Transaction Analysis and Financial Performance of Commercial Banks in Kenya

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Abstract- ***This study examines the effect of transaction analysis on financial performance of commercial banks in Kenya. With increasing sophistication of financial fraud and regulatory demands, understanding how transaction analysis practices influence bank performance has become critical. The study employed a descriptive research design targeting 111 respondents comprising forensic accountants, finance officers, and auditors from 37 commercial banks in Nairobi. Primary data was collected through structured questionnaires and analyzed using descriptive and inferential statistics. Transaction analysis demonstrates a strong positive relationship with financial performance ($R = 0.909$, $R^2 = 0.827$, $p < 0.001$). The findings reveal that 82.7% of variance in financial performance is explained by transaction analysis practices. Banks with robust transaction monitoring systems show significantly better financial outcomes. Commercial banks should prioritize investment in advanced transaction analysis systems and staff training to enhance their financial performance and competitive positioning.***

Indexed Terms- ***Transaction Analysis, Financial Performance, Commercial Banks, Kenya***

I. INTRODUCTION

The commercial banking sector in Kenya plays a pivotal role in the country's economic development, with 37 licensed commercial banks facilitating financial intermediation and supporting business growth (Central Bank of Kenya, 2023). In this competitive environment, the ability to effectively analyze and monitor financial transactions has emerged as a critical determinant of institutional success.

Transaction analysis, defined as the systematic examination of financial transactions to understand their nature, compliance, and impact on financial statements, has gained prominence as organizations seek to strengthen internal controls and detect fraudulent activities (ACCA, 2022). For commercial banks handling millions of transactions daily, effective transaction analysis is both a compliance requirement and strategic necessity for maintaining operational excellence.

The significance of transaction analysis has been amplified by increasing financial crime sophistication, intensified regulatory oversight, and digitalization of banking services generating vast transaction data (Association of Certified Fraud Examiners, 2024). Despite its recognized importance, limited research has examined the specific impact of transaction analysis on financial performance of Kenyan commercial banks, creating a significant knowledge gap.

This study aims to assess the effect of transaction analysis on financial performance of commercial banks in Kenya. The findings will provide evidence-based insights for bank management strategic decisions, regulatory policy development, and contribute to understanding forensic accounting practices in emerging markets.

II. LITERATURE REVIEW

2.1 Theoretical Foundation

Agency Theory provides a framework for understanding how transaction analysis serves as a monitoring mechanism to reduce information asymmetry between bank management and stakeholders (Jensen & Meckling, 1976). In banking

contexts, transaction analysis acts as an internal control system aligning managerial actions with shareholder interests by detecting activities that could harm institutional performance (Eisenhardt, 2019).

Information Processing Theory emphasizes how organizations transform raw transaction data into actionable insights for decision-making (Simon, 2018). Transaction analysis represents sophisticated information processing that enables banks to improve risk management, operational efficiency, and strategic planning through better-informed decisions (Chen et al., 2023).

2.2 Empirical Evidence

Khan and Ahmed (2019) studied large UK companies and found that effective transaction analysis practices significantly improved financial performance through enhanced financial reporting accuracy and better resource allocation. Their analysis revealed organizations with robust transaction monitoring outperformed peers by 15% in profitability metrics.

Kumar and Goyal (2019) examined Indian listed companies, finding positive relationships between transaction analysis and financial performance. Their study highlighted that comprehensive transaction evaluation improved financial outcomes and enhanced investor confidence and market valuation.

Nakamura and Itoh (2020) focused on Japanese companies, demonstrating that firms with thorough transaction analysis practices reported higher-quality earnings with greater reliability and transparency. This finding is particularly relevant for banking, where earnings quality directly impacts stakeholder trust and regulatory compliance.

Ahmed and Duellman (2020) studied UK firms and found transaction analysis effectiveness was especially pronounced in financial services, where transaction volume and complexity create both opportunities and risks for performance enhancement. Banks with advanced analytical capabilities maintained competitive advantages.

Recent research by Mwangi (2024) examined Kenyan state corporations, finding strong positive relationships between financial reporting practices and organizational performance. While focused on public entities, this study provides valuable insights into the Kenyan context and demonstrates transaction analysis relevance for financial performance.

2.3 Technology and Fraud Prevention

Contemporary research by Akinbowale et al. (2024) examined anti-fraud technologies in South African banks, finding comprehensive transaction monitoring systems significantly reduced fraud incidents and associated losses. Hung (2024) investigated Vietnamese commercial banks and identified transaction analysis as fundamental for enhancing fraud detection capabilities.

Yang (2021) studied big data analytics in Asian banks, finding institutions leveraging advanced analytical tools achieved superior financial performance through improved operational efficiency and risk management. Kiplagat (2024) demonstrated that data analytics practices significantly influenced performance in Kenyan microfinance institutions.

2.4 Research Gap

Despite growing literature on transaction analysis and financial performance, significant gaps remain in understanding this relationship within Kenyan commercial banks specifically. Most studies focus on developed markets or other sectors, leaving uncertainty about how these relationships manifest in Kenya's unique banking environment. This study addresses these gaps by providing empirical evidence on transaction analysis impact on financial performance in Kenyan commercial banks.

III. RESEARCH METHODOLOGY

3.1 Research Design and Population

This study employed a descriptive research design to examine the relationship between transaction analysis and financial performance. The target population comprised 111 professionals (forensic accountants, finance officers, and auditors) from 37 commercial banks licensed by Central Bank of Kenya and headquartered in Nairobi Central Business District.

3.2 Sampling and Data Collection

A census approach was adopted, including all 111 identified professionals. Primary data was collected through structured questionnaires using five-point Likert scales. The questionnaire underwent validation through expert review and pilot testing with 11 participants, achieving reliability coefficient above 0.70.

3.3 Data Analysis

Data was analyzed using SPSS version 25, employing descriptive statistics (means, standard deviations) and inferential statistics (correlation and regression analysis). Diagnostic tests included normality (Kolmogorov-Smirnov), multicollinearity (VIF), and homoscedasticity (Breusch-Pagan) assessments. The regression model was: $Y = \beta_0 + \beta_1 X_1 + \varepsilon$, where Y represents financial performance and X_1 represents transaction analysis.

IV. RESULTS AND DISCUSSION

4.1 Response Rate and Demographics

The study achieved 90.18% response rate (101 returned questionnaires), exceeding thresholds for meaningful analysis. Demographics showed 60.4% male respondents, with majority aged 31-40 years (39.6%) and holding bachelor's degrees (51.5%). Most respondents had 6-10 years banking experience (48.5%), indicating mature and experienced sample.

4.2 Descriptive Analysis

Transaction analysis practices received strong positive ratings. Highest-rated items included confidence in transaction review effectiveness for fraud mitigation (mean = 4.20, SD = 1.020), timely fraud detection (mean = 4.12, SD = 1.042), and uncovering irregularities (mean = 4.10, SD = 1.063). Financial performance indicators showed positive perceptions, with confidence in financial stability rating highest (mean = 4.19, SD = 0.227).

4.3 Correlation and Regression Analysis

Correlation analysis revealed very strong positive relationship between transaction analysis and financial performance ($r = 0.909$, $p < 0.001$). Regression analysis showed R-squared of 0.827, indicating 82.7% of financial performance variance explained by transaction analysis. The adjusted R-squared (0.825) confirmed model robustness.

ANOVA results confirmed statistical significance ($F = 473.492$, $p < 0.001$), with regression sum of squares (3,674.689) substantially larger than residual sum of squares (768.321). The unstandardized coefficient for transaction analysis was 0.829 ($t = 21.760$, $p < 0.001$), indicating strong positive effect.

4.4 Hypothesis Testing

The null hypothesis "There is no statistically significant effect of transaction analysis on financial performance of commercial banks in Kenya" was rejected ($p < 0.001$), providing strong evidence that transaction analysis significantly and positively affects financial performance.

4.5 Discussion

The findings align with existing literature while demonstrating particularly strong relationships in the Kenyan banking context. The high explanatory power (82.7%) exceeds many previous studies, suggesting transaction analysis is especially critical in emerging market banking environments. The strength reflects unique factors including high transaction volumes, regulatory emphasis on transparency, and growing fraud sophistication requiring robust analytical capabilities.

Results support Agency Theory by demonstrating transaction analysis as effective monitoring mechanism aligning management actions with stakeholder interests. They also validate Information Processing Theory by showing how effective information analysis translates into better organizational outcomes.

CONCLUSION

This study provides compelling evidence that transaction analysis significantly influences financial performance of Kenyan commercial banks. With 82.7% of performance variance explained by transaction analysis practices, findings demonstrate that effective transaction monitoring is a critical success determinant. Banks with robust analytical capabilities experience enhanced fraud detection,

improved efficiency, and stronger stakeholder confidence, contributing to superior financial outcomes.

The research addresses notable literature gaps by providing context-specific evidence from Kenya's banking sector. High explanatory power suggests transaction analysis may be particularly critical in emerging market contexts where regulatory environments, fraud risks, and competitive pressures create unique challenges and opportunities.

RECOMMENDATIONS

1. Banking regulators should develop frameworks encouraging advanced transaction analysis system adoption, including minimum standards for monitoring capabilities and providing best practice guidance. The Central Bank of Kenya should incorporate transaction analysis effectiveness into formal supervision processes.
2. Commercial banks should prioritize investment in advanced transaction analysis technologies, including AI and machine learning systems. Comprehensive training programs should be developed for staff to enhance analytical skills. Clear performance metrics related to transaction analysis effectiveness should be established, including fraud detection rates and analysis accuracy measures.
3. Future research should explore specific technological factors contributing to transaction analysis effectiveness and conduct comparative studies across different financial institution types. Longitudinal studies tracking capability evolution and performance impacts over time would provide valuable sustainability insights.

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