

The Effect of Digital Tax Payment Platforms Integration on Turnover Tax Compliance Among Manufacturing Small and Medium Enterprises in the West of Nairobi, Kenya

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Abstract

This study aimed to assess the impact of integrating digital tax payment platforms on turnover tax compliance among small and medium-sized manufacturing enterprises (SMEs) in the West of Nairobi, Kenya. The implementation of digital payment services by the Kenya Revenue Authority (KRA), including e-Citizen, Mpesa, and bank transfers, is intended to make tax administration easier, less costly to comply with, and hence result in greater voluntary compliance among taxpayers. Nonetheless, even amid these reforms, SMEs' compliance with turnover tax has been inconsistent, casting doubt on whether digital integration can improve tax outcomes. Grounded on the Technology Acceptance Model (TAM) and Economic Deterrence Theory, the research adopted a descriptive design targeting 392 manufacturing SMEs registered under the turnover tax in the West of Nairobi. Random sampling, using the Yamane formula, was used to select 198 SMEs. Structured questionnaires were used as the primary instruments for collecting data. A total of 167 valid responses were analyzed using descriptive statistics, correlation analysis, and multiple regression techniques. The results showed a strong, positive, and statistically significant relationship between digital tax payment platform integration and turnover tax compliance. According to SMEs, the ease of payment, timely payment and filing, tax remittance accuracy, and record-keeping were improved by mobile payment methods. The regression results showed that digital platform integration was a significant determinant of variance in turnover tax compliance. The study finds that the effective integration of online tax payment systems is critical to increasing tax compliance among manufacturing SMEs. The study recommends that KRA intensify its efforts to enhance system reliability, interoperability, and taxpayer support to maximize the benefits of compliance.

Keywords: *Digital tax platforms, turnover tax, tax compliance, SMEs, Kenya Revenue Authority, e-tax systems*

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1. Introduction

Over the past two decades, governments worldwide have increasingly incorporated digital innovations such as online payment structures, electronic filing (e-filing), and electronic invoicing systems into their tax management systems to enhance efficiency, transparency, and compliance. Both developed and developing countries have embraced digital technologies that enable taxpayers to file returns, create electronic invoices, and submit taxes online (Hesami et al., 2024). Many scholars, including Roger (2021), argue that these systems have been associated with increased tax compliance overall by reducing transaction costs and errors and facilitating real-time tracking of taxpayer activity, resulting in an expanded tax base and increased revenue collection. For instance, Salahova (2025) notes that European nations, such as the United States, have adopted state-of-the-art digital reporting and e-invoicing systems that give tax authorities automatic access to transactional information, facilitating the detection of underreporting and enforcement of compliance. Reports by international organizations, including the OECD (2025), indicate that digital tax portals are associated with greater compliance with diverse tax types, such as turnover and value-added taxes.

In Africa, many countries have also embraced the digitization of tax processes, though at varying levels, to enhance compliance. Baseka (2022) highlights that the East African states, including Tanzania and Uganda, have adopted electronic filing and online payment systems that make business tax compliance more straightforward for micro, small, and medium-sized enterprises (MSMEs). Research suggests that these digital interventions are linked to the enhancement of voluntary compliance behaviours of the taxpayers (Kagabo, 2021). Conversely, countries with poor digital platforms continue to face challenges related to manual operations, elevated administrative expenses, and increased chances of evasion (Kagabo, 2021). This highlights that digitalization has helped African tax systems improve monitoring of financial transactions and limit the use of cash-based reporting, which is traditionally weak in enforcement.

In Kenya, the digitalization of tax administration has been gradual, led by the Kenya Revenue Authority (KRA) and national policy reforms, with the aim of changing how taxes are collected (Tejwok, 2024). Online platforms such as the iTax system and electronic tax invoice management systems have been implemented to facilitate easy compliance with tax requirements for both individuals and companies (Tejwok, 2024). These platforms minimize the administrative costs of filing and paying taxes, improve record-keeping, and facilitate transparency between taxpayers and the KRA, the regulatory institution (Abdi et al., 2024). Studies have also revealed that the adoption of such systems positively relates to compliance with taxes such as turnover taxes, as they make it easier for SMEs to file and make payments through these systems and minimize the risk of under-reporting (Okuku, 2022).

Turnover tax in Kenya was first implemented in 2008 as a simplified tax regime intended to bring small and medium-sized enterprises into the formal tax bracket, boost revenue collection, and reduce administrative and compliance costs (Muthinji, 2022). It targets firms with minimal annual revenue, charging a small percentage of their gross revenue rather than the more complicated graduated income tax, and aims to make taxes more predictable and easier to manage for both businesses and governments.

The point behind this regime is that, instead of taxing net profits, which involves a lot of financial record-keeping and accounting skills, turnover tax is imposed on gross receipts within

set turnover bands. For instance, under the recent Kenyan tax law, those with a turnover between 1 million and 25 million are now charged a 3% turnover tax, while those below the lower threshold are exempt but still required to file returns.

Despite the intention behind the turnover tax, its compliance has historically been inconsistent among manufacturing SMEs, including in regions such as the West of Nairobi, due to the burdensome nature of manual tax systems, limited awareness, and challenges in record-keeping (Muthinji, 2022). Digital tax payment platform integration can therefore be viewed not only as a modern administrative enhancement but also as a driver of turnover tax compliance by making filing and payment more convenient, increasing transparency, and reducing opportunities for evasion. Therefore, this research paper sought to understand the impact of the adoption and use of the digital tax platforms on turnover tax compliance amongst manufacturing SMEs in the West of Nairobi.

1.1 Problem Statement

The central problem addressed in this study is the persistent low turnover tax (TOT) compliance among manufacturing Small and Medium Enterprises (SMEs) in Kenya, despite the continuous investment in digital tax payment systems by the Kenya Revenue Authority (KRA). Over the past decade, KRA has implemented several digital initiatives, such as Mpesa Paybill acceptance, payment via eCitizen and Bank transfers, which are intended to provide a simplified way to pay taxes (Kingiri & Fu, 2020). These platforms were intended to reduce compliance costs, enhance transparency, and promote voluntary compliance. Nevertheless, compliance levels are still below optimal. As the KRA Annual Report (2023) showed, only approximately 3 out of 10 eligible SMEs are registered and regularly submit turnover tax returns, meaning 7 out of 10 are not in compliance despite the availability of digital systems.

Low compliance persistence has a significant fiscal and economic impact. In Kenya, SMEs account for 98% of the registered firms, contribute about 33% of GDP, and account for over 80% total employment (KNBS, 2022). Their poor contribution to the tax basket undermines optimal domestic revenue mobilization, with empirical estimates suggesting that SME noncompliance costs the country over 10 billion annually (Ndoinjeh, 2025). These losses undermine the government's ability to fund key services and exacerbate the county's fiscal strains.

The existing literature offers conflicting evidence on the effectiveness of digital tax payment platforms. Although some studies show enhanced compliance following digitalization (König, 2021), others, such as AbdulKareem and Oladimeji (2024), report minimal or mixed effects, citing factors including limited taxpayer awareness, low digital literacy, system usability issues, and a lack of institutional trust. This discrepancy demonstrates an acute knowledge gap regarding the impact of integrating digital tax platforms on turnover tax compliance among SMEs, which justifies the current study.

1.2 Hypothesis of the Study

The following hypothesis guided this study;

H₀: Digital tax payment platforms integration has no significant effect on turnover tax compliance among manufacturing Small and Medium Enterprises in the West of Nairobi, Kenya.

HA: Digital tax payment platforms integration has a significant effect on turnover tax compliance among manufacturing Small and Medium Enterprises in the West of Nairobi, Kenya.

2. Literature Review

This chapter presents a review of relevant literature on the effect of integrating online tax payment platforms on turnover tax compliance among manufacturing SMEs. The review is divided into three major sections: the theoretical review, which covers major theories related to the topic; the empirical review, which reviews the results of recent studies on digital taxation and tax compliance; and the conceptual framework, which shows how the study variables relate. Collectively, these sections can be regarded as the scholarly background to the study and serve to identify existing knowledge gaps that the current study aims to address.

2.1 Theoretical Review

The following theories dictated the direction of this study;

2.1.1 Economic Deterrence Theory

This theory was initially established by Allingham and Sandmo in 1972 and is based on the rational choice model of economics (Abba et al., 2023). According to the theory, taxpayers are rational economic agents who decide whether to comply with tax obligations by weighing the benefits they are likely to receive from avoiding payment against the costs they are likely to incur (Abba et al., 2023). These costs are primarily due to the likelihood of detection during audits and the severity of the repercussions and fines imposed when evasion is detected. The theory goes further to propose that an increased probability of audits and higher fines increases the cost of non-compliance, thus making taxpayers more compliant, whereas low enforcement and weak sanctions create incentives for tax evasion.

The Economic Deterrence Theory has been extensively used in explaining compliance behaviour in tax systems and among taxpayers within the field of taxation. The theory has been applied in several empirical studies to determine the effects of audit rates, penalty structures, and enforcement mechanisms on decision-making regarding tax reporting and payment. For instance, research has shown that compliance rates increase with the frequency of auditing and the use of electronic monitoring systems, thereby increasing perceived risk of detection (Ya'u et al., 2020). This has also been utilized to support investment in tax administration technologies, as digital systems have increased surveillance, response, and record-keeping, and reduced the likelihood of manipulation, thereby increasing enforcement effectiveness (Haley, 2025).

The theory is highly relevant to the present study, as digital tax payment platforms directly affect the theory's main mechanisms of deterrence. Digital platforms such as e-Citizen and M-Pesa enhance real-time transaction tracking, data integration, and automated reporting, thereby increasing the likelihood of identifying non-compliance among manufacturing SMEs. This increases the perceived prices of evasion and voluntary turnover compliance with the tax. Thus, the Economic Deterrence Theory offers a sound explanatory basis for understanding the impact of integrating digital platforms on SMEs' behavior in the West of Nairobi, as they enhance enforcement and surveillance capabilities.

2.1.2 Technology Acceptance Model

The Technology Acceptance Model (TAM) was developed by Davis (1989) to describe how users accept and use emerging technologies. According to the model, how an individual chooses to use a technology is mainly based on two issues: perceived usefulness, which is based on how much an individual believes that the use of a system would make their performance better, and the ease of use, which is based on how much a system is devoid of effort (Natasia et al., 2022). TAM asserts that a user will have a positive attitude towards a system if they perceive it as useful and easy to use; thus, they will be more willing to adopt and use the technology consistently (Natasia et al., 2022).

TAM has been extensively used in the tax and public administration sectors to investigate the adoption of electronic government (e-government) systems, including e-filing, online tax payment systems, and electronic invoicing systems. Several empirical studies have applied TAM to examine the extent to which taxpayers' perceptions of system usability, reliability, and efficiency influence their willingness to respond to digitalized tax processes (Malatji et al., 2020). Results in most cases indicate that, when tax platforms are accessible and user-friendly and perceived as beneficial, the likelihood of their adoption by taxpayers increases, leading to high filing rates and timely tax payments (Mandasari, 2024). On the other hand, multifaceted interfaces, system failures, and non-supportive user services decrease the acceptance and minimize the efficacy of telephonic reforms.

The applicability of TAM to the current study lies in its ability to explain the likelihood of successful or unsuccessful use of the digital tax payment platform by manufacturing SMEs. Consistent compliance will not be possible unless the SMEs view them as beneficial in easing the tax systems and convenient to use, without the need to acquire unnecessary technical expertise. In the context of West of Nairobi, perceptions of digital platforms and their actual use might be constrained by digital literacy and system familiarity. TAM was an appropriate tool for examining how perceptions of digital platforms are moderated to affect actual use and, eventually, tax compliance.

2.2 Empirical Review

This section reviews empirical studies on digital tax systems and tax compliance, with a particular focus on small and medium-sized enterprises. It examines findings from global, regional, and local contexts to assess how digital tax payment platforms influence compliance behaviour, identify key determinants of adoption and effectiveness, and highlight existing gaps and inconsistencies in the literature that inform the current study.

2.2.1 Digital Tax Payment Platforms Integration

At the global level, empirical research demonstrates that integrating digital payment platforms effectively enhances tax compliance, with the scope of effects varying by circumstances and technology design. An IMF report (2025) shows that increased firm-level digitalization, along with sophisticated digital administration of taxes, is associated with higher tax revenues and improved compliance outcomes, particularly in the informal and service sectors with low traditional compliance. In line with this, research on the effectiveness of digital infrastructure, including e-filing and e-tax payment, in developing economies with a particular focus on Rwanda, indicated that the use of digital payment methods minimises information asymmetry between companies and the tax authorities, strengthens internal control, and enhances the

monitoring process in real time, which, in combination, can enhance voluntary compliance. Research in the United States by Khan and Dhanekula (2025) offers insights into the effectiveness of integrated digital fraud detection and reporting systems in enhancing the efficiency of compliance enforcement, noting that the level of impact of initiatives such as digital tax payment platforms depends heavily on the institutional setting.

In the African region, research shows that several countries are now adopting real-time e-invoicing and digital payment systems to enhance compliance. In a study conducted in Ghana by Zubairu et al. (2025) on the effects of digitization, it was established that broader digitalization efforts, such as e-filing and digital transaction reporting, positively impact taxpayer compliance, underscoring the key role of taxpayer education and awareness. Similarly, in a study by Kibona & Goyayi (2025) conducted in Tanzania's Kinondeni region, a strong positive correlation was found between e-payment systems and voluntary tax compliance among SMEs. Additionally, a general study by Santoro (2025) on digital tax infrastructure across several African nations shows that although digital payment and invoicing systems can increase compliance, their implementation depends on access to digital infrastructure and digital literacy. These African studies affirm that digital taxation platforms are useful tools of compliance, but also stress that socio-economic and infrastructural factors dictate their impact.

In Kenya, empirical evidence suggests positive links between digital payment integration and tax compliance, especially among SMEs. Research by Wachira (2022) conducted in Meru County found that the implementation of digital tax systems, especially the incorporation of digital payment platforms, has significantly improved tax compliance among SMEs, leading to easier tax payments and fewer errors. A study by Mulili (2022) on digital financial inclusion also demonstrated that digital payment platforms like Mpesa have significantly improved reporting accuracy, underscoring the simplicity of these platforms. Together, the global, African, and Kenyan empirical research indicates that incorporating digital tax payment platforms could improve tax compliance, but the magnitude and uniformity of that influence depend on system design, digital fluency, regulatory support, and taxpayer support services.

2.2.2 Turnover Tax Compliance

On a global scale, empirical data on turnover tax compliance show that it remains a persistent issue. Firms are always seeking avenues to avoid filing and paying turnover tax, and, in turn, governments are continually developing hybrid systems that incorporate online payment channels to reduce noncompliance (Pamisetty, 2020). Even amid these initiatives, research shows that taxpayer awareness is crucial to achieving maximum compliance. For instance, a study by Xue Dong et al. (2025) in the Indonesian context stresses the impact of behavioural and enforcement measures on SME compliance, acknowledging that the visibility of enforcement and availability of information to taxpayers are significant in an environment with presumptive or simplified tax systems. They also highlight that informal activities and administrative barriers are likely to undermine voluntary compliance.

In Africa, a study by Kandagor et al. (2024) investigating the determinants of Turnover tax compliance among SMEs found that compliance was higher when taxpayers were better equipped, as SMEs with a better understanding of taxation rules and procedures were more predisposed to comply. Another study by Mumbi et al. (2025) revealed that the use of digital record-keeping positively influences the turnover tax compliance of youth-owned businesses

in African countries, suggesting that digitalization strongly influences compliance behavior. These results are in line with a study by Abdi et al. (2024), who found a positive impact of digitization initiatives such as online payment, but stressed the crucial importance of perceived security. Further, in the textile industry, a study by Abdi et al. (2024) indicated that the ease of use and security of adopted technologies have a positive correlation with turnover tax compliance, suggesting that successful digital tax regimes can lead to voluntary tax compliance among SMEs but only if moderating factors like literacy are enhanced. Such empirical results in African contexts suggest that knowledge, as well as technological facilitation, are relevant to compliance in addition to enforcement and behavioral action.

In the Kenyan context, various studies identify factors that determine turnover tax compliance. In addition to knowledge and digital record-keeping, the results of a study focused on Langata Sub-County by Oringo et al. (2024) showed that tax audits, particularly, have a significant positive impact on turnover tax compliance, supporting enforcement mechanisms in stimulating compliance. Additionally, patriotism and taxpayer sentiment are among the most significant drivers of compliance in Kenyan settings, suggesting that attitudinal and social factors also shape SMEs' responses to turnover tax obligations (Wanjuki et al., 2025). Taken together, these empirical investigations indicate that turnover tax compliance is a complex phenomenon whose determinants include educational, technological, enforcement, and behavioural factors, and stress the importance of combined efforts beyond digital platforms to enhance compliance among SMEs.

2.3 Critique of Existing Literature

Empirical results on digital tax payment systems and turnover tax compliance reveal several patterns. Research indicates that overall digitalization promotes tax compliance by increasing efficiency, transparency, and supervision (IMF, 2025). Digital infrastructure and taxpayer education in the African context are dual factors highlighted in the literature, evidenced by the possibility of enhancing compliance; however, the success of such implementation depends on ease of access to digital infrastructure, literacy levels, and reliability of the systems (Zubairu et al., 2025; Kibona & Goyayi, 2025). Research also demonstrates that online payment channels, such as e-Citizen and M-Pesa, have demonstrated the ability to increase compliance through their traceable characteristics, but behavioral aspects of taxpayer knowledge, patriotism, and institutional trust also have a strong influence on their effectiveness (Kandagor et al., 2024; Wanjuki et al., 2025).

The major strength of the available literature is its multi-level scope of coverage across global, African, and Kenyan settings, offering a comparative view of the impact of digitalization, specifically the integration of digital payment platforms, on tax compliance. Additionally, many studies use empirical methods such as structural equation modeling, natural field experiments, and surveys, providing strong quantitative evidence on how digital platforms are associated with compliance behavior. Also, several recent research studies focus on SMEs, which are most relevant for understanding turnover tax compliance in contexts where smaller businesses dominate the economy. Similarly, the available body of research contributes perspectives from technology, behavior, and enforcement, thereby offering more in-depth insight into the drivers of compliance.

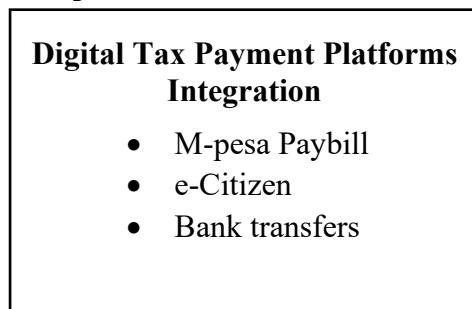
Despite these strengths, the literature still reveals several gaps and weaknesses. Very few studies isolate turnover tax compliance from general tax compliance, limiting direct

applicability to simplified tax systems. Additionally, most of the studies done in Africa and Kenya are geographically constrained to a handful of urban centres, leaving the other manufacturing hubs under-researched. Also, although digital adoption is well-researched, very little literature exists on system integration, interoperability, real-time monitoring, and SME compliance outcomes. Moderators related to behaviour and institutions, such as trust in tax authorities, penalty attitudes, and perceived fairness, are frequently referred to but not always measured or analyzed. The gaps explain the need for focused research in the West of Nairobi, with a particular focus on the impact of integrated digital tax payment tools on turnover tax compliance in manufacturing SMEs, considering both behavioral and technological factors.

2.4 Conceptual Framework

Conceptual framework represents a collection of overarching ideas and foundational principles drawn from pertinent areas of study, serving to organize a subsequent presentation. Figure 1 shows the conceptual model depicting the relationship between the independent variable and the dependent variable, turnover tax compliance.

Independent Variable



Dependent Variable

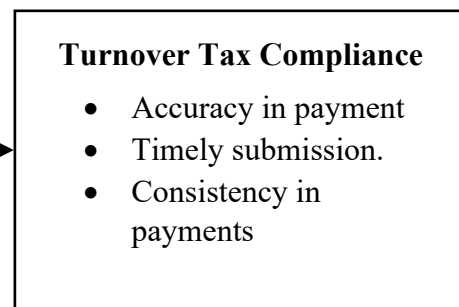


Figure 1: Conceptual Framework

3. Methodology

This chapter presents the methodology employed in this study. It describes the research design, target population, sampling methods, data collection procedures, methods of analysis, diagnostic tests, and ethical issues. The methodology provided a coherent approach to ensure the collection of valid, reliable, and relevant data to evaluate the impact of integrating digital tax payment platforms on turnover tax compliance among manufacturing SMEs in West Nairobi, Kenya.

3.1 Research Design

This study employed a descriptive research design complemented by a correlational approach. The descriptive aspect enabled the analysis of the existing situation regarding the digital tax integration platform and turnover tax compliance among manufacturing SMEs (Siedlecki, 2020). The correlation approach was used to assess the relationship between the independent variable (digital tax platform integration) and the dependent variable (turnover tax compliance). This design was suitable, as it allowed the research to reveal the characteristics of SMEs and their use of digital platforms, the degree of tax compliance, and the nature and strength of the relationships between variables.

3.2 Population and Sampling

The target population comprised all registered manufacturing SMEs under the jurisdiction of West Nairobi and subject to turnover tax. As of January 2025, the Kenya Revenue Authority (KRA, 2025) reported 392 manufacturing SMEs in this category. This population was chosen because it represents the SMEs who are likely to be impacted by the digital tax payment reforms the most, and who can offer detailed insights into the compliance behaviour.

A probabilistic sampling method was used to ensure representativeness. The sample size was calculated using the Yamane (1967) formula with 95% confidence and a 5% margin of error. The sample size was calculated as follows:

$$n = \frac{N}{1+N(e)^2}$$

Where n is the required sample size, N is the target population or sample frame, and e is the margin of error, which is determined by the desired confidence level. In this study, a 95% confidence level was applied, resulting in a margin of error (e) of 5% (0.05).

$$n = \frac{392}{1+392(0.05)^2} = 198$$

The population was then selected using simple random sampling, with 198 SMEs selected, each with an equal chance of being sampled. The targeted respondents were business owners or proprietors directly engaged in financial management and tax matters, as they could provide detailed information on the use of digital platforms and on turnover tax compliance.

3.3 Data Collection and Procedure

Primary data were gathered through the study's methods. The chosen SME owners were given structured questionnaires to complete, enabling the collection of quantitative data on turnover tax compliance, system integration features, and the use of digital tax platforms (see Appendix A). To provide more quantifiable responses, the surveys included both closed-ended and Likert-scale items. Data were gathered both in person and online when it was judged necessary to accommodate respondents' availability, ensuring that ethical considerations, such as volunteer participation, were upheld.

3.4 Data Analysis

The data obtained were cleaned, coded, and analyzed using Statistical Package for Social Sciences (SPSS) version 26. Demographic characteristics, turnover tax compliance, and results on the integration of digital tax platforms were summarized using descriptive statistics, including means, frequencies, and percentages. The relationship and predictive effect of digital tax platform integration on turnover tax compliance among manufacturing SMEs were examined using inferential statistics, particularly correlation and regression analyses.

3.5 Diagnostic Tests

The reliability and validity of the regression model were assessed using diagnostic tests. These included: a multicollinearity test to ensure that the independent variables were not too closely correlated, a Normality test to ensure that the residuals were normally distributed, an autocorrelation test to ensure that observations were independent, and a linearity test to confirm the assumption of linearity between the independent and dependent variables. These tests strengthened the robustness and credibility of the study findings.

3.6 Ethical Considerations

This research was conducted in conformity with major ethical principles. The purpose of the study was explained to the respondents, and voluntary participation was ensured. Anonymity and confidentiality of respondents were ensured, and the collected data were used solely for research purposes. Moreover, the study was conducted ethically and professionally by seeking permission from the relevant authorities, such as KRA and SME associations, before beginning data collection.

4. Results and Discussion

4.1 Response Rate

The researcher distributed 198 questionnaires to the selected SMEs in the West of Nairobi. Of these, 167 questionnaires were fully completed and returned. The results are shown in Table 1 below.

Table 1: Response Rate

	Percentage	
Questionnaires returned, but not well filled out	10	5%
Questionnaires returned and were well-filled	167	84%
Questionnaires not returned	21	11%
Total	198	100%

Table 1 above shows a response rate of 84%. Only 16% of the respondents never returned their questionnaires. The 84% response rate was considered adequate for data analysis. This is supported by Siedlecki (2020), who states that a response rate of 60% and above is good, while over 70% is very good.

4.2 Reliability Analysis

Table 2: Reliability Analysis

Variable	Number of Items	Cronbach's Alpha
Digital Tax Payment Platforms Integration	6	0.834
Turnover Tax Compliance	5	0.812
Overall Questionnaire	11	0.825

The results in Table 2 indicate that all study variables demonstrated high internal consistency, with Cronbach's alpha values exceeding the recommended threshold of 0.7. Specifically, the integration of digital tax payment platforms achieved an alpha of 0.834, reflecting the strong reliability of the items measuring system accessibility, usability, integration, and adoption. Turnover tax compliance had an alpha of 0.812, indicating that items capturing filing frequency, payment timeliness, and reporting accuracy were internally consistent. The overall questionnaire reliability was 0.825, confirming that the instrument was suitable for measuring

the constructs under investigation. These findings ensure that the data collected from the 167 fully completed questionnaires are dependable for subsequent descriptive and inferential analyses.

4.3 Descriptive Statistics

The descriptive statistics for responses are summarized below. The responses were measured on a 5-point Likert scale where 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.

Table 3: Descriptive Statistics for Digital Tax Payment Platforms Integration

Statement	N	Mean	Std. Dev.
It is easier to pay turnover tax using M-Pesa	167	4.01	0.98
e-Citizen is easier to use and more efficient in making payments to KRA	167	3.92	1.02
Bank transfers are efficient and cost-effective	167	3.82	1.08
Generally, the integration of digital payment platforms has made it easier to comply with the turnover tax	167	3.97	0.96

The results in Table 3 indicate that respondents generally agree that digital tax payment platforms facilitate compliance with turnover tax. The highest mean score (4.01) was for the statement on M-Pesa, suggesting that mobile money payments are perceived as the easiest method for paying turnover tax. Similarly, respondents acknowledged that e-Citizen is efficient for KRA payments (mean = 3.92), while bank transfers were also considered effective but slightly less preferred (mean = 3.82). Overall, the integration of multiple digital payment platforms was positively perceived (mean = 3.97), demonstrating that the availability and usability of these systems help simplify turnover tax compliance. The standard deviations, all below 1.1, indicate a relatively consistent agreement among respondents on the effectiveness of digital tax platforms.

Table 4: Descriptive Statistics for Turnover Tax Compliance

Statement	N	Mean	Std. Dev.
I file my turnover tax returns on time	167	4.01	0.95
I pay turnover taxes due fairly to the last coin	167	3.93	1.01
I keep turnover tax records as required by tax regulations	167	3.88	0.98

The results in Table 4 indicate that SMEs in West Nairobi generally comply with turnover tax requirements, with most respondents agreeing or strongly agreeing with the statements. Filing returns on time had the highest mean (4.01), suggesting that SMEs are relatively punctual in submission of turnover tax returns. Payment of taxes in full also received a high mean (3.93), indicating that most SMEs aim to settle their tax obligations accurately. Record-keeping

received a slightly lower mean (3.88), which may reflect occasional lapses in maintaining complete tax records or challenges in documentation. Overall, the standard deviations, all below 1.1, indicate consistency in responses, highlighting a general trend of positive compliance behaviour among the surveyed SMEs.

4.4 Correlation Analysis

Correlation analysis was used to assess the relationship between the integration of digital tax payment platforms and turnover tax compliance among small and medium-sized manufacturing enterprises.

Table 5: Correlation Analysis

Variables	Digital Tax Platforms	Turnover Tax Compliance
Digital Tax Platforms	1	0.671**
Turnover Tax Compliance	0.671**	1

*Correlation is significant at the 0.05 level (2-tailed)

The results in Table 5 indicate a strong positive correlation ($r = 0.671$, $p < 0.05$) between the integration of digital tax payment platforms and turnover tax compliance. This implies that SMEs that perceive digital platforms as accessible, usable, reliable, and integrated are more likely to file returns on time, pay taxes fully, and maintain proper records. The positive correlation supports the notion that enhanced technological integration facilitates compliance by reducing administrative burdens, improving efficiency, and increasing taxpayer confidence. These findings provide preliminary evidence that digital tax platforms may play a critical role in promoting voluntary turnover tax compliance among manufacturing SMEs in West Nairobi.

4.5 Regression Analysis

Regression analysis was used to assess the effect of the integration of digital tax payment platforms on turnover tax compliance among small and medium-sized manufacturing enterprises.

Table 6: Model Summary

Model	R	R Square	Adjusted R-Square	Std. Error of the Estimate
1	0.671	0.450	0.446	0.384

The results in Table 6 indicate that the correlation coefficient ($R = 0.671$) confirms a strong positive relationship between the integration of digital tax payment platforms and turnover tax compliance. The R-squared value of 0.450 suggests that approximately 45% of the variation in turnover tax compliance among SMEs is explained by the level of integration with digital tax platforms. The Adjusted R^2 (0.446) accounts for the number of predictors and indicates that the model has good predictive power while minimizing overfitting. The standard error of the estimate (0.384) shows that the predicted compliance values are reasonably close to the observed values, demonstrating that the model provides a fairly accurate representation of the

relationship between digital platform integration and turnover tax compliance. Overall, these results suggest that digital tax platform integration is a significant predictor of turnover tax compliance among SMEs in West Nairobi.

Table 7: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	10.872	1	10.872	73.856	0.000
Residual	13.259	165	0.080		
Total	24.131	166			

- a. Dependent Variable: Turnover Tax Compliance
- b. Predictor: (Constant), Digital Tax Payment Platforms Integration.

The results in Table 7 indicate that the regression model is statistically significant in predicting turnover tax compliance among manufacturing SMEs, with an F-value of 73.856 and a p-value of 0.000 ($p < 0.05$). This confirms that the integration of digital tax payment platforms significantly affects tax compliance with turnover taxes. The model explains a substantial proportion of the variation in compliance, as reflected in the R-squared value (0.450) from the model summary. The small mean squared residual (0.080) also suggests that the differences between the observed and predicted values are minimal. Overall, these findings validate that digital tax platform integration is an important predictor of turnover tax compliance among SMEs in West Nairobi.

Table 8: Regression Coefficients

Variable	Unstandardized β	Std. Error	Standardized β	t-Statistic	Prob.
Constant	1.224	0.182		6.718	0.000
Digital Tax Payment Platforms Integration	0.597	0.070	0.671	8.594	0.000

The results in Table 8 show that Digital Tax Payment Platforms Integration positively and significantly influences turnover tax compliance among manufacturing SMEs. The unstandardized coefficient ($\beta = 0.597$) implies that an increase of one unit in the level of digital platforms integration would raise the turnover tax compliance by 0.597 units, other factors being held constant. The standardized beta of 0.671 demonstrates that the effect size is strong, confirming that online payment platform integration is one of the major predictors of compliance behaviour. The t-statistic (8.594) and the associated p-value (0.000) indicate that this effect is statistically significant at the 5% level. The constant term (1.224) signifies the expected level of compliance when online payment platforms integration is absent. These results confirm that the use of digital tax platforms is associated with a significant increase in the turnover tax commitment among SMEs in West Nairobi, thereby supporting the rejection of the null hypothesis.

4.6 Discussion of Findings

Based on the research findings, there is a significant positive correlation between the integration of digital tax payment platforms and turnover tax compliance among manufacturing SMEs in West Nairobi, as reflected in the correlation results ($r = 0.671$) and regression (0.597 , $p < 0.05$). These findings align with empirical evidence that higher tax compliance is associated with greater adoption of digital processes (IMF, 2025). The respondents of this research acknowledged that online payment platforms like Mpesa, eCitizen, and bank transfers minimize administrative costs and enable filing and payment on time, which in turn enhances voluntary compliance. The results are also consistent with African research conducted in Ghana and Tanzania, demonstrating the beneficial impact of digital transactions on SME compliance when digital literacy is enhanced (Zubairu et al., 2025; Kibona & Goyayi, 2025).

In the Kenyan context, the results align with previous studies highlighting the importance of integrating digital tools to enhance turnover tax compliance among SMEs. Similar to the findings in Meru County by Mumbi et al. (2025), respondents in West Nairobi confirmed that formalized payment websites make it easier to pay and enable better record-keeping. In addition, the paper demonstrates that despite the pivotal role of digital tools, the behavior of compliance is also determined by the knowledge, attitudes, and enforcement strategies of taxpayers, which is also supported by other studies conducted in Langata and Eastleigh that found audits, system security, and taxpayer forbearance influential to determination of compliance levels (Oringo et al., 2024; Abdi et al., 2024). This implies that digital platforms should be best reinforced by a favourable institutional framework, user training, and behavioural reward systems.

Theoretically, the results are in line with both the Economic Deterrence Theory and the Technology Acceptance Model (TAM). The Economic Deterrence Theory assumes that compliance depends on the perceived costs and benefits of deviation, including enforcement and penalties (Allingham & Sandmo, 1972), which is consistent with respondents' acknowledgment that trusted digital payment platforms minimize the risk of mistakes and audits and motivate timely payments. TAM reinforces this by noting that perceived usefulness and ease of use determine technology use and adoption (Davis, 1989). The favorable attitudes of SMEs towards platform usability, accessibility, and efficiency are the reasons platforms are adopted and used by SMEs; this, in turn, demonstrates that digital payment platform integrations affect behavior through both technological acceptance and deterrence mechanisms. In general, the study shows that integrating digital tax payment platforms increases compliance with turnover tax, but success depends on user competence, system reliability, and supporting regulatory frameworks.

5. Conclusion

This research concludes that the integration of digital payment platforms is a major determinant of turnover tax compliance among manufacturing SMEs in the West of Nairobi. The results indicate that the availability of effective, convenient, trusted, and best-integrated payment systems, such as Mpesa, eCitizen, and bank transfers, reduces administrative tasks, enables timely filing, correct payment, and accurate record-keeping. These findings support the view that technological integration alone is not sufficient; compliance also depends largely on taxpayers' knowledge, attitudes, and enforcement mechanisms. The research also confirms theoretical assertions of the Economic Deterrence Theory and the Technology Acceptance

Model, demonstrating that there is a higher likelihood of compliance when digital systems are perceived as useful, easy to operate, and accompanied by the possible costs of non-conformity. Generally, the study highlights that a successful digital implementation, supported by training and organizational strategies, would significantly increase SME involvement in the turnover tax system, thereby mobilizing domestic revenue in Kenya.

6. Recommendations

Based on the results, this study recommends that the Kenya Revenue Authority (KRA) continue to strengthen the process of integrating digital tax payment platforms, ensuring that the system is reliable, interoperable, and has user-friendly interfaces to increase SME compliance. Additionally, KRA needs to invest in customized taxpayer education and training to enhance digital literacy, especially among SMEs with minimal technological knowledge. Other complementary enforcement mechanisms that policymakers should consider include ensuring timely audits and reminders to augment voluntary compliance without being confrontational with taxpayers. Lastly, there should be continuous feedback processes and technical assistance to address system issues in a timely manner, ensuring that digital platforms are useful, reliable, and popular, thereby enhancing overall turnover tax collection in Kenya.

Conflict of interest

The researcher declares no conflict of interest.

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