



NON-FUNDED INCOME TRANSACTION COST AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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Accepted: September 10, 2023

DOI: <http://dx.doi.org/10.61426/sjbcm.v10i3.2730>

ABSTRACT

This study determined the impact of transaction costs on Kenyan commercial banks' financial performance. Tighter regulation and increased competition from new digital entrants (digital disruption) have exacerbated revenue pressure and low profitability; that is to say low interest rates and higher capital on the traditional banking business models. Specifically, this has led to low performance and bank failures due to reduced loan income while at the same time resulting to increased investment in non-funded income among Kenyan banks. The study was anchored in modern portfolio theory (MPT). Panel data was used in this investigation whereby a census of Kenya's 40 commercial banks was done. The study employed quarterly results from a panel of data that spans five years. There were 800 observations made (i.e. quarterly observations for each of the 40 banks, for a 5 year period - 2016 to 2020). The research was based on secondary data. The findings showed a significant difference in average Return on Assets (ROA) between 2016 (50 percent) and 2017 (29.1 percent). Transaction costs showed an upward steady trend in the non-funded income variables from 2016 to 2020. The results of the correlation coefficient showed a significant and weak positive correlation between transaction costs and ROA over the study period, indicating that the percentage of transaction cost fluctuated over time. The study concluded that transaction costs had a positive relationship with commercial bank financial performance in Kenya. The study recommended that commercial banks in Kenya can rely on transaction costs as reliable sources of income to improve their financial performance.

Keywords: Transaction Costs, Financial Performance, Commercial Bank, Return on Assets

CITATION: Kanyuira, S. W., Mungai, J. N., & Muathe, S. M. A. (2023). Non-funded income transaction cost and financial performance of commercial banks in Kenya. *The Strategic Journal of Business & Change Management*, 10 (3), 622 – 631. <http://dx.doi.org/10.61426/sjbcm.v10i3.2730>

INTRODUCTION

Banks play a critical role in a country's economic growth since they control the availability of capital and are the primary stimulus for change (Malakolunthu & Rengasamy 2012). The banking system is critical for economic growth according to Abusharbeh (2017) through its capacity to raise and draw deposits from savers. World Bank (2019) notes that, given the good aggregate performance of banks, progress in particular areas has been uneven. In 2018, the US gross domestic product accounted for 7.4% (or \$1.5 trillion) in investment and insurance. During the same year, the financial services industry supplied the British economy with £132 billion, 6.9% of the total economic results. At a record of \$27.39 trillion in gross deposits (Fang et al, 2019), China has the world's largest overall financial reserves of \$39.93 trillion (CNY 268.76 trillion). In India, which accounts for 6% of the nation's GDP, the financial services industry has steadily expanded. Although there are many players in the industry, it is dominated by banks with a share of more than 60 percent (Kaur, 2019).

Transaction costs are one of the non-funded income created by banks and financial institutions from non-core activities such as loan processing costs, late payment costs, credit card charges, service costs, penalties, and so on; and plays an important role in their total profitability (Al-Wesabi, 2020). Because costs make up the majority of noninterest revenue, it's sometimes referred to as "cost income." Further, Isshaq, Amoah and Appiah-Gyamerah (2019) defined non-funded income as non-interest income produced through a range of activities including stocks trading, supporting companies with fresh equity financing, securities commissions and wealth management, land and building sales, profit and loss on asset revaluation (Timsina, 2015). Okello and Muturi (2018) note that the diversification of commercial banks' profits into non-interest profits is the effect of banks' need to boost their financial output as a result of reduced sales, primarily because of interest income dependency. Recent research found that intensified competitiveness, technical

growth, and globalization of the capital market, unique regulatory progress of the nation and legislative progress, all add to this pattern of diversification (DeYoung & Roland, 2001).

Financial Performance

Financial performance is the process of calculating the monetary value of an organization's policies and operations (Kiganda, 2014). Profitability, liquidity, and leverage are all indicators of these outcomes. Decision-makers can measure the results of business strategies and actions in objective monetary terms by evaluating a company's financial performance. Normally, ratios are used to assess an organization's financial performance. Financial management that is well-designed and implemented is intended to contribute favorably to the creation of a company's value (Aduda, 2013). Profitability is the most popular metric for assessing financial performance. Profitability is measured using NIM, ROE and ROA (Aduda, 2013). The ability of management to obtain deposits at a fair cost and deploy them in lucrative investments is demonstrated by return on assets (Ahmed, 2009). The better the return on assets, the more profitable the bank (Mndeme, 2015). The return on equity, also known as the interest rate to shareholders, is the %return on every dollar of investment invested in the bank. The net interest gap is the difference between the interest revenue a bank obtains on loans and securities and the interest expenditure of its borrowed money (Kerstein, 2013). It displays both the cost of bank intermediaries' services and the bank's efficiency. The bank is more lucrative and dependable if its net interest margin is higher. Looking at the global financial performance of the banking sector, Carletti (2021) shows that banks are experiencing deceptive returns and slow progress. Over the last seven years, banks ROE has stayed inside a narrow band of 8% to 10%, which most consider to be the industry's cost of equity. Bank profitability, on the other hand, held up better in 2020 than most analysts predicted. In 2020, the return on equity was 6.7 percent lower than the cost of equity, but it was nevertheless better than predicted and higher than the 4.9 percent seen in the

aftermath of the financial crisis in 2008 (Carletti, 2021).

Performance of Commercial Banks in Kenya

There were 44 institutions in 2019 in the banking industry, 40 of which were commercial banks. The Foreign Exchange Law Office authorizes and governs the Central Bank of Kenya (CBK) regulation, Cap 491, and the Foreign Exchange Office Guidelines published therein. Out of the 40 commercial bank institutions, 31 had local owners and eleven had international owners (Cytonn, 2019).

The banking sector in Kenya can be defined by technical support as a rising and liberalized industry. In the Kenyan banking industry, the role of technology has created a gap and accommodated ingenuity and innovation. The market was traditionally dominated by large multinational banks such as Barclays or the regular chattered people in big cities, with government and business institutions as its principal client. The strength of Kenya's expected GDP growth of 5.5% is attributed to a competitive banking sector whose economy is estimated to be worth around SH9 billion. The Kenyan banking sector has recently taken the lead in the region, and national players are its best-selling banks (Economic Insight, 2019). CBK (2019) estimates that in the quarter ended March 31, 2019, the Kenyan banking industry experienced growth, up from the quarter ended 31 December, 2018. Kenya's listed banks reported a 12.2% Earnings Per Share (EPS) rise in Q1'2019 which dropped below 14.4% rise in Q1'2018. The performance result was supported by the 4.5% Net Interest (NII) raise and 10.7% non-funded income growth in Non-Funded Income (NFI) (Cytonn, 2019).

Statement of the Problem

In the recent past, banking industry in Kenya has seen a fall in ROA. In 2020, ROA measured 1.7 percent in comparison to 2.6 percent in 2018. Again, it was reported at 2.7% in 2017 and this recorded a decrease from the previous ROA of 3.3% for 2016. The ROA reached an all-time high of 4.7% in 2013. Bank comparative advantage has

been eroded as a result of deregulation and new technology, making it simpler for non-bank rivals like as M-Pesa to enter the market, forcing banks to look at portfolios other than deposit and loan interest (Onsomu, 2015). The study was also prompted by knowledge gaps identified in earlier research on the subject. The examined literature on non-funded income and financial performance was mostly concerned with profitability, income diversification, bank commissions on loans and advances other than transaction costs. As a result, a proper view of transaction costs is required. Therefore, the study looked into the influence of transaction costs on the performance of Kenya commercial banks, taking these gaps into account.

Objective of the Study

General Objectives

This study investigated the effect of transaction costs on Commercial banks financial performance in Kenya.

LITERATURE REVIEW

Theoretical Review

The study was anchored in modern portfolio theory (MPT). MPT is a risk-adjusted return strategy in which investors invest with the goal of assuming the least amount of risk and receiving the highest possible return for that risk (Beyhaghi & Hawley, 2012). The theory assumes that investors are risk averse, and that they will always pick the less risky portfolio for a given amount of projected return (Ammar & Boughrara, 2019).

The study used a panel research approach since it allowed to collect data on the financial results of each of Kenya's 40 commercial banks over a five-year period (2016-2020). This also allowed the researcher to look into the possible links between transaction costs and financial performance. Variables such as ROA, were observed repeatedly over short or long periods of time in a panel research methodology (Russell, 2015).

A census was conducted to include all 40 commercial banks. Since the study used quarterly panel data, the

study had a total of 800 observations (i.e. 4x40x5). The following diagnostic tests were undertaken to test the assumptions of linear regression model before regression analysis is performed. Linearity test, multicollinearity test, Auto Correlation test and homoscedasticity test. The study employed descriptive and regression analysis.

Empirical Review

Chavalle and Chavez-Bedoya (2019) analyzed the impact of transaction costs in portfolio optimization in Peru. The examination thought about the exchange costs structure applied in Peru regarding the ones applied in the USA, and over a couple of measurements. Stocks were painstakingly chosen utilizing Bloomberg terminals, and portfolio planned then rebalanced utilizing VBA programming. Over a couple of measurements as type and number of stocks, holding period and exchanging technique, the conduct of these distinctive exchange costs were thought about. The examination was accomplished for four distinctive portfolios. The paper gave experimental bits of knowledge about how a retail financial specialist effectively exchanging Peru can pay up to multiple times more in exchange costs than exchanging a similar portfolio the USA. These relatively high exchange costs forestall retail financial specialists to exchange the Peruvian securities exchange while powering illiquidity to this market. This study was conducted in the stockmarket which creates a knowledge gap on the relationship of the variables within banks. To close this gap, this research looked into the impact of transaction costs on the financial performance of Kenya's publicly traded commercial banks.

A study by Ferreira (2019) sought to chart empirical networks that influence the economic output by shifts in transaction costs. The examination's outcomes however obviously show that exchange cost decreases can represent an enormous portion of pay changes typically recorded in universally coordinating economies, an oddity when appeared differently in relation to increasingly customary exchange models. As indicated by the authors, these ends reverberation intently those arrived at when

innovation progresses are demonstrated as profitability changes, and the exchange cost approach may in reality supplement that of efficiency. In the models analyzed in the examination, exchange costs influences just ware trades, however it ought not be too hard to even think about introducing them likewise in factors markets. However, the study was conducted in Colombia, which has a very different financial system in terms of organization, complexity and supervision. This study looked at the impact of transaction costs on the performance of Kenya's publicly traded commercial banks.

Githaiga (2018) studied the effects of transaction and switching costs on mobile market performance. It was discovered that an abatement in either exchange or exchanging costs achieves a comparative proficiency in coordinating client request with organize gracefully. In any case, they produce various impacts as far as retail rivalry and discount exchanging. Likewise, diminishing exchange costs is significantly more requesting than diminishing exchanging costs, from specialized and administrative viewpoints. The examination likewise found that while diminishing exchanging costs heighten retail rivalry, diminishing exchange costs invigorate the discount exchanging of system assets. This recommends versatile markets with a significant level of retail costs may profit the most from diminishing exchanging costs, and therefore, the business sectors a low degree of speculations may profit the most by diminishing exchange costs. The context of the study was focused on the mobile money market. The current study was done among Kasman (2017) conducted research in Kenya to see if decreased transaction costs influenced the impact of mobile money transfers on businesses, and in particular, if it influenced the adoption of mobile money services by SMEs in Naivasha Town. The inquiry was designed to be exploratory. Utilizing on the web number cruncher adjusted from innovative exploration frameworks 2012. Essentially quantitative strategies were utilized to dissect the information gathered. These strategies included both

unmistakable techniques and inferential insights. The investigation contended that diminished exchange costs, decreased opportunity to execute, expanded monetary availability and expanded proficiency eventually prompted increment SMEs budgetary exchanges through portable cash. There was sure connection between SME executions with exchange cost whereby a solitary unit increment in exchange cost will prompt a 0.004 SME development and

Conceptual Framework

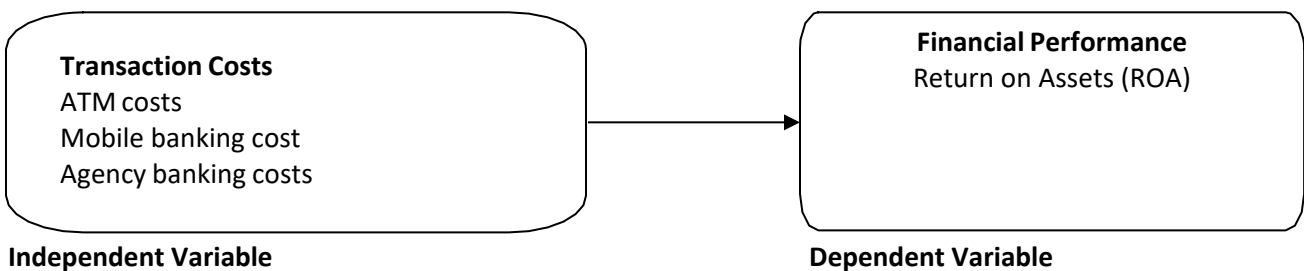


Figure 1: Conceptual Framework

METHODOLOGY

This research covered all 40 commercial banks in Kenya. Panel data for a period of 5 years was used whereby the study utilized quarterly results. A census was conducted to include all 40 commercial banks since the study used quarterly panel data for only 5 years and making 4 observations from each bank bringing the total number of observations to 800. The research was based on secondary data. The data was recorded using a data collection matrix. The secondary data used for this study was sourced from the banks’ financial reports, CBK annual supervision reports and NSE performance reports.

The study employed descriptive and regression analysis. Descriptive statistics comprised frequencies, percentages, mean and standard deviation. This was important in analysis individual variables. Multiple regression analysis was used to determine the impact of transaction costs on the financial performance of Kenya's publicly traded commercial. The equation for the regression model was as follows:

$$Y_{it} = \alpha + \beta_1 X_{1it} + \epsilon_{it}$$

execution. From the discoveries, it was obvious that, portable cash clients are not familiar with versatile bank exchanges on credit applications and reimbursement and incline toward the typical financial framework to versatile financial with regards to advances and advances. The scope of the study was focused on the mobile money market. The current study was done within the banking sector.

(Y) = Financial Performance (Dependent Variable)

Independent variables;

X₁(Transaction costs),

β₀ = Constant term

β₁, β₂, β₃ = Regression Coefficients

α represent the mean change in the response variable for one unit of change in the predictor variable while holding other constant.

ε the error term representing any other variable that can have an influence on financial performance of the Commercial banks.

t represents time in years

i represents all the 40 commercial banks in Kenya.

FINDINGS

The financial performance trends of Kenyan commercial banks are presented in this section from 2016 to 2020. Return on Assets was used as a metric for evaluating financial performance. Table 1 depicts the trends in ROA. The data was collected from annual financial records of the commercial banks and analysed with the help of SPSS.

Table 1: Summary ROA Over the Period 2016-2020

FP category	Description of FP item	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Count (N)	Overall score
ROA (4 items)	Financial Leverage	0.333	0.127	0.667	0.242	0.226	5	1.595
	Net Income	0.333	0.040	0.717	0.550	0.410	7	2.050
	Age of Firm	0.667	0.100	0.330	0.540	0.610	9	2.247
	Cost of Investment	0.667	0.900	0.330	0.760	0.120	11	2.777
	Average	0.500	0.291	0.511	0.523	0.341	8	2.167
<i>Total (4 items)</i>	<i>Overall score</i>	<i>2</i>	<i>1.167</i>	<i>2.044</i>	<i>2.092</i>	<i>1.366</i>	<i>32</i>	<i>8.669</i>

The findings reveal a significant drop in the average performance of Kenyan commercial banks between 2016 and 2017. In terms of ROA, the year 2017 had the lowest performance (29.1%), while the year 2019 had the highest performance (52.3%), before depreciating to 34.1 percent in 2020. The average performance dropped from 50 percent in 2016 to 29.1 percent in 2017. The findings are consistent with CBK report (2019) which showed that in the year 2018, the Kenyan Banking sector performance improved tremendously as the sector rebounded

from economic storm that was 2017. According to CBK (2019), Total net assets grew by 10.14 percent from Ksh.4.00 trillion in December 2017 to Ksh.4.41 trillion in December 2018.

Transaction Costs

In this section, the study analyzed the trends of transaction costs (income) of the commercial banks during the study period 2016-2020. Table 2 presents the overall trend over the study period.

Table 2: Average Transaction Costs Over the Period 2016-2020

Non-funded income category	Description of Non-funded income item	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020	Count (N)	Overall score
Transaction costs (3 items)	ATM costs	0.213	0.778	0.790	0.685	0.833	14	3.299
	Mobile banking costs	0.899	0.178	0.997	0.699	0.547	8	3.32
	Agency Banking Costs	0.673	0.543	0.361	0.811	0.986	11	3.374
	Average	0.595	0.499	0.716	0.731	0.788	8.25	3.331
<i>Total (3 items)</i>	<i>Overall score</i>	<i>1.785</i>	<i>1.499</i>	<i>2.148</i>	<i>2.195</i>	<i>2.366</i>	<i>33</i>	<i>9.993</i>

The results show that the commercial banks' total revenue from transaction costs increased steadily from 59.9% in 2016 to 78.8% in 2020, according to the findings. The lowest contribution to transaction costs income was 49.9% in 2017, while the highest contribution to transaction costs income was 78.8% in 2020. This indicates that the financial performance of Kenya's commercial banks is improving. The overall impact of transaction costs explains the study's consistent ROE. The findings are in line with Ferreira (2019) who found that transaction costs revenues increased by an estimated 22 percent in the

first six months of 2020 compared to the same period in the previous year.

Correlation Coefficients Analysis

This section presents a partial correlation analysis using Karl Pearson correlation coefficient performed to determine the significance of the relationship between transaction costs and financial performance. A positive coefficient indicated a positive relationship between the variables correlated. Table 3 presents the results:

Table 3: Correlation of Non-funded Income Variables and Financial Performance (ROA)

		Transaction costs	Financial performance (ROA)
Transaction costs	Pearson Correlation	1	0.408
	Sig. (2-tailed)		0.0001
	N	5	5
Financial performance (ROA)	Pearson Correlation	0.408	1
	Sig. (2-tailed)	0.0001	
	N	5	5

Based on the findings in Table 3, there is a significant but weak positive correlation between transaction costs and financial performance (ROA) as Correlation coefficient $r=0.408$, $P=0.0001$. This suggests that as the transaction cost by the commercial banks increase, financial performance tends to increase as well. The findings are in line with Ferreira (2019) who sought to identify empirical networks that influence

the economic output by shifts in transaction costs. The study found that transaction costs approach in reality supplement business efficiency.

Regression Analysis

In order to establish the relationship between transaction costs and financial performance of the commercial banks, regression analysis was done using SPSS. The results are presented below:

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.667 ^a	0.444	0.711	0.577

a. Predictors: (Constant), Transaction costs

In Table 4, the coefficient of determination, or adjusted R Square, indicates how financial performance of the banks differed depending on transaction costs, service charges, and foreign exchange trading income. The adjusted R Square

value is 0.711, as shown in Table 4. This goes to mean that indicators of transaction costs influenced 71.1% (adjusted r-square = 0.711) of the total variance in commercial banks' financial performance. This means that, a unit shift in transaction costs

would result in 71.1% rise in financial performance of the commercial banks in the study area. The results also show that there was a strong positive relationship of 66.7% ($R= 0.667$) between transaction

costs and financial performance of commercial banks. Table 5 below presents the analysis of variances (ANOVA) in the regression model.

Table 5: Analysis of Variance - ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.533	2	0.267	0.800	0.001 ^b
	Residual	0.667	2	0.333		
	Total	1.200	4			

a. Dependent Variable: Financial performance (ROA)

b. Predictors: (Constant), Transaction costs

The results indicated that the model had an F-ratio of 0.800 which was significant at 0.05% level of significance. This result indicated that the overall regression model was statistically significant and the goodness of fit of the study model in the determination of the independent and dependent variable. This further indicated that transaction costs are statistically significant in predicting financial performance level within the commercial banks in

Kenya.

RECOMMENDATIONS

The study recommended that commercial banks in Kenya can rely on transaction costs as reliable sources of income to improve their financial performance. Finally, the study recommends commercial banks to diversify their income streams beyond their core activities and the non-funded income streams discussed in this report.

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