The Impact of the Digital Tax Administration System on Compliance Among SMEs

Authors

Kaanael Simon Mbise
Department of Informatics
Institute of Accountancy Arusha

&

Lukundo Baseka
Department of ICT
Tanzania Revenue Authority

Follow this work and others at: https://journals.iaa.ac.tz/index.php/tji
This article is freely brought to you by the Department of Informatics, Institute of Accountancy Arusha, Tanzania. It is accepted for inclusion to the Journal of Informatics after a peer review process. It is approved for publication by the relevant Editorial Board.
Abstract

This study assesses the impact of the digital tax administration system on compliance among small and medium enterprises (SMEs) in the Tanzania Revenue Authority, Tanga regional office. The researchers adopted a case study research design with a quantitative approach. Questionnaires collected data from SME taxpayers. In analysis, the study employed descriptive analysis and regression analysis to determine the association between digital tax and compliance. The study used 133 samples from 254 small taxpayers as representatives of the population selected randomly. Findings revealed that the digital tax administration system plays an important role in compliance amongst SMEs as regression analysis produced a P value of 0.000. The findings also suggest that a digital tax administration system improves tax compliance through the use of technology as results produced an overall mean of 4.096, tax data analytics as results obtained an average mean of 3.583, and electronic filing results generated an average mean of 3.612. Researchers recommend that future research could be conducted in other tax regions in Tanzania or elsewhere in the world.

Keywords: Digital tax, digital tax administration system, e-tax system, SMEs, tax compliance

1.0 INTRODUCTION

Digital tax administration systems have been adopted by many countries to enhance taxpayer experience in the digital economy (Night & Bananuka, 2020). The introduction of these systems ensures that taxpayers comply with tax laws and policies available in a particular country (Bassey, Mulligan, & Ojo, 2022). Taxes are immensely vital instruments and primary sources of revenue for the government. All governments in the world need the revenues to develop the aspects of their nations since the development of every nation depends largely on taxation (Chindengwike & Kira, 2021; Lubua, 2023). Most countries have been trying to raise domestic revenue as an important source of funding government expenditures and priority for a country to create fiscal space for essential public services and reduce foreign aid and single resource dependence (Oladipupo & Obazee, 2016). This is because a solid revenue base is one of the foundations of every great nation.

According to Manzhura, Pochenchuk, and Kraus (2022), digitized tax platforms are becoming crucial for companies, organisations and multinationals to adapt. Failure to adequately respond exposes the firm to stringent financial penalties (Fjord & Schmidt, 2023). Worldwide, taxpayers' resistance, underutilisation and reluctance to use digital tax filing systems remain a great concern and still plague various tax agencies which are embracing digital tax administration systems (Fjord & Schmidt, 2023; Osambo, 2009). The importance of understanding and influencing taxpayers' acceptance of the digital tax filing system is critical, given the investment in technology and the cost-saving potential (Lubua, 2014).

The small services sector has long operated without formal structures (Alasfour, Samy, Bampton, 2016). However, since small taxpayers were brought to the tax bracket, no documented and empirical studies exist on tax compliance behaviour among small taxpayers, more so the effect of digital tax filing on their tax compliance levels (Fjord & Schmidt, 2023). This casts doubts on the ability of the government to increase revenue collection and improve tax enforcement efforts (Delgado-Rodríguez & De Lucas-Santos, 2022). If the small services sector is found to be the engine of economic growth, then it is the responsibility of tax administrations to successfully target that sector for tax intake and to assimilate it as quickly as possible within the overall tax administration framework, rather than devising minimalist tax structures for them. In Tanzania, there are about twenty million registered taxpayers (Elly, 2017).
The majority of taxpayers fall in the category of small taxpayers which includes everybody who has registered for and obtained a TIN, such as small business owners, students and every other TIN holder (Barone & Mocetti, 2011; Elly, 2017). Small taxpayers carry the burden of tax payment in Tanzania, however, there are a few studies that have been done in Tanzania to establish the effect of digital tax administration on compliance among small taxpayers in Tanzania (Elly, 2017). Digital tax entails adapting to a planned approach to business operations which has been lacking among small taxpayers. Additionally, taxpayers will have to acquire basic information technology knowledge which the majority of these taxpayers lack (Wassermann & Bornman, 2020).

Several studies have been conducted on digital tax administration and compliance. For example, the study by Oladele et al. (2020) examined the impact of e-tax administration and tax compliance among corporate taxpayers in Nigeria. Another study by Chindengwike and Kira (2021) based on taxpayers' voluntary compliance as the result of the influence of the electronic tax administration system in Tanzania. Additionally, another study by Lubua (2014) focused on the use of information and communication technologies (ICTs) to influence tax compliance among SMEs. Again, Rahayu and Kusdianto (2023) conducted a study on the challenges of digital tax administration among taxpayers in Indonesia. Looking at these, however, there are limited studies on the assessment of the use of the digital tax administration system on compliance among SMEs in Tanzania. Therefore, this study assesses the impact of the digital tax administration system available in the Tanzania Revenue Authority (TRA) on compliance among SMEs as a modern way of tax administration in the digital economy.

2.0 LITERATURE REVIEW
This section reviews various literature based on theoretical and empirical studies conducted by other researchers within a similar context. It is organised into two main areas, namely theoretical and empirical literature reviews.

2.1 Theoretical Literature Review
This study borrows heavily from existing research on the adaptation of technology to easy tax compliance. It was influenced by the following theories, which have been put across by various scholars about the adoption of technology in society.

Innovation Diffusion Theory
The innovation diffusion theory looks at how, and the rate at which innovation is being dispersed (Call & Herber, 2022; Levis, Webley, & Furnham, 1995). Four components determine the dissemination of a new idea; the innovation or the new idea, communication channels, time to allow for adoption and lastly the social systems. These go through a process of diffusion consisting of five stages namely; knowledge, persuasion, decision, implementation and confirmation (Call & Herber, 2022). The result is six categories of users namely; innovators, early adopters, early majority, late majority, laggards and leap floggers, which normally take up a sigmoid, shape (Kanyinga, 2016).

According to Pinho, Franco, and Mendes (2021) as well as Wani and Ali (2015), the trailblazers are the individuals who risk investigation of ground-breaking thoughts and innovations and record for roughly 2.5% of the portion of the overall industry. Early adopters are those assessment chiefs who give references and offer positive tributes about the developments as they do not need a lot of influence as they are now receptive and may be keen on some change (Wani & Ali, 2015). They record to for generally 13.5%. Then again, the early larger part is those ready to embrace new advances persuaded
by sure audits from prior adopters shaping 34% of the piece of the pie. The later larger part is the doubters who are hesitant about any progressions except if they have a firm opinion abandoned (Kaminski, 2011). The development dissemination hypothesis is a type of imaginative obliteration contending that it was making another one and obliterating the bygone one (Pinho, Franco, & Mendes, 2021). Therefore, this theory has a direct link to the study on the use of digital tax administration systems on compliance, in such that the digital tax administration systems involve technological innovations and require time for taxpayers to adopt.

**Technology Acceptance Model**

The technology acceptance model (TAM) has become one of the most useful theories in the area of acceptance of computer technology among users (Al-Qeisi & Al-Abdallah, 2013). TAM is important in explaining and determining the acceptance and rejection of technological behaviour (Yulihasri, Aminul, & Amir, 2011). The model implies that once a customer is exposed to alternative innovations, some components affect their choices of time and means of utilisation (Ibrahim et al., 2017). This is seen as helpful and convenient. TAM was produced from the contemplated hypothesis activity by social clinical test.

TAM has generally been taken on because of its capacity to anticipate the utilisation of innovation by people who state that apparent convenience influences the goal of reception and saw helpfulness (Gupta, Zaidi, Udo, & Bagchi, 2015). TAM has in many ways been connected with haddocks regardless of being creative in the investigation of reception and utilisation of innovation, for instance, neglecting to consider the association’s setting, consensus and miserliness during the underlying phases of planning the model and dismissing the elements that moderate ICT reception (Al-Qeisi & Al-Abdallah, 2013). This theory, therefore, relates to the current study as it provides an understanding of the behaviour of individual taxpayers’ acceptance of digital tax administration systems.

**2.2 Empirical Literature Review**

Recently, tax administrations have been transformed into digital through the use of computer hardware, software and mobile technology (Mallick, 2021). The use of digital tax administration has also changed the way taxpayers comply with tax requirements. According to Bassey, Mulligan, and Ojo (2022), digital tax administration influences taxpayers’ compliance. A study conducted in Nigeria by Oladele et al. (2020) found that there is a great connection between e-tax administration and compliance. The study reported that e-tax reduces tax collection costs, mitigates tax evasion and improves voluntary tax compliance among taxpayers.

Digital tax administration has been a priority of modern taxation systems in many countries (Fjord & Schmidt, 2023). Digital tax administration is associated with the modernization of tax law, digital infrastructural provision, information and consultation support, and marketing of digital taxation to taxpayers (Fjord & Schmidt, 2023; Manzhura, Pochenchuk, & Kraus, 2022). The use of digital tax systems has enhanced the taxpayer experience. Several studies show that the use of technology such as digital tax systems by the tax authority improves compliance strategy in the digital economy (Hendriyetty, Evans, Kim, & Taghizadeh-Hesary, 2023; Lubua, 2014; Malima, 2020; Night & Bananuka, 2020).

According to Ameyaw, Korang, Twum, and Asante (2016), SMEs play an important role through tax in the growth of the economy in low-income countries. The job of SMEs is the creation of job opportunities and economic development in the countries (Gherghina, Botezatu, Hosszu, &
Simionescu, 2020; Lubua, 2023). Subsequently, the view of the arrangement of the assessment framework to the climate-explicit SME development requirements is a significant plan for policymakers. During the 1970s, SMEs in Tanzania were seen as peripheral to standard action (Lubua, 2014) and they were regularly considered as constant tax avoiders and dodgers. During the 1980s the help area took off and addressed a higher and developing extent of gross domestic product in the country. SMEs are a significant power for a financial turn of events and industrialisation in developing countries (Cummings, Martinez-Vazquez, McKee, & Torgler, 2009).

There are three political determinants of tax compliance, namely the complexity of tax law, the complexity of the tax system, and the fiscal policy (Cummings, Martinez-Vazquez, McKee, & Torgler, 2009). Before deciding to comply, one of the first elements taxpayers are confronted with is the tax law. Its level of complexity can turn a well-intentioned taxpayer into an avoider or evader (Alasfour, Samy, & Bampton, 2016). The design of the expense framework can likewise upset citizens’ eagerness to consent, on the off chance that they see the framework as being excessively regulatory, with a high taxation rate, and countless duties. Along these lines, a wasteful monetary arrangement reflected in the wasting of public assets and the bad quality of public products makes citizens reconsider paying the whole portion of their duty liabilities (Alasfour, Samy, & Bampton, 2016). How Individuals might interpret charge regulation is a significant component which shapes their attitude to comply. A lot of examinations have shown that higher-instructed individuals see better the importance of expense liabilities and the point of overseeing mental strategies and, as a result, they consent more (Cummings, Martinez-Vazquez, McKee, & Torgler, 2009).

3.0 METHODOLOGY

Area of the Study
An area of study is a location where researchers collect data for the study (Daniel & Harland, 2017). The study was conducted at the TRA, Tanga regional office. The researchers chose the area of the study due to easy access and the low cost of conducting fieldwork (Mbise, 2021; Semlambo, Lubua, & Mkude, 2022).

Research Approach and Design
This research study used a quantitative approach. The research approach decides the methods for data collection, analysis, and interpretation (Creswell & Plano Clark, 2018). The researchers used a quantitative approach in data collection and analysis because it produces objective data that can be communicated using numbers and statistics (Dubey & Kothari, 2022; Thomas, 2021). Additionally, the study used a case study research design. The design was useful to help the researchers obtain appropriate and adequate data for the study (Thomas, 2021; Walia & Uppal, 2020). A case study provides a comprehensive study of a taxpayer, an institute or any social unit (Creswell & Plano Clark, 2018; Cummings, Martinez-Vazquez, McKee, & Torgler, 2009; Kothari, 2013).

Target Population and Sample Size
The population is defined as a group of individuals or entities to which the findings of the sample are to be generalised (Kothari, 2013). The target population was 254 SMEs operating in TRA Tanga regional office (TRA, 2022). The researchers targeted the SMEs' owners or directors to obtain all the information relevant to this study. The researchers set the margin of error (e) as 5%. The study used 155 samples obtained using the formula by Yamane (1973), as seen in Equation (1). The formula provides the sample size (n) using the known population size (N) and e as follows:

$$n = \frac{N \times e^2 \times \left(1+\frac{e^2}{N-1}\right)}{e^2 + \left(1+\frac{e^2}{N-1}\right)}$$
\[ n = \frac{N}{1 + N(e^2)} \]  

(1)

**Data Collection**
Data collection refers to the process and tools or methods used to collect data from participants in a study (Schindler, 2022). This study used primary data. The study used a questionnaire as the main method of data collection. The researchers opted for a questionnaire since it provided a quick and easy collection and analysis of the data. 133 out of 155 respondents filled in and submitted the questionnaire. The response rate of participants was 85.8%. In addition, the secondary data were obtained from academic journals, books, periodicals, and published and unpublished theses to complement primary data (Creswell & Plano Clark, 2018; Dubey & Kothari, 2022).

**Data Analysis**
The study analysed quantitative data using the descriptive analysis method with the help of Statistical Package for the Social Sciences (SPSS). In addition, the study used tables to summarise the obtained data for easy analysis and interpretation (Schindler, 2022). Regression analysis was utilised to determine the association between the dependent variable (tax compliance) and the independent variables, which are real-time, data analytics and management of tax risks (Marczyk, DeMatteo, & Festinger, 2005; Schindler, 2022).

**Ethical Considerations**
Ethical considerations in research are a set of principles that guide the research designs and practices to comply with the laws of humanity (Mkumbo & Mbise, 2022). The researchers adhered to ethical issues such as voluntary participation, informed consent, anonymity, confidentiality, the potential for harm, and communication of results (Creswell & Plano Clark, 2018; Dubey & Kothari, 2022; Schindler, 2022). Researchers introduced themselves to respondents using a letter from the Institute of Accountancy Arusha. In addition, the researchers avoided offensive and discriminatory words throughout the study as supported by Thomas (2021).

**Validity and Reliability**
To ensure the validity of this study, the researchers used more than one data collection method and involved different sources of information in allowing valid data usage and good results (Mbise, 2021; Semlambo, Lubua, & Mkude, 2022). Furthermore, the researchers ensured the reliability of the study by identifying the study’s limitations and addressing them. Additionally, the researchers conducted a pilot study before the actual research took place.

**4.0 FINDINGS AND DISCUSSION**
This study assessed the use of the digital tax administration system on compliance amongst SMEs. This objective was achieved by obtaining the respondents’ opinions on the level of adoption of technology, tax data analytics, electronic tax filing, and Tax Compliance. The responses were rated using a five-point Likert scale where 1 indicating strong disagreement to the statement and 5 showing strong agreement to the given statement.

**Technology**
The study asked respondents to ascertain the degree to which the firms were able to access tax information on a real-time basis. Table 4.1 summarises respondents’ responses on the use of technology in the digital tax administration system.
Table 4.1: Technology

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The company can access any form of tax information from the comfort of the office at any particular time.</td>
<td>133</td>
<td>4.300</td>
<td>.808</td>
</tr>
<tr>
<td>The firm can make enquiries about tax-related issues through the TRA active platform at any given time.</td>
<td>133</td>
<td>4.166</td>
<td>1.136</td>
</tr>
<tr>
<td>The immediate updating of tax information due to use of digital platforms has eliminated unnecessary delays.</td>
<td>133</td>
<td>3.823</td>
<td>.727</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>133</td>
<td>4.096</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Source: Field data (2023)

Table 4.1 illustrates how the majority of the respondents agreed that the company can access any form of tax information from the comfort of the office at any particular time (M=4.300, SD= 0.808). In addition, respondents reported that firms can make enquiries about tax-related issues through the TRA active platform at any given time (M=4.166, SD= 1.136). Furthermore, the least mean recorded was on the immediate updating of tax information due to the use of digital platforms has eliminated unnecessary delays (M=3.823, SD= .727). The overall mean was 4.096 implying that the digitization of tax has enabled SMEs to undertake most tax compliance in the comfort of their offices more conveniently and without much delay.

These results suggest that digital tax improves tax compliance among SMEs. The findings reveal that the use of technology enhances tax compliance among SMEs. These findings mean that the use of technology provides real-time access to tax information to taxpayers. The technology optimises tax compliance as SMEs can make enquiries about tax-related issues through the TRA's digital platforms. The results are in line with previous studies that suggest that the use of ICTs improves tax compliance among SMEs (Chindengwike & Kira, 2021; Fjord & Schmidt, 2023; Lubua, 2014; Malima, 2020).

Tax Data Analytics
The study sought to assess the degree to which data analytics improves tax compliance levels in a company. The respondents were presented with statements related to data analytics and asked to rate according to their opinions. Table 4.2 demonstrates the responses of respondents on the use of tax data analytics.

Table 4.2: Tax Data Analytics

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The company uses the information available on the TRA website to understand how it can improve its tax profiles.</td>
<td>133</td>
<td>3.866</td>
<td>.626</td>
</tr>
<tr>
<td>Data analytics has enabled the firm to operate more efficiently through appropriate risk assessment.</td>
<td>133</td>
<td>3.847</td>
<td>.764</td>
</tr>
</tbody>
</table>
As seen in Table 4.2, most of the respondents agreed that the company uses the information available on the TRA website to understand how they can improve their tax profiles (M= 3.866, SD= 0.626). The respondents also reported that data analytics enabled firms to operate more efficiently through appropriate risk assessment (M= 3.847, SD= 0.746). The use of tax data analytics helped SMEs to make easier decisions to improve tax strategy (M= 3.647, SD= 0.913). Additionally, the business analyses the available data to predict macroeconomic trends and thus make adequate policy changes and the firm has been able to identify high-risk companies for audit were rated lowest with means of 3.355 and 3.200 respectively. The aggregate mean obtained was 0.723 showing that the responses were dispersed around the mean response.

The results indicate that the acceptance of digital tax systems improves compliance levels among SMEs through data analytics. These results imply that tax data analytics helps SMEs to update their tax profile, make decisions, predict macroeconomic trends, and identify audit queries to generate insights. A study by Night and Bananuka (2020) concurs with these findings that tax data analytics improves tax compliance levels.

**Electronic Tax Filing**

The study sought to establish the extent to which the respondents agree that the adoption of digitization in tax administration has led to the prevention of different business risks. The respondents were presented with statements related to the prevention of tax risks and asked to rate using a five-point Likert scale.

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The use of tax data analytics has helped the tax function of the company to make easier decisions to improve strategy</td>
<td>133</td>
<td>3.647</td>
<td>.913</td>
</tr>
<tr>
<td>The business analyses the available data to predict macroeconomic trends and thus make adequate policy changes.</td>
<td>133</td>
<td>3.355</td>
<td>.507</td>
</tr>
<tr>
<td>The firm has been able to identify high risk audit companies.</td>
<td>133</td>
<td>3.200</td>
<td>.803</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>133</td>
<td>3.583</td>
<td>0.723</td>
</tr>
</tbody>
</table>

Source: Field data (2023)
Table 4.3 shows that most respondents agreed that digitisation has safeguarded the business from tax compliance risks (M- 3.867, SD- 0.626). Digitization enabled the organization to identify problematic transactions thus increasing accountability in making tax submissions came second with (M- 3.754, SD- 0.507). Moreover, the risks associated with specific business transactions undertaken by the company have been reduced recorded (M- 3.501, SD- 0.803) while with digitization, the business properly manages the various risks due to the availability of information in the public domain was ranked last (M- 3.327, SD- 0.765). Therefore, the use of digitization has largely contributed to the reduction of tax risks more so through early detection of problematic transactions and proper management of tax information.

The research findings also demonstrate the contribution of electronic tax filing to the reduction of tax risks. The results mean that digitisation of tax filing provides taxpayers with early detection of problematic transactions and proper management of tax information. These findings are consistent with other studies that found that online tax filing reduces tax risks (Carter, Shaupp, Hobbs, & Campbell, 2011; Fjord & Schmidt, 2023; Gupta, Zaidi, Udo, & Bagchi, 2015; Manzhura, Pochenchuk, & Kraus, 2022; Oladele et al., 2020).

**Tax Compliance**

The study assessed the extent to which the extent has adhered to several measures related to tax compliance. To achieve this, the study examined the extent to which the different indicators of tax compliance have been adhered by the business.

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The business understands well the benefits of adhering to tax compliance laws.</td>
<td>133</td>
<td>4.136</td>
<td>.681</td>
</tr>
<tr>
<td>Given a chance, I would not file my returns</td>
<td>133</td>
<td>4.034</td>
<td>.809</td>
</tr>
<tr>
<td>The business does not indulge in any tax evasion activity.</td>
<td>133</td>
<td>3.865</td>
<td>1.224</td>
</tr>
<tr>
<td>The business submits the correct self-assessment of taxes owed.</td>
<td>133</td>
<td>3.672</td>
<td>1.137</td>
</tr>
<tr>
<td>The business has been filing returns before Submission deadlines.</td>
<td>133</td>
<td>3.477</td>
<td>.765</td>
</tr>
<tr>
<td>The company makes timely payments of the owed taxes without any enforcement activity.</td>
<td>133</td>
<td>3.204</td>
<td>1.178</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td>133</td>
<td>3.731</td>
<td>0.966</td>
</tr>
</tbody>
</table>

**Source:** Field data (2023)
Table 4.4 displays that the SMEs have highly been tax-compliant as evidenced by a grand mean of 3.731. The respondents agreed to a large extent with statements such as the business understands well the benefits of adhering to tax compliance laws (M = 4.136, SD = 0.681), given a chance, I would not file my returns (M = 4.034, SD = 0.809) and the business does not indulge in any tax evasion activity (M = 3.865, SD = 1.224). On the other hand, the business submits the correct self-assessment of taxes owed, the business has been filing returns before submission deadlines and the company makes timely payments of the owed taxes without any enforcement activity produced means and standard deviations of (M = 3.3.672, SD = 1.137), (M = 3.477, SD = 0.765) and (M = 3.204, SD = 1.178) respectively.

The results of the study show that SMEs under the study comply with tax law by paying tax returns before deadlines set by the government. These results suggest that SMEs are highly tax compliant as all tax activities and payments are carried out on time without any enforcement. These findings are in line with previous studies that indicated that the majority of SMEs comply with tax administration laws (Tax Administration Act 2019, Chambers, Kumbhakar, & Ray, 2022; Slemrod, 2019).

**Relationship Between Digital Tax Administration and Compliance**

**Table 4.5: Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. The error in the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.629</td>
<td>.396</td>
<td>.382</td>
<td>.93932</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Real-time, data analytics, prevention of tax risks

Source: Field data (2023)

Table 4.5 shows an R² value in the model was 0.396 meaning that 39.6 % of the variation in tax compliance was predicted by information systems while the other 60.4 % attributed to other factors not factored in for the study.

**Table 4.6: Analysis of Variance**

ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>74.541</td>
<td>3</td>
<td>24.847</td>
<td>28.161</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>113.820</td>
<td>129</td>
<td>.882</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>188.361</td>
<td>132</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Field data (2023)

a. Dependent Variable: Tax compliance

b. Predictors: Real-time, data analytics, prevention of tax risks

**Table 4.7: Analysis of Variance**

ANOVA
Table 4.7 shows results from the analysis of variance produced a P value of 0.000. The p-value of 0.000 depicts that the model was significant and that digitization of tax administration can be used to predict tax compliance.

### Table 4.8: Coefficients of Determination

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.154</td>
<td>.448</td>
<td>7.342</td>
<td>.000</td>
</tr>
<tr>
<td>Real-Time</td>
<td>.016</td>
<td>.134</td>
<td>.012</td>
<td>2.119</td>
</tr>
<tr>
<td>Data Analytics</td>
<td>.552</td>
<td>.160</td>
<td>.373</td>
<td>3.457</td>
</tr>
<tr>
<td>Prevention of Tax Risks</td>
<td>.454</td>
<td>.102</td>
<td>.358</td>
<td>4.465</td>
</tr>
</tbody>
</table>

Source: Field data (2023)

Table 4.8 illustrates that by keeping all factors constant, tax compliance will be held at 1.205. A unit increase in real-time holding all other factors constant would lead to 0.012 changes in tax compliance. Similarly, a unit improvement in data analytics will result in 0.552 changes in tax compliance. Moreover, a unit change in the prevention of tax risks would result in 0.454 changes in tax compliance. The individual effect of each independent variable on the dependent variable was positive and statistically significant. Therefore, the regression model becomes:

\[
Y = 1.154 + 0.016X_1 + 0.552X_2 + 0.454X_3
\]

The results of the regression analysis also suggest that digital tax administration impacts taxpayer compliance. These results imply that digital tax administration maintains compliance among SMEs. These results are supported by previous studies that found that there is a positive relationship between digital tax administration and compliance (Manzhura, Pochenchuk, & Kraus, 2022; Night & Bananuka, 2020; Rahayu & Kusdianto, 2023).
5.0 CONCLUSION AND RECOMMENDATIONS

This study assessed the impact of the digital tax administration system on compliance among SMEs in the TRA, Tanga regional office involving 133 SMEs. Findings revealed the digitisation of tax administration has a positive association with tax compliance amongst SMEs. The findings also suggest that the digital tax system improves tax compliance through the use of technology. The results also demonstrate that the use of tax data analytics improves compliance due to available tax data on digital platforms. SMEs could use the data to analyse taxation trends and the potential task risks that could be faced thus taking the necessary precautions. The findings also indicate that the use of electronic filing provided by digital tax systems improves tax compliance among SMEs. Therefore, this study also establishes that technology influences the relationship between digitization and tax compliance.

Based on the findings of this study, the authors recommend that SMEs should continue to use digital tax systems to administer the taxes they owe the government. The authors also recommend that SMEs should hire competent information technology experts for continuous support of the digital tax platforms to improve the organisation's tax compliance activities thus facilitating the smooth flow of business operations. Researchers also recommend that future research could be conducted in other tax regions in Tanzania or elsewhere in the world.


REFERENCES


