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Influence of Cloud Accounting Adoption on Tax Compliance among Commercial Banks Listed on the Nairobi Securities Exchange, Kenya.

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ABSTRACT:- This study examined the influence of cloud accounting adoption on tax compliance among commercial banks listed on the Nairobi Securities Exchange (NSE), Kenya. The study was guided by the objective of determining the extent to which cloud accounting adoption affects tax compliance in the Kenyan banking sector. A correlational research design was adopted to establish the relationship between cloud accounting adoption and tax compliance. The target population comprised all commercial banks listed on the NSE, with data collected from finance, accounting, and tax-related personnel using structured questionnaires and secondary financial reports. Data were analyzed using inferential statistics, specifically simple linear regression analysis. The regression results indicated that cloud accounting adoption has a positive and statistically significant influence on tax compliance ($\beta = 0.6089$, $p = 0.001$). The model further revealed a high explanatory power ($R^2 = 0.7314$), implying that 73.14% of the variation in tax compliance is explained by cloud accounting adoption. The study also found that cloud accounting enhances accuracy in financial reporting, improves timeliness of tax filing, and strengthens transparency in accounting processes. The study concluded that cloud accounting adoption is a key determinant of tax compliance among listed commercial banks in Kenya. It was therefore recommended that commercial banks should enhance the adoption and utilization of cloud-based accounting systems to improve tax compliance. Regulatory bodies such as the Kenya Revenue Authority (KRA) and the Central Bank of Kenya (CBK) should also support the integration of cloud accounting systems with tax administration platforms to improve compliance efficiency.

Keywords: Cloud Accounting Adoption, Tax Compliance, Commercial Banks, Nairobi Securities Exchange, Kenya**.**

I. INTRODUCTION

The contemporary business environment is characterized by rapid technological advancements that have transformed organizational operations, including accounting and taxation processes(Khanom, 2017). Among these technological innovations, cloud accounting has emerged as a significant development in financial management (Vagner et al., 2023). Cloud accounting refers to the use of internet-based accounting systems that enable organizations to access, process, store, and manage financial information remotely through cloud computing platforms(Vo Van et al., 2025). Unlike traditional accounting systems that rely on locally installed software and physical storage infrastructure, cloud accounting provides real-time access to financial data, enhanced collaboration, scalability, and cost efficiency (Nguyen Phu et al., 2025).

Globally, organizations are increasingly adopting cloud accounting solutions to improve financial reporting accuracy, operational efficiency, and regulatory compliance. The banking sector, in particular, has embraced digital technologies to streamline financial operations and respond to the growing demands of stakeholders, regulators, and customers (Arsenie-Samoil, 2011). The adoption of cloud accounting systems enables financial institutions to automate accounting processes, improve data security, facilitate real-time financial reporting, and enhance transparency in financial transactions (Ionescu et al., 2013).

Tax compliance remains a critical concern for governments and business organizations worldwide. It refers to the degree to which taxpayers adhere to tax laws and regulations regarding registration, filing of returns, accurate reporting of taxable income, and timely payment of taxes (Morris et al., 2024). Effective tax compliance contributes significantly to government revenue generation and economic development. In Kenya, the government relies heavily on tax revenues collected by the Kenya Revenue Authority (KRA) to finance public expenditure and support national development initiatives. Consequently, ensuring high levels of tax compliance among corporate entities, including commercial banks, is of strategic importance.

Commercial banks listed on the Nairobi Securities Exchange (NSE) operate within a highly regulated environment that requires strict adherence to financial reporting standards, taxation laws, and regulatory requirements established by the Central Bank of Kenya (CBK), the Capital Markets Authority (CMA), and the Kenya Revenue Authority (KRA) (Tarus, 2025). These institutions are expected to maintain accurate financial records and comply with various tax obligations, including corporate income tax, value-added tax, withholding

tax, and other statutory deductions (Wambongo, 2019). Failure to comply with tax regulations may result in financial penalties, reputational damage, and legal consequences (Olonde, 2019).

The adoption of cloud accounting systems has the potential to enhance tax compliance among listed commercial banks by improving the accuracy, accessibility, and timeliness of financial information (Kiondo, 2022). Through automation of accounting functions, cloud accounting reduces manual errors, strengthens internal controls, facilitates audit trails, and supports timely preparation and submission of tax returns. Additionally, real-time data processing and integration capabilities enable organizations to maintain updated financial records that can improve tax reporting and compliance with regulatory requirements (Kivuti & Minja, 2026).

Despite the increasing adoption of cloud accounting technologies, challenges such as cybersecurity risks, data privacy concerns, implementation costs, and organizational resistance to technological change continue to affect their effectiveness. Furthermore, empirical evidence on the relationship between cloud accounting adoption and tax compliance within the Kenyan banking sector remains limited. Most existing studies have focused on cloud accounting adoption in small and medium enterprises or general organizational performance, leaving a gap in understanding its influence on tax compliance among listed commercial banks.

It is against this background that this study seeks to examine the influence of cloud accounting adoption on tax compliance among commercial banks listed on the Nairobi Securities Exchange, Kenya. The findings of the study are expected to contribute to the growing body of knowledge on accounting technology adoption and provide insights to policymakers, financial institutions, tax authorities, and other stakeholders on how cloud accounting can be leveraged to enhance tax compliance and financial accountability within the banking sector.

1.2 Objective of the Study

To evaluate the Influence of Cloud Accounting Adoption on Tax Compliance among Commercial Banks Listed on the Nairobi Securities Exchange, Kenya.

1.3 Hypothesis of the study

H_0: Cloud accounting adoption has no statistically significant influence on tax compliance among commercial banks listed on the Nairobi Securities Exchange, Kenya.

II. LITERATURE REVIEW

2.1 Theoretical Literature Review

2.1.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), developed by Fred Davis (1989), explains how users come to accept and use new technologies. The model posits that technology adoption is primarily influenced by two factors: perceived usefulness and perceived ease of use (Silva, 2015). Perceived usefulness refers to the extent to which users believe that a technology will enhance their job performance, while perceived ease of use relates to the degree to which the technology is free from effort (Malatji et al., 2020). In the context of this study, commercial banks listed on the Nairobi Securities Exchange are more likely to adopt cloud accounting systems if they perceive them as improving accounting efficiency, accuracy, and regulatory compliance. Cloud accounting provides real-time financial reporting, automated tax calculations, secure data storage, and enhanced accessibility, which can facilitate timely and accurate tax reporting. Consequently, greater adoption of cloud accounting systems is expected to improve tax compliance by reducing errors, enhancing transparency, and ensuring adherence to tax regulations. TAM is therefore relevant as it explains the factors influencing cloud accounting adoption and its subsequent impact on tax compliance among listed commercial banks in Kenya**.**

2.2 Literature Review

2.2.1 Cloud Accounting Adoption and Tax Compliance

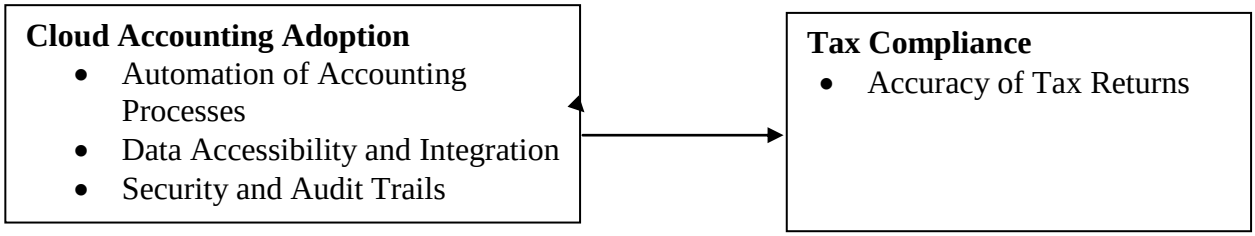
The reviewed literature demonstrates a growing consensus that cloud accounting adoption plays a significant role in enhancing organizational efficiency, financial management, and regulatory compliance. Studies by Nguyen Phu et al. (2025) and Sastararuji et al. (2022) indicate that cloud accounting improves accessibility to financial information, real-time reporting, data integration, and operational efficiency, which are essential for effective financial management and compliance. These findings suggest that organizations adopting cloud accounting systems are better positioned to maintain accurate financial records and support compliance-related activities.

Similarly, studies by Carter et al. (2024), Lewis et al. (2025), Morris et al. (2024), and Murphy et al. (2023) provide evidence that cloud technologies positively influence tax compliance by enhancing transparency, automating tax processes, improving audit trails, and reducing opportunities for tax evasion. The studies further reveal that cloud-based systems facilitate timely tax filing, accurate tax reporting, and effective monitoring of

tax obligations, thereby promoting higher levels of compliance. These findings align with the Technology Acceptance Model, which suggests that organizations are more likely to adopt technologies perceived as useful in improving performance and operational outcomes.

Despite the consistent evidence on the benefits of cloud accounting, the reviewed studies were largely conducted in different geographical contexts and focused mainly on SMEs, general business organizations, and taxpayers. Limited empirical attention has been given to the banking sector, particularly commercial banks listed on the Nairobi Securities Exchange in Kenya. Consequently, there remains insufficient evidence on how cloud accounting adoption influences tax compliance within the highly regulated Kenyan banking environment. Therefore, the current study seeks to bridge this contextual and sectoral gap by examining the influence of cloud accounting adoption on tax compliance among commercial banks listed on the Nairobi Securities Exchange, Kenya. The study will contribute to existing literature by providing empirical evidence from the banking sector and informing policymakers, tax authorities, and financial institutions on the role of cloud accounting in enhancing tax compliance.

2.3 Conceptual Literature Review



III. STUDY METHODOLOGY

3.1 Study Design

The study adopted a correlational research design. This design was appropriate because it enabled the researcher to examine the relationship between cloud accounting adoption (independent variable) and tax compliance (dependent variable) among commercial banks listed on the Nairobi Securities Exchange (NSE), Kenya. The design did not involve manipulation of variables but focused on determining the extent and direction of the relationship between the study variables as they naturally occurred in the banking institutions.

3.2 Target Population

The target population of the study comprised all commercial banks listed on the Nairobi Securities Exchange (NSE), Kenya. These banks were selected because they operate in a highly regulated financial environment and are required to comply with strict accounting, reporting, and taxation requirements set by regulatory bodies such as the Kenya Revenue Authority (KRA) and the Central Bank of Kenya (CBK).

3.3 Data Presentation Analysis and Discussion

The study data were analyzed using inferential statistics, specifically simple linear regression, to determine the influence of cloud accounting adoption on tax compliance among commercial banks listed on the Nairobi Securities Exchange, Kenya.

The regression model used was $Y = \beta_0 + \beta_1 X + \varepsilon$,

where Y represented tax compliance

X represented cloud accounting adoption

β_0 was the constant

β_1 was the regression coefficient

ε was the error term.

Data was analyzed using regression analysis to determine the extent to which cloud accounting adoption explained variations in tax compliance.

IV. DATA ANALYSIS AND DISCUSSION

The regression results are shown in table 1

Table 1: Regression Results

Variable	Coef.	Std. Err.	T	P>/z/
Con.	.0617	0.011	5.609	0.000
X	.6089	.0566	10.75	0.001
	Within Between Overall	= 0.7310 = 0.7484 = 0.7314	Wald chi2(3) Prob>chi2	= 473.38 =0.0000

The study adopted the following regression equation
Y=0.0617+0.6089X
Where Y is Tax Compliance and X is Cloud accounting adoption

The regression results indicated that both the constant term and cloud accounting adoption significantly influenced tax compliance among commercial banks listed on the Nairobi Securities Exchange, Kenya. The constant term ($\beta_0 = 0.0617$, $p = 0.000$) implies that even in the absence of cloud accounting adoption, a baseline level of tax compliance exists among the banks. This may be attributed to strict regulatory enforcement mechanisms by institutions such as the Kenya Revenue Authority (KRA), the Central Bank of Kenya (CBK), and other statutory requirements that compel organizations to comply with tax obligations regardless of their level of technological advancement. It also suggests that institutional compliance culture and fear of penalties contribute to a minimum level of adherence to tax laws.

The coefficient for cloud accounting adoption ($X = 0.6089$, $p = 0.001$) indicates that a one-unit increase in cloud accounting adoption leads to a 0.609 increase in tax compliance, holding other factors constant. This result is statistically significant, confirming that cloud accounting adoption is a strong and meaningful predictor of tax compliance among commercial banks. The positive sign of the coefficient further implies that improved adoption of cloud-based accounting systems is associated with higher levels of compliance, including timely filing of tax returns, improved accuracy in financial reporting, and reduced incidences of errors in tax computation. The relatively large magnitude of the coefficient suggests that cloud accounting adoption has a substantial practical effect, not only a statistical one, on compliance behavior.

The high t-value of 10.75 reinforces the strength and reliability of this relationship. A t-value of this magnitude indicates that the likelihood of the observed relationship occurring by chance is extremely low, further confirming the robustness of cloud accounting adoption as a determinant of tax compliance. This also suggests that variations in cloud accounting adoption levels among the banks have a pronounced impact on variations in tax compliance outcomes, making it a critical factor in explaining compliance behavior in the banking sector.

The overall model was highly significant as indicated by the Wald chi-square value of 473.38 ($p = 0.0000$), confirming that the regression model is statistically reliable and provides a strong fit for the data. This means that the independent variable, cloud accounting adoption, collectively contributes significantly to explaining the variations in tax compliance among the listed commercial banks. The significance of the model also implies that the relationship observed is not random but systematic and consistent across the sampled institutions.

Additionally, the coefficient of determination ($R^2 = 0.7314$) shows that approximately 73.14% of the variation in tax compliance is explained by cloud accounting adoption. This is a relatively high explanatory power in social science research and indicates that cloud accounting adoption is a major determinant of tax compliance in the banking sector. The remaining 26.86% of variation suggests that other factors such as regulatory enforcement intensity, staff competence, organizational culture, internal audit effectiveness, and technological infrastructure may also influence tax compliance but were not captured in this model.

The within (0.7310) and between (0.7484) R^2 values further indicate consistency and stability of the model across different observations and institutions. The closeness of these values suggests that cloud accounting adoption consistently explains tax compliance both within individual banks over time and between different banks in the sample. This strengthens the reliability of the findings and indicates that the observed relationship is not driven by outliers or specific institutions but is generally applicable across listed commercial banks in Kenya.

Overall, these results demonstrate that cloud accounting adoption plays a critical and statistically significant role in enhancing tax compliance among commercial banks listed on the NSE. The findings suggest that increased investment in cloud-based accounting systems can substantially improve tax compliance outcomes through better data accuracy, automation of financial processes, improved transparency, and real-time reporting capabilities**.**

These findings are consistent with previous empirical studies. For instance, Nguyen Phu et al. (2025) found that cloud computing technologies significantly enhance cloud accounting adoption and improve financial management efficiency, which aligns with the current finding that cloud accounting positively influences

compliance-related outcomes. Similarly, Carter et al. (2024) reported that organizations experienced improved tax compliance after adopting cloud systems due to automation and improved accuracy in financial reporting, supporting the positive coefficient observed in this study.

Lewis et al. (2025) also established that cloud-based systems promote inclusive tax compliance through improved transparency and accessibility of financial data, which corresponds with the current study's finding that cloud accounting improves compliance among banks. In addition, Morris et al. (2024) found that cloud solutions reduce tax evasion by strengthening audit trails and increasing transparency, which is consistent with the significant positive relationship observed in this study.

Murphy et al. (2023) further confirmed that automated cloud monitoring systems enhance tax compliance by reducing errors and improving real-time reporting, which supports the strong statistical significance ($p = 0.001$) and high explanatory power ($R^2 = 0.7314$) found in this study. Similarly, Sastararuji et al. (2022) noted that cloud accounting adoption improves financial reporting efficiency and regulatory compliance, reinforcing the current finding that cloud accounting is a key determinant of tax compliance**.**

V. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The study concluded that cloud accounting adoption has a positive and statistically significant influence on tax compliance among commercial banks listed on the Nairobi Securities Exchange, Kenya. The regression results showed that cloud accounting adoption ($\beta = 0.6089$, $p = 0.001$) is a strong predictor of tax compliance, indicating that increased adoption of cloud-based accounting systems leads to improved accuracy, timeliness, and efficiency in tax reporting and payment processes. The model further demonstrated strong explanatory power ($R^2 = 0.7314$), implying that cloud accounting adoption explains a substantial proportion of variations in tax compliance among the banks.

Based on these findings, the study rejected the null hypothesis and accepted the alternative hypothesis, confirming that cloud accounting adoption significantly influences tax compliance. It was therefore concluded that banks that adopt and effectively utilize cloud accounting systems are more likely to comply with tax regulations due to improved automation, real-time reporting, enhanced transparency, and reduced human errors in financial processing.

However, the study also acknowledged that a portion of tax compliance behavior is influenced by other factors not captured in the model, such as regulatory enforcement, organizational culture, and staff competence. Overall, cloud accounting adoption was established as a key determinant of tax compliance in the Kenyan banking sector, highlighting its importance in strengthening financial accountability and regulatory compliance.

5.2 Recommendations

The study recommended that commercial banks listed on the Nairobi Securities Exchange should fully embrace and continuously enhance the adoption of cloud accounting systems. This would improve the accuracy of financial records, support real-time reporting, and automate key accounting processes that directly influence tax compliance. Increased utilization of cloud accounting is expected to reduce human errors, enhance transparency, and ensure timely preparation and submission of tax returns. The study further recommended that banks should invest adequately in modern ICT infrastructure to support effective cloud accounting operations. This includes secure cloud platforms, reliable internet connectivity, and integrated accounting systems that link financial reporting with tax computation processes. Such investments would enhance efficiency in financial management and strengthen compliance with tax regulations.

In addition, commercial banks were advised to strengthen cybersecurity measures to safeguard sensitive financial and tax information stored in cloud systems. This can be achieved through encryption technologies, strict access controls, regular system audits, and continuous monitoring of digital platforms to minimize risks of data breaches and cyber threats. The study also recommended continuous capacity building and training of finance, accounting, and tax personnel to ensure effective use of cloud accounting systems. Properly trained staff are better equipped to utilize system functionalities, minimize operational errors, and improve the quality of tax reporting and compliance.

Regulatory authorities such as the Kenya Revenue Authority (KRA) and the Central Bank of Kenya (CBK) were encouraged to support the integration of cloud accounting systems with tax administration platforms like iTax. This would improve efficiency in tax filing processes, reduce manual interventions, and enhance compliance monitoring. Finally, the study recommended that commercial banks should conduct regular evaluation and review of their cloud accounting systems to ensure they remain effective, secure, and aligned with evolving tax laws and technological changes. Continuous improvement would ensure sustained benefits in terms of compliance, efficiency, and financial reporting quality.

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