Mediating Role of Competitive Intensity on the Relationship between Revenue Diversification and Financial Performance of Commercial Banks in Kenya

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Abstract

Intense rivalry, technical developments, regulatory changes, and changes in the global financial *landscape have all contributed to the growth of Kenya's banking industry. Kenyan banks have been diversifying their revenue streams beyond interest income in an effort to improve their financial performance (FP). Despite these efforts, the industry's financial performance steadily declined between 2013 and 2020, as seen by falling returns on assets (ROA), according to supervisory reports from the Central Bank of Kenya (CBK). The relationship between revenue diversification and FP is significantly influenced by the level of market competition. The aim of this study was to investigate the mediating role of competitive intensity on the relationship between income diversification and FP. This study was based on the Resource-Based View theory and employed a positivist philosophical framework. Using the census technique, the study examined secondary data from all Kenyan commercial banks that were in operation from 2013 to 2022. The study employed the Hirschman-Herfindahl Index to measure income diversification while the composite market share index represented competitive intensity. Panel ordinary least square regression models were employed in the study's longitudinal descriptive research design to examine the relationships between the variables. Competitive intensity was found to partially mediate the relationship between income diversification and financial performance ($\beta_1 = .294$, $p = .00$, $\beta_2 = .548$, $p = .00$). The study concluded that the effect of income diversification on financial performance is not direct but is transmitted through competitive intensity. By promoting a healthy competitive environment that rewards innovation and efficiency, policymakers can indirectly enhance firms' FP through diversified revenue streams. Future research could build on the existing findings by including other institutions in the financial sector and employing different metrics for the variables.*

Key Words: *Revenue Diversification, Competitive Intensity, Financial Performance*

1.0 Introduction

Because commercial banks serve as intermediaries for a variety of financial services between savers and borrowers, they are essential to the functioning of the global financial system (Thota et al., 2022). The banking industry has been significantly impacted in recent years by technological advances, regulatory changes, and globalization. Diversifying revenue streams beyond conventional interest-bearing banking operations is one of the most important strategic choices made by commercial banks. The industry's competitive challenges often have an

impact on this diversification strategy. The growing proportion of non-interest income to total bank revenue suggests that banks globally are diversifying their revenue sources to increase profitability and stabilize earnings (Smith & Brown, 2024). By tapping into new market segments, diversification can enhance profitability and competitive advantages through broader service offerings (Olerawaju, 2018). Conversely, critics argue that income diversity may heighten corporate risk due to the unpredictable nature of non-core banking activities. Ngoc (2019) suggests that revenue from non-core activities tends to be more volatile compared to core banking activities, given weaker client-lender relationships.

In highly competitive markets, where multiple banks vie for market share and customer loyalty, income diversification becomes instrumental in gaining a competitive edge (Alhadeff, 2022). Competitive intensity which is the level of competition or rivalry within the industry, where a more competitive firm will be able to edge out the competitors, plays a crucial mediating role in shaping the relationship between income diversification and FP. Banks that diversify their product offerings across various segments and maintain competitive pricing strategies are better positioned to attract and retain a broader customer base (Ngumo et al., 2020). This enhanced market presence allows diversified banks to outperform competitors by capturing a larger share of the market, thereby translating into superior FP. Competitive intensity thus acts as a catalyst, amplifying the positive effects of income diversification on FP by fostering customer loyalty, market dominance, and sustained profitability in dynamic economic environments (Smithson & White, 2023).

According to Kiemo et al. (2022), the Kenyan commercial banking sector is characterized by monopolistic competition, with a small number of major banks controlling the majority of the market. As of December 31, 2022, there were 9 large banks commanding a substantial market share of 75.14% collectively. These include Kenya Commercial Bank Kenya Ltd (14.20%), Equity Bank Kenya Ltd (12.67%), Co-operative Bank of Kenya Ltd (10.01%), National Commercial Bank of Africa Bank Kenya PLC (9.24%), Absa Bank Kenya Plc (6.69%), Standard Chartered Bank (K) Ltd (5.74%), Diamond Trust Bank Kenya Limited (5.81%), Stanbic Bank Kenya Ltd (5.63%), and Investments & Mortgages Bank Limited (5.15%). Additionally, there were 8 medium-sized banks holding a combined market share of 16.13%, and 22 small banks with a collective market share of 8.58%.

The banking sector in Kenya experienced significant regulatory changes during the study period, notably the introduction of the interest rate capping law in 2016, which restricted lending rates to a maximum of 4.0% above the central bank base lending rate. The law was repealed in 2019, and the Central Bank of Kenya (CBK) introduced a risk-based lending model, allowing banks to price loans according to the perceived risk of each borrower. Another noteworthy regulatory change occurred in March 2020 when charges for transactions between mobile wallets and bank accounts were waived as an emergency response to reduce the handling of physical cash during the Covid-19 pandemic. This led to widespread adoption of mobile banking and a notable decrease in direct transactions within banks. Furthermore, the pandemic resulted in a rise in non-performing loans, which adversely affected the interest income streams of banks. From 2013 to 2020, there was also a proliferation of unregulated digital lenders operating via mobile phones. Besides capturing market share from commercial banks, these lenders inadvertently harmed the creditworthiness of borrowers listed with Credit Reference Bureaus (CRBs) due to defaults on mobile loans. Consequently, these borrowers were unable to access credit from commercial banks, exacerbating the market share challenges for traditional banks.

Between 2013 and 2022, the Kenyan banking industry's income diversification showed discernible fluctuations, which were a reflection of shifting market conditions and regulatory frameworks. The CBK's annual supervisory reports indicated that the makeup of bank revenue streams has changed noticeably: interest income, which constituted a significant majority at 78.6% in 2016, gradually declined to 73.7% by 2019. This decline coincided with the implementation of interest rate capping in September 2016, aimed at controlling lending rates to protect consumers. On the other hand, non-interest income increased from 21.4% in 2016 to 26.7% in 2019, demonstrating banks' attempts to diversify their revenue streams away from conventional interest-based operations. This pattern changed in 2019 with the removal of interest rate restrictions, giving banks greater latitude in setting loan prices. These variations highlight how market dynamics, regulatory frameworks, and banks' strategic reactions interact to shape income diversification in the Kenyan banking sector.

Between 2013 and 2020, the banking industry in Kenya saw a significant decline in financial performance, as indicated by a decline in return on assets (ROA), in contrast to positive trends seen in banks in Tanzania, Nigeria, Ghana, the United States, and many European Union countries (Central Bank of Kenya, 2022). Kenyan banks' return on assets (ROA) fell from 4.7%

in 2013 to 2.1% in 2020 over this time, although it rose to 3.7% in 2022. While certain banks, such as Equity Bank, Cooperative Bank, and Kenya Commercial Bank, showed strong financial performance, others encountered serious difficulties; some even entered receivership.

In addition, the Kenyan banking industry's income diversification varied greatly between 2013 and 2022. While non-interest revenue rose from 21.4% to 26.7% over the same time period, interest income decreased from 78.6% in 2016 to 73.7% in 2019, according to statistics from the Central Bank of Kenya's annual supervisory reports (Central Bank of Kenya, 2022). Major Kenyan banks have been aggressively diversifying their revenue streams in recent years by launching cutting-edge goods and services meant to stand out from the competition (Central Bank of Kenya, 2023).

Although the theoretical relationship between income diversification and FP is well known, empirical results are still conflicting and unclear. While some research suggests a negative or non-significant relationship (Sharma & Anand, 2018; Stiroh & Rumble, 2006; Nguyen, 2016), other studies show a favourable association (Ndungu & Muturi, 2019; Githaiga et al., 2019; Teimet, 2021). Theoretical frameworks, methodological approaches, measurement metrics, and contextual factors like political landscapes, economic conditions, technological advancements, regulatory environments, and cultural influences can all be blamed for these disparities (Hafidiyah & Trinugroho, 2016; Abobaker, 2018).

However, a majority of these studies examined the direct effect of income diversification on FP on the assumption that income diversification provides sufficient incentives to banks to improve their FP. Moreover, a decision to diversify will not always result in improved performance in the absence of requisite strategic resources and favourable market structures. Competitive intensity, as measured by market share, plays a crucial role in shaping financial outcomes. In the period 2013-2022, the Kenyan banking sector experienced heightened competition, where on average the top five banks held more than 60% of the market share. These competitive pressures influence pricing strategies, cost management, and overall profitability (Central Bank of Kenya, 2023). This study aims to contribute to bridging the conceptual and contextual research gaps by incorporating a mediating variable which is competitive intensity in the relationship between income diversification and FP of commercial banks in Kenya. The general objective of this study was to investigate the interrelationship

among income diversification, competitive intensity and the financial performance of commercial banks in Kenya.

2.0 Literature Review

First put forth by Penrose in 1959, the Resource-Based View (RBV) was later improved by academics, highlighting the critical role that internal resources and capabilities play in attaining long-term competitive advantage and superior performance in dynamic market situations (Barney, 1991; Wernerfelt, 1984). In the case of commercial banks, the RBV offers a theoretical framework for comprehending the complex interactions among FP, competition intensity, and income diversification. Expanding revenue sources beyond conventional interest-based income is a strategic endeavour that diversifies income, including non-interest income streams like fees, commissions, and other financial services.

Furthermore, RBV emphasizes how competitive intensity influences how income diversification plans turn out. Businesses' strategic choices on resource allocation and differentiation tactics are influenced by competitive intensity, which is gauged by variables including market share concentration and bank rivalry (Buyora & Eksi, 2020). Effective income diversification can be used to differentiate offers, draw in new clients, and keep existing ones in fiercely competitive markets where several banks compete for market supremacy.

While much of the empirical literature highlights the mediating role of competitive intensity in the relationship between income diversification and FP, some studies have reported conflicting results. Whereas many argue that competitive intensity enhances the positive effects of diversification by pushing firms to innovate and optimize their revenue streams, other studies suggest that under certain conditions can erode the benefits of diversification, leading to diminished performance. These contradictory findings point to the complexity of the competitive environment and its varying influence on the link between income diversification and FP.

In their empirical investigation, Nguyen et al. (2016) used a comprehensive dataset covering 173 countries from 2000 to 2020 to explore the relationships between income diversification, market concentration, and bank stability. Findings indicated a positive association between bank stability and both income diversification and market concentration. Sahul and Ibrahim

(2021) conducted a study examining the dynamic relationships among competition, diversification, and bank performance across 28 European Union countries with dual banking systems from 2000 to 2016. Findings indicated that competition as measured by market power enhances revenue diversification in banks and has a positive impact on profitability in emerging economies. Dynamic panel GMM was employed on a panel dataset covering 1137 banks from BRICS countries over the period 2000 to 2015 by Moudud-ul-Huq (2021) to explore the effects of bank competition on performance and risk-taking behavior. Findings indicated that in competitive markets, larger banks tended to demonstrate higher efficiency compared to smaller banks. Moreover, the study highlighted a nonlinear relationship between competition, performance metrics (ROA), and risk-taking behavior. Kulu and Appiach-Kubi (2021) utilized fixed and random effects models, as well as the system general methods of moments analysis, on panel data from 12 banks in Ghana. Findings revealed that market share has a significant positive impact on bank profitability.

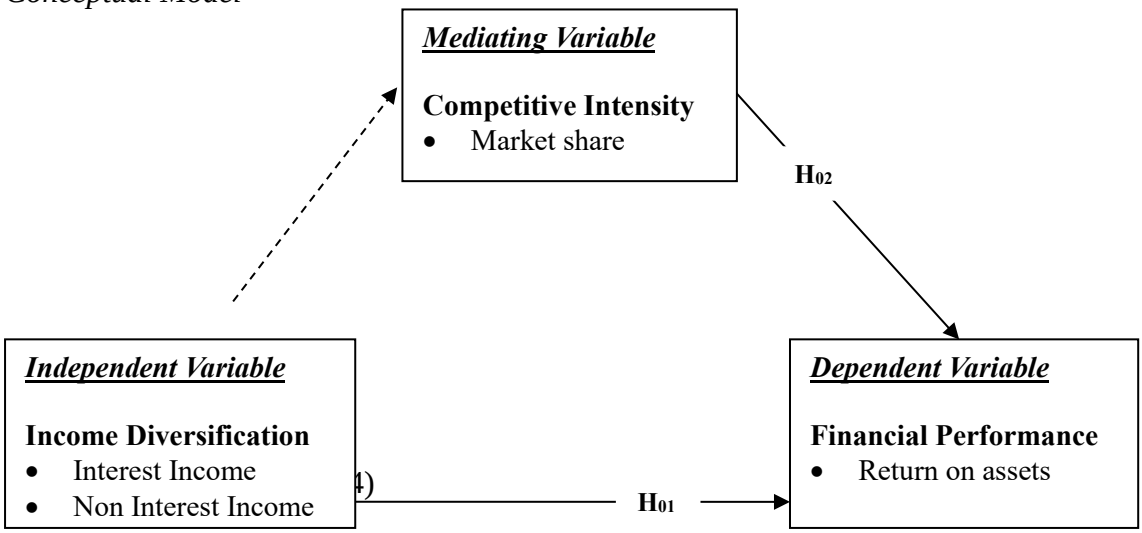
Githaiga (2020) investigated how market power mediates the relationship between income diversification and performance using panel data from 31 Kenyan commercial banks spanning 2008 to 2017. Applying hierarchical regression analysis, the study found that market power positively mediates the association between income diversification and firm performance. Additionally, it confirmed that income diversification independently has a positive and significant impact on firm performance. To analyze the impact of market share on bank profitability, Ejoh and Sackey (2014) conducted empirical research focusing on a sample of five Nigerian banks spanning from 1981 to 2011. Utilizing the Engle and Granger two-step co-integration method, their regression analysis revealed a statistically significant positive relationship between market share and banks' profitability.

In contrast to the above findings, in 2021, Owino conducted a study examining how bank size moderates the relationship between diversification strategies and competitiveness among Kenyan commercial banks. The research utilized longitudinal panel data spanning 2009 to 2018 from 36 banks. Through descriptive and inferential statistics, the study found that income diversification negatively influenced competitiveness.

Conceptual Framework

Figure 1:

Conceptual Model



The conceptual framework guiding the study is presented in Figure 1 (Source, Author). It demonstrates the relationship between the Independent Variable (IV), Dependent Variable (DF) and the Mediating Variable (MV).

3.0 Methodology

The study used a longitudinal descriptive research design and embraced a positivist philosophical perspective. Using a census methodology, it looked at secondary data from each of the 38 commercial banks active in Kenya from 2013 to 2022. Panel data regression models, a statistical method for examining datasets that mix cross-sectional and longitudinal dimensions, were used to estimate the study's parameters.

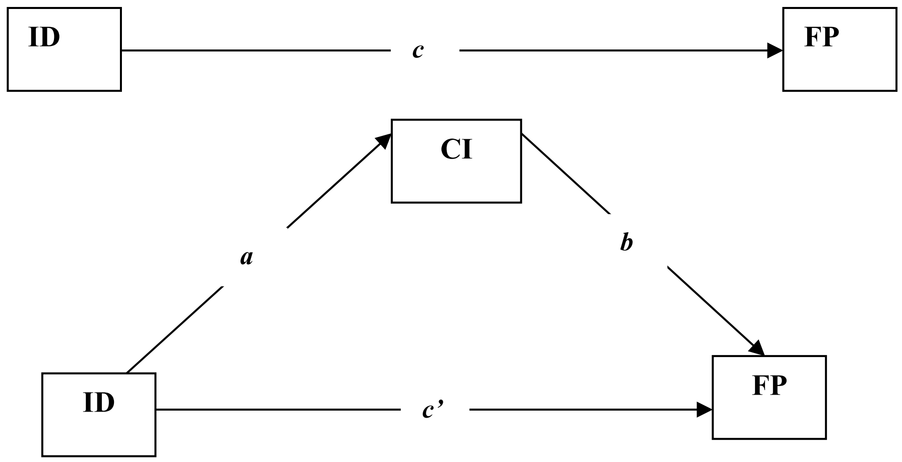
3. 1Mediation Model

Mediation posits a causal link where a predictor variable (X - Income Diversification) affects a response variable (Y - Financial Performance) indirectly through a third theoretical variable known as a mediator (M - Competitive Intensity). This study employed the causal steps approach advocated by Baron and Kenny (1986) to test mediation effects, despite the availability of alternative methodologies such as the Sobel test, bootstrapping, and structural equation modelling (SEM). The choice of Baron and Kenny's method is justified due to its systematic process for evaluating mediation through a series of regression analyses, facilitating

a clear examination of the sequential relationships among income diversification (X), competitive intensity (M), and FP(Y). (Figure 2)

Figure 2

Simple Mediation Model Adopted from Baron and Kenny (1986)



Note: Source: Baron and Kenny (1986)

Where: ID = Income Diversification, CI = Competitive Intensity, FP = Financial Performance.

Total effect **(c = ć + ab):** Is the total effect of ID on FP in absence of CI

Indirect effect **(ab = c -ć):** Is the indirect effect of ID on FP through CI

Direct effect **(ć = c – ab):** Is the direct effect of ID on FP in presence of CI

To investigate the mediating role of competitive intensity in the relationship between income diversification (ID) and FP (objective 2, hypothesis H_{02}), this study conducted three sequential regression analyses based on the causal steps approach. The significance of the path coefficients was examined at each step to assess the mediation effect.

Step 1 (path-c): To assess whether income diversification significantly influenced FP, a general linear model was applied in the subsequent analysis as specified.

$$\mathbf{FP_{it} = \beta_0 + cID_{it} + \varepsilon_{it}} \quad \cdots\cdots\cdots \quad (3.2)$$

Step 2 (path-a): To assess whether income diversification significantly influenced competitive intensity, a general linear model was applied in the subsequent analysis as illustrated.

$$\mathbf{CI_{it} = \beta_0 + aID_{it} + \mathcal{E}_{it}} \quad \cdots\cdots\cdots \quad (3.3)$$

Where: **CI** = competitive intensity; $\boldsymbol{\beta_0}$= regression constant; ID= income diversification; **a =** path coefficient **ε =** error term (unobserved factors, random fluctuations, or other variables that influence the dependent variable but are not openly considered in the model); **i** = is the cross-sectional unit where i =1…. N; t is the time period where t =1…. T

Step 3 (path-b): To assess whether competitive intensity significantly predicted FP while controlling for the income diversification as well as, **Step 4 (path-c')** which evaluated whether the income diversification insignificantly predicted FP while controlling for the competitive intensity, a general linear model was applied in the subsequent analysis as outlined.

$$\mathbf{FP_{it} = \beta_0 + c'ID_{it} + bCI_{it} + \varepsilon_{it}} \cdots\cdots (3.4)$$

Where: **FP** = financial performance; **ID** = income diversification**; CI** = competitive intensity; $\boldsymbol{\beta_0}$= regression constant; $\mathbf{c'}$& **b =** path coefficients Ɛ **=** error term (unobserved factors, random fluctuations, or other variables that influence the dependent variable but are not openly considered in the model); **i** = is the cross-sectional unit where i =1…. N; t is the time period where t =1…. T

Table 1:

Criteria for Mediation Analysis

Mediation Criteria		
Direct Effects	**Indirect Effects**	**Mediation**
Significant ($p < 0.05$)	Insignificant ($p > 0.05$)	No mediation
Significant ($p < 0.05$)	Significant ($p < 0.05$)	Partial mediation
Insignificant ($p > 0.05$)	Significant ($p < 0.05$)	Full mediation

Note. Source: Baron and Kenny (1986)

4.0 Results and Discussion

4.1 Data Analysis and Presentation

a) Descriptive Statistics of the Study Variables

Table 2:

Descriptive Statistics for the Study Variables

Variable	**M**	**SD**	**CV**	**Min**	**Max**
Income Diversification					
Interest Income	0.386	0.131	0.338	0.01	0.78
Non-Interest Income	0.589	0.184	0.312	0.01	1.31

Composite Index	0.487	0.110	0.225	0.01	0.795
Competitive Intensity	0.026	0.034	1.325	0.001	0.144
Financial Performance	0.011	0.048	4.272	-0.37	0.08

Note. Source: Study Data (2024)

The composite index of income diversification, with a mean of 0.487 and a lower standard deviation of 0.110 (CV = 0.225), shows moderate overall diversification. The range from 0.01 to 0.795 reflects that while some banks have achieved high diversification, others remain reliant on a narrower set of income sources. Competitive intensity, characterized by a low mean of 0.026 and a high standard deviation of 0.034, results in an extremely high coefficient of variation of 1.325. This suggests significant variability in competitive pressures among banks, with values ranging from minimal competition (0.001) to moderately competitive environments (0.144).

Financial performance, with a mean of 0.011 and a standard deviation of 0.048, has a high coefficient of variation of 4.272, indicating considerable variability in financial outcomes among the banks. The range from -0.37 to 0.08 suggests that while some banks perform exceptionally well, others may be struggling, potentially facing losses. This variability could be influenced by factors such as management effectiveness, market conditions, and the degree of income diversification. Overall, these findings highlight the varied strategies and outcomes in the Kenyan banking sector. While there is a moderate level of income diversification, competitive intensity varies widely, and FP is highly inconsistent.

The study's findings were interpreted using various statistical measures to assess relationships and effects within the model. Hypotheses were tested using p-values, t-values, and confidence intervals at a 95% confidence level, with significance determined by the absence of zero within the confidence interval range.

The second objective aimed at investigating the mediating role of competitive intensity on the relationship between income diversification and financial performance of commercial banks in Kenya. The income diversification was measured by interest and non-interest income; competitive intensity was proxied by market share while FP was captured by ROA. The mediation process was assessed through the causal steps approach advocated by Baron and Kenny (1986), comprising four steps involving three regression models (models 2–4). The null hypothesis (H_0) tested is as outlined below;

H_0: There is no significant mediating effect of competitive intensity on the relationship between income diversification and financial performance of commercial banks in Kenya.

The models used for estimation was a pooled OLS model, as outlined below

$$\mathbf{FP_{it} = \beta_0 + cID_{it} + \varepsilon_{it}}\ \textbf{(step 1)}$$

NB: The model's parameters are outlined in equation **…… (3.2)**

$$\mathbf{CI_{it} = \beta_0 + aID_{it} + \varepsilon_{it}}\ \textbf{(step 2)}$$

NB: The model's parameters are outlined in equation **…… (3.3)**

$$\mathbf{FP_{it} = \beta_0 + c'ID_{it} + bCI_{it} + \varepsilon_{it}}\ \textbf{(step 3 \& 4)}$$

NB: The model's parameters are outlined in equation **…… (3.4)**

The conceptual model shown in Figure 2 illustrates the path coefficients for direct, indirect, and total effects within the mediation analysis framework. These coefficients were calculated based on the data presented in Tables 3, 4, and 5.

Income Diversification and Financial Performance (path-c)

In the first step of the mediation analysis, the total effect of income diversification on Financial FP was assessed, as indicated by path-c. Table 3 presents the findings (overall model fit statistics indicate a strong fit, with a significant $F(1, 348) = 639.04$, $p < 0.05$). The adjusted R^2 value of 0.646 indicates approximately 64.6% of the variability in FP is explained by income diversification whereas 33.4% is attributed to other parameters overlooked in the empirical model.

Table 3

Estimation Results of Income Diversification and Financial Performance

Model Fit Statistics						
Source	**SS**	**df**	**MS**	Number of obs.	= 350	
Model	0.028	1	0.029	F (1, 348)	= 639.04	
Residual	0.016	348	0.000	Prob > F	= 0.000	
Total	**0.044**	**349**		R^2	= 0.647	
				Adj. R^2	= 0.646	
				Root MSE	= 0.007	
Coefficient Estimates Statistics						
FP	**β**	**SE**	**t**	**P**	**(95% Confid. Interval)**	
Constant	0.022	0.001	22.00	0.000	0.020	0.025
ID	0.566	0.022	25.73	0.000	0.522	0.610 **Path-c**

Note. Source: Research Data (2024)

The constant term was significant {β = 0.022, SE = 0.001, t (348) = 22.00, p < 0.05, 95% CI [0.020, 0.025], indicating that FP is expected to be 0.022 units when income diversification is zero. The effect of income diversification on FP represented by path coefficient-c was also significant {β = 0.566, SE = 0.022, t (348) = 25.73, p < 0.05, 95% CI [0.522, 0.610]. These findings satisfy the conditions of the first step.

According to this strategy, the first step requires that the independent variable (income diversification) must significantly affect the response variable (FP). This led to rejection of null hypothesis H_{01}. The regression model specified as equation (3.2) is restated as in equation 5.2.

$FP_{it} = 0.022 + 0.566ID_{it}$ …… (5.2)

The intercept of 0.022 indicates the expected value of FP when income diversification is zero, suggesting a baseline level of FP. The coefficient 0.566 for income diversification implies for every unit increase in income diversification, FP is expected to increase by 0.566 units.

Income Diversification and Competitive Intensity (path-a)

In path analysis, pathway-a represents the coefficient that measures the influence of income diversification on income diversity. It highlights how income diversification indirectly affects the outcome through its impact on income diversity (Table 4):

Table 4:

Estimation Results of Income Diversification and Competitive Intensity

Model Fit Statistics						
Source	**SS**	**df**	**MS**	Number of obs.	= 350	
Model	0.022	1	0.022	F (1, 348)	= 468.41	
Residual	0.016	348	0.000	Prob > F	= 0.000	
Total	**0.038**	**349**		R^2	= 0.574	
				Adj. R^2	= 0.573	
				Root MSE	= 0.007	
Coefficient Estimates Statistics						
CI	**β**	**SE**	**t**	**P**	**(95% Confid. Interval)**	
Constant	0.052	0.001	52.00	0.000	0.050	0.054
ID	0.496	0.023	21.57	0.000	0.451	0.541 **Path-a**

Note. Source: Research Data (2024)

The estimation results highlighted in Table 4 reveal significant findings. The overall model fit statistics indicate that the model explains a substantial portion of the variance in competitive

intensity, with an adjusted R^2 value of 0.573, suggesting that approximately 57.3% of the variation in competitive intensity is attributed to income diversification; the other 42.7% can be traced to other aspects ignored in the estimation model. The statistic {F (1,348) = 468.41, p < 0.05} further supports the significance of the model, indicating that the relationship between income diversification and competitive intensity is highly not due to random chance. The regression model detailed as equation (3.3) is restated as equation 5.3.

$$\mathbf{CI_{it} = 0.052 + 0.496ID_{it}} \quad \textbf{(5.3)}$$

The intercept of 0.052 suggests the expected level of competitive intensity when income diversification is zero, indicating a baseline competitive intensity. The coefficient of 0.496 for income diversification implies that for every unit increase in income diversification, competitive intensity is expected to increase by 0.496 units.

Income Diversification, Competitive Intensity and FP (paths b and c')

Table 5 presents the estimation results for paths **b** and **c'**. Pathway-**b** represents the effect of competitive intensity on FP, while controlling for income diversification. This path captures how competitive intensity influences FP independent of income diversification. In contrast, path **c'** denotes the direct effect of income diversification on FP after accounting for the influence of competitive intensity (i.e., the portion of the total effect that is not mediated by competitive intensity).

Table 5

Estimation Results of Income Diversification, Competitive Intensity and Financial Performance

Model Fit Statistics						
Source	**SS**	**df**	**MS**	Number of obs.	= 350	
Model	0.033	2	0.017	F (2, 347)	= 639.04	
Residual	0.011	347	0.000	Prob > F	= 0.000	
Total	**0.044**	**349**		R^2	= 0.759	
				Adj. R^2	= 0.757	
				Root MSE	= 0.006	
Coefficient Estimates Statistics						
FP	**β**	**SE**	**t**	**P**	**(95% Confid. Interval)**	
Constant	-0.006	0.002	-3.00	0.014	-0.011	-0.001
ID	0.294	0.028	10.50	0.000	0.238	0.350 **Path-c'**
CI	0.548	0.043	12.74	0.000	0.463	0.633 **Path-b**

Note. Source: Research Data (2024)

The estimation results for the impact of income diversification and competitive intensity on FP in the mediation analysis, indicated by pathways-b and c', show significant findings. The model fit statistics indicate that the proposed model explains a substantial portion of the variance in FP, with an R^2 value of 0.757, suggesting that approximately 75.7% of the variation in FP is ascribed to income diversification and competitive intensity while the other 24.3% is as a result of other predictor variables omitted in the empirical model. The statistic {F (2, 347) = 639.04, $p < 0.05$) further supports the significance of the model, indicating that the linkage among income diversification, competitive intensity, and FP are very unlikely to be attributed to random chance.

The coefficient estimates for the model reveal significant relationships between the variables. The intercept was significant {β = -0.006, SE = 0.002, t (347) = -3.00, $p < 0.05$, 95% CI [-0.011, -0.001]}. The coefficient for income diversification was {β = 0.294, SE = 0.028, t (347) = 10.50, p = 0.05, 95% CI [0.238, 0.350]}, indicating a significant positive effect on FP. This coefficient represents Path-c' in the mediation process. Similarly, the coefficient for competitive intensity was {β = 0.548, SE = 0.043, t (347) = 12.74, $p <0.05$, 95% CI [0.463, 0.633]}, showing a significant positive influence on FP. This regression weight represents Path-b in the mediation process. Path-b, which measures the effect of competitive intensity on FP, is a critical part of establishing mediation. Path-c' represents the direct effect of income diversification on FP after accounting for competitive intensity.

Since the total effect (path-c), the indirect effect (path-a & path-b), and the direct effect (path-c') are all significant, partial mediation is inferred. This implies that while income diversification directly affects FP, a significant portion of its effect is mediated through competitive intensity. In other words, income diversification not only has a direct impact on FP but also enhances competitive intensity, which in turn positively influences FP. The significance of these paths confirms that competitive intensity partially mediates the relationship between income diversification and FP, highlighting the complex linkages between these variables. This led to rejection of null hypothesis H_{02}.

The regression model presented as equation (3.4) is reformulated as equation (5.4).

$$\mathbf{FP_{it} = -0.006 + 0.294ID_{it} + 0.548CI_{it}} \quad \textbf{(5.4)}$$

The intercept of -0.006 signifies the expected FP when both income diversification and competitive intensity are zero. The coefficient 0.294 for income diversification indicates that for every unit increase in income diversification, FP is expected to increase by 0.294 units, with competitive intensity held constant. Similarly, the coefficient 0.548 for competitive intensity suggests that for every unit increase in competitive intensity, FP is expected to increase by

0.548 units, holding income diversification constant.

4.0 Findings and Discussion

The overall objective of the study was to establish the relationship among income diversification, competitive intensity and FP of commercial banks of Kenya. The first null hypothesis was that there is no statistically significant relationship between income diversification and FP of commercial banks in Kenya. Findings indicated a significant positive linkage between income diversification and the FP of commercial banks in Kenya. Nevertheless, the current study's results both aligned with and differed from previous empirical research. This suggests that the relationship between income diversification and FP remains inconclusive due to the varying outcomes of past studies.

The current findings are in agreement with several previous empirical studies locally that identified a significant positive linkage between income diversification and FP (Addai et al, 2022; Githaiga et al, 2029; Kiptum et al., 2021; Ndungu & Muturi, 2019. Several international studies also align with the current findings (Ho et al. (2023); Nguyen et al. (2016); which concluded that income diversification positively influences the performance of commercial banks, consistent with the current study's results. However, there are studies which diverge from the current findings. Abobaker (2018) and Maina (2018) who established a negative and significant relationship between revenue diversification and FP of commercial banks in Kenya. This divergence highlights the mixed empirical findings on the income diversification-FP relationship. These mixed results underscore the complexity of the income diversification: FP relationship and the influence of various contextual factors, such as regulatory environments and market conditions, on this relationship.

The second null hypothesis was that competitive intensity does not significantly mediate the relationship between income diversification and FP of commercial banks in Kenya. The empirical findings confirmed that competitive intensity partially mediates the relationship between income diversification and FP. This study's results align with a substantial body of prior empirical research supporting the causal link between income diversification, competitive intensity, and FP (Githaiga, 2020; Kankam-Kwarteng et al. 2019; Kulu and Appiah-Kubi, 2021; Liul et al., 2020; Muñoz-Mendoza et al.,2020; Petria et al., 2015; Sahul and Ibrahim, 2021; Moudud-ul-Huq, 2021). By demonstrating how competitive intensity links the

relationship between income diversification and FP, this study provides nuanced insights consistent with previous studies.

5.0 Conclusion and Recommendations

The research yields important conclusions based on empirical findings from the tested hypothesis. The mediating role of competitive intensity in the relationship between income diversification and FP offers crucial insights into strategic management and corporate success. For instance, in highly competitive markets where firms must innovate and differentiate themselves, income diversification becomes not just a strategic option but a strategic imperative. Companies can gain a competitive advantage as they leverage this strategy to successfully diversify their revenue streams, for instance by expanding market share and enhancing customer loyalty, thereby directly improving FP metrics.

In conclusion, these insights underscore the importance of policy frameworks that promote income diversification and foster competitive markets for enhanced economic performance. By aligning policy interventions with these findings, policymakers can create an environment conducive to sustainable economic growth, innovation, and resilience, ultimately enhancing overall economic welfare and prosperity.

References

Abobaker, M. J. (2018). Bank specific, industry concentration and macroeconomic determinants of Egyptian bank profitability. *International Journal of Accounting and Financial Studies*, *8*(1), 380-397.

Addai, B., Tang, W., & Agyeman, A. S. (2022). Examining the impact of income diversification on bank performance: Are foreign banks heterogeneous? *Journal of Applied Economics*, *25*(1), 1-21.

Alhadeff, D. A. (2022). Monopoly and competition in banking. *University of California Press*.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, *17*(1), 99-120.

Central Bank of Kenya. (2022). Bank Supervision Annual Report. *Central Bank of Kenya.* Retrieved from https://www.centralbank.go.ke

Ejoh, N. O., & Sackey, J. A. (2014). The impact of market share on deposit money banks profitability in Nigeria. *European Journal of Business and Management*, *6*(19), 243-257.

Githaiga, P. N. (2020). Income diversification, market power and performance. *Journal of Economics and Financial Analysis,* 3(2), 1-21.

Githaiga, P. N., & Yegon, J. C. (2019). Income diversification and performance: should banks trade? *Business & Social Sciences Journal*, *4*(2), 52-64.

Hafidiyah, M. N., & Trinugroho, I. (2016). Revenue diversification, performance and bank risk: Evidence from Indonesia. *JDM (Jurnal Dinamika Manajemen)*, *7*(2), 139-148.HarvardUniversityPress; Cambridge.

Kankam-Kwarteng, C., Osman, B., & Donkor, J. (2019). Innovative low-cost strategy and firm performance of restaurants: The moderation of competitive intensity. *Asia Pacific Journal of Innovation and Entrepreneurship*, *13*(3), 266-281.

Kiemo, S., Talam, C., & Rugiri, I. W. (2022). Bank capital, credit risk and financial stability in Kenya (No. 57). *KBA Centre for Research on Financial Markets and Policy Working Paper Series.*

Kiptum, T. K., Koske, N., & Limo, P. (2021) Effects of Income Diversification and Financial Performance of Kenyan Commercial Banks.

Kulu, E., & Appiah-Kubi, G. D. (2021). The relationship between market share and profitability of Ghanaian banks. *International Journal of Business, Economics and Management*, *8*(4), 257-269.

Liul, H. N., Nguyen, L. Q. T., Vu, Q. H., & Tuan, L. Q. (2020). Income diversification and financial performance of commercial banks in Vietnam: do experience and ownership structure matter?. *Review of Behavioral Finance*, *12*(3), 185-199.

Maina, M. W. (2018). Effects of Revenue Diversification on Financial Performance of Commercial Banks in Kenya (Doctoral dissertation, University of Nairobi).

Moudud-Ul-Huq, S. (2021). Does bank competition matter for performance and risk-taking? Empirical evidence from BRICS countries. *International Journal of Emerging Markets*, *16*(3), 409-447.

Muñoz-Mendoza, J. A., Sepúlveda-Yelpo, S. M., Veloso-Ramos, C. L., & Delgado-Fuentealba, C. (2020).Are the effects of market concentration and income diversification on banking performance persistent? *Ecos de Economía,* 24(50), 25-44.

Ndungu, J. G., & Muturi, W. (2019). Effect of diversification on financial performance of commercial banks in Kenya. *International journal of current aspects,* 3(5), 267-285.

Ngoc, K. (2019). Revenue diversification, risk and bank performance of Vietnamese commercial banks. *Journal of Risk and Financial Management*, *12*(3), 138.

Ngumo, K. O. S., Collins, K. W., & David, S. H. (2020). Determinants of financial performance of microfinance banks in Kenya. *arXiv preprint arXiv:*2010.12569.

Nguyen, M., Perera, S., & Skully, M. (2016). Bank market power, ownership, regional presence and revenue diversification: Evidence from Africa. *Emerging Markets Review*, *27*, 36-62.

Penrose, E. (1959).*The theory of the growth of the firm*. Oxford University Press.

Smith, J. A., & Brown, L. T. (2024). The impact of revenue diversification on the financial performance of commercial banks: A global perspective. *Journal of Banking & Finance*, *58*(1), 123-145.

Smithson, J., & White, R. (2023). The influence of income diversification on financial performance metrics: Insights from the European banking sector. *European Financial Management*, *29*(3), 421-439.

Teimet, P. R. (2021). Revenue Diversification, Technical Efficiency, Size and Financial Performance of Commercial Banks in *Kenya (Doctoral dissertation, University of Nairobi).*

Thota, N., Bhargava, P., & Subrahmanyam, A. C. V. (2022). Are Bank Revenue Diversification Strategies Paying off for India? In Studies in International Economics and Finance: Essays in Honour of Prof. Bandi Kamaiah (pp. 389-410). Singapore: *Springer Singapore.*

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic management journal*, *5*(2), 171-180.