

2024-11-22

Economic Development Through Strategic FDI and Technology Adoption: An Econometric Analysis for Sustainable Revenue Growth in Tanzania

Nyangarika, Anthony

Global Academic Journal of Economics and Business

<https://doi.org/10.36348/gajeb.2024.v06i06.002>

Provided with love from The Nelson Mandela African Institution of Science and Technology



Economic Development Through Strategic FDI and Technology Adoption: An Econometric Analysis for Sustainable Revenue Growth in Tanzania

Anthony Nyangarika^{1*}

¹The Nelson Mandela African Institution of Science and Technology, P.O. Box 447 Arusha, Tanzania

*Corresponding Author

Anthony Nyangarika

The Nelson Mandela African
Institution of Science and
Technology, P.O. Box 447 Arusha,
Tanzania

Article History

Received: 27.02.2024

Accepted: 19.10.2024

Published: 22.11.2024

Abstract: This study proposes a robust strategy for bolstering the country's economic development. Leveraging an econometric approach model, the research incorporates additional factors and extrapolates predictions based on historical data. By combining qualitative and secondary data, the study ensures a comprehensive analysis of the model through the error term and the ability to use mathematical treatments to determine future predictions based on historical data. The findings show that a lack of belonging, poor customer care, and the cost factor of FDI significantly affect revenue collection. Adopting new technology requires thorough preparation to avoid generating less revenue than expected. The study recommends that the government establish appropriate infrastructures for long-term strategy support for new technology adoption. Failure to do so may result in a waste of resources. Government policy and strategy significantly impact TRA performance. The URT government should adopt policies from other developed countries or modify them to suit local needs. The findings suggest serious corrective measures to prevent tax evasion through bribery or tampering with revenue collection infrastructures.

Keywords: TRA performance, Relevant Education, Revenue Collections, Tanzania, Foreign Direct Investment.

Copyright © 2024 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

The role of the government in the economy has gone far back since ancient times; a state is responsible for improving revenue collection, and one way of doing this is through improving the tax administration system. This makes a cornerstone for establishing a semiautonomous tax administrative system by the government of Tanzania the birth of the Tanzania Revenue Authority on July 1, 1996. In Tanzania, the tax administration is centralized under the TRA. The system administers both tax and nontax revenue within the United Republic of Tanzania.

The TRA has three major tax departments, the Department of Customs and Exercise, Domestic Revenue and Larger Taxpayer Unit, each of which is headed by a Commissioner and Vice Commissioner, as well as Heads of Departments. Before June 1966, the URT tax administration was under three independent revenue departments operated under a civil service framework. The Ministry of Finance was responsible for the direction and control of independent departments to align with government strategic policies.

URT adopts several strategies aimed at improving tax administration for efficient tax

Citation: Anthony Nyangarika (2024). Economic Development Through Strategic FDI and Technology Adoption: An Econometric Analysis for Sustainable Revenue Growth in Tanzania; *Glob Acad J Econ Buss*, 6(6), 156-165.

administration to increase revenue collection. For the financial year 2016/17, budget forecasting depends on the increase in indirect tax revenues resulting from improved administrative means for tax collection and the expansion of the tax base. The Tanzania Government has introduced fiber optical infrastructure, which is the most recent ICT that connects the government, private entities and individuals. The introduction of ICT potentially provides abundant advantages in TRA departments, including faster information and data processing and increased transparency and resource efficiency. In the end, ICT is a reliable tool for fighting corruption and reducing opportunities for bribery, and reducing administration costs also helps to identify and address noncompliant taxpayers (LGRC, 2017). Improving ICT facilitates the introduction of the government for convenient access to government information and services in URT.

To achieve sustainable development goals, the government and its stakeholders must make enormous investments each year in the next few decades, which is comparable to the 8.2% of the national GDP for developing countries. This is also the case for developed countries (Estevao, 2019). To address this fact, the government has introduced tax exemptions for agricultural inputs, including pesticides, tractors and their attachments, which is an enabler factor of increasing favorable grounds for expanding the revenue base of the government. The Tanzania economy depends on agriculture as the backbone of the economy; hence, provision tax exemptions on agricultural inputs are directly related to increasing agricultural output, which in turn creates more taxable revenues.

The TRA Corporate Plan is a plan that is built on four judiciously crafted strategic themes, *namely, operational excellence, taxpayer engagement, automation and innovation, which form the TRA's business model*, which aims to increase tax revenue in the Tanzania mainland region from TZS 20,667.91 billion in 2021/22 FY to TZS 31,921.0 in 2021/22 FY, resulting in a commutation annual growth rate of approximately 9.1% during the planning period (TRA, 2022). Automation is a self-administered system that generally involves the use of IT, including a system of online applications of TIN. The TRA introduces a customer care center that offers services for individuals to taxpayers, and the TRS hosts a website that is convenient for customers and other stakeholders in any part of the world.

TRA intends to widen the usage of electronic fiscal device (EFD) systems all over the Tanzania mainland, and it is expected that more than 200,000 taxpayers will use these devices, including non-VAT Registers, to provide visualized receipts to their

customers. The main benefit of the use of the EFD is that it enhances good record keeping for the business, and the device has an inbuilt fiscal program that sends direct tax revenue transactions to the TRA servers. Adaptation of the EFD System as an integral plan to boost revenue collection can generate electronic receipts and record all transactions made by taxpayers. It is a substitute for traditional handwritten receipts, which are inefficient because disloyal taxpayers try to evade taxes through the delivery of fabricated receipts. Improvements in technology lead to a continuous increase in tax collection and a reduction in the costs of tax collection.

According to an article by Nipun (2022), taxes, payments to the government, penalties for grants and gifts, and internal or external printing paper borrowing are the main sources of revenue for the Indian government in financing public authority plans. In addition, the NAZI government raised significant funds for voluntary and involuntary contributions through a collection fee, such as contributions from the population (Nathan, O 1944). Therefore, all types of government revenue are classified into two broad groups: tax revenue and nontax revenue.

In other words, the government is responsible for revenue collection, and the government is further divided into the central government and local government, as in Colombia and the United States (Mart, 2015 and Urban US Census Bureau, 2017), for example. The same is true for African countries, including Tanzania. The matter of revenue collection remains under the control of the government due to its importance and sensitivity to government administrations. According to the IBDR (2022), tax-income collection is a principal way for a state to generate public funds for financing both development and recurrent expenditures on human resources, investment and the provision of services to citizens and businesses. The CG represents the county outside the county as a high authority government organ, while LG deals only with internal administrative matters. The divisional nature of power is for easily facilitating government services for the benefit of the whole society and a healthier economy.

LEs can be urban authorities or rural authorities, and letters can integrate small towns (township authorities) as well as village councils (URTs). The LG (Urban Authorities) Act of 1982 of URT empowers the LG to collect and use those collections according to the prevailing requirements. Section 98 (2), (a)-(e) empower LG to enact laws to recommend revenue estimates and expenditures of the township authority to the district council to

borrow money and impose fees. Additionally, section 137 of the UTT LG states, "Subject to such general or specific limitations or conditions as the Minister may, by order published in the Gazette, specify about any township authority or category of township authorities, section 127 shall apply, mutatis mutandis to township authorities in respect of the power to write off arrears of revenue, cash and stores as if references to a district council in that section were references to a township authority". LG in Tanzania is mandated not only to raise new sources of income but also to use available funds according to the ruling act. LG revenue collection significantly affects total national income, but bureaucracy and corruption make LG revenue collection inefficient and unreliable because of the proportionate development of the whole county; hence, LG revenue collection is not a reliable revenue collector for financing each financial year budget. For this challenge facing LG, calculating the real contribution of revenue to the national-level budget is highly difficult.

The central government is the political authority that governs an entire nation. The United States is a federal system of government in which power is shared between the central government and state governments. It comprises three branches. The Legislative Branch, which makes national laws apply to the entire nation. The Executive Branch, with the president as the chief executive, carries out and enforces federal laws using a cabinet, federal departments and agencies, and regulations. Finally, the Judicial Branch, the federal courts, interprets the laws and how laws are carried out (Claudia, 2021). According to Phukan (2016), central government roles and responsibilities are the same: in addition to the collection of taxes, the CG is responsible for drafting all the principal legislation for the CG and deciding on bills to be introduced in the parliament. The Tanzania CG also approaches the overall revenue collection to finance both recurrent and development expenditures.

Tax is considered to be the most efficient means of revenue generation for all countries regardless of their economic level. Most of these countries are already overextended: one-half of the poorest countries eligible to borrow from the World Bank's International Development Association (IDA) are at high risk of debt distress or already in distress. Many of them recognize that borrowing from foreign lenders was limited; thus, the option of mobilizing domestic resources in the form of tax revenues was critical to economic progress (Estevao, 2019).

It is estimated that more than one-third of IDA countries and 70% of fragile and conflict-affected countries collect taxes that amount to less than 15% of the national GDP (Estevao, 2019). That amount

collected cannot manage a country to support its budget; hence, the LDC always experiences a budget deficit. Merely hiking tax rates would be counterproductive: it could aggravate poverty and slow growth. It takes a smarter approach to boost tax revenues in sustainable ways (Estevao, 2019). The need to raise more taxes in most countries, especially developing countries, is widely recognized. Taxes are used to fund many government activities (ActionAid, 2018). The tax system should be well organized to make it ideal for the revenue growth of Tanzania if the tax will hurt the economy. Good taxation should make the taxpayer feel that there is no burden on them. Toxic taxation results in tax evasion and tax avoidance.

The URT government collected more than 21.7 trillion TZS, approximately 9.4 billion USD, in 2020/2021, and was a leading source of income from imports and income (Kamer, 2022). Tax seems to be a major determinant of government policies. If the decrease in tax revenue persists over time, it will lower the government's desire to have stable sustained development for the well-being of the whole county economy. This study addresses this gap, providing a workable solution for sustainable economic development in the country.

MATERIALS AND METHODS

Review of Theories

Resource Mobilization Theory

Resource mobilization theory, formulated between 1960 and 1970, emphasizes the significance of resources in social movement development and achievements. Resources concerned have been categorized into five groups, namely, material resources, human resources, socio-organization resources, cultural resources and moral resources (Ashley, 2021): knowledge, money, media, labor, solidarity, legitimacy, and internal and external support from the power elite. The theory proposes that social movements grow at a time when people with objections can organize enough resources to take action. Resource mobilization theory, which emphasizes resources, explains why some deprived individuals manage to organize while others fail and provides a basis for sociologists to understand their interrelations with other social movements (Libre Texts Libraries, 2021).

A theory operates efficiently under the assumption that there will always be grounds for protest in modern, politically pluralistic societies because there is constant discontent, that is, grievances or deprivation; this de-emphasizes the importance of these factors, as they make them ubiquitous. Actors are rational, and they can weigh the costs and benefits of movement participation, which is their backbone. The theory also assumes

that movements develop in contingent opportunity structures, which are external factors that may either limit or bolster the movement and influence people's efforts to mobilize (Libre Texts Libraries, 2021).

Major criticism of this theory is based on too much emphasis on resources, particularly financial resources. There are movements that neither are motivated by money, a good example is the civil rights movement in the United States of America, which is based on the movements of members for time and labor (Libre Texts Libraries, 2021). Although resource mobilization theory was common from the 1970s to the 1980s, its main drawback is the failure to integrate philosophy into the explanation of movement and SMO formation, which has led to strong criticism (Akbar and Abbas, 2017). Crossman highlights two additional criticisms that in addition to organizational resources such as the experience of relative deprivation, which are important for understanding social movements, scholars stress the necessity of studying protests that occur outside of formal SMEs.

The following expresses the strengths of the theory. In general, resource mobilization is useful for safeguarding the prolongation of an establishment's provision of services to clients and stakeholders; it provides grounds for the sustainability of the organization, allows the growth of the business entity to a higher level, and provides room for the generation of new sources for organization or government revenue and the management of the efficiency sustainability of the source. Additionally, the theory can help both the public and private sectors generate new businesses and how to sustain them. In general, the resource mobilization theory is useful for prolonging the establishment's provision of services to clients and stakeholders; it provides grounds for the sustainability of the organization and allows the growth of the business entity to a higher level, providing room for the generation of new sources for the organization or government.

The Theory of Taxation/Traditional Economic Theory of Tax Compliance

The theory of taxation is also known as the traditional economic theory of tax compliance. Deterrence theories generally predict compliance patterns based solely on the ability-to-pay approach. Government revenues and expenditures are treated separately, and taxes are based on the taxpayer's ability to pay (Kipilimba, 2018). The theory is based on human behavior. The theory assumes that all people respond to a change in any one variable identically and predictably, that all taxpayers have full knowledge of the probability of being audited, and that all taxpayers have the same level of risk preference (McKherchar and Evans 2009). It is also

assumed that taxpayers are risk-neutral when relaxed individuals are ready to accept risks. There is evidence to support the relevance of deterrence strategies in addressing noncompliance, but it appears that its impact may not be captured by a single mathematical expression (McKherchar and Evans 2009). Individuals or taxpayers benefit from tax compliance by weighing the economic benefits they can gain as a basis for the final decision of whether to comply with tax or evade. They also consider the probability of being detected, the consequences that psychology theorists discredit audits and penalties and instead focus on changing individual attitudes toward the tax system. An Australian study revealed that individual tax evasion behavior was not solely determined by the monetary value of expected gains but that 'moral' factors also influenced this decision (Baldry, 1987). The general conclusion is that the economic deterioration model holds water for compliance behavior, but that is not only a factor for which there are other parameters to consider.

Review of Empirical Studies

A book written by Odd Helge Fjeldstand, Collete Schulz Herzernberg and Ingrid Hoem Sjursen titled Peoples Views in Africa: A Review of Research on Determinants of Tax Compliance published by the Institute of Development Studies in October 2012 casts light on determinants of taxpayer compliance about citizen-state relations governing attitudes and behavior regarding taxation. It provides an analytical foundation, methodological approaches and key findings for the available empirical literature on taxpayer behavior in African countries. It reveals how citizens perceive and experience taxation. The findings may provide a critical analysis of the political realities of political genuineness for tax reform.

By using qualitative research design, the author suggested that approaches to widen the tax base require intuition of how citizens experience and perceive tax systems, emphasizing whether people perceive that they are paying taxes or not, what they eventually pay for their views on tax administration and reinforcement. How individuals' tax behavior is related to their tax behavior is correlated with how they perceive the state. Current and potential taxpayer attitudes and perception surveys that assist in identifying observed weaknesses of the tax system. To enable tax authorities to focus their attention efficiently on high-risk categories of taxpayers, the author works on the following keywords: taxation, tax behavior, compliance, evasion, compliance, and fiscal exchange.

The article by Theobald Francis Kipilimba titled Impact of Tax Administration toward Government Revenue in Tanzania - Case of Dar es

Salaam Region, published on December 6, 2017, aimed to pinpoint the impacts of Tax Administration Toward Government Revenue in Tanzania. This study analyzed the effects of good tax design, effective tax policy and laws, the tax administrative structure, tax collection methods, and the application of a computerized system for maintaining tax payers government revenue in Tanzania. The author concludes that corruption practices on taxation issues, a lack of awareness of local taxpayers, political pressure to relax tax collections, ineffective tax laws and policies, insufficient budgets or funds, a high rate of tax evasion and avoidance, outsourced revenue retained by revenue collectors, and a lack of tax compliance are the challenges facing tax administration in Tanzania.

The author provides a means to address the abovementioned challenges. This researcher has recommended what should be done as a way forward, which includes constantly reviewing the tax laws and policy mechanisms, time needs, adoption of relevant efficient technology in tax administration, improvement of convenient means of tax payment and collection, and effective and modern human resource management practices in the tax authorities concerning vetting, recruitment, and selection of employees, and all collection transactions should be made in the authorized bank account. The author also used impact, tax, administration, government, and revenue as keywords when conducting the study.

According to the theories and literature reviews, there are several factors that influence how human behavior influences resource mobilization and perceptions of public services, particularly tax compliance. Both individuals are responsible for the whole process of development, which results from revenue collection. All of the referred literature uses a qualitative approach to analyze their studies, which emphasize tax laws, policy mechanisms, efficient technology, tax behavior, compliance, fiscal exchange, and individual tax behavior; however, few studies address ways to improve government revenue collection.

In this study, the researcher will change the research design by applying a mixed research design that uses both quantitative and qualitative approaches. The contributions of worker motivation, public education, and the introduction of new technology are analyzed to determine their contributions to the likelihood of increasing revenue collection. Government policies and strategies influence all four independent variables. These five variables, which have been extracted from theories and empirical reviews, show how revenue collection is influenced by assuming that all other factors are

working normally. These generated new independent variables are discussed as follows:

a. Workers Motivation

Chandrakant (2018) argued that it is also noteworthy for organizations to stop losses of performing employees due to decreasing job satisfaction and a lack of motivation to continue with the organization because long, motivated and satisfied employees will have a committed approach toward organizational objectives, and the employer's role is to align employee interests with that of the organization. Motivation can be in the form of money, which involves monetary benefits such as pay and allowances, or in kind, which involves accommodation, transportation, meals and all nonmonetary benefits. Motivation has direct effects on employees' psychology, as employees feel that they are forming important roles in the organization, which makes them work hard to attain the organization's goals and make them healthier for the organization. Motivation is an important organizational tool used to optimize worker utilization.

b. Provision of Public Education

To widen the revenue base, the inclusion of taxpayers is paramount. The public should be well informed about their government, which can be achieved through periodically informing citizens about the importance of revenue collection, both in terms of nontax revenue and tax revenue (except for fines and penalties, which are supposed to be minimized as much as possible), for country prosperity. Without these sources of revenue, its budget cannot be financed. According to Simpser (2007), the mobilizing character of the government determines the value the government places on the mobilization of citizens to take actions that are not necessarily in their individual best interest, such as voting and demonstrating in favor of the incumbent regime, which shows that media play vital roles in achieving public awareness. The media to be used includes television and radio broadcasts, social media, magazines, and newspapers, which are active tools for promoting the public's government roles.

c. Adoption of New Technology

According to Subramanian (2018), technology is becoming very important in our daily lives because it affects individuals, communities, businesses, and the nation's highly technological impact in the business world; thus, it has facilitated the management, manufacturing, and marketing of communication products and modular types more easily. Technology will also change the way employees work within a company as they learn to work with robots and automation (Wilburn and Wilburn, 2018). The word is dynamic, and new technology and skills are constantly emerging and

disappearing. The word experiences a major change from an analogy system to a digital system. The application of computer systems integrated with local area networks and wide area networks made payment easier, more cost-effective, and more convenient for both customers and government service providers.

d. Responsibilities of Actors

In the economy, as in other fields, there are several key players, such as individuals or organizations, who can be beneficiaries or beneficiaries directly. The government official should work honestly as per their job description. The individual should be ready to cooperate with the TRA and other government agencies and pay their due tax inclement or other nontax payments timely and in full amount. Tax compliance is encouraged, while tax evasion is discouraged by government officials.

The bureaucracy of government officials encourages bribery. Tax system administration strategies should be simple and transparent. According to Resimić 2021, both local and international evasion by large corporations, comprising sophisticated fraud, state capture, cronyism, and money laundering schemes, has a much greater negative effect on government revenues. These crimes are often hidden behind complex legal structures and financial transactions facilitated by lawyers, notaries, accountants, financial institutions, and other professional enablers. All highlighted actors can make great contributions if proper means are available to turn them into salient actors.

e. Government Policy and Strategy

According to Cerna (2013), multilevel governance provides a useful transition from policy change to policy implementation, as top-down versus bottom-up approaches have been used. In the top-down process, policy decisions from the national level are passed on to lower levels, whereas bottom-up processes refer to the involvement of the local level in policy-making and subsequent impacts at higher levels. These are the foundation for all government activities, and policies show how a certain issue is addressed and provide probable workout solutions, while strategies are tools for implementing these layout policies. The government policies are formulated by the respective ministries.

Methods

A study model is the hypothetical image of the objective of a study used to describe the interrelationship of a researcher’s ideas (Palvia *et al.*, 2006). According to White (1969), *econometric model representations of major cause-and-effect relationships in an economy are a relatively new aid to policymakers.* In this study, the econometric approach model was used because of the ability of the model to include other factors not captured in the model through the error term and the ability to make use of mathematical treatments to determine future predictions based on historical data. The econometric model was as follows:

$$Y = \alpha + \beta_1mw + \beta_2ppe + \beta_3ant + \beta_4gps + \beta_5 ra \epsilon$$

Where,

- Y = Likelihood of Increasing Revenue collections
- α = Constant,
- MW = Workers Motivation,
- PPE = Provision of Public Education,
- ant = Adoption of New Technology,
- GPS = Government Policy and Strategy,
- ra = Responsibilities of Actors,
- ϵ = Error Term.

Hypotheses

- The following are the null hypotheses to be tested:
 - H₀ 1: Workers’ Motivation has no likelihood of increasing Revenue collection.
 - H₀ 2: Provision of Public Education has no Likelihood increase of Revenue collection in the United Republic of Tanzania.
 - H₀ 3: The adoption of new technology does not affect the likelihood of increasing revenue collection in URT.

RESULTS AND DISCUSSION

Probit Regressions Analysis

The study used the Binary Choice Probit Model to estimate the parameters of the independent variables that influence the likelihood of increasing revenue collection in URT. As for the STATA output, the pseudo-R-squared value indicates that approximately 58.1% of the variation in factors affecting the likelihood of increasing revenue collection in URT is explained by the independent variables. LR Chi-square indicates that independent variables together affect the likelihood of increasing revenue collection in URT.

Table 1: Probit Regressions Analysis Output

Variables	Estimated Estimates Results of Probit		
	Coefficient	Std. Error	Marginal Effect
Workers Motivation	0.5047421	0.2478395	0.1842248*
Public Education	0.265202	0.2649135	0.1000412
New Technology	-0.5251637	0.2474922	-0.1953363*

Variables	Estimated Estimates Results of Probit			
	Coefficient	Std. Error		Marginal Effect
Govt policies and strategy	0.6728553	0.3526411		0.262572
Responsibilities of actors	0.2877909	0.3187934		0.1051169*
_cons	-0.4617082	0.4755608		
Number of Observations			120	
LR chi2(5)			12.86	
Prob>chi2			0.0000	
Log Pseudo likelihood			-73.448404	
Pseudo R ²			0.5810	

Source: Field Survey 2024

The explained variable/dependent variables (LRCURT) = 1 (revenue collection in URT), 0 (otherwise), *p<0.1 **p<0.05 ***p<0.001. The probit regression analysis results indicate that 1 worker motivation is statistically significant at p=0.045, with a marginal effect of 0.184, and is positively related to increases in government revenue.

Public education is found to be positively related to increases in government revenue but is statistically insignificant at p=0.281, with a marginal effect of 0.100.

New Technology was found to be statistically significant at p=0.029, with a marginal effect of 0.195, but was negatively related to increases in government revenue.

The relationship between government policies and strategy is positively related to increases in government revenue and is statistically significant

at p=0.052, with a marginal effect of 0.263 as shown in Table 1.

Field Survey 2023 and probit regression techniques (Table 1) estimated parameters α , β_1 , β_2 , β_3 , β_4 and β_5 represented by -0.4617082, 0.5047421, 0.265202, -0.5251637, 0.6728553, and 0.2877909, with standard errors (Se) of 0.4755608, 0.2478395, 0.2649135, 0.2474922, 0.3526411 and 0.3187934, respectively.

From the above, STATA outputs formulate the following econometric model, which helps in determining revenue collection.

$$\hat{Y} = -0.4617082 + 0.5047421 \text{mw} + 0.265202 \text{ppe} + -0.5251637 \text{ant} + 0.6728553 \text{GPS} + 0.2877909 \text{ra}$$

(0.4755608) (0.2478395) (0.2649135) (0.2474922) (0.3526411) (0.3187934)

Where,

\hat{Y} hat is the expected value of Y and has a constant value of -0.4617082, which implies that even if all independent values are assigned a value of 0, the revenue collection is forecasted to decrease by 0.4617082.

Post-Estimation test

Linketest was used by researchers to test the specifications of the dependent variable and to examine the econometric model. For reliability measured by significance, the rule of thumb is that if the Linktest is significant, then there is a problem with model specifications, and then, the decision is to adopt Boxtid, which is ideal for the transformation of predictors when needed. The Linktest shows a probability of 0.865 for \hat{hatsq} , which is

approximately equal to 87% at the 95% CI, which is good for model specification error. Table 4.1 shows that the probit model applied was appropriate, which means that the model specification is reliable since any econometric model adding or removing variables in a model that casts effects on the values of the coefficients may also change the direction.

A study aimed to examine the likelihood of increasing revenue collection in URT in the case of TRA by considering factors affecting the likelihood of revenue collection in the study area. Binary choice probit model/probit regression was employed to analyze the statistical data obtained from the field. Discussions were based on the results from the probit regression analysis.

Table 2: Linktest for Model Specification Fitness

LRCURT *	Coef	Std, Err	Z	p> z	95% Conf.	Interval
_hat	0.9291507	0.3910479	2.38	0.001	0.1627109	1.695591
_hatsq	0.1340283	0.5030158	0.27	0.865	-0.8518646	1.119921
_cons	-0.0133987	0.15443	-0.09	0.966	-0.3160759	0.2892785

LRCURT * indicates the likelihood of increasing revenue collection in URT.

Workers' motivation was found to be statistically significant at $p=0.045$, with marginal effects of 0.184, and it is positively related to the likelihood of increasing revenue collection. This means that any increase in Worker Motivation is likely to increase the likelihood of increasing revenue collection by 0.184, and vice versa. These results are supported by those of Moise *et al.*, (2013), who revealed that most employees (77%) believe that motivation is the best. Additionally, these findings are supported by Okine *et al.*, (2021) and Salasih (2010), who reported that increased or decreased worker efficiency also reduces labor turnover as shown in Table 2.

The provision of public education variable is positively related to the likelihood of increasing revenue collection but is not statistically significant at $p=0.281$, with a marginal effect of 0.100. This finding implies that the likelihood of increasing revenue collection is positively affected by the provision of education to the public, but this variable was not statistically significant.

Concerning the adoption of new technology, a study shows that it is statistically significant at $p=0.029$, with marginal effects of -0.195, but negatively related to the likelihood of increasing revenue collection. This shows that if new technology is adopted, the likelihood of increasing revenue collection is likely to decrease by 0.195 compared with if there is no adoption of new technology. This finding is supported by Okunogbe (2023), as institutional strategy technology can be hampered when there is no long-term national strategy and when data sharing between revenue authorities and private actors uses technology advancement for tax evasion. Additionally, according to Okunogbe O and Santoro F (2022), based on risk-based audits, many authorities compile data from multiple dimensions on taxpayer behavior to generate a risk profile that reflects the likelihood of tax evasion.

Government policy and strategy were found to be statistically significant at $p=0.052$, with a marginal effect of 0.262 also positively related to the likelihood of increasing revenue collection. This means that the likelihood of increasing revenue collection is more likely to increase by 0.262 when efficiency policy and strategy are applied. This study is consistent with Akitoby (2018), who showed that a country can raise its government collections even in unfavorable political situations by perusing reform strategies with certain distinct features.

The responsibilities of actors were found to be statistically insignificant at $p=0.346$, with marginal effects of 0.105, and were positively related to the likelihood of increasing revenue collection. This

means that the likelihood of increasing revenue collection is likely to increase with the responsibilities of actors. However, this variable is statistically significant in the present study. This finding implies that the variable had no significant effect on the likelihood of increasing revenue collection.

CONCLUSION

The study's output indicates that worker motivation, new technology, and the responsibilities of actor's influence revenue collection in TRA. Worker motivation and responsibilities positively impact revenue collection, while new technology negatively affects it. Therefore, thorough preparation is necessary for the adoption of new technology, as it may lead to less revenue collection than expected. The study recommends that Public education positively impacts revenue collection, and the government should invest in providing relevant education to address current needs. Special programs should be initiated to bridge the gap between customers and TRA, thereby widening the tax base. The likelihood of increasing revenue collection is significant, and the TRA should establish appropriate infrastructures based on long-term strategies to support new technology adoption. Government policy and strategy also significantly impact TRA performance, and the URT government should adopt or modify policies from other developed countries or adapt them to suit the local environment. Correction measures should be taken against those who attempt to evade or support tax evasion through bribing or tampering with revenue collection infrastructures.

REFERENCES

- Achim, Moise & Dragolea, Larisa - Loredana & Balan, George. (2013). "The Importance of Employee Motivation to Increase Organizational Performance". *Annales Universitatis Apulensis Series Oeconomica*. 2. 685-691. 10.29302/oeconomica.2013.15.2.32.
- Ahmed, Shoeb & Ilyas, Shoeb. (2017). Various Approaches to Research Methods Explaining Major Strengths and Drawbacks of Each of These Methods. 10.13140/RG.2.2.25336.44801.
- Ajay, S. & Micah, M. (2014). Sampling Techniques & Determination of Sample Size in Applied Statistics Research: An Overview. *International Journal of Economics, Commerce and Management United Kingdom Vol. II*, Licensed under Creative Common Page 1 ISSN 2348 0386. <http://ijecm.co.uk/>.
- Akaranga, S. & Makau, B. (2016). Ethical Considerations and their Applications to Research: a Case of the University of Nairobi. *Journal of Educational Policy and Entrepreneurial*

- Research* ISSN: 2408-770X (Print), ISSN: 2408-6231. Vol. 3, NO.12.2016. Pp 1-9.
- Akitoby, B., (2018) Rising Revenue. Five country cases illustrate how best to improve tax collection. IMF. pdf
 - Baldry, J., 1987, 'Income Tax Evasion and the Tax Schedule: Some Experimental Results', Public Finance, Vol. 42 No. 3, pp. 357-383
 - Blumberg, B, Cooper D.R, & Schindler P.S. (2005). Business Research Methods, McGraw Hill: Berkshire.
 - Boru, Tesfaye. (2018). CHAPTER FIVE RESEARCH DESIGN AND METHODOLOGY 5.1. Introduction Citation: Lelissa TB (2018); Research Methodology; University of South Africa, PhD Thesis. 10.13140/RG.2.2.21467.62242.
 - CDC., (2018). Evaluation Briefs Data Collection Methods for Program Evaluation: Observation. November 19, 2018C296013-L
 - Cerna, L., (2013). The Nature of Policy Change and Implementation: A Review of Different Theoretical Approaches OECD https://www.oecd.org/education/cei/Nature_of_Policy_Change_and_Implementation.pdf.
 - Centre for Evaluation and Research, (2011) May 2011 <http://programeval.ucdavis.edu>
 - Claudia, et all. (2021). What is Central Government? - Definition & Roles. On line accessed on 24, 2022 October: <https://study.com/academy/lesson/what-is-central-government-definition-roles-quiz.html>
 - Cook, D. L. (1967). The Impact of the Hawthorne Effect in Experimental Designs in Educational Research Final Report. Ohio State University.
 - Crossman, Ashley. What Is the Resource Mobilization Theory? [u ThoughtCo. <https://www.thoughtco.com/resource-mobilization-theory-3026523> (accessed November 20, 2022).
 - Curti, G. H. (2008). From a wall of bodies to a body of walls: Emotion, Space and Society, 1(2), 106–118. doi: 10.1016/j.emospa.2009.02.002.
 - Block, S. (2020). Defining a Conceptual Framework in Educational Research. 10.13140/RG.2.2.26293.09447.
 - Estevas, M., (2019). 4 ways low-income economies can boost tax revenue without hurting growth. World Bank Blog. <https://blogs.worldbank.org/voices/4-ways-low-income-economies-can-boost-tax-revenue-without-hurting-growth>
 - Golhasani, Akbar & Hosseinirad, Abbas. (2017). The Role of Resource Mobilization Theory in Social Movement. International Journal of Multicultural and Multireligious Understanding. 3. 1. 10.18415/ijmmu.v3i6.58.
 - Golhasani, Akbar & Hosseinirad, Abbas. (2017). The Role of Resource Mobilization Theory in Social Movement. International Journal of Multicultural and Multireligious Understanding. 3. 1. 10.18415/ijmmu.v3i6.58.
 - Government revenue in Tanzania 2020/2021. Research lead covering Africa. <https://www.statista.com/statistics/1242876/government-revenue-in-tanzania-by-source/> b.
 - Hanin Hamjah, Salasiah & Ismail, Zainab. (2011). Methods of Increasing Learning Motivation among Students. Procedia - Social and Behavioral Sciences. 18. 138-147. 10.1016/j.sbspro.2011.05.021.
 - <https://www.merriam-webster.com/dictionary/faculty%20theory>.Kamer, L. (2022).
 - <https://www.imf.org/external/pubs/ft/gfs/manual/pdf/ch5.pdf> (Chapter5).
 - <https://www.oxfordlearnersdictionaries.com/definition/english/revenue>.
 - Jongbo, O.C (2014). The Role of Research Design in a Purpose-Driven Enquiry. Review of Public Administration and Management Vol. 3, No. 6, ISSN: 2315-7844. Website: www.arabianjbm.com/RPAM_index.php Publisher: Department of Public Administration Nnamdi Azikiwe. University, Awka, Nigeria and Zainab Arabian Research Society for Multidisciplinary Issues Dubai, UAE.
 - Kelly, K., (2022). What is Data Analysis? Methods, Process, and Types Explained. https://www.simplilearn.com/data-analysis-methods-process-types-article#what_is_data_analysis
 - Kish, Leslie (1965): Survey Sampling. New York: John Wiley and Sons, Inc. p. 78-94.
 - Kipilimba, T., H., (2018). Impact Nursing Scholarship Towards Government Revenue in Tanzania- Case of Dar-es-Salaam Region. Social Sciences Vol. 7, No. 1, 2018, pp. 13-21. doi: 10.11648/j.ss.20180701.13.
 - Loru, Rose. (2020). Chapter Three Research Methodology 3.0. Introduction. LGRC, (2017). The Role Of ICT in Delivering Efficient Revenue Collection in Developing Countries: The Tanzanian Experience. <https://www.lgrc.ng/the-role-of-ict-in-delivering-efficient-revenue-collection-in-developing-countries-the-tanzanian-experience/>
 - Merriam-Webster.com Dictionary, s.v. "faculty theory," accessed October 22, 2022,
 - Mart, L. (2015). Sources of Revenue and Local Government Performance: Evidence from Colombia London School of Economics and Political Science, Job Market Paper.

- Majid, Umair. (2018). Research Fundamentals: Study Design, Population, and Sample Size. Undergraduate Research in Natural and Clinical Science and Technology (URNCSST) Journal. 2. 10.26685/urncst.16.
- Nathan, O. (1944). Nazi War Finance and Banking Publisher: NBER Volume ISBN: 0-87014-335-2 Volume URL: <http://www.nber.org/books/nath44-1> Publication.
- Nipun, S. (2022). 9 Sources of Government Revenue: <https://www.economicdiscussion.net/india/government-revenue/sources-of-government-revenue-9-sources-economics/26179>
- Okunogbe, O. (2023). The promise and limitations of information technology for tax mobilization. <https://blogs.worldbank.org/developmenttalk/promise-and-limitations-information-technology-tax-mobilization>.
- Okunogbe, O. & Santoro, F. (2022) The Promise and Limitations of Information Technology for Tax Mobilization Development Economics. Development Research Group July 2022 Policy Research Working Paper 9848.
- Olusola B, & Asare, G. (2021) Employee Motivation and its Effects on Employee Productivity/ Performance DOI: 10.7176/JESD/12-16-. <https://www.researchgate.net/publication/355735499>
- Orb, A., Eisenhauer, L., & Wynaden, D. (2001), Ethics in qualitative research. Journal of NursingScholarship, 33(1), 93-96. 2.1 Seltzer J B., (2014). What is Resource Mobilization and Why is it so Important? Management Sciences for Health. <https://healthcommcapacity.org/resource-mobilization-important>.
- Patton, M.Q. (1999) Enhancing the quality and credibility of Qualitative Analysis: Health Services Research 34:5 Part II December.
- Palvia, Prashant; Midha, Vishal; and Pinjani, Parveen (2006) "Research Models in Information Systems," Communications of the Association for Information Systems: Vol. 17, Article 47. DOI: 10.17705/1CAIS.01747. Available at: <https://aisel.aisnet.org/cais/vol17/iss1/47>.
- Sørensen, P. B. (2009). The Theory of Optimal Taxation: New Developments and Policy Relevance. Economic
- Simpser, Alberto. 2007. "A Theory of Corrupt Elections." Mimeo, University of Chicago.
- Subramanian, P.R. "The Role of Information Technology in Business Success." Shanlax International Journal of Management, vol. 6, no. S1, 2018, pp. 75-79. DOI: <https://doi.org/10.5281/zenodo.1461278>
- Urban-Brookings Tax Policy Center. State and Local Finance Data: Exploring the Census of Governments. US Census Bureau. Annual Survey of State and Local Government Finances. Census of Governments, vol. 4, Government Finances.
- Resimić, M. (2021). Corruption risks in tax administration. Liberia case study. U4 Helpdesk Answer 2021:17.
- Varma, Chandrakant. (2018). Importance of Employee Motivation & Job Satisfaction for Organizational Performance.
- Wilburn, K., & Wilburn, H., (2018). The Impact of Technology on Business and Society Global Journal of Business Research Vol. 12, No. 1, pp. 23-39 ISSN: 1931-0277 (print) ISSN: 2157-0191. www.theIBFR.com.
- Wohlin, C. & Wesslén, A., (2003), In Encyclopedia of Physical Science and Technology (Third Edition)