



Relationship between Total Deposits and Market Concentration among Commercial Banks in Kenya

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Article History

Received: 29.01.2026

Revised: 30.07.2026

Accepted: 31.07.2026

Published: 02.08.2026

Keywords

Commercial banks

Customer

Deposits

Industry assets

How to cite:

Gurhan, I., Camus, B. & Gatumo, F. (2026). Relationship between Total Deposits and Market Concentration among Commercial Banks in Kenya. *Research Journal of Business and Finance*, 5(2), 1-12.

Abstract

Market concentration is a key concern in banking, given its implications for competition and financial stability. In Kenya, a small number of banks hold a substantial share of industry assets, deposits, and loans; this study examined whether total deposits explain market concentration among Kenyan banks. Market concentration was measured via a composite bank-level index of each bank's annual share of industry assets, deposits, and loans, complemented by the industry-level Herfindahl-Hirschman Index (HHI). Anchored on Market Power Theory, the study used a descriptive correlational design with panel data from all 38 CBK-licensed banks (2019–2023), from audited financial statements and CBK Annual Bank Supervision Reports. Data were analysed using descriptive statistics, Pearson's correlation, and multiple regression, controlling for net assets, equity, EBIT, and the regulatory capital ratio. The HHI analysis showed the sector remained highly concentrated, with modest annual variation. Total deposits showed a weak but significant positive bivariate association with market concentration ($r = 0.178$, $p = 0.016$), which became non-significant after controlling for bank-specific characteristics ($B = -5.985 \times 10^{-11}$, $p = 0.211$), while net assets and the regulatory capital ratio remained significant. High collinearity among the monetary predictors ($VIF > 100$) means these coefficients, including the deposits estimate, warrant cautious interpretation. The study concludes that total deposits alone do not independently explain market concentration; broader indicators of financial strength and institutional capacity appear more influential. It recommends that policymakers combine industry-level measures like the HHI with bank-specific indicators, while banks continue strengthening deposit mobilisation to enhance resilience and competitiveness.

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Introduction

The banking sector plays a critical role in economic development by facilitating financial intermediation, mobilising savings, allocating credit, and supporting investment. Among key indicators of banking strength, total deposits are important because they provide banks with stable and relatively low-cost funding that supports lending, liquidity management, and operational resilience.

Although larger deposit bases enhance banks' financial capacity, differences in market position are also influenced by other institutional factors such as asset size, capitalisation, profitability, and



regulatory compliance. Therefore, whether total deposits independently influence market concentration remains an empirical question.

Globally, banking sectors have experienced increased consolidation due to financial liberalisation, technological advancement, globalisation, and mergers, resulting in greater concentration among large institutions. While concentration may enhance efficiency through economies of scale, excessive concentration may reduce competition and increase systemic risks.

Similar patterns exist in emerging economies, particularly in Africa, where a few large banks dominate due to stronger financial resources, wider networks, and technological capabilities. Kenya provides an important context because, despite having 38 licensed commercial banks, a few tier-one institutions account for significant shares of assets, deposits, and loans. Technological innovations such as mobile banking and agency banking have further strengthened banks' ability to mobilise deposits and expand services.

The study measured market concentration using a bank-level composite concentration index based on each bank's share of industry assets, deposits, and loans, while the Herfindahl-Hirschman Index (HHI) was used as a complementary industry-level measure of concentration trends.

Although previous studies have examined banking concentration, financial stability, and bank performance, limited research has investigated whether total deposits are independently associated with market concentration after controlling for other bank-specific financial characteristics. This gap is particularly relevant in developing banking systems such as Kenya.

Therefore, the study examined the relationship between total deposits and market concentration among commercial banks in Kenya, while controlling for selected financial characteristics, guided by the research question:

What is the relationship between total deposits and market concentration among commercial banks in Kenya after controlling for selected bank-specific financial characteristics?

The null hypothesis was stated as follows:

H₀: There is no statistically significant association between total deposits and market concentration among commercial banks in Kenya after controlling for selected bank-specific financial characteristics.

Theoretical Review

This study was anchored on Market Power Theory, which originated from the work of Chamberlin (1933) on monopolistic competition and was subsequently operationalised by Lerner (1934) through the development of the Lerner Index as a measure of market power. Market Power Theory posits that firms possessing stronger competitive positions may exercise greater influence over market outcomes because of advantages arising from their size, resources, product differentiation, or strategic positioning. Within the banking sector, market power is reflected in a bank's ability to attract customers, mobilise financial resources, sustain competitive advantages, and maintain a relatively stronger market position than competing institutions (Lerner, 1934).

Market Power Theory is closely linked to the Structure-Conduct-Performance (SCP) hypothesis, which suggests that firms in highly concentrated markets may achieve stronger positions due to reduced competition, economies of scale, customer loyalty, and greater pricing flexibility (Bain, 1951). However, the Efficient-Structure (ES) hypothesis by Demsetz (1973) provides an alternative explanation, arguing that concentration may result from superior efficiency, innovation, management practices, and effective resource utilisation. Together, these perspectives indicate that market concentration may be influenced by a combination of market power, institutional efficiency, financial strength, and competitive capabilities rather than a single factor.



Total deposits provide commercial banks with stable and low-cost funding that supports lending, liquidity management, technological investment, and service expansion. However, their independent influence on market concentration remains uncertain because concentration is also shaped by other bank-specific factors, including asset size, capitalisation, profitability, and regulatory compliance. Therefore, deposit mobilisation alone does not fully explain variations in market concentration.

The study measured market concentration using a bank-level composite index based on each commercial bank's share of industry assets, customer deposits, and gross loans. This approach captures differences in banks' market positions and supports panel data analysis across banks and over time.

Market Power Theory provides the theoretical foundation for examining the relationship between total deposits and market concentration by recognising that while deposits may influence competitive position, concentration is also affected by other bank-specific financial characteristics. This supports the study's descriptive correlational design and multivariate analysis, which evaluate the relationship between deposits and concentration while controlling for relevant factors.

Empirical Review

Empirical evidence on the relationship between deposit mobilisation and market concentration is limited, as most studies focus on deposits in relation to financial stability, lending, profitability, and bank performance rather than market concentration.

Li et al. (2019) found that banks with larger and more stable deposits were better able to support long-term lending and liquidity management, while Demirgüç-Kunt et al. (2013) showed that stable customer deposits enhanced financial stability and resilience. Uhde and Heimeshoff (2009) reported that well-capitalised banks with stronger funding bases were more likely to expand and increase market concentration through consolidation, although their findings were based on European banking systems.

In Africa, Ozili (2019) observed that larger banks with stronger financial resources and deposit mobilisation capacity held stronger market positions, while Saif-Alyousfi et al. (2020) emphasised that market competitiveness is influenced by multiple factors, including capitalisation, liquidity, operational efficiency, and institutional quality, supporting the need to control for these variables.

Within Kenya, studies such as Kilonzo and Atheru (2024) have shown that customer deposits improve liquidity, lending capacity, and financial performance. However, they have not examined whether total deposits independently influence market concentration after controlling for other bank-specific characteristics.

Overall, the literature confirms the importance of deposits in strengthening bank operations and stability but reveals a significant empirical gap regarding their independent association with market concentration. This gap provides the basis for the present study, which investigates the relationship between total deposits and market concentration among Kenyan commercial banks while controlling for key bank-specific financial characteristics.

Conceptual Framework

The conceptual framework for this study is presented in Figure 1. The independent variable is total deposits, operationalised as the sum of demand, savings, and time (fixed) deposits. The dependent variable is market concentration, operationalised as a composite bank-level market concentration index. The framework illustrates the relationship between the study variables. Although market concentration is operationalised using a composite bank-level market concentration index for purposes of the regression analysis, the Herfindahl-Hirschman Index (HHI) was computed separately as a complementary industry-level indicator to corroborate concentration trends during the study



period. Because the HHI is calculated at the industry-level and remains constant across banks within a given year, it was not included in the conceptual framework or the regression model.

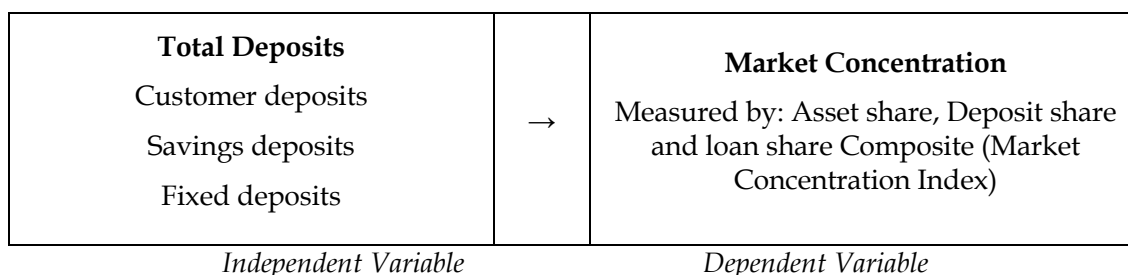


Figure 1: Conceptual Framework

Methodology

The study adopted a descriptive correlational panel research design to examine the association between total deposits and market concentration among Kenyan commercial banks using historical financial data. The design focused on identifying statistical associations rather than establishing causality.

A census approach was used, targeting all 38 commercial banks licensed by the Central Bank of Kenya (CBK) during 2019–2023, yielding an intended 190 bank-year observations. After data screening and listwise deletion of incomplete records, the final estimation sample consisted of 182 complete bank-year observations.

Although structured questionnaires were administered to purposively selected bank managers to obtain contextual information on deposit mobilisation and competitive strategies, the responses were used only for contextual insights and were excluded from the statistical analyses.

The study relied exclusively on secondary data from audited financial statements and CBK Annual Bank Supervision Reports for the empirical analysis. The dependent variable, market concentration, was measured using a composite bank-level concentration index based on each bank's share of industry assets, deposits, and loans. The Herfindahl-Hirschman Index (HHI) was also computed as an industry-level descriptive measure but was not included in the regression analysis because it does not vary across banks.

The independent variable was total customer deposits, while net assets, shareholders' equity, earnings before interest and tax (EBIT), and the regulatory capital ratio were included as control variables to account for differences in bank size, capitalisation, profitability, and regulatory compliance.

Data were analysed using SPSS Version 25. Descriptive statistics summarised the variables, Pearson correlation assessed bivariate relationships, and multiple linear regression examined whether total deposits were independently associated with market concentration after controlling for the selected bank-specific characteristics. Statistical significance was evaluated at the 5% level, and diagnostic tests were conducted to assess the regression model's assumptions.

The multiple regression model estimated in the study was specified as:

$$MC_{it} = \beta_0 + \beta_1 DEP_{it} + \beta_2 NAI_{it} + \beta_3 EQ_{it} + \beta_4 EBIT_{it} + \beta_5 REG_{it} + \epsilon_{it}$$

Where:

MC_{it} = Composite market concentration index for bank i in year t ;

DEP_{it} = Total customer deposits;



NA_{it} = Net assets;

EQ_{it} = Shareholders' equity;

$EBIT_{it}$ = Earnings before interest and tax;

REG_{it} = Regulatory capital ratio;

β_0 = Constant term;

$\beta_1 - \beta_5$ = Regression coefficients; and

ε_{it} = Error term. The study tested the following null hypothesis:

H₀: There is no statistically significant relationship between total deposits and market concentration among commercial banks in Kenya after controlling for bank-specific financial characteristics.

Ethical Considerations

The study adhered to accepted ethical standards throughout the research process. Secondary data were obtained from publicly available audited financial statements of commercial banks and the Central Bank of Kenya Annual Bank Supervision Reports. These data were used solely for academic purposes, and their integrity was maintained through accurate extraction, analysis, and reporting.

In addition, structured questionnaires were administered to selected bank managers to obtain contextual information on deposit mobilisation practices and competitive strategies. Participation was voluntary, and respondents were informed of the purpose of the study before completing the questionnaire. No personally identifiable information was collected, and the anonymity and confidentiality of respondents were maintained throughout the study. The questionnaire responses were used only to provide contextual insights and were not included in the descriptive, correlation, or regression analyses. The researcher ensured that all information collected was treated confidentially, used exclusively for academic purposes, and reported objectively without fabrication, falsification, or misrepresentation of findings.

Response Rate

The study employed both primary and secondary data sources. Structured questionnaires were administered to bank managers to obtain contextual information on deposit mobilisation practices and competitive strategies. Using Yamane's (1967) formula, a sample of 387 respondents was selected from a target population of 11,469 bank management employees in licensed commercial banks in Kenya. A total of 291 questionnaires were returned, representing a 72.19% response rate, which was considered adequate based on Babbie's (2004) recommendation for survey research.

However, the questionnaire data were used only for contextual insights and were not included in the statistical analysis. The descriptive statistics, correlation analysis, hypothesis testing, and regression analysis relied exclusively on secondary panel data from audited financial statements and CBK Annual Bank Supervision Reports. After data screening and removal of incomplete observations, the final estimation sample comprised 182 complete bank-year observations used for all inferential analyses.

Descriptive Statistics of Total Deposits

Descriptive statistics were computed to summarise the distribution of total deposits among commercial banks in Kenya during the period 2019–2023. The analysis was based on 182 complete bank-year observations obtained from audited financial statements of commercial banks and the Central Bank of Kenya Annual Bank Supervision Reports. Although the study initially expected 190 observations (38 commercial banks observed over five years), eight observations were excluded during data screening due to incomplete financial information and missing values. Consequently, all descriptive statistics, correlation analysis, and regression analysis were based on the remaining 182 complete observations.



Table 1a presents the overall descriptive statistics for total deposits. The findings indicate that total deposits ranged from KSh 249,088 to KSh 6,138,255,353, with a mean of KSh 265,521,522.50 and a standard deviation of KSh 808,718,311.30. The relatively large standard deviation compared with the mean indicates substantial variation in deposit holdings among commercial banks during the study period. This variation reflects differences in bank size, customer base, and deposit mobilisation capacity across the Kenyan banking sector.

Table 1a: Descriptive Statistics of Total Deposits

Variable	N	Minimum	Maximum	Mean (Std. Dev.)
Total Deposits	182	249,088	6,138,255,353	265,521,522.50 (808,718,311.30)

Table 1b reports the descriptive statistics for the composite market concentration index and the four control variables used in the regression model, based on the 182 complete bank-year observations. The composite concentration index had a mean of 0.028 (SD = 0.048), ranging from near-zero to 0.316, indicating that most banks held small individual shares of banking activity while a few held substantially larger shares. The monetary variables all had standard deviations several times their means, reflecting the wide disparity in size between the largest and smallest banks. The regulatory capital ratio averaged 0.177 (SD = 0.125). These statistics provide the scale against which the very small coefficient magnitudes on the monetary variables in Table 4 should be interpreted.

Table 1b: Descriptive Statistics of the Market Concentration Index and Control Variables

Variable	N	Mean	Std. Dev.	Minimum	Maximum
Market concentration index	182	0.0275	0.0478	0.0000	0.3156
Total deposits (KSh)	182	269,327,084.62	814,841,964.21	249,088	6,138,255,353
Net assets (KSh)	182	278,601,677.83	853,945,373.10	36,349	6,334,445,514
Shareholders' equity (KSh)	182	78,590,362.73	239,634,551.43	-12,000,000	1,810,000,000
EBIT (KSh)	182	369,079,629.80	1,150,778,317.70	7	8,910,000,000
Regulatory capital ratio	182	0.1768	0.1251	-0.5500	0.7130

To examine changes in deposit levels over time, annual descriptive statistics were computed and are presented in Table 2a. The results show that the average total deposits increased over the study period, rising from **KSh 202,995,098.30** in 2019 to **KSh 348,431,047.80** in 2023. A similar increase was observed in the maximum deposit values over the five-year period, suggesting growth in customer deposits among some commercial banks. The standard deviations also increased over time, indicating widening differences in deposit holdings across banks.

The gradual increase in average deposits may reflect continued growth in banking activities, expansion of digital financial services, increased customer confidence, and sustained deposit mobilisation initiatives within the Kenyan banking sector. However, the considerable variation in deposit values across commercial banks suggests that deposit mobilisation capacity differs substantially among institutions, with larger banks accounting for a greater proportion of customer deposits than smaller banks.

*Table 2a: Summary Statistics of Total Deposits among Commercial Banks (2019–2023)*

Year	N	Minimum	Maximum	Mean	Std. Deviation
2019	37	249,088	3,694,900,408	202,995,098.30	610,601,314.90
2020	37	3,898,289	4,582,592,723	249,050,678.30	755,615,354.90
2021	37	6,376,805	4,789,425,161	258,895,181.60	789,571,988.80
2022	38	554,789	5,022,392,242	270,346,013.10	825,464,690.10
2023	36	7,144,519	6,138,255,353	348,431,047.80	1,046,147,243.00

Table 2b reports the annual Herfindahl-Hirschman Index (HHI) computed from the customer deposit market shares of all commercial banks, alongside an equivalent index based on asset shares. Under the United States Department of Justice's thresholds, a market with an HHI above 2,500 is considered highly concentrated. The deposit-based HHI ranged between 2,649 and 2,716 across the five years, and the asset-based HHI between 2,717 and 2,853, both consistently above the 2,500 thresholds. The values changed only marginally from year-to-year, confirming that the Kenyan banking sector remained highly concentrated with only modest year-to-year variation throughout the study period.

Table 2b: Annual Herfindahl-Hirschman Index of Banking Sector Concentration (2019–2023)

Year	Number of banks	HHI (deposit shares)	HHI (asset shares)
2019	38	2,649.5	2,717.1
2020	38	2,690.9	2,739.5
2021	38	2,716.1	2,756.1
2022	38	2,652.0	2,815.0
2023	38	2,712.3	2,852.8

The descriptive statistics indicate that total deposits increased over the study period, although substantial differences remained across commercial banks. These findings describe the distribution of the independent variable but do not imply a statistically significant relationship with market concentration. The association between total deposits and market concentration was subsequently examined using Pearson's correlation analysis and multiple linear regression after controlling for bank-specific financial characteristics.

Inferential Statistics for Total Deposits and Market Concentration

Correlation Analysis between Total Deposits and Market Concentration

Pearson's product-moment correlation analysis was conducted to examine the bivariate relationship between total deposits and market concentration among commercial banks in Kenya. The analysis was based on 182 complete bank-year observations obtained from the audited financial statements of commercial banks and the Central Bank of Kenya Annual Bank Supervision Reports.

The results presented in Table 3 indicate a weak but statistically significant positive correlation between total deposits and market concentration ($r = 0.178$, $p = 0.016$). This finding suggests that commercial banks with relatively larger deposit bases tended to exhibit slightly higher levels of market concentration in the bivariate analysis. However, the magnitude of the correlation is small, indicating that total deposits alone explain only a limited proportion of the variation in market concentration.

*Table 3: Correlation between Total Deposits and Market Concentration*

Variable	Market Concentration
Total Deposits (r)	0.178*
Sig. (2-tailed)	0.016
N	182

* $p < .05$ (2-tailed).

The positive correlation provides preliminary evidence of an association between total deposits and market concentration. However, correlation analysis does not account for other bank-specific characteristics that may also be associated with market concentration. Consequently, a multiple linear regression analysis was subsequently conducted to determine whether total deposits remained significantly associated with market concentration after controlling for net assets, shareholders' equity, earnings before interest and tax (EBIT), and the regulatory capital ratio.

The correlation findings should therefore be interpreted as evidence of a simple bivariate association rather than an independent relationship. The results of the multivariate regression analysis, presented in the subsequent section, provide the basis for testing the study hypothesis.

Regression Analysis of Total Deposits and Market Concentration

Multiple linear regression analysis was conducted to examine whether total deposits were independently associated with market concentration among commercial banks in Kenya after controlling for selected bank-specific financial characteristics. The model included total deposits, net assets, shareholders' equity, earnings before interest and tax (EBIT), and the regulatory capital ratio as explanatory variables.

The regression results presented in Table 4 indicate that total deposits were not statistically significantly associated with market concentration after controlling for the selected bank-specific financial characteristics ($B = -5.985 \times 10^{-11}$, $t = -1.256$, $p = 0.211$). Although the coefficient is numerically small because total deposits were measured in Kenyan shillings, the results indicate that variations in total deposits were not independently associated with differences in market concentration once other financial characteristics were considered.

The findings further show that net assets were positively and statistically significantly associated with market concentration ($B = 1.159 \times 10^{-10}$, $t = 3.059$, $p = 0.003$), indicating that banks with larger asset bases tended to exhibit higher levels of market concentration. Similarly, the regulatory capital ratio was positively and significantly associated with market concentration ($B = 0.0784$, $t = 2.887$, $p = 0.004$), suggesting that better-capitalised banks generally occupied stronger market positions.

In contrast, shareholders' equity ($B = -3.721 \times 10^{-11}$, $p = 0.864$) and earnings before interest and tax (EBIT) ($B = -2.822 \times 10^{-11}$, $p = 0.162$) were not statistically significantly associated with market concentration.

The overall regression model was statistically significant ($F = 6.130$, $p < 0.001$), indicating that the explanatory variables jointly accounted for a significant proportion of the variation in market concentration. The model explained approximately 14.8% of the variation in market concentration ($R^2 = 0.148$), with an adjusted R^2 of 0.124.

Based on these findings, the study failed to reject the null hypothesis that there is no statistically significant relationship between total deposits and market concentration among commercial banks in Kenya after controlling for bank-specific financial characteristics. The results indicate that although



total deposits exhibited a weak positive bivariate association with market concentration, they were not independently associated with market concentration in the multivariate model.

Table 4: Multiple Regression Results for Total Deposits and Market Concentration

Variable	Beta (β)	t-value	p-value
Constant	0.0108	1.821	0.070
Total deposits	-5.985×10^{-11}	-1.256	0.211
Net Assets	1.159×10^{-10}	3.059	0.003*
Shareholders' Equity	-3.721×10^{-11}	-0.171	0.864
EBIT	-2.822×10^{-11}	-1.405	0.162
Regulatory Capital Ratio	0.0784	2.887	0.004*

Regression Diagnostics

Before interpreting the regression coefficients, diagnostic tests were conducted to assess multicollinearity, autocorrelation, normality, and homoscedasticity. Variance inflation factors (VIF) and tolerance statistics are reported in Table 5.

Table 5: Collinearity Diagnostics

Variable	Tolerance	VIF
Total deposits	0.007	136.02
Net assets	0.011	94.52
Shareholders' equity	0.004	245.26
EBIT	0.021	48.20
Regulatory capital ratio	0.960	1.04

The variance inflation factors for total deposits, net assets, shareholders' equity, and earnings before interest and tax were well above the conventional threshold of 10 (136.02, 94.52, 245.26, and 48.20, respectively), and their tolerance values were correspondingly very low. Only the regulatory capital ratio (VIF = 1.04) was free of collinearity. This indicates severe multicollinearity among the four monetary predictors, as expected, because total deposits, net assets, shareholders' equity, and EBIT are proxies for bank size and are strongly correlated with one another.

The remaining diagnostics were also inconsistent with the assumptions of ordinary least squares regression. The Durbin-Watson statistic was 0.48, indicating strong positive autocorrelation of the residuals, which is common in panel data pooled across banks and years. The Shapiro-Wilk test indicated non-normality of the residuals ($W = 0.72$, $p < 0.001$), and the residuals were highly skewed and leptokurtic. The Breusch-Pagan test indicated significant heteroscedasticity ($p < 0.001$).

These diagnostics require the multivariate results to be interpreted with caution. Because the variance inflation factors for the monetary predictors are very high, the non-significance of total deposits in the multivariate model may partly reflect inflated standard errors arising from collinearity among the size-related variables rather than a genuine absence of association. The sign reversal of total deposits between the bivariate and multivariate analyses, the near-zero t-statistic for shareholders' equity, and the retention of significance by only net assets and the regulatory capital ratio are all consistent with this collinearity. The multivariate coefficients on the individual size-related variables should therefore be regarded as unstable, and the conclusions drawn from them treated as tentative. Future work



should reduce this redundancy, for example by rescaling the monetary variables as ratios to total assets, by combining the size proxies into a single composite measure, or by estimating panel models with robust or clustered standard errors.

Discussion

The study examined the relationship between total deposits and market concentration among commercial banks in Kenya using correlation and multiple regression analyses. Pearson correlation results showed a weak but statistically significant positive relationship between total deposits and market concentration ($r = 0.178$, $p = 0.016$). However, after controlling for net assets, shareholders' equity, EBIT, and regulatory capital ratio, regression results indicated that total deposits were not statistically significantly associated with market concentration ($B = -5.985 \times 10^{-11}$, $p = 0.211$). This suggests that the influence of deposits observed in the bivariate analysis was explained by broader bank-specific characteristics.

The findings support Market Power Theory and the Efficient-Structure hypothesis, which emphasise that market position is shaped by a combination of financial resources, operational capabilities, and institutional strength rather than a single factor. The results indicate that characteristics such as asset size and regulatory capital strength play a more significant role in explaining differences in market concentration.

The findings are consistent with previous studies showing that deposits enhance liquidity, lending capacity, and financial stability but do not necessarily determine market concentration independently. Evidence from Li et al. (2019), Demirgüç-Kunt et al. (2013), Ozili (2019), and Saif-Alyousfi et al. (2020) supports the view that banking competitiveness is influenced by multiple financial and institutional factors.

The regression analysis further showed that net assets and regulatory capital ratio were positively and significantly associated with market concentration, indicating that larger and better-capitalised banks tend to hold stronger market positions. Conversely, shareholders' equity and EBIT were not significantly related to market concentration after controlling for other variables.

Given the descriptive correlational design, the findings demonstrate association rather than causation. While stronger market positions may help banks attract more deposits, larger deposits may also support banking expansion. Overall, the study concludes that although deposits remain important for bank operations and stability, market concentration among Kenyan commercial banks is better explained by broader factors such as asset size, capitalisation, and regulatory strength rather than deposit mobilisation alone.

Limitations

The study findings should be interpreted in light of several limitations. First, the monetary predictors—total deposits, net assets, shareholders' equity, and EBIT—serve as indicators of bank size and exhibit high multicollinearity. The resulting high variance inflation factors (VIFs) render individual regression coefficients unstable, so the non-significant relationship between total deposits and market concentration should be interpreted with caution.

Second, the composite market concentration index includes each bank's deposit share as one of its components, while total deposits are the main explanatory variable. Although this creates some measurement overlap, the effect would likely bias results toward finding a positive relationship rather than explaining the non-significant regression outcome. Future studies should address this limitation by using an independent measure of concentration based on asset and loan shares.



Third, the panel data diagnostics identified issues with autocorrelation, non-normality of residuals, and heteroscedasticity, which are common in banking datasets. These challenges limit strong causal interpretation of the regression results. Future research should apply advanced panel data techniques, such as dynamic panel models or robust/clustered standard errors, to improve the reliability of estimation.

Conclusion

The study examined the relationship between total deposits and market concentration among commercial banks in Kenya. The findings showed that total deposits had a weak but significant positive relationship with market concentration in the correlation analysis. However, after controlling for bank-specific factors such as net assets, shareholders' equity, EBIT, and regulatory capital ratio, total deposits were not independently associated with market concentration. Instead, net assets and regulatory capital strength were significant predictors of market concentration.

The findings indicate that while larger deposit bases may be associated with stronger market positions in simple comparisons, deposit mobilisation alone does not account for variations in market concentration. Rather, market concentration is influenced by a broader combination of institutional factors, particularly bank size and capital strength. The complementary Herfindahl-Hirschman Index (HHI) analysis confirmed that Kenya's banking sector remained highly concentrated during the study period.

Given the descriptive correlational design, the findings demonstrate statistical associations rather than causal relationships. The study concludes that total deposits do not independently determine market concentration among Kenyan commercial banks once other financial characteristics are accounted for. Therefore, understanding banking sector concentration requires a multidimensional approach that considers factors such as asset size, capitalisation, and regulatory strength.

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