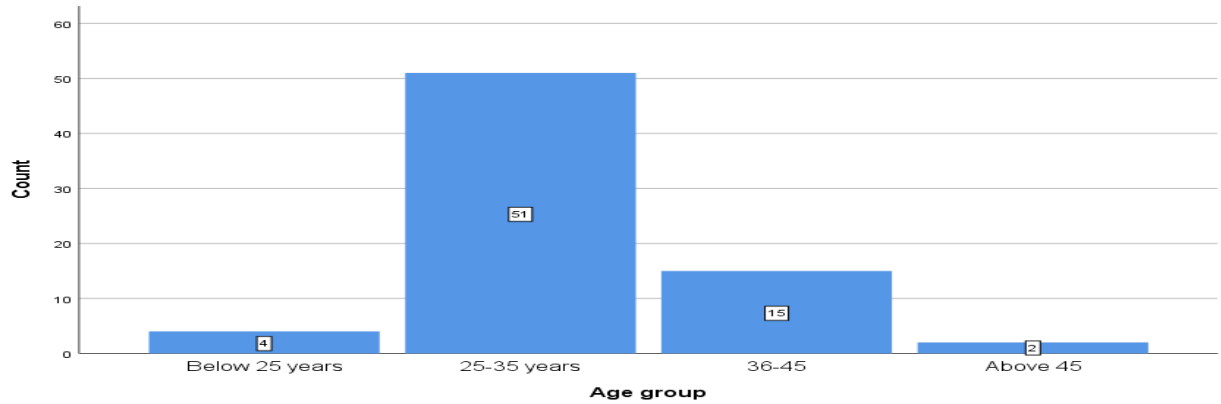
**Source – Researchers Data Collection Output**

The importance of this data analysis is to illustrate the balanced representation of participants.

### 1.9.9.2 Age of participants

Figure 2 presents the distribution of current ages of participants. The age range from four participants being less than 25; twenty-five being aged 25–35; fifteen who are 36–45; and two who are above 45.

**Figure 2 – Current ages of Participants**



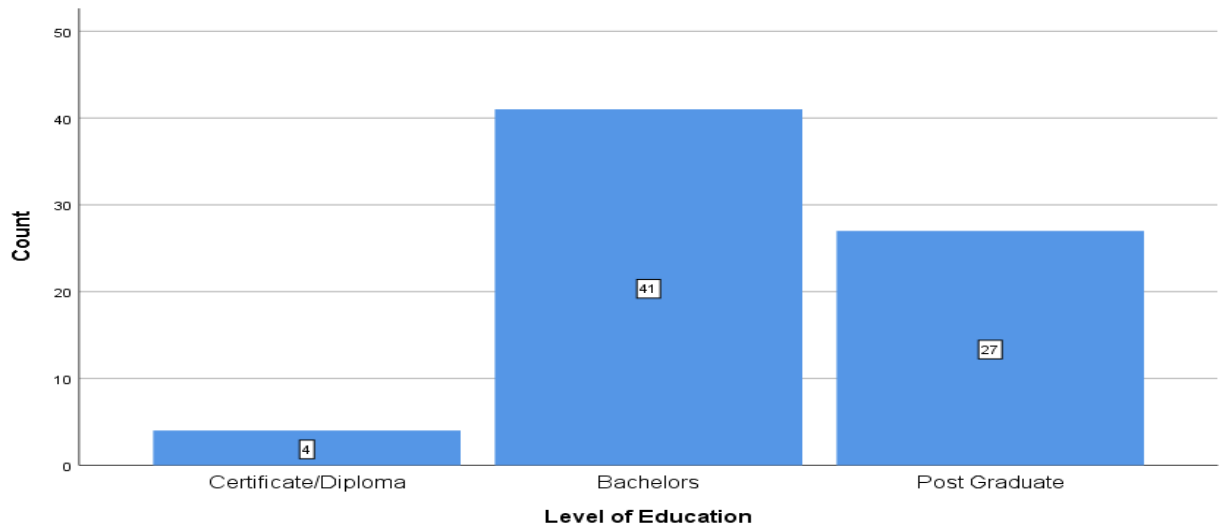
**Source – Researchers Data Collection Output**

The significance of this figure is that it outlines the age range of the participants. Its significance included the finding that a majority of the participants are relatively young and thus technologically endowed, so have no qualms on sourcing for third party data to support their work.

**1.9.9.3 Education**

Figure 3 included the level of education. The graphic representation of the level of education illustrated that only four of the participants did not have graduate degrees. Forty-one participants had bachelor’s degrees with 15 of the participants having post-graduate qualifications.

**Figure 3 - Level of Education**



**Source – Researchers Data Collection Output**

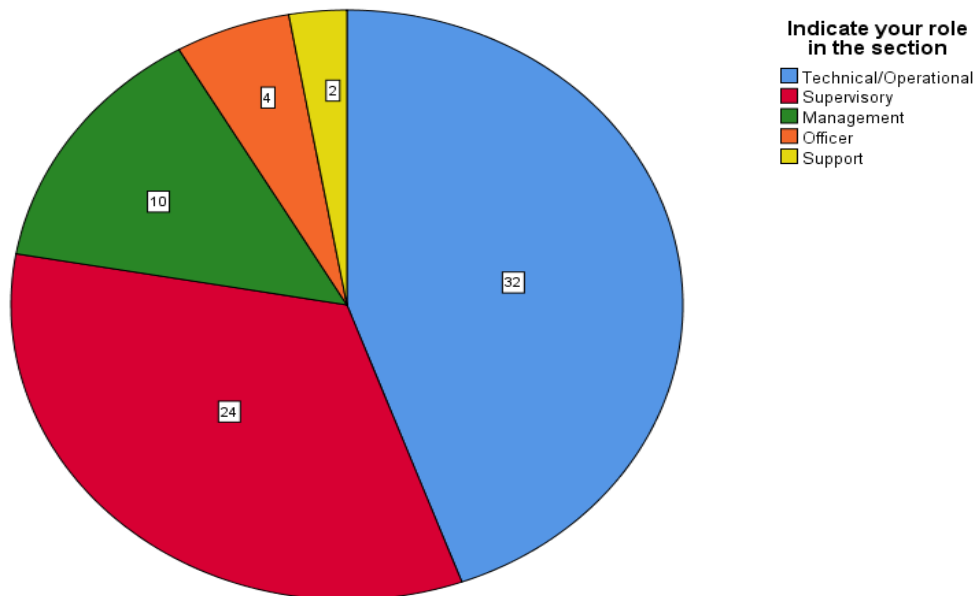
The significance of this figure was that it illustrated that majority of the interviewees have a minimum of a bachelor’s degree, the minimum requirement for undertaking analyst

responsibilities at KRA. It is possible that the four without Bachelors qualifications are University students attached to the unit under internship program.

#### 1.9.9.4 Role in the Section

Figure 4 included the role the participant holds in the Section. The graphic representation of the role in the section illustrated that thirty-two of the participants were doing technical or operational work thus actively engaged in analysis of the third party data, with four of the participants under officer level and two of the participants in support. Twenty-four of the participants were in supervisory level and ten in Management level.

**Figure 4 - Role in the Section**



**Source – Researchers Data Collection Output**

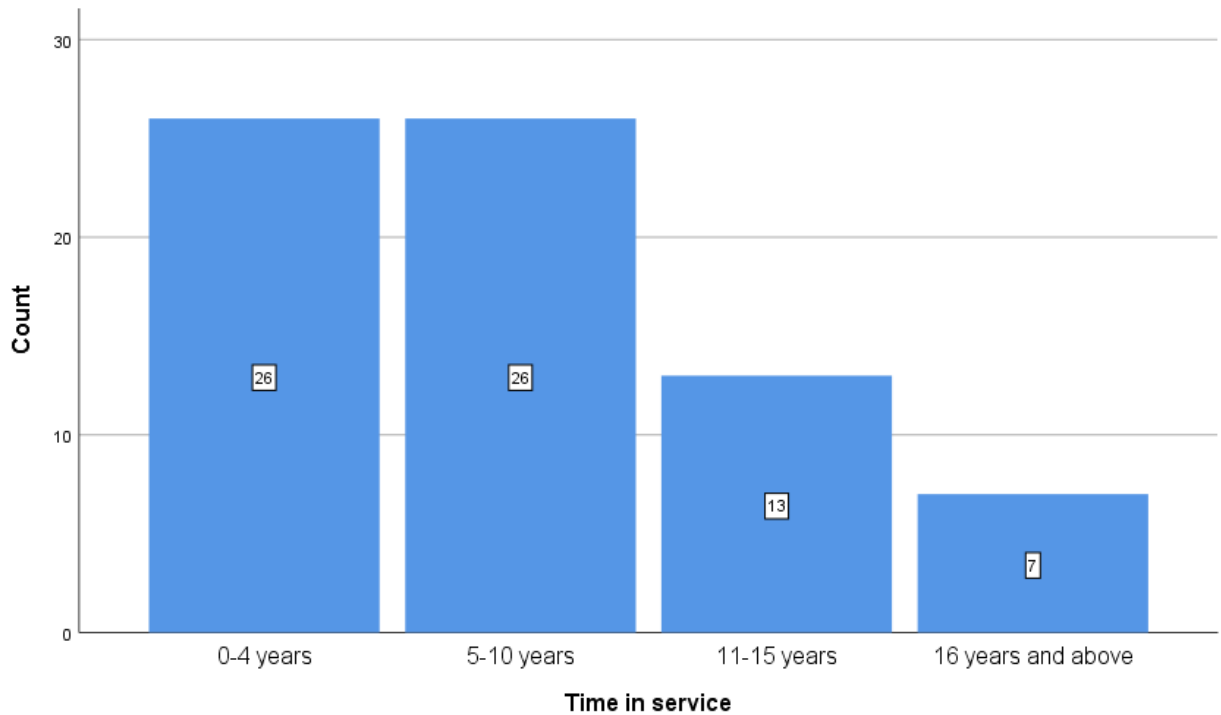
This figure is significant as it illustrated that majority of the participants were actively involved in the analysis of third party data and through the number of supervisors, demonstrates that there are checks on the analysis so undertaken.

#### 1.9.9.5 Time in the Organization

Figure 5 presented the time the participants have been in service in KRA. The graphical representation demonstrates that twenty-six of the participants have been in the organization for a period between 0-4 years, another twenty-six participants have been there for a period 5-10 year,

thirteen participants have been in the organization for 11-15 years and seven for more than 16 years.

**Figure 5 - Time in Service**



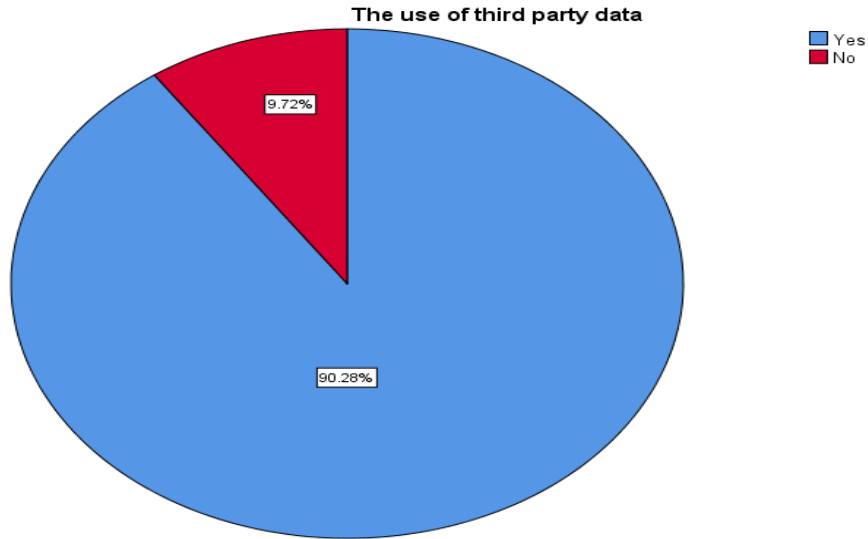
**Source** – Researchers Data Collection Output

This figure is significant as it illustrated the experience of the participants in usage of third party data and in making sense of the data obtained or in seeking new sources of the third party data.

#### **1.9.9.6 Use of Third Party Data**

Figure 6 presented the number of participants who use third party data in their operations in KRA. The graphical representation demonstrates that 9.72% of the participants do not use third party data while 90.28% use third party data.

**Figure 6 - Use of Third-Party Data**



**Source** – Researchers Data Collection Output

This figure is significant as it illustrated the percentage of staff who use third party data to inform decision making on matters taxation. We can speculate that the 9.72% of the participants then use either first-party or second-party data since the target group consisted of participants directly involved in data collection and analysis within the domestic axes department at KRA, and thus interact with data as part of their role.

### **1.9.10 Research procedures**

The research procedure used in this study was the administration of questionnaires as the primary data collection tool, developed based on the specific objectives of the study, and on the research questions. The researcher obtained authority from the University as well as consent from Kenya Revenue Authority, where the target population for the study is based. A research permit was also obtained from the National Commission for Science, Technology and Innovation (NACOSTI) as a research requirement. A research assistant was thereafter selected, trained and engaged in the administration of the questionnaire to selected respondents while ensuring that distribution of the questionnaire is done within one week and allowed the respondents one week to complete the questionnaire.

For construct validity, the questionnaire was divided into several sections to ensure that each section assessed information on a specific objective, and ensured that the same closely ties to the theoretical framework for this study. To ensure content validity, the statements in the questionnaire were subject to evaluation for meaning and clarity by randomly selected officers and adjusted appropriately. The researcher upheld high level of confidentiality, anonymity and privacy and maintained high ethical standards in data collection, analysis and report writing.

### 1.9.11 Data Analysis Methods

Data is a collection of figures and facts relating to a particular activity under study. For data to be useful, it must provide answers to the research questions<sup>103</sup>. Data collected was prepared for analysis by editing, manipulation of blank responses, coding, categorizing and keying into the STATA Package. The study also conducted a t-test to determine the association of the variables and summarized the results in form of tables, pie-charts and graphs in a systematic manner matching every chapter to a specific objective. Key patterns and trends in the responses were identified and evaluated to test the significance and consistency of the findings. The table 2 herein demonstrated the variables of study and their measurement indicators as used in the study.

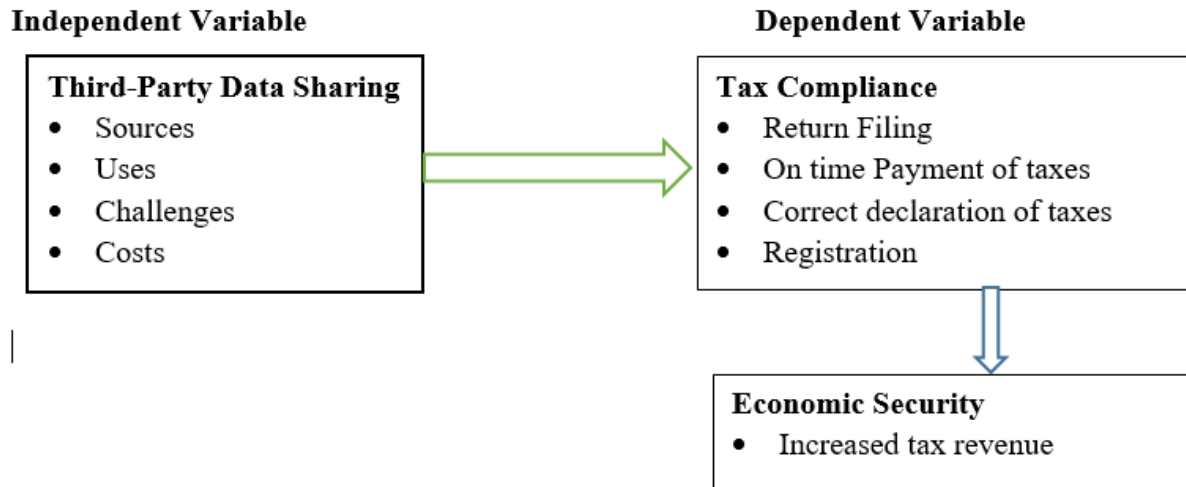
**Table 4: Variables of Study and measurement indicators**

Type of Variable	Variable	Indicator
Independent Variable	Third Party Data Sharing	Sources of Third party data Uses of third party data Challenges of third party data
Dependent Variables	Tax Compliance	Timely return filing On-time payment of taxes Correct declaration of taxes Registration for taxation purposes
	Economic Security	Increased tax revenue

<sup>103</sup> Mugenda, O. Mugenda, and A. G. Mugenda. "Research methods: Quantitative and." *Qualitative. Approaches. Nairobi; African Centre for Technology Studies* (2003).

**Source: Authors own construction of conceptual framework**

These variables are further illustrated as follows



### 1.9.12 Regression Analysis

Regression analysis was used to estimate to accomplish the two objectives. Similarly, the analysis was to examine the relationship between tax compliance and economic security in Kenya by analysing the signs and significance of the estimated coefficients. Descriptive statistics were also used to summarize the hypothesis.

H<sub>0</sub> - There is no relationship between correct information and tax compliance for economic security.

H<sub>0</sub> - There is no relationship between accurate declarations on tax compliance and economic security.

An economic model showing the relationship between dependent and independent variables was generated in the form of a linear equation as shown below.

$$Y_i = \beta_0 + X_1\beta_1 + X_2\beta_2 + \varepsilon_i \dots\dots\dots 1$$

Where;

$\beta_0$  - Constant

$\beta_1$  and  $\beta_2$  - coefficients to be estimated.

$X_1$  - Correct Information

$X_2$  - Data sharing

A linear regression of information, declaration and compliance returned the p-value of the model at 0.052, which was slightly  $>0.05$  at 95% confidence level; implying accept the  $H_0$  - There is no relationship between correct information, declarations and tax compliance for economic security. Its R2 value was 0.939, implying that the model explained 93.9% of the variance in compliance.

**Table 5: Output Linear Regression for Information and Compliance**

Variable	Coefficient	p-value	Estimation interval
Inaccurate informat~o	0.552 (0.313)	.326	-3.415 - .4528
Incorrect declarati~g	0.542** (0.07)	.081	.344 - 1.429
Constant	-0.512 (0.48)	0.479	-6.612 - 5.588
R-Squared			0.939
F Test			
186.177			
Akaike Crit.(AIC)			7.122
Bayesian Crit (BIC)			5.280
Obs.			72

To remedy the significant variations in the variables, a normalized equation using natural logarithms was generated. Taking the natural logarithm of both variables helps normalize the data

and reduces the impact of outliers and significant variations in the variables. This normalization is essential in multiple regression analysis to ensure that each predictor variable is on a comparable scale, making the coefficients interpretable and the analysis more reliable. The normalized equation is as follows

$$\ln Y_i = \ln \beta_0 + \ln X_1 \beta_1 + \ln X_2 \beta_2 + \varepsilon_i \dots\dots\dots 2$$

Where:

$\ln Y_i$  – natural logarithm of tax compliance with

*$\ln Y_i = 1$  Compliance and  $1 - Y_i = 0$  Non-compliance*

$\beta_0$  - Constant

$\beta_1$  and  $\beta_2$  - coefficients to be estimated.

$\ln X_1$  – natural logarithm of correct Information

$\ln X_2$  – natural logarithm of accurate declarations

Taking the natural logarithm of the variables helped normalize the data and reduced the impact of outliers and significant variations, making the regression analysis results more stable and reliable. This equation allowed for the examination of the relationship between tax compliance for economic security and both correct information ( $X_1$ ) and accurate declarations ( $X_2$ ) while accounting for the natural logarithmic transformations that normalize the data and handle significant variations in the variables.

By remedying the significant variations in the variables, the normalized equation using natural logarithms, thereby generated was as follows:

$$\ln Y = -0.512\beta_0 + 0.542\beta_1 + 0.552\beta_2 + \varepsilon \dots\dots\dots 2$$

The positive value suggests a positive relationship: as  $\ln X_1$  increases,  $\ln Y$  also increases. The positive signs of  $0.542\beta_1$  and  $0.552\beta_2$  indicate a positive direction. This means that an increase in

the natural logarithms of both correct information ( $\ln X_1$ ) and accurate declarations ( $\ln X_2$ ) is associated with an increase in the natural logarithm of tax compliance ( $\ln Y$ ). However, both the magnitude and direction of the relationships might not be linear due to the logarithmic transformation.

On correct information on taxpayer details and deductions claimed by taxpayer, the equation implies that a one percent increase in information on deductions claimed by taxpayer would increase the compliance by 54.2 percent in absolute terms *ceteris paribus*. This is a significant impact that solidifies the case for correct information and declaration by taxpayers having effect on tax compliance.

With regard to accurate declaration of spending patterns, a one percent change in correct declaration of spending patterns would result in affect the compliance by 55.2 percent in absolute terms *ceteris paribus*. This indicates a relationship between correct declaration of spending patterns and compliance by taxpayers.

### **1.9.13 Methodology Section Summary**

The methodology section presented positivism as the research philosophy to be adopted for the study. This section further detailed the research design, data collection methods, population, sampling frame and the sampling technique used in the study. It also elaborated research procedures, administration of the questionnaire and the response rate achieved as well as how data gathered was investigated using descriptive statistics and inferential measurements.

### **1.10 Definition of Terms**

**Compliance** – The Cambridge Dictionary defines compliance as the fact of obeying a particular law or rule, or of acting according to an agreement.

**Economic Security** - The state of a country's economy that allows for the protection of its vital interests. This definition emphasizes the importance of ensuring that the country's economy and institutions of power are strong enough to guarantee the protection of national interests, social development, and defense potential even under unfavorable conditions.

**Public Sector** - This is a body or department in the executive arm of government, responsible for assisting in the planning and implementation of government policies. It is not profit-oriented but

an institution established to deliver essential services to the people<sup>104</sup>. The Britannica dictionary also defines it as the portion of the economy composed of all levels of government and government-controlled enterprises. It does not include private companies, voluntary organizations, and households

**Tax** - According to the OECD categorization, the term "taxes" refers to mandatory, unpaid payments to the government as a whole. Taxes are unpaid in the sense that government benefits to taxpayers are not usually proportional to their contributions. It excludes fines relating to tax offenses and mandatory government loans.

**Tax Base** - This is the entire value of assets, transactions, income, consumption, property, or other economic activity liable to taxes by a tax authority. A limited tax base is both non-neutral and is not efficient, while an expansive tax base lowers tax administration expenses and enables for more revenue to be collected at lower rates.<sup>105</sup>

**Base broadening** is the process of increasing the amount of economic activity subject to taxation by reducing exemptions, exclusions, deductions, credits, and other preferential treatments. Narrow tax bases are non-neutral in that they favor one product or industry over another, and thus can jeopardize revenue stability.<sup>106</sup>

**Tax Gap** - The tax gap is the difference between taxes owing and taxes collected

**Third Party Data Sharing** - A requirement that certain third parties (for example, businesses, financial institutions, and nontax-related government agencies) report payments (and other tax-related transactions) and payee details (generally with a taxpayer identifying number) to the tax authority.

## 1.11 Chapter and Study Outline

This chapter has introduced the research topic by describing both the study background and discussion on the problem statement. The chapter also introduced the three research questions together with the corresponding hypotheses formulated, as well as describing the purpose and scope of the study. The chapter presented a background on the impact of information sharing within the Public sector on tax compliance in Kenya. The chapter also briefly presents empirical

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<sup>104</sup> Arowolo, Dare. "Ethics, motivation and performance in Nigeria's public service." *Public Policy and Administration Research* 2, no. 5 (2012).

<sup>105</sup> This is as defined under the TxEdu resources. See <https://taxfoundation.org/tax-basics/tax-base/>

<sup>106</sup> <https://taxfoundation.org/tax-basics/base-broadening/>

studies that demonstrate how information sharing within the Public sector impacts on tax compliance in Kenya. Further, the chapter outlines the theoretical, conceptual and empirical framework through the review of available literature on information/data sharing within the Public sector. Further, the chapter presented the research methodology encompassing: research philosophy, research design, and population of study, sampling design to be adopted, sampling frame, techniques and size, data collection method to be used, the research procedures as well as the methods proposed for data analysis.

Chapter two will present analysis based on research objective one, chapter three will present analysis based on research objective two and chapter four will present analysis based on research objective three. Chapter five will provide a summary of the objectives of the study. From the data collected, statistical analysis and reviews based on chapters two, three and four, discussions will be presented in reference to the objectives of the study. Conclusions to be drawn and recommendations to be deduced from the discussions will also be presented in this chapter.

## CHAPTER 2 - TAX COMPLIANCE AND ECONOMIC SECURITY IN KENYA

### 2.0 Introduction

This chapter presents the findings with respect to the first objective of assessing the relationship between tax compliance and economic security in Kenya. The issues covered include the defining the concepts of tax compliance and its components, the theoretical foundations of tax compliance, how tax administrations influence tax compliance, introduction to the concept of economic security and finally, proffer the nexus between tax compliance and economic security. Findings with respect to the first objective were drawn through analysis of secondary data, with literature reviewed from journals, books, published and unpublished paper articles, published reports and conference discussions.

### 2.1 Taxation

Taxation is critical to economic, social, and political progress. Taxation is an important source of revenue for governments in order to promote economic growth and development. Following the Covid-19 pandemic, it became apparent that domestic resources and revenue are a lifeline for funding critical public services such as health, education, and infrastructure for everyone, but especially for the most vulnerable. Nonetheless, many countries suffer with tax evasion, fraud, and non-compliance, which could result in deteriorating infrastructure, overcrowded schools, a sluggish business sector, and health and social services cut off for the most vulnerable.<sup>107</sup> In July 2015, the Addis Tax Initiative declared, “Domestic resource mobilization (DRM) and its successful utilization are important to our shared goal of attaining the SDGs.” Improving domestic resource mobilization (DRM) is essential if nations are to meet their Sustainable Development Goals (SDGs). According to the Declaration, the SDGs' DRM goal is not just to increase government revenues, but also to help the creation of more effective tax systems that promote sustainable economic growth, fairness, and "state building”.<sup>108</sup>

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<sup>107</sup> David Palmer, Iwona Warzecha, and Rajul Awasthi, “Sealing the Tax Gap in Poland: A Holistic Approach to Tax Compliance,” World Bank Blogs, November 17, 2021, <https://blogs.worldbank.org/europeandcentralasia/sealing-tax-gap-poland-holistic-approach-tax-compliance>.

<sup>108</sup> United Nations, UN. 2015. *Addis Ababa Action Agenda of the Third International Conference on Finance for Development*, para 22. July. New York.

A competent tax system, according to various scholars, plays three significant roles in national development: revenue creation, inequality reduction,<sup>109</sup> and promotion of good governance. These are herein discussed.

First, income generation is the most visible and direct responsibility of taxation. The majority of government revenue is generated through taxes paid by people. Governments collect taxes for a variety of reasons, the most important of which is to raise revenue to support public expenditures, and the second is to ensure effective resource allocation. Government provision of public goods is possible only where the public pays taxes to fund the creation and distribution of such commodities.<sup>110</sup> Tax revenue is utilized to solve acute human development concerns such as hunger outbreaks and emergency medical care, as well as provide long-term financing of public infrastructure services like as roads, airports, hospitals, and schools.<sup>111</sup> Foreign aid and natural resource income can supplement tax revenue and help guarantee that critical development goals are met. However, supporting state expenditure through these sources does not support the development of the state's institutional capacity<sup>112</sup>. Furthermore, compared to income from aid and natural resources<sup>113</sup>, tax revenues generated through strong domestic resource mobilization are more predictable.<sup>114</sup>

Second, tax revenues provide a government with funds that it may utilize to distribute as social payments, and welfare transfers, to alleviate extreme poverty. Human poverty in middle-income nations, such as those in Latin America and the Caribbean, is obviously the outcome of economic disparity rather than absolute poverty.<sup>115</sup> This indicates that redistributive policies should take precedence above the absolute necessity for tax income.

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<sup>109</sup> Alex Cobham. (2005) "The Oxford Council on Good Governance."

<sup>110</sup> Mucbe, Beza. (2014). "Determinants of tax payer's voluntary compliance with taxation in East Gojjam-Ethiopia."

<sup>111</sup> Marandu Edward E, Christian Mbekomize, and Alexander N. Ifezue, "Determinants of Tax Compliance: A Review of Factors and Conceptualizations," *International Journal of Economics and Finance*, August 25, 2015, <http://dx.doi.org/10.5539/ijef.v7n9p207>.

<sup>112</sup> Moore, Mick. "Revenues, state formation, and the quality of governance in developing countries." *International political science review* 25, no. 3 (2004): 297-319. And

<sup>113</sup> Ross, Michael L. "Does oil hinder democracy?." *World politics* 53, no. 3 (2001): 325-361.

<sup>114</sup> Baine, M. "Role of Taxation in State Building and Good governance—The Rwandan experience." In *Norad's Annual Conference on Poverty and Development*. Oslo, Norway. 2007.

<sup>115</sup> Alex Cobham. (2005) "The Oxford Council on Good Governance."

Finally, taxation plays an important role in the development of institutions and democracy by holding the state accountable to its taxpayers. History has demonstrated that the establishment of taxation systems is inextricably linked to the formation of responsible and effective states.<sup>116</sup> One observation suggests that poor governance is frequently associated with conditions where the state does not rely on revenue from taxation of its residents and corporations. For example, developing nations with wealth derived mostly from sources other than citizen taxes, such as natural resources such as oil and minerals, are often characterized by inadequate governance and public institutions.<sup>117</sup> Botswana and Malaysia are two notable outliers. Significant foreign aid can also help to distance the state from its inhabitants, lowering the need for tax reform.<sup>118</sup>

The government's responsibility in providing public services and human security is expanding, and the government must collect more tax income to fund its operations. However, governments are experiencing challenges collecting the necessary taxes due to various factors, among which is tax non-compliance. Thus tax compliance (or evasion), is a major and ongoing global issue that must be immediately tackled.

## **2.2 The Concept of Tax Compliance**

Tax compliance has been defined in a various ways, but for purposes this study, it is defined as taxpayers' desire and capacity to comply with tax rules, disclose proper income, claim right deductions, and pay all taxes on time.<sup>119</sup> Tax compliance refers to taxpayers behaving in conformity with the country's tax regulations and proclamations. It can be accurate reporting of income or tax base, proper calculation of tax due, timely filing of returns, and timely payment of tax liability. Tax compliance is the extent to which a taxpayer adheres to tax rules and regulations. Non-compliance, on the other hand, is characterized as an individual's failure to act in accordance with their tax obligations. It might be a failure to record the real tax bases, a failure to file and pay on time, or an inaccurate computation of tax liabilities.<sup>120</sup> Tax compliance refers to a taxpayer's

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<sup>116</sup> Baine, M. "Role of Taxation in State Building and Good governance–The Rwandan experience."

<sup>117</sup> Odd-Helge, F., and L. Rakner. "The importance of taxes for development." Bergen, Norway: Chr. Michelsen Institute (2009).

<sup>118</sup> Bräutigam, Deborah A., and Stephen Knack. "Foreign aid, institutions, and governance in sub-Saharan Africa." *Economic development and cultural change* 52, no. 2 (2004): 255-285.

<sup>119</sup> Alm, James. "A perspective on the experimental analysis of taxpayer reporting." *The Accounting Review* 66, no. 3 (1991): 577-593.

<sup>120</sup> Andreoni, James, Brian Erard, and Jonathan Feinstein. "Tax compliance." *Journal of economic literature* 36, no. 2 (1998): 818-860.

compliance with reporting obligations such as timely filing of returns and reporting correct tax liabilities in accordance with applicable rules and court rulings at the time of return filing. This definition presupposes that in order to comply with tax legislation, one must disclose the proper amount of income and spending, as well as pay the correct amount of tax by the due date.<sup>121</sup>

Thus, tax noncompliance indicates an inability to satisfy tax responsibilities, whether purposefully or accidentally. Tax evasion includes aspects of fraudulent activity as well as a genuine desire on the side of the taxpayer to willfully mislead, deceive, or conceal from revenue authorities with the intention to pay less tax than is actually due. This is in contrast to tax avoidance, which is the legal decrease in tax liabilities by tactics that fully exploit the tax rules, such as income splitting, tax delay, and tax arbitrage between income that is taxed differently. Tax evasion involves an individuals' unlawful and purposeful attempts to lower their legally due tax responsibilities.<sup>122</sup> Individuals and businesses can avoid paying taxes by underreporting their income, sales, or wealth, overstating their deductions, exemptions, or credits, or neglecting to file required tax forms. The government, subsequently, must take steps to guarantee compliance with tax laws and regulations.

Tax evasion has various negative implications. The most evident is that it decreases tax receipts, thereby reducing taxes paid by complying taxpayers and impacts on government services provided to residents. When people change their behavior to cheat on their taxes, such as the hours they work, jobs they enter, and investments they make, they cause resource misallocations. Its presence necessitates that the government devote resources to prevent non-compliance, identify its scope, and sanction those who engage in it. Non-compliance changes the income distribution in unforeseen ways. Evasion may add to feelings of injustice and disdain for the law. It has an impact on the accuracy of macroeconomic statistics.<sup>123</sup>

### **2.3 Determination of Tax Non-Compliance**

To measure tax non-compliance, several methodologies have been employed, all of which are prone to imprecision and disagreement. This is because individuals have different incentives to

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<sup>121</sup> Roth, Jeffrey A., and John T. Scholz. *Taxpayer compliance, Volume 1: An agenda for research*. Vol. 1. University of Pennsylvania Press, 1989

<sup>122</sup> Manchilot Tilahun. *Determinants of Tax Compliance: a Systematic Review*. *Economics*. Vol. 8, No. 1, 2019, pp. 1-7. doi: 10.11648/j.eco.20190801.11

<sup>123</sup> James Alm. (2019). "Tax compliance and administration." In *Handbook on taxation*, pp. 741-768. Routledge, 2019.

conceal their cheating. As a result, different methodologies have been developed to estimate the extent of non-compliance and the tax gap, which is the difference between the amount of tax owed and the amount actually collected. One of the methods adopted to determine non-compliance is the use of information obtained from an audit process and investigation. Here, the audit outputs yield an estimate of a taxpayer's correct income, enabling the calculation of the correct amount of tax liability. Another method is the use of surveys and self-reported from individuals and businesses about their tax compliance behavior. Macro-economic modeling is also used, and it involves using statistical models to estimate the size of the tax gap based on macroeconomic data such as GDP, employment, and consumption. Cash flow and bank account analysis can also be used to measure tax non-compliance. It involves analyzing cash flow and bank account data to identify discrepancies between reported income and actual financial transactions.

However, all of these methodologies have limitations, are potential sources of imprecision and disagreement and are prone to errors. For example, tax audits and investigations can be resource-intensive and may only identify a small proportion of non-compliant taxpayers. The audit process may not necessarily detect all underreported income. Moreover, in selection of the taxpayers to be subject to Audit, more often, non-filers are not included, thus actual income not determined.<sup>124</sup> Surveys and self-reported data can be subject to bias and underreporting. Macro-economic modeling may not accurately capture the complexity of tax systems and individual behavior and cash flow and bank account analysis can be limited by the availability and quality of data. However, despite these challenges, tax authorities and policymakers continue to explore and refine methodologies for measuring tax non-compliance in order to improve tax collection and promote fair and efficient tax systems.

## **2.4 Theoretical Foundations for Tax Compliance**

Allingham and Sandmo (1972) have provided an analysis of tax compliance based upon the economics-of-crime methodology pioneered by Becker (1968). The theory posits that an individual is assumed to maximize the expected utility of the evasion gamble, balancing the effects of successful evasion with the risky prospect of detection and punishment. An individual is assumed to receive a fixed amount of income and chooses how much of this income is to be

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<sup>124</sup> Ibid

declared to the revenue authorities and how much is to be underreported. Taxes are charged at a certain rate for the income declared and thus no taxes are charged on the undeclared amount. If the taxpayer in this case is subject to the audit process and all underreported income discovered, then they are subject to pay, not only tax on the amount undeclared, but also penalties at specified rates of tax on the undeclared income. The taxpayer chooses to maximize the expected utility of the evasion gamble, depending on their attitude towards risk.

The key assumption of this theory is that a taxpayer only pays taxes out of fear of detection or punishment. This then suggests that tax authorities should encourage tax compliance through increase of audits and penalties i.e. increase in an enforcement process. However, it is clear from various scholars that tax compliance does not entirely depend on financial incentives generated through the enforcement process.<sup>125</sup> The number of individual income tax returns subject to a rigorous tax audit is relatively modest, and has recently dropped to under 1%. Similarly, the penalty for even fraudulent evasion is a small percentage of unpaid taxes, and such penalties are rarely imposed. A purely economic analysis of the evasion gamble suggests that most rational individuals should either underreport income that is not subject to source withholding or overclaim deductions that are not subject to independent verification because such cheating is extremely unlikely to be caught and penalized. However, most people pay most of their taxes most of the time, and a significant number of people appear to pay all of their taxes despite the financial incentives provided by the enforcement regime.<sup>126</sup> The basic model of utility thus does not explain the tax non-compliance. It suggests that other factors must affect tax compliance.

## **2.5 The Nexus between Tax compliance and Economic Security**

Tax administrations exist to guarantee tax compliance. Tax administrators, particularly those working on tax policy in developing nations, have long recognized this administrative dimension of taxes. A study undertaken on the factors of taxpayers' compliance in Ethiopia established that, the tax authority is the accountable agency for assessing and collecting tax revenue, with total

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<sup>125</sup> See Graetz and Wilde, 1985; Smith and Kinsey, 1987; Elffers, 1991

<sup>126</sup> OECD, E. "Compliance risk management: Managing and improving tax compliance." In Forum on Tax Administration, Centre for Tax Policy and Administration. 2004.

revenue collected being directly proportional to the revenue authority's efficiency and effectiveness.<sup>127</sup>

Insufficient levels of public service provision hinders economic growth and efforts to increase people's living conditions in many developing countries. Many governments in developing countries fail to provide appropriate public services for a variety of reasons, including low tax compliance among taxpayers, which results in insufficient tax revenue output. The ability of a country to collect taxes is assessed by the tax ratio, or the relation of tax revenue to GDP. The tax ratio also represents a country's degree of tax compliance.

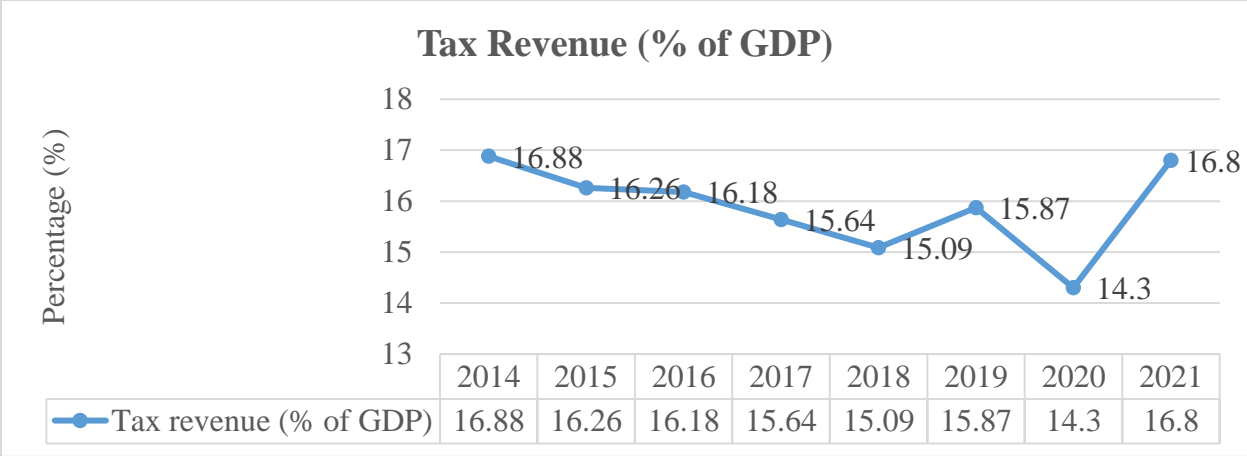
The tax-to-GDP ratio correlates a country's tax revenue to the total size of its economy, which is measured by GDP in this example. The greater the ratio, the greater the share of money allocated to government reserves. If treated effectively, this may enhance an economy's long-term well-being and success. According to International Monetary Fund study, countries should have a tax-to-GDP ratio of at least 12% in order to have faster economic growth. Previous study has shown that the average tax revenue to GDP ratio in the developed world is around 35%, 15% in developing countries, and 12% in the poorest of these countries, the group of low-income countries.<sup>128</sup> In 2019, countries affiliated with the Organisation for Economic Cooperation and Development (OECD) had an average tax-to-GDP ratio of 33.8%, with the United States having a ratio of 24.5% - significantly lower than the OECD average of 33.8%, despite having one of the highest GDP per capita measures of all OECD countries. Kenya's general government income (% of GDP), while changing over time, reflected a rising trend from 2018 to 2021, peaking at 16.8% in 2021. However, this ratio is lower than the OECD average of 33.8%.<sup>129</sup>

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<sup>127</sup> Muche, Beza. (2014). "Determinants of tax payer's voluntary compliance with taxation in east Gojjam-Ethiopia." *Research Journal of Economics & Business Studies* 3: 41-50.

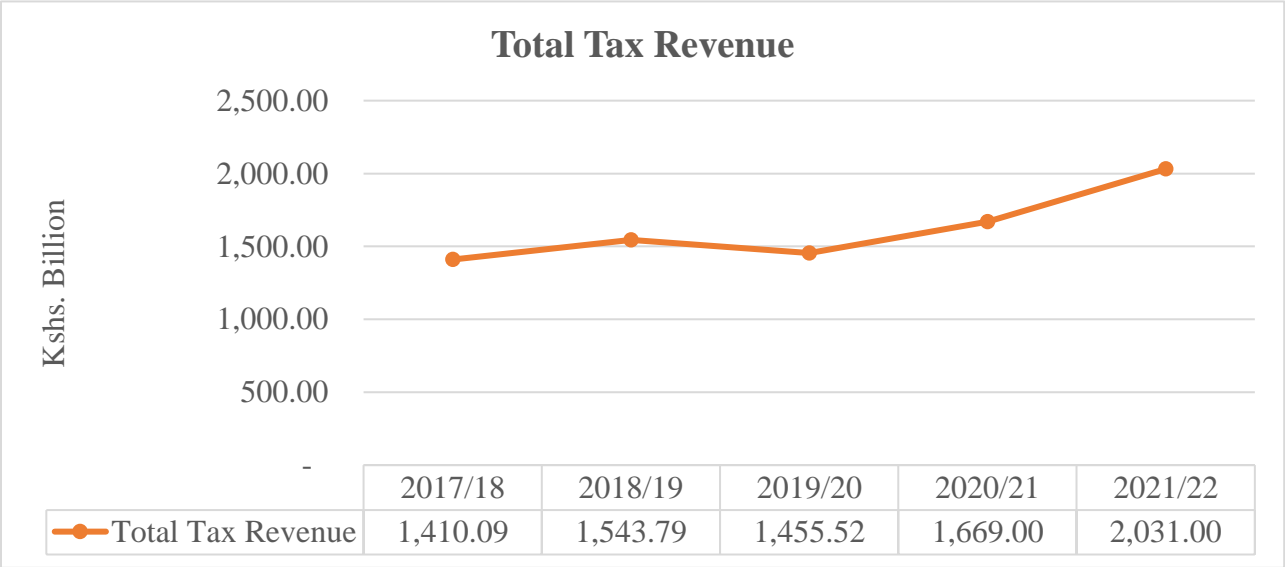
<sup>128</sup> Ion, Dragos Gabriel. (2019). "Tax Evasion Vs. Tax Avoidance." *Knowledge Horizons. Economics* 11, no. 2 (2019): 110-119.

<sup>129</sup> Carmen Ang. (2021). *Tax-to-GDP Ratio: Comparing Tax Systems Around the World*. Visual Capitalist. Retrieved from <https://www.visualcapitalist.com/comparing-tax-systems-around-the-world/>



**Figure 7 – Kenya Tax Revenue as a Percent of GDP**

Kenya’s tax collection trend, though fluctuating over the period, has been on an upward trajectory, with the exception of Year 2020 due to the adverse impact of Covid-19 pandemic on the economy. This is as reflected in the figure herein.



**Figure 8 - Total Tax Revenue in Kenya**

Every economy depends heavily on taxes, with businesses having long engaged in various types of tax planning. Tax avoidance is defined as the decrease of explicit taxes, while tax aggressiveness is viewed as the downward management of taxable income with the purpose of lowering tax payments to tax authorities. Tax avoidance is a lawful way to lower your taxable income, while tax evasion does not include paying some or all of the taxes in an illegitimate manner. Tax evasion

is also defined as the deliberate failure of taxpayers to complete tax returns, the intentional misreporting of income, the intentional overstating of costs, or the purposeful payment of less tax than is owed.<sup>130</sup> Tax evasion is another term for the intentional use of illegitimate measures by taxpayers to avoid paying their required taxes.<sup>131</sup> By underreporting their income, omitting to complete the required tax returns, or exchanging goods for tax-free payments, individuals might lower their income tax obligations.<sup>132</sup>

Tax evasion has been a contentious topic for politicians throughout the years, calling for practical ways to address this growing threat to the economy. Taxpayers' perception of the operating business environment has a significant impact on their decisions to avoid taxes. Only when they believe the corporate operating environment is advantageous across the international border can they adequately comply with tax requirements.<sup>133</sup> Countries are not able to build schools and hospitals, meet costs of basic infrastructure or pay for social security systems towards meeting the needs of an aging population without higher tax revenues. They therefore strive to enhance their tax systems and combat tax evasion. Further, they pursue creation of a tax system that promotes equality, good governance, investments, job creation, and social justice while adhering to societal ideals of reducing inequality.<sup>134</sup>

Following the global financial crisis and the emergence of the Group of Twenty (G20) as the premier international forum, domestic resource mobilization became a key development agenda item. Domestic resource mobilization was named one of the G20 Seoul Summit's nine development pillars in 2010, as "it is essential to continue to strengthen tax regimes and fiscal policies in developing countries to provide a sustainable revenue base for inclusive growth and social equity." Furthermore, the Addis Ababa Action Agenda of the Third International Conference on Finance for Development, endorsed by the United Nations General Assembly in July 2015, prioritized domestic public resources and pledged to "improve revenue administration

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<sup>130</sup> Yamen et al. (2018) and Epaphra (2015), (Rashid, 2020).

<sup>131</sup> (Alm, 2019; Alm et al., 2019; Rashid, 2020; Rashid & Morshed, 2021)

<sup>132</sup> (Alm, 2019; Alm et al., 2019; Rashid & Ahmad, 2020)

<sup>133</sup> Reynolds, Paul D. 1980. "Doing Business with the People's Republic of China: Tax Considerations." In *Int'l L.*, vol. 14, p. 49.

<sup>134</sup> Rashid, Md. Harun Ur & Ahmad, Afzal & Abdullah, Muhammad & Ahmmed, Monir & Islam, Serajul. (2022). *Doing Business and Tax Evasion: Evidence from Asian Countries*. SAGE Open. 12. 1-15. 10.1177/21582440221131280.

through modernized, progressive tax systems, improved tax policy, and more efficient tax collection."<sup>135</sup>

According to the 2017 Key Indicators for Asia and the Pacific, the area accounted for 40.9% of world GDP at purchasing power parity in 2016. Despite the region's economic prosperity, the same indicators revealed that approximately 330 million people in Asia and the Pacific live on less than \$1.90 per day (2011 purchasing power parity), accounting for approximately 9.0% of the region's total population, and three-quarters of the region's economies had a fiscal deficit in 2016. The Asia and Pacific economy's tax-to-GDP ratio remained much lower than that of Organization for Economic Cooperation and Development (OECD) member countries. This was linked to issues such as low tax compliance and limited tax bases as a result of various tax exemptions and incentives.<sup>136</sup>

Taxation's function in creating economic stability has both positive and negative implications. It can assist to increase the state's revenue potential, which adds to macroeconomic growth. However, there are negative aspects such as non-receipt of tax revenues by all levels of government, criminalization of tax relations, increased tax lawlessness, and a tax system crisis. This has the potential to undermine the state's sociopolitical underpinnings and deprive authorities of financial resources. Taxation is very important in today's society and should be addressed while formulating economic policy. Failure to do so may result in an inconsistent and inefficient economic strategy, as taxes are essential to the national economy's economic independence, sustainability, and stability, and the ability to self-develop and progress.<sup>137</sup>

Economic independence is the ability of a state to form and develop its own economic system and engage in foreign economic activity to benefit its people. Taxation is a crucial measure for protecting a country's economic interests in the face of globalization. Sustainability of the national economy refers to its ability to adapt and respond to changes through continuous improvement,

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<sup>135</sup> United Nations. 2015. *Addis Ababa Action Agenda of the Third International Conference on Finance for Development*, para. 22. July. New York.

<sup>136</sup> Organisation for Economic Co-operation and Development (OECD). 2017. *Revenue Statistics in Asian Countries 2017: Trends in Indonesia, Japan, Kazakhstan, Korea, Malaysia, the Philippines, and Singapore*, p. 16. Paris: OECD

<sup>137</sup> Stryabkova, Elena Anatolyevna, Anna Mikhailovna Kulik, Natalya Anatolyevna Gerasimova, Elena Petrovna Druzhnikova, and Anna Nikolaevna Kogteva. "Import substitution in the Belgorod Region in the context of economic security." *J. Advanced Res. L. & Econ.* 8 (2017): 2605.

which is vital for achieving socio-economic goals and ensuring economic security. Taxation plays a regulatory function in coordinating social interaction and management, and affects various economic components such as pricing, production volume, and labor supply. The ability to self-develop involves choosing a development model, modernizing production, and investing in innovation and intellectual potential. Taxation provides financial resources and impacts economic and social processes, but also faces threats such as low tax culture, tax evasion, excessive bureaucracy, and uneven tax burden distribution. Taxpayers also face threats such as shadow economies, capital outflow, and excessive fiscal authority interference in enterprise activities.<sup>138</sup>

## **2.6 Conclusion**

Taxation is unquestionably the most significant source of revenue for governments in both developing and industrialized countries. The amount of tax revenue generated, among other things, is determined by the country's degree of tax compliance, and the effectiveness and efficiency of the tax authorities. Tax compliance refers to taxpayers' actions in relation to tax rules, whereas tax non-compliance refers to departures from the country's tax laws and regulations. Tax evasion is socially detrimental because it reduces income, distorts the labor market, and undermines state stability by enhancing perceptions of cheating and fraud. To be effective in minimizing tax non-compliance, the causes for non-compliance should be identified in advance (increasing the level of compliance).

This section of the study attempted to examine prior research on factors that may have an influence on tax compliance as well as establish how tax compliance (and non-compliance) influence economic security of a country. Many studies have found that tax system fairness, tax rate, the effect of referrals, penalties, and the likelihood of being audited may all influence taxpayer compliance decisions. Any approach for reducing tax evasion should begin with determining reason for taxpayer non-compliance. Economists address the issue of non-compliance through various theories based on the assumption about human behavior that underpins rationally in evaluating the cost and benefits of any chosen activity.

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<sup>138</sup> Sayfieva, Svetlana Nikolaevna, Oleg Fedorovich Shakhov, Valery Pavlovna Nevmyvako, Mikhail Yuryevich Chernavsky, and Nataliya Vladimirovna Vysotskaya. "Taxation in the context of economic security: opportunities and technologies." *International Journal of Recent Technology and Engineering (IJRTE)* 8, no. 2 (2019): 6089-6094.

The collaboration between taxpayers and tax authorities can improve tax compliance. In order to promote compliance, the tax authority and the government should provide a responsible citizens' approach, that ensures efficiency and effectiveness in the administration of tax. Because tax evasion is unavoidable in every society, measures to reduce it must be reinforced by legitimate enforcement, and these efforts should complement one another. One proffered method is use of a cooperative compliance strategy, specifically working in conjunction with the (largest) taxpayers, which encourages taxpayers and the tax administration to collaborate to decrease mistakes on tax returns and offer taxpayers with tax certainty. Tax certainty is crucial for attracting private investment because businesses must know with "certainty" how much they must pay, how and when they must pay it, and that their competitors are doing the same.

## CHAPTER 3 – PROFILE AND CHALLENGES OF THIRD-PARTY DATA SHARING

### 3.0 Introduction

This chapter presents the findings on the second objective, on the effect of the profile and challenges of third party data sharing on economic security in Kenya. Respondents were asked to provide feedback on the questionnaire on three topical areas related to third party data sharing: Sources of third party data sharing, Challenges or limitation experienced in access and use of third party data and Proffer ways to improve third party data sharing. These are discussed in this chapter.

### 3.1 Sources of Third Party Data

Respondents were required to provide their sources of third party data and the utility of that data in the administration of taxes. The responses obtained are as provided in table 3.1.

**Table 6: Sources and Utility of Third-party Data**

Data	Sources	Utility and Outputs
Banks and similar markets	County Government and Regulatory Bodies	Payments - Compliance verification - Addition of relevant obligation
Digital/ online marketplaces	Private Sector	Payments - Compliance verification - Addition of relevant obligation - Follow up on betting Firms transactions
IFMIS	Private Sector	Identify non-declaration/under declaration - Revenue collection - Recruitment of Contractors - Increase the quality of cases for audit
Withholding tax	Internal Data	Revenue collection - Identify non-declaration/under declaration
Kenya Power Meters Numbers	County Government and Regulatory Bodies	Revenue collection - Payments
NCA	County Government and Regulatory Bodies	Recruitment of HNWI to ensure the correct taxes are being declared
KERRA/ KURA	County Government and Regulatory Bodies	Faster completion of audit cases - Training of taxpayers
Informers	Others	Training of taxpayers
NTSA	County Government and Regulatory Bodies	Increase the quality of cases for audit - Training of taxpayers
Land Ministry	County Government and Regulatory Bodies	Identify non-declaration of rental income by Landlords - Training of taxpayers - Revenue collection - Payments
NWASCO	County Government and Regulatory Bodies	Training of taxpayers - Revenue collection - Payments

Import and Export	Internal Data	Confirmation of declaration by taxpayer – Revenue collection - Payments
NHIF/ NSSF	County Government and Regulatory Bodies	Training of taxpayers - Revenue collection - Payments
Matatu Saccos	Private Sector	Training of taxpayers - Revenue collection - Payments
PSV and commercial vehicles	Private Sector	Training of taxpayers - Revenue collection - Payments
KAA	County Government and Regulatory Bodies	Training of taxpayers - Revenue collection - Payments
Professional Bodies	Private Sector	Recruitment of potential taxpayers and expansion of tax base
KEMSA	County Government and Regulatory Bodies	Compliance verification - Addition of relevant obligation
Safaricom	Private Sector	Revenue collection - Payments
Bank statements	Private Sector	Revenue collection – Payments - Compliance verification - Addition of relevant obligation
Associations	Private Sector	Training of taxpayers - Sensitization for members of Associations-Revenue collection - Payments

These findings are further summarized as in table 3.2 to specifically highlight and categorize the key sources of the third party data.

**Table 7: Summary of Sources of Third Party Data**

	Source of Third Party Data			
	Frequency	Percent	Valid Percent	Cumulative Percent
County Governments and Regulatory Bodies	36	50	50	50
Internal Data	9	12.5	12.5	62.5
Private Sector	25	34.7	34.7	97.2
Others	2	2.8	2.8	100
<b>Total</b>	<b>72</b>	<b>100</b>	<b>100</b>	

The findings as in table 3.2 demonstrate that there are various sources of data with the public sector being the main source of information. Private sector information sources, i.e., legal businesses and persons, are also heavily utilized, particularly for data from bank accounts and customer profiles. When measuring the significance of information sources, it was clear that both governmental agencies and the private sector are acknowledged as the major information sources. However, open

sources of information that need specialized ways to utilize (e.g., deep web inquiry) are seldom employed, partly owing to the high cost of tools/methods, and partly due to a lack of human and technological resources.

For effective tax compliance, governments must investment, especially in the extensive use of third-party data in combination with own data sources of tax and customs data gathered internally by the revenue administrations. Banks, lands and other corporate registries, internet service providers, credit card firms, and tax treaty partners are a few examples of third-party data sources.<sup>139</sup>

Third-party data sources in the private sector are concentrated in the financial sector (banks and other financial institutions); as such, data is critical in the battle against tax evasion ("follow the money"). In the digital age, one of the data sources needed is platform data on seller income and buyer spending, which would assist bring informal businesses under the purview of tax authorities.<sup>140</sup> Revenue authorities can improve domestic revenue mobilization, by collecting more information from digital platforms combined with other third-party data, for example, for verifying VAT registration, as is the experience in Australia, Denmark, France, and Spain.<sup>141</sup> The Kenya Revenue Authority (KRA) for example, identified electricity application data as the key source of information that had increased the recruitment of landlords into the tax net and helped recover millions of shillings in lost revenue. Over the course of 2020–2021, the linkage between the KRA system and third-parties such as Kenya Power and commercial banks assisted in bringing 76,025 landlords into the tax net. The revenue authority also uses information from commercial lenders to trace tax fraudsters.<sup>142</sup>

Units that make the most use of third-party information are on the "front lines" of the "battle against fraud and tax evasion, including risk analysis operations (tax audit, anti-fraud and risk management units)". Similarly, the assistance of other units that, while not directly involved in the usage of third-party data, play a crucial role in discovering and sharing the data.

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<sup>139</sup> World Bank. (2021) "Creating value in the data economy: The role of competition, trade, and tax policy."

<sup>140</sup> OECD (Organization for Economic Co-operation and Development). 2020a. "Model Rules for Reporting by Platform Operators with Respect to Sellers in the Sharing and Gig Economy." OECD, Paris.

<sup>141</sup> Ibid.

<sup>142</sup> Constant Munda, "KRA Nets 70,000 Tax Cheats from Third Party Data Sources," (The East African, January 13, 2022), <https://www.theeastafrican.co.ke/tea/business/kra-nets-tax-cheats-from-third-party-data-sources-3680862>.

### 3.2 Challenges of Third Party Data Sharing in Kenya

The respondents were also asked to indicate the extent the challenges identified through literature review influenced the sharing of third party data in Kenya. The findings are indicated in Table 3.3.

**Table 8: Challenges on Third Party Sharing**

	No influence	Limited influence	Moderate influence	Important influence	Very significant influence
Data sharing legislation	0	4.2	6.9	27.8	61.1
Reluctance of data holders to share data	0	2.8	8.3	43.1	45.8
Inadequate capacity for handling the information /data once received	0	16.7	25	18.1	40.3
Disjointed ICT systems	1	8.6	4.2	38.9	47.2
Manual data provided/shared	8.3	4.2	30.6	19.4	37.5
Incomplete data maintained by other institutions required to share data with KRA	4.2	6.9	37.5	37.5	51.4
Integrity/Validity of data shared e.g. outdated data or incomplete data	4.2	1.4	4.2	29.2	61.1
Data abuse and mismanagement by beneficiaries and intended users	2	9.7	12.5	25	50

The respondents were also requested to provide any other limitation that the researcher had not highlighted from literature. The respondents gave the limitations as detailed in table 3.4.

**Table 9: Other Limitations to Third Party data and information sharing.**

<b>Other Limitations to Third Party Data &amp; Information Sharing</b>
Unavailability of data from key agencies and stakeholder
Delayed timelines in provision of data
Not all government agencies are automated
The lack of compatibility of data from various sources to makes it difficult to facilitate making of informed decision s
Duplication of information shared

The findings of the study illustrated various challenges and limitations to third-party data sharing which on review can be categorized as practical difficulties, administrative challenges and legal obstacles. The study highlighted various barriers to successful use of third-party data, such as legal,

logistical, and administrative issues. However, it is worth noting the legal constraints that limit access to essential transactional data from significant sources, and the lack of technological resources, prevent efficient access to and use of electronic transaction data. The challenges are discussed herein.

### **3.2.1 Legal challenges**

In general, tax authorities have legal jurisdiction to acquire and utilize third-party data. The gathering of data and the use of information is primarily governed by “substantive and procedural laws” that specify the types of information that may be used and for what reasons. The legal barriers to the gathering and use of third-party data are thus tied to tax legislation, data protection legislation, legislation on data secrecy, and data privacy legislation. Tax-related information is only to be utilized by administrations to establish tax liabilities, check eligibility for central subsidies, or ascertain tax-related facts. However, legislation such as bank secrecy has a significant impact on domestic law. Furthermore, the legal framework for third-party data sharing was set as considerably restricting the sharing of third-party data.<sup>143</sup>

Data privacy laws can make it difficult for tax authorities and financial institutions to share personal data related to taxes, making it harder to enforce tax compliance. Most data privacy laws require that personal data be collected and processed in a way that respects individuals' privacy and data protection rights. This can limit the amount and types of data that can be shared and how they can be used. Compliance with data privacy laws can also impose additional costs and technical requirements on financial institutions and tax authorities. It is therefore important to balance the benefits of third-party data sharing, the need for tax compliance, with the need to protect taxpayer privacy and data security. With respect to tax compliance, legislation that limits information sharing can have an impact on tax compliance by restricting the ability of tax authorities to access relevant information and detect potential noncompliance. This can make it more difficult for tax authorities to verify the accuracy of taxpayer-reported information, identify potential underreporting or noncompliance, and take enforcement actions as needed.

Under the Internal Revenue Services (IRS), the Foreign Account Tax Compliance Act (FATCA), which requires foreign financial institutions to report information about accounts held by U.S.

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<sup>143</sup> “Carriere-Swallow, Mr Yan, and Mr Vikram Haksar. The economics and implications of data: an integrated perspective. International Monetary Fund, 2019.”

taxpayers to the Internal Revenue Service (IRS), is an example of legislation that limits information sharing. Under FATCA, foreign financial institutions (FFIs) are required to report information about accounts held by U.S. taxpayers to the IRS or face significant penalties. This includes information about the account holder's name, address, taxpayer identification number (TIN), account balance, and interest, dividends, and other income earned on the account. While FATCA has been effective in increasing information sharing and improving tax compliance, it imposes an excessive burden on financial institutions raising privacy concerns for taxpayers, especially about the potential for the IRS to obtain and use sensitive financial information about taxpayers.<sup>144</sup>

Similarly, the Taxpayer First Act, passed in 2019, includes provisions aimed at improving taxpayer rights and modernizing the IRS. However, the Act also includes provisions that limit the ability of the IRS to use private debt collection agencies and restricts the disclosure of taxpayer information to third parties. The Act prohibits the IRS from using private debt collection agencies to collect delinquent taxes from low-income taxpayers, taxpayers receiving certain types of federal assistance, and taxpayers in certain other situations. The Act also limits the ability of the IRS to disclose taxpayer information to third parties, such as private debt collectors, by requiring the IRS to obtain a court order before disclosing such information.<sup>145</sup> While these provisions are intended to protect taxpayer privacy, they can also limit the ability of the IRS to collect unpaid taxes and enforce compliance. This can have a negative impact on tax compliance by making it more difficult for the IRS to identify and pursue noncompliant taxpayers.

The Organization for Economic Cooperation and Development (OECD) has also been actively involved in promoting international cooperation on tax issues, including the exchange of information between countries to combat tax evasion and improve tax compliance. The OECD has developed a set of international standards for the exchange of information on tax matters, known as the Common Reporting Standard (CRS), which requires financial institutions to report information about accounts held by non-residents to the tax authorities in their country of residence. This information is then automatically exchanged between countries on an annual basis, allowing tax authorities to identify potential noncompliance and take enforcement actions as

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<sup>144</sup> Foreign Account Tax Compliance Act, 26 U.S.C. 1471-1474 (2010).

<sup>145</sup> Taxpayer First Act, H.R. 3151, 116th Cong., 1st sess. (2019).

needed. This OECD framework may pose some challenges for taxpayers and tax authorities alike particularly because, the exchange of information between countries is complex and requires significant resources, both in terms of technology and personnel. Additionally, the increased transparency and information sharing may make it more difficult for taxpayers to engage in tax planning and tax avoidance strategies that may be legal but considered aggressive or abusive.

The OECD also endeavors to address concerns about privacy and data protection in the context of information sharing for tax purposes. For example, the OECD has developed guidelines on the protection of taxpayer information, which provide guidance to tax authorities and other stakeholders on best practices for protecting taxpayer privacy and ensuring the security of information exchanged for tax purposes. The OECD however, recognizes the need to balance the benefits of information sharing with the need to protect taxpayer privacy and data security. This is because information sharing increases transparency that may help improve the accuracy of taxpayer-reported information and reduce the burden on tax authorities to verify the information reported.

Data privacy laws can pose a challenge or inhibit third-party data sharing and thus impact tax compliance efforts. The collection, processing, and sharing of personal data, including financial and tax-related information, is subject to various data protection and privacy laws and regulations, such as the European Union's "General Data Protection Regulation" (GDPR) and the "California Consumer Privacy Act" (CCPA), and the Data Protection Act, 2019 in Kenya. These laws require that personal data be collected and processed in a manner that respects the privacy and data protection rights of individuals and can limit the amount and types of data that can be shared by third parties, including financial institutions and tax authorities, and the purposes for which the data can be used.

For example, under the Data Protection Act, 2019 in Kenya, personal data can only be collected and processed for specific, explicit, and legitimate purposes, and the data subject must give their consent to the processing of their data. This can limit the ability of tax authorities to collect and use personal data for tax compliance purposes, and financial institutions and utility companies may be reluctant to share personal data with tax authorities if they are not confident that they are complying with applicable data protection and privacy laws. In addition, data privacy laws may

also require that personal data be stored and processed in a secure manner, which can impose additional costs and technical requirements on financial institutions and tax authorities.

Overall, while data privacy laws are important for protecting the privacy and data protection rights of individuals, they can also pose a challenge to tax compliance efforts by limiting the amount and types of data that can be shared by third parties, including financial institutions and tax authorities. Therefore, it is important for tax authorities and financial institutions to ensure that they comply with applicable data protection and privacy laws while also facilitating effective third-party data sharing to promote tax compliance. Part VII of the Data Protection Act 1990 listed exemptions in data processing with certain qualifications among them those that process personal data for national security or on grounds of public interest pursuant to Section 51(2)(b) of the Act.

### **3.2.2 Practical Difficulties**

Acquiring third-party data can be a challenging process, with several factors potentially impeding the acquisition and use of such data. Legal concerns with private firms can arise, as they may not want to share their data with third parties due to confidentiality or privacy reasons. This can make it difficult to access the data needed for analysis or decision-making purposes. Even when data is obtained, managing and using the data collected can be complicated, requiring specialized skills and resources that may not be readily available.

One of the practical difficulties in acquiring third-party data is scheduling, as delays in receiving data can cause setbacks in decision-making or analysis processes.<sup>146</sup> Information that does not arrive on time is of limited use. In contrast, proper time was highlighted as a success element in some occasions. In addition to timing concerns, third-party data sources might not always be immediately useful due to quality issues or because integrating such data with existing data systems can be challenging. It may require significant resources and expertise to clean and process the data and ensure that it is compatible with existing systems, making it challenging to integrate and analyze the data effectively.<sup>147</sup> Acquiring and using third-party data is a complex process that

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<sup>146</sup> Johnson, M. (2019). The benefits and challenges of acquiring third-party data. Harvard Business Review. Retrieved from <https://hbr.org/2019/06/the-benefits-and-challenges-of-acquiring-third-party-data>

<sup>147</sup> OECD (2017), "Third-party data management, Smith, J., Brown, T., & Jones, K. (2020). Unlocking the potential of third-party data: Strategies for success. McKinsey & Company. Retrieved from <https://www.mckinsey.com/business-functions/mckinsey-analytics/our-insights/unlocking-the-potential-of-third-party-data-strategies-for-success>

requires careful planning, resource allocation, and expertise. While there may be legal, managerial, and practical challenges associated with acquiring such data, it can also provide valuable insights and benefits when used effectively.

### **3.2.3 Administrative costs**

The administrative burden of third-party data sharing varies based on the format in which data is sought or supplied, (such as the use of “paper forms and the lack of automatic information interchange”) raises challenges in successfully transmitting information between agencies, with the lack of IT capabilities to gather and evaluate the information further exacerbates the situation. Technical and organizational discrepancies are the most common types of difficulties inside an administration. The specifics of flaws vary significantly: unstructured information formats or gaps in media type (such as data delivered manually on paper but then processed electronically) increase handling time and reduce the effectiveness in the use of the information. Further, decentralized data storage prevents easy sharing of data thereby limiting the access for other actors who are interested in it.<sup>148</sup>

Tax authorities may require third-party data in a specific format that is not compatible with the data storage systems of the third-party provider, creating additional administrative burdens for both parties. The third-party provider may need to invest in new information systems or data conversion processes to supply the requested data in the required format. Similarly, tax authorities may need to modify their data storage systems to accommodate the new data format. In addition, the administrative burden of third-party data sharing can also vary based on the frequency and volume of data being shared. If tax authorities require frequent updates or large volumes of data from third-party providers, this can create additional administrative burdens for both parties. The third-party provider may need to invest in additional resources to manage the increased data demands, while tax authorities may need to develop new data management processes to effectively process and analyze the increased volume of data.

It is therefore essential for tax authorities to work closely with third-party providers to identify the most efficient and effective ways to share data. This may include standardizing data formats, streamlining data transfer processes, and investing in new data storage and management systems.

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<sup>148</sup> Carriere-Swallow, *Et al.* (2019).

By reducing administrative burdens, tax authorities can more effectively leverage third-party data to improve tax compliance and enhance overall tax administration

### 3.3 Proposed Ways to Improve Third Party Data Sharing

When officers were asked to identify ways of improving third party data sharing, the following responses were generated as in Table 8.

**Table 10: Proposed Ways to Improve Third Party Data Sharing**

<b>Ways to Improve Third-Party Data Sharing</b>	<b>Helpful</b>	<b>Somewhat helpful</b>	<b>Extremely helpful</b>
Collaborative measures- discuss and agree with the third party data provider on mechanisms of data sharing	43.1	40.3	16.7
Legal amendments to ensure that data are provided as a return	31.9	52.8	15.3
Security of the data received and confidentiality measures	31.9	43.1	25
Security of the data received and confidentiality measures	31.9	43.1	25
Provision of the latest or most current data	50	29.2	20.8
Involve the end user of data	37.5	44.4	18.1
Training of data expert to assist in the process	31.9	40.3	27.8
Up to date systems: need to update the system	31.9	40.3	27.8
Accuracy and reliability	59.7	29.2	11.1
Automate most of the government agencies to facilitate sharing of information with ease	43.1	41.7	15.3
Have a solid framework to regulate sharing of third party information	45.8	44.4	9.7
Have a solid framework to regulate sharing of third party information	45.8	44.4	9.7
Educate key stakeholders on the importance of third party information sharing	51.4	38.9	9.7
Avoid numerous system downtimes	47.2	43.1	9.7
Anonymity of the informer/ threat to confidence	33.3	54.2	12.5
System integration to enable cross-matching of data and interrogating data	38.9	43.1	18.1
Prompt rewards informers for information leading to identification of tax evasion schemes	48.6	45.8	5.6
Integration of system by parties involved liked NTSA, KPLC and Lands Ministry	54.2	41.7	4.2
Proposal to have regular updates on information needed by KRA from other players	37.5	45.8	16.7

The findings indicate that Third-Party data sharing can drive economic growth and innovation, but it must be done in a way that protects the interests and objectives of the organizations sharing their data. Policy frameworks are necessary to ensure that data collection is clear, structured, and respects privacy. Rights and obligations over data must be defined to prevent firms from hoarding data and inhibiting the efficiency of data sharing. Coordination across public sector organizations is essential to counter fragmentation in the accumulation and consumption of data. Data policy frameworks have significant implications for macroeconomic stability, equity and growth. It is crucial for central banks, ministries of finance and planning, financial regulators, consumer protection agencies, privacy regulators, and competition agencies to coordinate in an integrated manner to balance their conflicting goals. Implementation of these recommendations can enhance tax compliance and ultimately increase tax revenue

Among the ideas for improving third-party data administration are the ability to gather third-party data automatically, standardization of the information required and an emphasis on greatly decreasing paper effort. This involves enhancing personal connections, promoting informal information exchange with legal support, simplifying the request and delivery of data, investing in both human and technical resources, and utilizing tools to effectively explore emerging telecommunications technologies.

Countries should implement technology solutions within the tax administration in order to use this data effectively. Data gathering, combining, and cross-checking are frequent responsibilities for compliance management. Automating these procedures and putting security and privacy measures in place can help protect data. For the information technology (IT) systems to be successfully implemented and for the revenue authorities to utilize third party data effectively, organizational transformation is required through staffing adequately for IT management, analytics, and compliance, as well as optimizing business processes to enable

Other suggestions include evaluating new sources of third-party data, centralizing information, improving contact with judicial officials, allowing technical cross-checks, and gaining direct access to external databases. Further, third-party data collection can be enhanced by acquiring bank information and accessing information from individuals dealing with suspicious companies. Internationally, information on individuals dealing with fraudulent concerns can be exchanged.

VAT deposit accounts and electronic tax invoicing can also be implemented as a way of information sharing.

### **3.4 Sources of Third Party Data**

Tax administration systems throughout the world have realized the enormous potential of using third-party information to detect evasion. Land registration, licensing authorities, the motor vehicle department, insurance firms, banks, and sellers of gold, silver, foreign cash, and other personal items all have information that can help the tax department check the accuracy of income tax returns filed by taxpayers. If a taxpayer chooses not to give important information to the revenue authorities, the tax administration has an alternate method for tracing tax evasion using third-party information. Third-party information tools can therefore help the tax administration guarantee that people pay their taxes on time.

Tax authorities throughout the world are increasingly depending on digital technologies to acquire taxpayer data and operate their tax systems, owing to revenue pressures and dwindling headcounts. As countries and supranational organizations increase their expectations for tax transparency, several tax authorities are developing sophisticated data-gathering platforms that enable the matching and exchange of taxpayer data. They are then mining this data using data analytics to help raise tax revenues, prioritize compliance measures, and improve overall efficiency. In practice, this means that an unprecedented quantity of taxpayer data is being exchanged between governments and corporations. This information is being examined and used in new and expanded ways.

Many tax authorities use data from many sources to create a more comprehensive picture of a company's tax status. Companies are increasingly being requested to produce customer bills, statements of accounts, customs declarations, vendor invoices, and bank records in government-specified formats – and on a tight deadline (often in real or near-real time). Furthermore, the forms in which this data are supplied may differ from how businesses track and gather data. Real-time or near real-time data analytics engines are being used by tax authorities to evaluate invoices and lag anomalies, verify sales and purchase declarations, verify payroll and withholding declarations, and compare data between countries and taxpayers. Tax authorities make decisions, including tax and audit assessments, based on these evaluations.

The increased use of data analytics by tax authorities necessitates a paradigm shift in how businesses — particularly their tax and finance departments — gather, store, and analyze tax and financial data. Documents can be saved in a variety of locations, including network shared drives, personal hard drives, the systems of external providers, document management systems, and emails. To make matters more difficult, the necessary information may be scattered across several functions and geographical locations. This might make it difficult to locate data when it is required and to determine when that data has been gathered or transmitted. These difficulties can be avoided by developing a strong data management and analytics system. Because of the frequency of requests and the short response time for compliance, businesses require sophisticated data management and analysis capabilities that match or surpass those employed by tax authorities. They will also require employees who are knowledgeable with these additional data requirements to create and manage such systems. Furthermore, in this era of enhanced openness and information exchange, they must take proactive measures to develop files that are "audit ready" when providing necessary information to tax authorities.

The country-by-country reporting (CbCR) standards of the Organization for Economic Cooperation and Development need increasing data collection and sharing. With numerous nations, including the United States, adopting CbCR standards and many more on the way, the volume and velocity of data collection and processing will only increase. The cornerstone of this new digital tax world is data, and the quality of the outputs will be determined by the quality of the data that goes in. Tax departments must see the tax function through the prism of big data and data analytics in order to keep up with what governments are doing and stay one step ahead.<sup>149</sup>

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<sup>149</sup> OECD, E. "Compliance risk management: Managing and improving tax compliance." In Forum on Tax Administration, Centre for Tax Policy and Administration. 2004.

## **CHAPTER 4 – THIRD-PARTY DATA SHARING AND TAX COMPLIANCE**

### **4.0 Introduction**

This chapter presents the findings on the third objective on the nexus between third-party data sharing and tax compliance while linking these to economic security. Third-party data sharing involves the exchange of data between entities that are not directly involved in a transaction or relationship. In the context of tax compliance, it typically involves the sharing of information by employers, financial institutions, and other entities with tax authorities. It has a significant impact on tax compliance through provision, to tax authorities, of access to more information about taxpayers. When third-party entities share data with tax authorities, it allows them to verify the accuracy of taxpayer-reported information, detect potential underreporting or noncompliance, and take enforcement actions where necessary.

Employers are required to report their employees' wages, salaries, and other compensation to the tax authorities, who use this information to verify the accuracy of the taxpayer-reported information and detect potential underreporting or noncompliance. This can be established where a taxpayer reports a certain amount of income on their tax return, but their employer reports a different amount to the tax authority – one of these is underreporting their income. Financial institutions, such as banks, investment companies and insurance companies, may be required to report certain transactions, such as large cash deposits or foreign account holdings, to the tax authority. This information can also be used to detect potential noncompliance and inform on necessary enforcement action to be taken.

Similarly, third party data sharing can also facilitate compliance by making it easier for taxpayers to access relevant information and ensure they are meeting their obligations. One example is a taxpayer who uses a third-party service provider to prepare and file their tax return. The service provider may use information provided by employers, financial institutions, and other entities to ensure that the return filed is accurate and complete. Overall, third-party data sharing plays an important role in promoting tax compliance by increasing the accuracy and completeness of taxpayer-reported information, enabling tax authorities to detect and prevent noncompliance, and providing taxpayers with access to relevant information to meet their obligation. However, the

benefits of third-party data sharing and limited by the requirement for protection taxpayer privacy and data security, calling on a balance between the two.<sup>150</sup>

To promote effective tax compliance and mitigate against the challenges posed by legislation and data privacy laws, tax administrators can take various steps including ensuring compliance with specific data protection and privacy laws, development and implementation of effective data sharing agreements, use of technology solutions, and cooperating internationally. Tax administrators should nonetheless prioritize compliance with data protection and privacy laws while also recognizing the importance of data sharing for effective tax compliance. These findings are discussed in the sections herein.

#### 4.1 Influence of Third-party Data Sharing on Tax Compliance

An analysis of data obtained from sources indicated that third party data was key in enhancing taxpayer compliance in various areas identified as in the table herein.

**Table 11: Influence of Third Party Data Sharing on Tax Compliance**

	Not at all	Small extent	Moderate extent	Large extent	Very large extent
Correct and current taxpayer information	1.4	2.8	11.1	22.2	62.5
Duly registered taxpayer	0	6.9	12.5	43.1	37.5
Duly paid up taxes	0	5.6	22.2	27.8	44.4
Submission of accurate tax returns	1.4	0	12.5	38.9	47.2
Accurate information on income derived/earned by taxpayer	0	0	13.9	31.9	54.2
Accurate information on deductions claimed by taxpayer	0	5.6	8.3	45.8	59.7
True, correct and correlated taxpayer information with respect to return declaration	1.4	1.4	13.9	34.7	48.6
Correct declaration of deductible expenditure by taxpayer	0	1.4	15.3	37.5	45.8

<sup>150</sup> "Big Data and Tax Compliance" by the Internal Revenue Service (IRS)

Correct declaration of assets and liabilities	1.4	1.4	13.9	29.2	52.8
Correct declaration of spending patterns	0	2.8	23.6	33.3	40.3

Tax compliance is assessed based on four pillars identified – registration, timely filing of taxes, correct and accurate payment of taxes and accurate declaration as detailed in the table 9 herein.

#### **4.2 Influence of Third-Party Data Sharing on Taxpayer Registration**

Third-party data sharing can have a significant impact on taxpayer registration. Tax authorities may use data from third-party sources, such as financial institutions, roads authorities, Land ministries, and utility companies, to identify individuals who are required to register for tax purposes. For example, tax authorities can use third-party data to identify individuals who have received income from sources such as wages, dividends, or capital gains, and who may be required to register and pay taxes on that income. Tax authorities may also use third-party data to verify the accuracy of information provided by taxpayers during the registration process. For example, tax authorities may use data from financial institutions to verify the income reported by a taxpayer on their registration form.

The use of third-party data can also help to streamline the registration process for taxpayers. Tax authorities can pre-populate registration forms with data obtained from third-party sources, reducing the burden on taxpayers to provide this information themselves. This can help to increase the accuracy and completeness of taxpayer registration information and improve the efficiency of the registration process.

Overall, third-party data sharing can play an important role in taxpayer registration by helping tax authorities to identify individuals who are required to register for tax purposes, verify the accuracy of registration information, and streamline the registration process for taxpayers.

#### **4.3 Influence of Third-Party Data Sharing in estimation of Taxpayers Income, Assets and Liabilities**

Third-party data sharing can also have a significant impact on the estimation of taxpayers' income, assets, and liabilities. By accessing data from third-party sources, tax authorities can obtain a more complete and accurate picture of a taxpayer's financial situation, which can help to ensure that

taxes are assessed fairly and accurately. Tax authorities can use data from financial institutions to verify the income reported by taxpayers on their tax returns. This can help to reduce the risk of underreporting of income and increase the accuracy of tax assessments. Tax authorities can also use third-party data to identify assets and liabilities that may not have been reported by taxpayers, such as bank accounts, investment accounts, and loans. This can help to ensure that taxpayers are assessed taxes on their full financial situation, rather than just what they report on their tax returns.<sup>151</sup>

Third-party data use may also help to detect noncompliance and tax fraud. By comparing data from different sources, tax authorities can identify discrepancies and anomalies that may indicate noncompliance or fraud. This can help to ensure that taxes are assessed fairly and accurately and deter noncompliance and fraud. However, the use of third-party data in tax assessments also raises privacy and data protection concerns. Tax authorities must ensure that they comply with applicable data protection and privacy laws when accessing and using personal data obtained from third-party sources.

Third-party data sharing therefore can have a significant impact on the estimation of taxpayers' income, assets, and liabilities by providing tax authorities with a more complete and accurate picture of a taxpayer's financial situation. However, the use of third-party data must be balanced with privacy and data protection considerations.

#### **4.4 Influence of Third-Party Data Sharing on Tax Payment & Ascertainment of correct taxpayer claims and deductions**

Third-party data sharing can promote payment of taxes and ensure correct claims and deductions by taxpayers. By accessing data from third-party sources, tax authorities can identify noncompliance and underreporting of income, which can help to ensure that taxes are assessed fairly and accurately. This can promote voluntary compliance by taxpayers, as they are more likely to pay the correct amount of taxes when they know that tax authorities have access to a broad range of financial data.<sup>152</sup>

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<sup>151</sup> "Third-Party Data Sources and Tax Administration" by the Organisation for Economic Co-operation and Development (OECD)

<sup>152</sup> "The Role of Third-Party Data in Supporting Improved Tax Compliance" by the World Bank Group

Third-party data can also help taxpayers to claim the correct deductions and credits on their tax returns. For example, tax authorities can use data from financial institutions to verify deductions claimed by taxpayers, such as charitable contributions or business expenses. This can help to ensure that taxpayers are claiming deductions and credits that they are entitled to, while also reducing the risk of incorrect or fraudulent claims. Third-party data sharing can help to promote voluntary compliance by taxpayers, ensure the accuracy of tax assessments, and reduce the risk of noncompliance and fraud. However, tax authorities must balance the benefits of third-party data with privacy and data protection considerations, and ensure that they comply with applicable laws and regulations when accessing and using personal data.

#### **4.5 Influence of Third-Party Data Sharing in Establishing Taxpayers' Spending Pattern**

Third-party data can be used to estimate a taxpayer's income and establish their spending patterns. Tax authorities for example, can use data from financial institutions to identify deposits and withdrawals made by a taxpayer, which can provide a rough estimate of their income and spending patterns. By analyzing this data, tax authorities can identify discrepancies between reported income and actual income, which can help to identify potential noncompliance or underreporting of income. In addition, tax authorities can use third-party data to establish spending patterns and identify potential noncompliance or fraudulent activity. For example, if a taxpayer reports a very low income, but has large and frequent expenditures, tax authorities may investigate whether the taxpayer is underreporting income or engaging in noncompliant activity. Similarly, if a taxpayer reports a high income, but has few expenditures, tax authorities may investigate whether the taxpayer is engaged in tax evasion or fraud.<sup>153</sup>

However, the use of third-party data to estimate income and establish spending patterns can be challenging, as the data may not provide a complete or accurate picture of a taxpayer's financial situation. For example, some income sources, such as rental income or self-employment income, may not be reflected in third-party data. In addition, some expenditures may not be indicative of a taxpayer's actual spending patterns, such as one-time large purchases or gifts. Overall, while third-party data can be useful in estimating income and establishing spending patterns, tax authorities must carefully analyze the data and balance it with other sources of information to ensure accurate and fair tax assessments.

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<sup>153</sup> Big Data and Tax Compliance" by the Internal Revenue Service (IRS)



## **CHAPTER 5 - SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

### **5.0 Introduction**

This chapter provides a summary of the findings of the study, with conclusions drawn and recommendations of the study proffered. Research gaps are further articulated in this chapter, with the aim of guiding future studies related to third party data and its influence on tax compliance.

### **5.1 Summary of Findings**

The study examined the role of third-party data sharing on tax compliance for economic security in Kenya. Through use of structure questionnaires, the researcher sampled 85 officers from the domestic tax department within Kenya revenue authority with 72 of the targeted respondents filling and returning the questionnaires, implying a 84.7% response rate.

The findings under the various objectives are summarized herein.

#### **5.1.1 Tax compliance and Economic Security**

A review of the data on tax compliance demonstrated that tax compliance influences economic security of any nation. Specifically, in the case of Kenya, this same observed is made through the various studies analyzed, that tax compliance has implications for economic security. Tax non-compliance was established to have an adverse impact on a government's ability to fund public services and investments that are crucial for economic development and social welfare. This can lead to underinvestment in areas such as health, education, infrastructure, and social protection, which can have negative long-term impacts on human development, productivity, and economic growth. Moreover, it creates a disproportionate burden of tax payment on those who already pay taxes, thereby creating a sense of unfairness and erodes trust in the government, which can make it more difficult for the government to mobilize support for its policies and programs.

can create a perception of impunity and weaken the rule of law. This can discourage compliance with tax laws and create a culture of tax evasion, which can be difficult to reverse once it has taken root.

Tax non-compliance reduces government revenue collection, which can exacerbate the problem of public debt. When governments are unable to raise enough revenue through taxes, they may resort to borrowing to fund their expenditures. This can lead to a vicious cycle of debt accumulation, which can have negative implications for macroeconomic stability, investor

confidence, and long-term growth prospects. Therefore, non-compliance has wide-ranging implications for economic development, social welfare, and governance. It is therefore essential for governments to prioritize efforts to strengthen tax collection systems, improve compliance, and reduce tax evasion in order to promote sustainable and inclusive development.

### **5.1.2 Third Party Data Sharing Profile, Challenges and Economic Security**

Third-party data sharing can have both positive and negative impacts on the economic security of a country, depending on how it is managed and regulated. On the one hand, third-party data sharing can promote economic growth and innovation by enabling businesses to access and analyze large amounts of data more efficiently. This can lead to the development of new products and services, improved decision-making, and increased efficiency and productivity.

However, third-party data sharing can also pose significant risks to economic security, particularly if it is not adequately regulated. For example, the unauthorized or improper use of personal data can lead to identity theft, fraud, and other forms of financial crime, which can undermine the confidence of consumers and businesses in the financial system. In addition, third-party data sharing can create vulnerabilities in critical infrastructure, such as banking systems and energy grids, which can be exploited by cybercriminals and hostile foreign actors.

Third-party data sharing can also raise concerns about privacy and data protection, particularly if sensitive personal information is shared without adequate safeguards. This can erode public trust and confidence in the institutions and companies that are responsible for managing and protecting personal data, which can have negative impacts on the overall functioning of the economy.

In order to mitigate these risks and ensure that third-party data sharing supports, rather than undermines, economic security, it is essential to have robust regulatory frameworks in place that protect personal data, prevent financial crime, and safeguard critical infrastructure. This may involve establishing clear rules around data sharing, enforcing penalties for noncompliance, and promoting greater transparency and accountability in the use of personal data. By doing so, countries, through their tax authorities can promote economic growth and innovation while also safeguarding the security and privacy of their citizens.

### **5.1.3 Third Party Data Sharing and Tax Compliance**

A direct relationship is observed between third party data sharing and tax compliance. Third-party data sharing plays an important role in promoting tax compliance by increasing the accuracy and completeness of taxpayer-reported information, enabling tax authorities to detect and prevent noncompliance, and providing taxpayers with access to relevant information to meet their obligation. However, the benefits of third-party data sharing are limited by the requirement for protection taxpayer privacy and data security, calling on a balance between the two.

To promote effective tax compliance and mitigate against the challenges posed by legislation and data privacy laws, tax administrators can take various steps including ensuring compliance with specific data protection and privacy laws, development and implementation of effective data sharing agreements, use of technology solutions, and cooperating internationally. Tax administrators should nonetheless prioritize compliance with data protection and privacy laws while also recognizing the importance of data sharing for effective tax compliance.

## **5.2 Conclusion**

Findings from the study demonstrate that enhancing the sharing of third-party data can play a crucial role in promoting tax compliance and improving economic security. Among the methods to enhance the sharing of third-party data include the development of a comprehensive legal and regulatory framework. Tax authorities should establish clear legal and regulatory frameworks that govern the sharing of third-party data. These frameworks should specify the types of data that can be shared, the purposes for which it can be used, and the conditions under which it can be shared. There is also a need for tax authorities to establish formal data sharing agreements, that govern the sharing of data, with third-party providers. These agreements should specify the data to be shared, the frequency of data sharing, and the methods of data transfer.

It is also important that data format are standardized to make it easier for tax authorities to integrate third-party data into their systems. Tax authorities should work with third-party providers to establish common data formats that can be easily shared and integrated. Of significance is that tax authorities should take measures to ensure that third-party data is kept secure and that privacy protections are in place. This can include implementing robust data encryption and access controls, as well as complying with relevant data protection regulations. This may also require that tax

authorities invest in data management and analytics tools that enable them to effectively manage and analyze third-party data. This can include data warehousing and analytics software, as well as machine learning and artificial intelligence tools that can help identify patterns of non-compliance. By taking these steps, tax authorities can enhance the sharing of third-party data and improve their ability to promote tax compliance and enhance economic security.

### **5.3 Recommendations of the Study**

Based on the findings from this study, the researcher proffered various recommendations to enhance sharing of third party data to promote tax compliance and thus economic security in Kenya. Among these include:

**5.3.1** Ensuring compliance with data protection and privacy laws: Tax administrators should ensure that they comply with applicable data protection and privacy laws when collecting, processing, and sharing personal data related to taxes. This may involve obtaining consent from individuals, implementing appropriate security measures to protect personal data, and limiting the collection and use of personal data to specific and legitimate purposes.

**5.3.2** Implementing effective data sharing agreements: Tax administrators can work with financial institutions and other third-party data providers to establish data sharing agreements that are compliant with applicable data protection and privacy laws. These agreements should clearly define the data to be shared, the purposes for which the data will be used, and the security measures that will be implemented to protect personal data.

**5.3.3** Use technology solutions: Tax administrators can use technology solutions to facilitate secure and efficient data sharing while ensuring compliance with data protection and privacy laws. For example, secure data exchange platforms can be used to enable encrypted and controlled data sharing between tax authorities and financial institutions.

**5.3.4** Engage in international cooperation: Tax administrators can work with other countries and international organizations, such as the OECD, to develop and implement international standards for data protection and privacy in the context of tax compliance. This can help to ensure consistency and coordination in data protection and privacy policies and practices across jurisdictions.

**5.3.5** Overall, tax administrators should prioritize compliance with data protection and privacy laws while also recognizing the importance of data sharing for effective tax compliance. By taking

these steps, tax administrators can overcome the challenges posed by legislation and data privacy laws and promote effective tax compliance.

#### **5.4 Suggestions for Future Research**

The study proposes the following areas for future research

**5.4.1** An investigation on tax gap as a measure for tax compliance. This was not explored due to time limitation while undertaking this study. Measuring the tax gap can be a complex and challenging task. The tax gap refers to the difference between the total amount of tax owed and the amount of tax actually collected by tax authorities. It represents the extent of non-compliance or underreporting of taxable income by taxpayers. In determining the tax gap, various challenges abound including non-observable transactions, Unreported income, Tax evasion techniques and the existence of a shadow economy. Tax authorities therefore employ a range of techniques to estimate and monitor the tax gap. These may include statistical modeling, data matching and analysis, audits and investigations, surveys, and information-sharing agreements with financial institutions and other countries. This requires a long-term research to develop a robust methodology to measure the tax gap. This can be explored by researchers pursuing long-term analysis on tax compliance based on tax-gap.

**5.4.2** Expanded coverage for target group and time scope. The closed group interviewed in the study posed specific impacts on this study, influencing various aspects such as data collection, generalizability of findings, and the depth of understanding. While the specific population had a unique characteristics or experiences, there were challenges in accessing and recruiting participants due to their limited availability. This affected the sample size and diversity of the study. Future researchers may consider recruiting participants from other departments to get their view and understanding of third party data and its impact on tax compliance.

This study was also conducted in period less than one year, with respondents expected to give feedback on the questionnaires within one month after issuance of the questionnaire. This time limitation in the study impacted various aspects, including data collection, data analysis, and the scope of research questions. Limited time restricted the ability to conduct long-term observations or capture changes and developments over an extended period. Future research need to carefully plan and prioritize their research objectives within the available period.

**5.4.3** Focus externally on their view on third party-data sharing e.g. the taxpayers themselves or the providers of such data. This study was also inward looking since the focus was on employees at KRA as respondents. Future research may consider sampling taxpayers under various categories to understand their view and understanding on third-party data and tax compliance.

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## APPENDICES

### Appendix I: Estimated Research Budget

<b>Task/Activity</b>	<b>Cost (Kshs)</b>	<b>Cost description and Justification</b>
Stationery	50,000.00	Writing materials for use during research paper development
Secondary Data Collection	60,000.00	Payment for 2 research assistant at Kshs. 2,000.00 per day for 15 days
	20,000.00	Printing and photocopying services for questionnaires of 10 pages each. (Estimated 100 copies @ Kshs. 20.00)
	25,000.00	Airtime & Internet cost – for use during the research period
Data cleaning, coding, entry and analysis	30,000.00	1 research assistant @ 30,000.00
Printing and binding Research report	6,000.00	Printing of research project draft 4 copies of 150 pages per copy @ Kshs. 10.00
	6,000.00	Printing of final research project 4 copies of 150 pages per copy @ Kshs. 10.00
	2,400.00	Binding 4 copies @ Kshs. 600.00 per copy
Research License	2,000.00	To obtain a research license from the National Commission for Sciences, Technology and Innovation (NACOSTI)
Contingency budget	30,000.00	To cater for any unprecedented research activities that may have been unforeseen, such as postponement of field data collection due to unavailability of sampled respondents and unfavorable conditions such as weather and insecurity
<b>Total</b>	<b>231,400.00</b>	

## Appendix II: Research Workplan

<b>S/N</b>	<b>Activity</b>	<b>Due Date for Submission</b>
<b>1.</b>	Research project consultation	23 September 2022
<b>2.</b>	Thesis Chapter 1 Presentation to Supervisor	8 September 2022
<b>3.</b>	Data Collection, Analysis & Interpretation	30 September 2022
<b>4.</b>	Submission of chapter 2 to Supervisor	28 October 2022
<b>5.</b>	Submission of chapter 3 to Supervisor	30 November 2022
<b>6.</b>	Submission of chapter 4 to Supervisor	6 January 2023
<b>7.</b>	Submission of chapter 5 to Supervisor	6 February 2023
<b>8.</b>	Submission of Final draft to Supervisor	10 March 2023
<b>9.</b>	Submission of the Final Project to NDU-K	27 March 2023

**Appendix III: Questionnaire**

**INSTRUCTION:** Kindly fill the following and subsequent questions by putting a tick (√), mark(x) or numbers in the appropriate box that closely matches your view or alternatively write on the spaces provided where necessary.

**NB: This information will be used strictly for academic purposes only and will be treated with utmost confidence.**

**SECTION A: Background Information**

**A1.** Indicate your gender.

Male  Female

**A2.** Age group

Below 25 years  25 – 35 years  36 – 45 years  Above 45 Years

**A3.** Level of education?

O/A level  Certificate/Diploma  Bachelors  Post graduate

**A4.** Indicate your department

Domestic Taxes Department  Customs Department  SIRM  Corporate Support Services

Other (Specify)  .....

**A5.** Indicate your specific Division/Section/Unit in the department

.....

**A6.** Indicate your role in the section/ department

Technical/Operational  Supervisory  Management  Other  .....

**A7.** How long have you been working in the organization?

0– 4 years  5-10 years  11 – 15years  16 and above years

**A8.** Do you use third-party data in your department?

Yes  No  Other (Specify)  .....

**A9.** What are your sources of third party data and the reason for their use?

Source of third Party data	Type of data required	Expected output/results (Need for the data)
----------------------------	-----------------------	--

1

2

3

4  
5

**PART B: Objective 1 - Automation and data analytics**

Please indicate the extent the statements in Parts (B1-B7) below apply to automation and data analytics in your organization, in relation to their impact on tax compliance. Please tick as appropriate in a corresponding box.

**Use a scale of 1-5, where (1-Not at all, 2-small extent, 3-moderate extent, 4-large extent and 5- very large extent)**

	<b>PART B: Objective 1</b>	1	2	3	4	5
B1	Digitization measures impact on tax compliance					
B2	On-line filing of tax returns influences tax compliance					
B3	Online invoice management influences on tax compliance					
B4	Integration of various department systems influences tax compliance					
B5	Automation of the tax system influences tax compliance					
B6	Matching of taxpayer data influences tax compliance					
B7	Data analytics influences tax compliance					

**PART C: Objective 2 – Limitations to third party data & information sharing**

Please rank the extent the challenges listed in Parts (C1-C5) below influence third-party data sharing. Please rank in order of level of influence in the corresponding box.

**Use a scale of 1-5, where (1-No influence, 2-Limited influence, 3 – Moderate influence, 4-Important influence and 5-Very Significant influence)**

		1	2	3	4	5
C1	Data sharing legislation that is limiting on requirements for data sharing					
C2	Reluctance of data holders to share data					
C3	Inadequate capacity for handling the information /data once received					
C4	Disjointed ICT systems					
C5	Manual data provided/shared					

- C6** Incomplete data maintained by other institutions required to share data with KRA
- C7** Integrity/Validity of data shared e.g. outdated data or incomplete data
- C8** Data abuse and mismanagement by beneficiaries and intended users
- C9** Other challenges (Please indicate and the magnitude of influence)
  - a.
  - b.
  - c.

**PART D: Objective 3 – Third-party data sharing & information sharing**

Please indicate the extent the statements in Parts (D1-D10) below apply to third-party data sharing in your organization, with respect to their impact on tax compliance. Please tick as appropriate in a corresponding box.

Question – To what extent do the statements below apply on the impact of third-party data sharing?

Use a scale of 1-5, where (1-Not at all, 2-small extent, 3-moderate extent, 4-large extent and 5- very large extent)

**PART D: Objective 3**

	1	2	3	4	5
D1	Correct and current taxpayer information				
D2	Duly registered taxpayer				
D3	Duly paid up taxes				
D4	Submission of accurate tax returns				
D5	Accurate information on income derived/earned by taxpayer				
D6	Accurate information on deductions claimed by taxpayer				
D7	True, correct and correlated taxpayer information with respect to return declaration				
D8	Correct declaration of deductible expenditure by taxpayer				
D9	Correct declaration of assets and liabilities				
D10	Correct declaration of spending patterns				

**PART E: Proposed ways and means for improving third party data sharing**

E1. Please provide at least three ways and means to improve third-party data sharing to support tax compliance

- a.
- b.



**THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013 (Rev. 2014)**  
Legal Notice No. 108: The Science, Technology and Innovation (Research Licensing) Regulations, 2014

The National Commission for Science, Technology and Innovation, hereafter referred to as the Commission, was established under the Science, Technology and Innovation Act 2013 (Revised 2014) herein after referred to as the Act. The objective of the Commission shall be to regulate and assure quality in the science, technology and innovation sector and advise the Government in matters related thereto.

**CONDITIONS OF THE RESEARCH LICENSE**

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15. Relevant Institutional Scientific and Ethical Review Committee shall monitor and evaluate the research periodically, and make a report of its findings to the Commission for necessary action.

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