

Vol. 17 No. 1 (2025)



Econometric Analysis, Microfinance Banks, Assets management; liabilities management, performance, trust, price, location and service quality, influencer marketing, marketing communication, social networks

Published: 2025-06-30

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MICROFINANCE BANKS AND ECONOMIC DEVELOPMENT IN NIGERIA

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Received: November, 2024

1st Revision: December, 2024

Accepted: April, 2025

Background: Microfinance banks play a crucial role in promoting economic growth and financial inclusion by offering credit and financial services to underserved populations. **Aims:** This study examines the relationships between Per Capita Income (PCI) and selected financial indicators, including Loans and Advances (LA), Deposit Liabilities (DL), Total Assets (TA), and Total Earnings (TE), to assess the contribution of microfinance banks to economic growth. **Methods:** Econometric techniques, including descriptive statistics, unit root tests, Johansen cointegration analysis, and the Fully Modified Ordinary Least Squares (FMOLS) model, are employed to examine both short- and long-term relationships among the variables. Sample: The dataset comprises quarterly financial records from microfinance banks, providing insights into the interaction between financial performance indicators and per capita income. **Results:** The cointegration analysis reveals no long-term equilibrium relationships. However, FMOLS results indicate that Loans and Advances and Total Assets have significant positive effects on Per Capita Income, while Deposit Liabilities and Total Earnings do not. **Conclusions:** Loans and Advances, along with Total Assets, are key drivers of per capita income growth in the microfinance sector. **Implications:** Policymakers should prioritise reforms to improve credit accessibility and asset management, fostering sustainable economic growth through microfinance institutions.

Keywords: Per Capita Income (PCI), Loans and Advances (LA), Total Assets (TA), Econometric Analysis, Microfinance Banks

JEL Classification: G21, E44, C22, O16, D53

DOI: 10.54933/jmbrp-2025-17-1-1

Olaiya, K. I., Ariyibi, M. E., Obadeyi, J. A., & Odunsi, O. T. (2025). Microfinance Banks and Economic Development in Nigeria. *Journal of Management and Business: Research and Practice*, 17(1), doi:10.14254/2071-789X.2025/13-1/1

Introduction

The Nigerian economy is currently experiencing significant stagnation, characterised by a clear downturn in economic activity. This situation has raised considerable concern among economists and researchers. The economic challenges are multifaceted, encompassing business finance, rising poverty levels, high interest rates, declining living standards, increasing inflation rates, low per capita income, and a troubling surge in unemployment (Smith, 2023). However, understanding these complex issues requires a nuanced and detailed analysis.

Recent data highlights the gravity of the situation: Nigeria's poverty rate stands at a staggering 71%, based on the World Bank's benchmark of \$3.20 a day, as reported by the Conversation Journal (2021). Additionally, about 56% of the national income is spent on food, reflecting the consequences of inadequate investment in productive sectors and limited access to affordable investible loans.

Economic development is often measured by per capita income, which is the ratio of gross domestic product (GDP) to the total population. In many African countries, including Nigeria, the problem arises from a population increase without a corresponding rise in GDP, leading to poor economic development (Okolo & Wen, 2023). Addressing this issue requires efforts to boost GDP in line with population growth. Therefore, this study aims to provide a detailed examination of Nigeria's economic development, with a specific focus on per capita income.

To address these economic challenges, this study proposes exploring microfinance as a potential solution. Microfinance, offered by microfinance banks, provides financial services, including loans and advances, to economically underserved households that lack access to formal financial institutions. While microfinance has shown positive contributions, it is crucial to recognise that it may not fully address broader systemic issues, and its impact can be context-dependent.

Current research on the relationship between microfinance and economic development in Nigeria is limited, with most studies focusing on economic growth, small-scale business, and entrepreneurial development. This study aims to fill this gap by critically examining the influence of microfinance banks on economic development in Nigeria. It will utilise comprehensive measures, including loans and advances, deposit liabilities, total assets, and earnings, as proxies for microfinance banks. Meanwhile, per capita income will serve as a proxy for economic development.

Despite certain limitations, including the need for a more focused examination of specific economic challenges and enhanced data precision, this study aims to offer valuable insights into the existing literature. By addressing these shortcomings, the research aspires to provide a deeper understanding of Nigeria's economic landscape and the potential effects of microfinance interventions.

Theoretical background

Microfinance banks (MFBs) have become pivotal institutions within Nigeria's economic framework, playing a substantial role in enhancing financial inclusion, alleviating poverty, and fostering economic growth. This literature review aims to provide a comprehensive evaluation of existing studies exploring the connection between microfinance banks and economic development. It assesses key indicators, including loans and advances, deposit liabilities, total assets, and earnings, in relation to per capita income, focusing on the period from 2013 to 2022.

The emergence of microfinance in Nigeria dates back to the early 2000s, coinciding with the establishment of microfinance banks as essential tools for advancing financial inclusion and combating poverty (Mia, 2022). These institutions were primarily established to provide financial services to underserved populations, particularly those in rural areas. Ogbonna (2022) contends that microfinance goes beyond offering financial services; it promotes a holistic approach to empowering individuals,

generating income, and stimulating economic development. The overarching goal is to create systems that uplift impoverished populations and contribute to broader economic well-being.

Chukwujindum (2023) highlights the evolution of microfinance, noting its expansion to offer credit, savings programs, insurance, and money transfers. This progression reflects the recognition that economically disadvantaged groups, often excluded from traditional banking systems, require a variety of financial products to improve their economic activities.

Lwesya and Mwakalobo (2023) observe that microfinance institutions have adapted to address the evolving needs of their clients. In addition to financial services, these institutions now offer supplementary resources, including savings accounts and training programs. This adaptability highlights the dynamic role of microfinance banks in meeting diverse client needs.

Microfinance banks play a critical role in providing loans and advances, a key service (Boman, Tijani & Orji, 2018). Their study emphasises that loans are vital for businesses to meet long-term needs, including capital investments and construction. Interest rates and collateral requirements have a significant impact on the economic benefits of these loans. Ekpenyong and Nnamocha (2019) assert that microfinance loans, often referred to as microcredits, drive job creation, self-sufficiency, and income growth. The impact of loans on economic development, particularly on per capita income, remains a subject of investigation, focusing on interest rates and collateral requirements. Nevertheless, these studies are limited by their failure to account for regional economic variations and loan default rates.

Deposit liabilities are fundamental to the financial stability of microfinance banks. Beyond facilitating transactions, deposits help build trust and promote financial inclusion (Aladejebi, 2019). Aladejebi (2019) argues that deposit services enhance financial literacy, enabling individuals to make more informed financial decisions. Nwajei, Oziwele, and Agbogun (2023) assert that deposit liabilities reflect community confidence in microfinance banks. Analysing the influence of deposit liabilities on economic development offers insights into the resilience of the financial ecosystem. However, existing research does not sufficiently examine the risks linked to deposit liabilities, such as liquidity constraints and depositor confidence during economic downturns.

Total assets include both tangible and intangible properties owned by microfinance banks. Ochonogor (2022) states that the composition of total assets, such as physical infrastructure and intellectual property, reflects the overall health and capacity of microfinance institutions. Investing these assets in productive ventures supports economic development. Nisa, Rita & Chalid (2022) emphasise that the size and structure of total assets affect the range and quality of financial services offered by microfinance banks. A detailed evaluation of total assets provides a deeper understanding of their role in driving economic growth. However, existing studies often overlook the challenges related to asset liquidity and the ability to quickly convert assets into productive investments.

Earnings represent a crucial indicator of the financial strength of microfinance banks. Godfrey (2022) defines earnings as income generated through daily deposits and commercial operations. Efficient utilisation of earnings supports the sustainability of microfinance institutions, enhancing economic development in the communities they serve. Hadidi (2021) highlights that effective use of earnings can accelerate poverty alleviation efforts. Examining earnings as a measure of economic impact sheds light on the financial strategies adopted by microfinance institutions and their alignment with broader economic goals. Nevertheless, the potential for earnings volatility and external economic fluctuations poses challenges to earnings stability.

Ahamad, Al-Jaifi, and Ehigiamusoe (2023) explored the role of intellectual capital (IC) in enhancing the financial and social efficiency of microfinance institutions (MFIs). Using a truncated regression model and Data Envelopment Analysis (DEA), along with the Tobit model and Generalized Method of Moments (GMM), they analysed panel data from 661 MFIs in 86 countries between 2010 and 2018. Their findings indicate that MFIs generally exhibited greater financial efficiency than social efficiency. Institutions with higher intellectual capital demonstrated superior financial efficiency.

However, the study underscores the need for localised research to capture better the diverse challenges and contexts faced by MFIs across regions.

The literature revealed the critical role of microfinance banks as catalysts for economic development. Nonetheless, gaps persist in understanding regional disparities, liquidity risks, and the long-term sustainability of microfinance banks, emphasising the need for more localised and comprehensive studies.

Methodology

This research employed an ex-post facto survey design, selected to control for variables affecting economic development, with a specific focus on microfinance bank indices in Nigeria. The study covered an eleven-year period from 2013 to 2022, capturing all microfinance activities since the establishment of microfinance banks in 2013. The sample included various microfinance banks, assessing measures such as loans and advances, deposit liabilities, total assets, earnings, and per capita income. This period was chosen due to the increase in microfinance activities and a concurrent decline in economic development. Purposive sampling was used to deliberately select relevant data, and secondary data were obtained from the statistical bulletins of the Central Bank of Nigeria (CBN) and the National Bureau of Statistics (NBS) for the years 2013 to 2022.

Model Specification

Based on the theoretical framework of this study and the submission of Ogbonna (2022), the model for this study is presented thus:

$$PCI = f(LA, DL, TA, TE) \dots\dots\dots (1)$$

$$PCI = \beta_0 + \beta_1 LA + \beta_2 DL + \beta_3 TA + \beta_4 TE + \mu_1 \dots\dots\dots (2)$$

PCI = Per Capital Income (dependent variable). It serves as a proxy for economic development.

LA = Loans and advances of microfinance bank (Independent variable). It serves as a proxy for microfinance banks.

DL = Deposit Liabilities of microfinance bank (independent variable). It serves as a proxy for microfinance banks.

TA = Total assets of microfinance banks in Nigeria (Independent variable). It serves as a proxy for microfinance banks.

Table 1: Description of Variables

S/N	Variables	Meaning	Description	Source
1	PCI	Per Capital Income	This ratio of gross domestic product to population.	NBS
2	LA	Loan and Advances	Additions of loans and advances by microfinance banks in a year.	CBN
3	DL	Deposit Liabilities	Total deposits held by microfinance banks in a year	CBN
4	TA	Total Assets	Total assets, in terms of fixed and non-fixed assets held by microfinance banks in a year.	CBN
5	TE	Total Earnings	This is the profit after tax made by microfinance banks in a year.	CBN

Source: Authors compilation (2024)

Results

This section presents the results of statistical analyses conducted on the key variables, including descriptive statistics, unit root tests, cointegration analysis, and findings from the Fully Modified Ordinary Least Squares (FMOLS) model. The objective is to interpret the findings in relation to the research goals and relevant literature, offering insights into how variables such as Per Capita Income, Loans and Advances, Deposit Liabilities, Total Assets, and Total Earnings interact within the context of microfinance banks.

Table 2: Descriptive Analysis

	PCI	LA	DL	TA	TE
Mean	2.196669	2.197068	2.395910	2.682681	2.314355
Median	2.185697	2.149418	2.401801	2.783960	2.311033
Maximum	2.323396	2.360101	2.469130	2.930496	2.343468
Minimum	2.021231	2.038342	2.303628	2.306318	2.282441
Std. Dev.	0.107389	0.110837	0.054178	0.246338	0.020786
Skewness	-0.104998	0.234048	-0.233154	-0.436823	0.076407
Kurtosis	1.564169	1.530744	1.727334	1.522380	1.670743
Jarque-Bera	3.509515	3.963047	3.061869	4.911031	2.983793
Probability	0.172949	0.137859	0.216333	0.085819	0.224946
Sum	87.86675	87.88272	95.83640	107.3072	92.57419
Sum Sq. Dev.	0.449764	0.479107	0.114476	2.366618	0.016850
Observations	40	40	40	40	40

Source: Authors Compilation (2024)

The descriptive statistics provide a summary of the distribution for five variables: PCI (Per Capita Income), LA (Loans and Advances of microfinance banks), DL (Deposit Liabilities of microfinance banks), TA (Total Assets of microfinance banks), and TE (Total Earnings of microfinance banks) based on 40 observations. Key measures include the mean, median, maximum, minimum, standard deviation, skewness, kurtosis, and the Jarque-Bera test.

The means of the variables are quite similar, with PCI (2.197), LA (2.197), DL (2.396), TA (2.683), and TE (2.314). The median values are also close to the means, indicating that the data is largely symmetric, with minor deviations observed in LA and TA. The range (difference between the maximum and minimum values) is relatively narrow across all variables, suggesting limited variability in the data. TA has the highest maximum value (2.930), while DL records the lowest minimum (2.304).

Standard deviation reflects the spread of the data. TA has the highest standard deviation (0.246), showing greater variability, whereas TE has the lowest (0.021), indicating very little spread in the data. Skewness measures the asymmetry of the distribution. PCI (-0.105), DL (-0.233), and TA (-0.437) are slightly negatively skewed, indicating longer tails to the left, while LA (0.234) and TE (0.076) are slightly positively skewed, indicating rightward tails. Kurtosis gives insight into the "tailedness" of the distribution. All variables have kurtosis values below 3, indicating flatter distributions than the normal curve (platykurtic). The Jarque-Bera test, applied to assess normality, reports p-values greater than 0.05 for all variables. This indicates that the null hypothesis of normality cannot be rejected at the 5% significance level, implying that the data does not significantly deviate from a normal distribution. Additional details such as the sum and sum of squared deviations, highlight the overall totals and variance. TA has the largest cumulative value (107.31), while TE has the smallest sum of squared deviations (0.017), indicating low variability around its mean.

The descriptive analysis indicates that the variables are generally symmetric with minimal skewness and no significant deviations from normality. The variability is moderate, with TA showing the highest spread. The Jarque-Bera test results support the use of parametric methods for further analysis, as the data follows a normal distribution.

Unit Root Test

Table 3: Augmented Dickey-Fuller (ADF) Unit root test

Variables	Level	First Difference	Order of Integration
	Constant	Constant	
PCI	-2.9389	-2.9411*	I(I)
LA	-2.9389	-2.9411*	I(I)
DL	-2.9484	-2.9484*	I(I)
TA	-2.9389	-2.9604*	I(I)
TE	-2.9484	-2.9484*	I(I)

Note: *P < 0.01, **P < 0.05

Source: (Author's Compilation 2024)

The table presents the results of the Augmented Dickey-Fuller (ADF) unit root test, which was used to assess the stationarity of the variables: PCI (Per Capita Income), LA (Loans and Advances of

microfinance banks), DL (Deposit Liabilities of microfinance banks), TA (Total Assets of microfinance banks), and TE (Total Earnings of microfinance banks). The test was conducted at both the level and first difference, incorporating a constant term in the model.

Interpretation of Results

The results indicate that all variables (PCI, LA, DL, TA, and TE) are non-stationary in their levels, as the ADF test statistics do not exceed the critical values at standard significance thresholds. However, after the first differencing, all variables become stationary, with ADF test statistics at the first difference level being significant at the 1% level ($p < 0.01$). This suggests that each variable is integrated of order one, $I(1)$, meaning they achieve stationarity after first differencing.

None of the variables are integrated of order two, $I(2)$, indicating that further differencing is unnecessary. As a result, the Johansen Cointegration test and Fully Modified Ordinary Least Squares (FMOLS) can be confidently applied, as the variables meet the requirement of being integrated in the same order, $I(1)$, reducing the risk of spurious results.

Table 4: Johansen Cointegration Test Results

Test	Hypothesised No. of CE(s)	Eigenvalue	Statistic	Critical Value (0.05)
Unrestricted Cointegration Rank Test (Trace)				
None	0.328398	39.81937	69.81889	0.9503
At most 1	0.307470	24.69197	47.85613	0.9266
At most 2	0.155765	10.73062	29.79707	0.9673
At most 3	0.086395	4.296293	15.49471	0.8782
At most 4	0.022447	0.862717	3.841466	0.3530
Trace test conclusion				
Result	No cointegration at 0.05 level			
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
None	0.328398	15.12740	33.87687	0.9736
At most 1	0.307470	13.96135	27.58434	0.8253
At most 2	0.155765	6.434324	21.13162	0.9727
At most 3	0.086395	3.433577	14.26460	0.9137
At most 4	0.022447	0.862717	3.841466	0.3530
None	0.328398	15.12740	33.87687	0.9736
Max-eigenvalue test conclusion				
Result	No cointegration at 0.05 level			

Source: Author's Compilation (2024)

Notes: Trace test and Maximum eigenvalue test indicate no cointegration at the 5% significance level.

The Johansen cointegration test was conducted to examine the long-term relationship between the variables PCI (Per Capita Income), LA (Loans and Advances of microfinance banks), DL (Deposit Liabilities of microfinance banks), TA (Total Assets of microfinance banks), and TE (Total Earnings of microfinance banks). The test was carried out using both the trace and maximum eigenvalue statistics, with the results presented below.

Unrestricted Cointegration Rank Test (Trace)

The trace test evaluates the null hypothesis of no cointegration between the variables. The test statistics for the hypothesised number of co-integrating equations are compared against the critical values at the 5% significance level:

None shows that the trace statistic (39.819) is less than the critical value (69.818), with a probability of 0.9503. This indicates no evidence of cointegration.

At most 1 shows that the trace statistic (24.691) is below the critical value (47.856), with a probability of 0.9266.

At most 2 shows that the trace statistic (10.731) is below the critical value (29.797), with a probability of 0.9673.

At most 3 shows that the trace statistic (4.296) is below the critical value (15.494), with a probability of 0.8782.

At most 4 shows that the trace statistic (0.863) is below the critical value (3.841), with a probability of 0.3530.

Based on the trace test results, there is no evidence of cointegration at the 5% significance level, suggesting no long-term relationship between the variables.

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

The maximum eigenvalue test also evaluates the null hypothesis of no cointegration between the variables. The test compares the largest eigenvalue statistic with the critical value:

None: The maximum eigenvalue statistic (15.127) is below the critical value (33.877), with a probability of 0.9736.

At most 1: The maximum eigenvalue statistic (13.961) is below the critical value (27.584), with a probability of 0.8253.

At most 2: The maximum eigenvalue statistic (6.434) is below the critical value (21.132), with a probability of 0.9727.

At most 3: The maximum eigenvalue statistic (3.434) is below the critical value (14.265), with a probability of 0.9137.

At most 4: The maximum eigenvalue statistic (0.863) is below the critical value (3.841), with a probability of 0.3530.

The maximum eigenvalue test also indicates no cointegration at the 5% significance level.

The result revealed that both the trace and maximum eigenvalue tests have no cointegration among the variables at the 5% significance level. This implies that there is no long-term equilibrium relationship between PCI, LA, DL, TA, and TE during the study period.

Table 5: Fully Modified Ordinary Least Squares (FMOLS) Results

Dependent Variable: PCI				
Method			Fully Modified Least Squares (FMOLS)	
Sample (adjusted)			2013Q ² - 2022Q ⁴	
Included observations			39	
Long-run covariance estimate			Bartlett kernel, Newey-West fixed bandwidth = 4	
Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LA	0.497509	0.062062	8.016299	0.0000
DL	0.406226	0.337079	1.205135	0.2362
TA	0.131323	0.040107	3.274300	0.0024
TE	-0.096701	0.274087	-0.352811	0.7263
Model Summary				

Statistic	Value
R-squared	0.986668
Adjusted R-squared	0.985526
S.E. of regression	0.012621
Mean dependent var	2.201167
S.D. dependent var	0.104905
Sum squared resid	0.005575
Long-run variance	0.000198

Source: Author's Compilation (2024)

The fully modified OLS results show that LA (Loans and Advances) has a statistically significant positive impact on PCI (Per Capita Income) at the 1% level, with a coefficient of 0.4975. TA (Total Assets) also has a significant positive impact on PCI, with a coefficient of 0.1313. However, DL (Deposit Liabilities) and TE (Total Earnings) do not have significant effects on PCI, as indicated by their higher p-values (0.2362 and 0.7263, respectively).

The high R-squared (0.9867) and adjusted R-squared (0.9855) suggest that the model explains a large proportion of the variance in PCI. The model appears to be a good fit for the data, given the low standard error of the regression (0.0126).

Discussion

The results of this study are consistent with prior research, which highlights the stability and predictability of performance indicators in microfinance banks. For instance, Berger and Humphrey (1991) emphasise the role of firm size in improving technical efficiency, which aligns with the consistency observed in the mean and median values of the variables analysed. The limited variation, reflected in the narrow range of values and low standard deviations, supports previous findings that microfinance banks operate within stable financial parameters (Cummins & Weiss, 2009). Furthermore, Ochonogor (2020) notes slight deviations in Loan Assets (LA) and Total Assets (TA), which suggest asymmetric patterns, reinforcing earlier research that points to growth disparities in asset accumulation and lending practices among microfinance banks.

The descriptive statistics offer a comprehensive view of the distribution patterns for five variables: PCI (Per Capita Income), LA (Loans and Advances of microfinance banks), DL (Deposit Liabilities of microfinance banks), TA (Total Assets of microfinance banks), and TE (Total Earnings of microfinance banks). These variables were evaluated across 40 observations, with key measures including the mean, median, maximum, minimum, standard deviation, skewness, kurtosis, and the Jarque-Bera test.

The mean values across the variables are quite consistent, with PCI and LA both averaging around 2.197, DL at 2.396, TA at 2.683, and TE at 2.314. The median values closely align with the means, indicating a near-symmetric distribution. However, LA and TA show slight deviations, suggesting some asymmetry in these variables.

The range of values is relatively narrow, with TA showing the highest maximum of 2.930 and DL recording the lowest minimum of 2.304. This narrow range across all variables suggests limited variation within the data set.

In terms of data dispersion, TA (Total Assets) exhibits the highest standard deviation, at 0.246, indicating the greatest variability, whereas TE (Total Earnings) has the lowest standard deviation, at 0.021, meaning its values are closely clustered around the mean.

Skewness values reveal how the data is distributed relative to the mean. PCI (-0.105), DL (-0.233), and TA (-0.437) exhibit slight negative skewness, indicating that their distributions have longer tails to the left. On the other hand, LA (0.234) and TE (0.076) display positive skewness, with tails extending to the right. Despite these differences, the skewness values are close to zero, indicating mild asymmetry in the distributions.

All variables exhibit kurtosis values below 3, indicating that their distributions are flatter than the normal curve (platykurtic). This indicates that the data has thinner tails and fewer outliers compared to a normal distribution.

The Jarque-Bera test, which assesses the normality of the data, shows p-values greater than 0.05 for all variables. This indicates that the null hypothesis of normality cannot be rejected, implying the data does not significantly deviate from a normal distribution. The descriptive statistics indicate that the variables are predominantly symmetric, with minimal skewness and no significant deviation from normality. TA shows the greatest variability among the variables. Based on the Jarque-Bera test results, parametric methods are appropriate for further analysis, as the data adheres to normality assumptions.

Conclusion

The descriptive analysis and econometric tests conducted on the variables of Per Capita Income (PCI), Loans and Advances (LA), Deposit Liabilities (DL), Total Assets (TA), and Total Earnings (TE) of microfinance banks revealed several important insights. The descriptive statistics show that the variables are relatively symmetric, with minimal skewness and no significant deviations from normality, as confirmed by the Jarque-Bera test results. However, TA exhibited the highest variability among the variables.

The Augmented Dickey-Fuller (ADF) unit root test results indicate that all the variables are non-stationary at their levels but become stationary after first differencing, meaning they are integrated of order one, I(1). This finding supports the application of further cointegration and regression analyses.

Despite testing for cointegration using the Johansen cointegration test, both the trace and maximum eigenvalue tests showed no evidence of a long-term relationship between the variables at the 5% significance level. This implies that there is no long-term equilibrium connection among PCI, LA, DL, TA, and TE during the period under study.

The Fully Modified OLS (FMOLS) results indicate that LA and TA have a significant positive impact on PCI. The coefficients of LA (0.4975) and TA (0.1313) indicate that an increase in loans and advances, as well as total assets, of microfinance banks can positively influence per capita income. However, DL and TE do not significantly affect PCI in the same way. The high R-squared value (0.9867) indicates that the model explains most of the variability in PCI.

Since the FMOLS results indicate that LA (Loans and Advances) has a significant impact on PCI, microfinance banks should prioritise expanding their loan portfolios, as this is likely to enhance the country's per capita income. Given the significant positive relationship between Total Assets (TA) and PCI, microfinance banks should aim to expand their asset base. Investments in productive assets could further strengthen their ability to impact economic growth and enhance per capita income. Policymakers should continue to support the growth of microfinance institutions, particularly in areas such as asset expansion and loan distribution, as these factors directly influence economic welfare, as measured by per capita income.

Acknowledgement

The authors wish to clarify that they have not received any funding or grants from any source for the publication of this paper. They extend their gratitude to the publishers for publishing the paper free of charge.

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INSTAGRAM AS AN INFLUENCER MARKETING TOOL IN THE CZECH REPUBLIC

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Received: December,
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1st Revision: March,
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Accepted: June,
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Background: Social media has created a new paradigm of how people share and consume in the market. This facilitated the flow of information via media such as Instagram and provided a new area for the development of marketing strategies and trends. **Aims:** The aim of this paper is to find out how influencers on Instagram reach their audience and to identify which of the communication channels available on Instagram is the most effective to use. The geographical area of this study is narrowed to the Czech Republic market. **Methods:** To achieve the objective of this paper, a wide range of methods are applied, including observation and benchmarking. **Results:** The results show that there are numerous ways of communicating with followers on Instagram. Among these, the most effective is sharing the content via posts. **Conclusion:** As posts last longer at the influencer profile, the marketing effect can be more significant. **Implications:** Due to that, companies should encourage influencer marketing mainly by sharing the posts on influencers' accounts.

Keywords: influencer, influencer marketing, marketing communication, social networks

JEL Classification: M31, M37

DOI: 10.54933/jmbrp-2025-17-1-2

Dolénková, D., & Dzilská, Z., & Pollák, F. (2024). Instagram as an Influencer Marketing Tool in the Czech Republic. Journal of Management and Business: Research and Practice, 17(1), doi: 10.54933/jmbrp-2025-17-1-2

Introduction

Influencer marketing started to be widely used by many companies. Consumers have become more demanding and increasingly skeptical of traditional marketing. Due to that, enterprises often turn to online marketers who can promote their brands on social media platforms such as Instagram, Facebook, etc. (Leung, 2022). Companies make significant investments in influencer marketing but struggle to use it effectively. This is especially true when selecting appropriate influencers to achieve engagement and, thus, higher sales as an outcome (Beichert et al., 2023; Leung et al., 2022). Maintaining influencers' credibility while promoting products is challenging because followers increasingly perceive influencers' recommendations as mere marketing tactics, known as persuasion knowledge (Pan, M. et al. 2024).

In the past, marketing campaigns tended to feature only selected populations, but today, the emphasis is on more diverse representation. Due to the nature of the online market space and the variability of the environment, reputation in the online environment and corporate marketing are vital for success (Pollak, & Dorčák, & Markovič, 2021). Companies are dedicating an increasing portion of their budgets to working with influencers. It is no longer just a method of communication typical for cosmetics or clothing sellers. Great emphasis is placed on authenticity. Users simply want to believe the content. At the same time, they are also looking for influencers who deal with completely everyday life and point out imperfections.

Influencer marketing is also increasingly reaching in the finance or banking sector. One such example is the content creation of the digital influencer "Just.ina" with "Komerční banka". In April 2023, they launched a joint long-term campaign stating: I love retirement - a revolution in the perception of retirement. This campaign was aimed at the young generation, specifically Generation Z. It tries to inspire young people to prepare for retirement. One of the goals of the digital influencer is to get this generation to change their mindset and start thinking positively about retirement (Nevoralová, Š., 2023).

The increasing popularity of influencer marketing has stimulated researchers to study. The area of study is quite wide, as many factors impact influencer marketing and its outcome. Due to that, this paper is narrowed to the geographical area of the Czech Republic and aims to find out how influencers on Instagram reach their audience and to identify which of the communication channels available on Instagram is the most effective to be used.

Theoretical background

Influencer marketing has gained momentum due to changes in consumer behavior. Traditional advertising and direct marketing actions are increasingly perceived with skepticism by consumers. Online influencers can be a very efficient solution, especially for young customers. The content created by influencers is integrated into their daily lives, suggesting a naturalness in the statements made in the online environment. Influencer marketing is perceived as a digital advertising tactic which relies on popular social media users who have built a significant and engaged follower base by frequently posting texts, images, or videos to promote apart from other products and brands (Schouten et al., 2020). Understanding the attitudes of specialists and consumers is of great importance to better understand the viewer's perception and the strategy for releasing an influencer marketing campaign (Szakal et al., 2024).

From a sociological perspective, a social network can be defined as a set of entities connected by exchange relationships (Pollak & Dorčák, 2016). In today's digital society, social media and online platforms play a significant role in influencing consumers. As they slowly rise, they gradually change the consumer shopping decision-making patterns. Consumers increasingly use social media, especially to gather information before decision-making regarding the product purchase. In this context, influencers have gradually entered the public eye (Qin et al., 2024).

Consumers often follow the recommendations of influencers and trust their choice of products. Many companies increasingly see influencers as powerful tools for communication with consumers. Influencers have established closer connections with their followers and developed more trustworthy and credible relationships than celebrities. This transformative interaction model has made consumers more reliant on influencers' opinions, thus having a more direct and profound impact on shopping and lifestyle decisions (Barta et al., 2023). Influencers receive compensation for posting content related to products, services, or brands. This is mainly driven by the follower base; influencers can significantly influence potential consumers' purchasing decisions by disseminating their views on company or brand

products and services. Consumers are very likely to follow the purchasing advice of influencers they admire (Koay et al., 2024).

Over 75% of marketers in a company intend to dedicate resources to influencer marketing, and related spending is expected to reach \$16.4 billion by the end of 2022 (Influencer Marketing Hub 2022). However, in many cases, marketers are disappointed to find that there is spending in the budgets but no real benefit from the campaign. Influencer marketing requires a lot of resources but is also difficult to implement and assess, making it difficult to identify the decision criteria that firms can use to enhance the effectiveness of their influencer marketing efforts (Leung et al., 2022).

Methodology

In order to gather relevant data, several sources and methods were applied to meet the goals of the paper. To obtain the necessary data for analysis and to answer research questions, the social network Instagram.com was used.

At the beginning of the study, we focus on the analysis of the influencer market on Instagram in the Czech Republic. This will be performed by analyzing the top 3 influencers operating in the Czech market and understanding their scope of activities and number of followers.

The study further focuses on the Czech influencer market, and in the first 2 quarters of the calendar year 2024, the selected Instagram profiles have been viewed. The observation method was applied to gather relevant data for analysis, monitoring of the posts, and observation of interactions with followers. As a second method, benchmarking is used to compare the collected data with the aim of understanding the basic model of influencer marketing, which could be widely used by companies operating in the Czech Republic market. Therefore, any information obtained through benchmarking should be used to achieve a change in the improvement of the services provided to customers. Its meaning is to determine the position of the company in the market and the improvement itself.

Regarding the research study question, we identified the following, which we will answer in the following parts of the paper.

Q1: How do influencers reach their audience on Instagram?

Q2: What is the most effective way to promote a company through influencer marketing on Instagram?

In order to answer the study questions, other relevant sources published by researchers were examined as well. These include research published by authors in relevant areas of study published by reputable sources.

Results

In order to analyze the Czech influencer market on Instagram, we first evaluate the top influencers. Table 1 provides an overview of the top 10 Czech influencers on Instagram for 2023 based on the number of followers. Below, we provide a brief overview of the top 3 influencers with some background on their scope of activities.

The influencer with the biggest number of followers is Petr Čech, a former football goalkeeper with over 2.6 million followers on his Instagram profile. He collaborates with brands such as O2 (mobile operator) or Adidas. Petr Čech values his privacy on Instagram and mostly publishes posts that build his name. The content of these posts includes photos and videos from matches, interviews, and points to collaboration with the given brand.

The second influencer is Makhmud Muradov, an MMA fighter who has over 2.1 million followers. Makhmud Muradov entered the Czech consciousness after his first fights in the UFC, thanks to his ex-partner Monika Bagárová. He collaborates with the Nutrend brand, and his posts are not only about fighting and training but also about travel and family. However, his weak point is (not) tagging advertising.

Leoš Mareš is in third place with 1.2 million followers. His most famous collaborations include Zalando or Xiaomi. Leoš Mareš's Instagram profile is quite varied and systematic. He creatively presents posts from everyday life - family, hosting the Morning Show on Europe 2 or travelling. He points to collaborations both in the form of posts and in disappearing stories (Vyorálková, E., 2023).

Table 1. Top 10 Instagram Influencers in the Czech Republic in 2023

No.	Name	number of followers in mil.	center of interest or activity
1	Petr Čech	2,600	sport
2	Makhmud Muradov	2,100	sport
3	Leoš Mareš	1,200	moderator, signer
4	Karolína Kurková	1,000	model
5	Adam Ondra	0,968	sport
6	Anna Šulcová	0,945	sport, fashion
7	Monika Bagárová	0,941	signer
8	Jirka Král	0,925	family, videogames
9	Kamil Bartošek	0,925	producent, moderator
10	Jan Macák	0,881	videogames, automotive segment

Source: Own elaboration, <https://influencom.cz/top-20-nejvetsich-ceskych-influenceru-na-instagramu-za-rok-2023/>

Since 2013, influencer marketing has been widely discussed as a marketing tool in the Czech Republic. Many companies wanted to try it but did not know how. Back then, YouTube was the leading marketing platform. Nowadays, the trend has shifted to Instagram. Today, there is no need to explain who an influencer is. You can work very effectively thanks to the influencer audience, evaluate all metrics, work with retargeting, etc. Nowadays, when traditional forms of advertising often lose credibility, influencers have become key players in the marketing strategy of many brands. Influencer marketing in the Czech Republic is constantly on the rise and increasing in popularity (Černovský, T., 2021).

Companies most often choose Nano-Influencers for marketing cooperation. These have up to 10 thousand followers. The following figure shows an overview of the influencer companies in the Czech Republic that use them for marketing purposes.

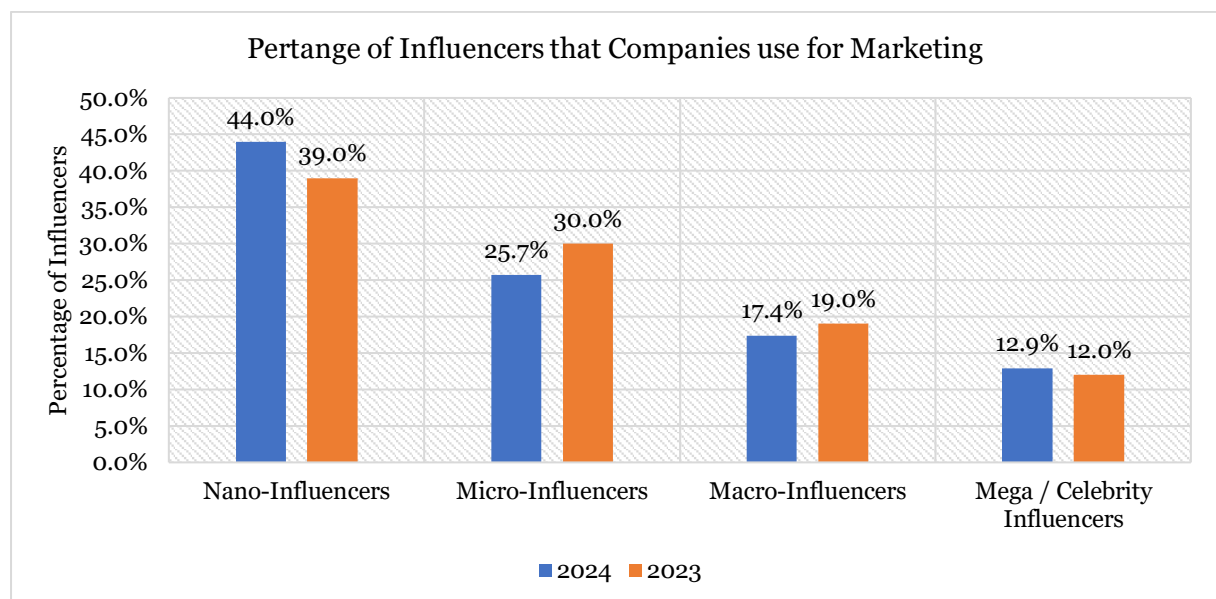


Figure 1. Percentage of Influencers that Companies Use for Marketing

Source: own elaboration, <https://www.mediaguru.cz/clanky/2024/04/objem-influencer-marketingu-se-v-cesku-odhaduje-na-1-5-mld-kc/>

There is a difference between the global engagement rate and the Czech market engagement rate, which is related to the size of the influencers. In general, the smaller the number of followers of the influencer, the more willing the audience is to interact with the influencer compared to the influencer

with a more significant number of followers. The Czech Republic has mostly micro-influencers, so its engagement rate is higher than the global average.

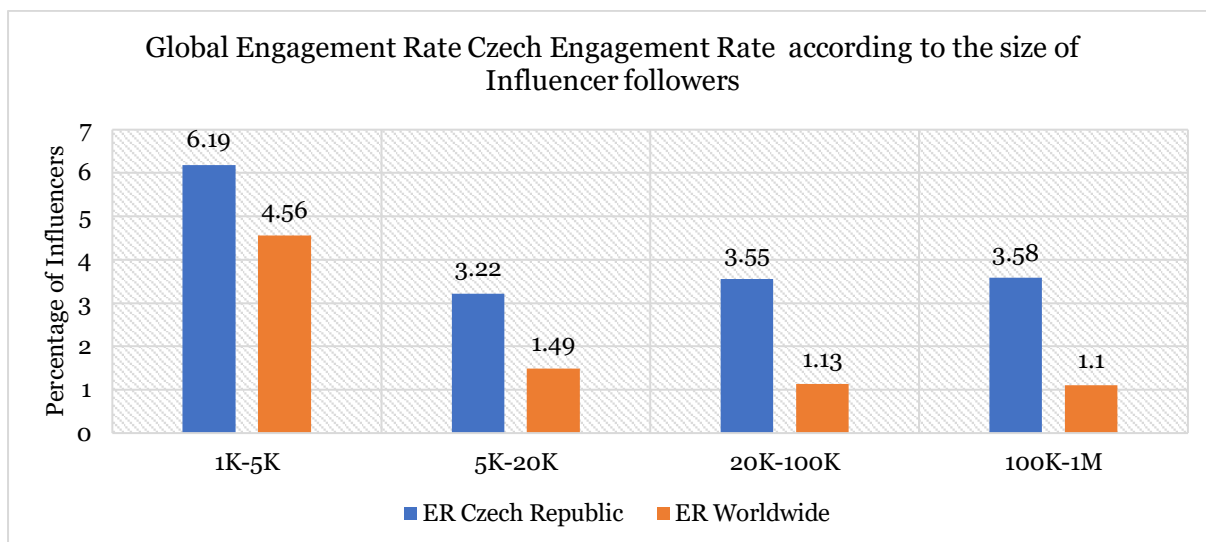


Figure 2. Global Engagement Rate Czech Engagement Rate according to the size of Influencer followers
Source: own elaboration, <https://www.fragile.cz/wp-content/uploads/Influencer-marketing-v-CR-HypeAuditor-and-Fragile-research.pdf>

Influencer partnerships of Czech brands tend to have a preference for short-term cooperation. An influencer adds only 3 posts on average that point to the brand. This is 5 times less than the world average. According to the growing market size, it is clear that more and more emphasis is being placed on online marketing. Currently, it is estimated to be around CZK 1.5 billion. Also, part of the advertising budget is increasingly being invested in social networks (News Media, 2020).

Discussion

Influencers reach their audience in many ways. One of them is by adding posts where they receive instant feedback through likes, comments, and private messages. The advantage is that Instagram already offers the option of adding multiple photos or videos to one post. It is comprehensible and does not overwhelm the audience. The cover image plays an important role for a large number of influencers. Many base their profile on the aesthetics of the profile, so they carefully choose which photo will be the cover photo. It is displayed on the profile. This photo is also significant for attracting the viewer's attention. The most popular are portrait photos in a 2:3 ratio because they take up the most space on mobile devices.

Another way of communication is through stories. These are types of posts that are visible only for 24 hours. They are not displayed on the main profile, so there is no emphasis on aesthetics. It can be said that it is more of an informal communication with followers. Things from current life, everyday problems, and news are shared here. It is a fast communication method through which various types of surveys and deductions (tied to an event, for example) can be shared.

Another communication option is reels, short videos that are intended to express as much information as possible in the shortest possible time. They contain video and photo montages or are used to tell stories.

A further option is a direct message. It is one of the most widely used forms of direct communication. A private message can be sent as a reaction to stories or as a regular message.

The last communication option is live broadcasting, where the influencer communicates and answers questions in the comments during the broadcast. This allows you to immediately broadcast content from the camera and invite another user to the broadcast. It is the fastest way to communicate with the audience.

Having discussed the above, we can progress to answering the first research question: "How do influencers reach their audience on Instagram?"

Based on the research and analysis of the results, influencers address their audience in several ways, as indicated in the results, using posts that they regularly publish and are intended to point out a

given product or brand. The audience often has the opportunity to use a link under the given post, which directs them to the brand's website or the comments section, where they can express their opinion or ask questions about the product. Instagram currently also offers the option of adding more than one photo or adding videos.

Furthermore, influencers can reach their audience through stories, where they publish their daily activities, promote the brand, give followers the opportunity to ask questions about products, and influencers share their answers on stories, which it is also available to others, create polls and often ask for feedback in messages (direct). The advantage is that it provides a quick way of communication, and it is relatively easy to create. On the other hand, the disadvantage can be that the audience can be overwhelmed if the influencer publishes many of these stories during the day.

Another way to communicate with followers is reels, or short videos, which are designed to convey as much information about a given product as possible in a short amount of time. The length of these videos is usually less than a minute, but they are usually shorter to keep attention. They are ideal for presenting creative content. Reels also allow you to add music or effects. However, compared to stories, they are more challenging to create and take more time.

One option is direct message or private/direct message. It is one of the 10 most used forms of communication between brands and consumers. The influencer can use this form to contact the follower and vice versa; the follower can contact the influencer. Instagram is aware of its power and is constantly trying to improve it.

The last method of communication is a live broadcast, where the influencer actively communicates and answers questions in the comments. The advantage is an immediate response, but the disadvantage is a large number of connected followers, and questions can easily be overlooked.

At this stage of the research, we can answer the second research question: "What is the most effective way to promote a company through influencer marketing on Instagram?"

The most effective are considered to be the posts that are added to the influencer's account with a greater time interval and are therefore visible for longer periods of time compared to stories. Many of these are added daily, and it is easy to overlook a lot of things or intentionally skip them because of the quantity. Another reason can be that the influencer presents many other things that have nothing to do with promoting the brand. In addition, stories are only available for 24 hours after publication (unless the influencer saves them in a so-called selection). Therefore, the most suitable promotion of the company should be through shared posts or reels.

Additionally, according to Leung et al. (2022), the management of influencer marketing is key in terms of influencer selection, followers' consideration, or content briefings. In addition to investing in influencers with more followers, the company can enhance elasticity by selecting influencers who transmit more original content. Furthermore, influencers should be encouraged to make the sponsor brand more salient in the posts by incorporating clickable brand mentions and URL links. For example, posts introducing new products may be shared more because they contain novel and interesting content. These also stay on the influencers' profiles for a longer period of time.

Conclusion

The aim of the paper was to examine influencer marketing in the Czech Republic via the use of Instagram. By researching published studies, comparing different approaches, and benchmarking, we were able to identify the results of the study.

Through the research and application of selected methods, the authors were able to answer the study questions. As the main outcome, the ways of communicating influencers can reach out to the audience have been identified, and among these, the most effective one was selected. There are many ways to communicate with followers, including posts, stories, reels, direct messages, and live broadcasting. Among these, the most effective are the posts. The main driver for this conclusion is the long-lasting post, which can be seen by a wider audience and is available for a longer period of time than, for example, stories. Additionally, posts can include hyperlinks to the product and thus promote marketing even more.

Additionally, it is important also to mention the study's limitations. These include, for example, the research specification, which targeted the geographical area of the Czech Republic. Also, the analysis was mainly conducted for Instagram; the other social networks were not taken into account when conducting the research. Due to that, the results might vary in the case of different markets or social networks used for influencer marketing.

Acknowledgement

Acknowledgement: This article is one of the partial outputs of the currently implemented research grant VEGA no. 1/0110/24.

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ASSET-LIABILITY MANAGEMENT AND PERFORMANCE OF LISTED DEPOSIT MONEY BANKS IN NIGERIA

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Received: December, 2024

1st Revision:

April, 2025

Accepted:

June, 2025

Background: The development of asset-liability management was a response to the challenge of financial intermediation risks. **Aim:** This research looked into how asset-liability management impacted the economic success of DMBs, as quoted on the NGX, over a decade. Information was gathered from these banks' financial statements from 2013 to 2022. **Methods:** Analysis used descriptive, correlation, panel, and generalized least square techniques. The study categorized asset-liability management into asset management and liability management, each with its own performance indicators. Asset management's indicators included Asset Coverage Ratio (ACR), Total Asset Turnover (TAT), and Working Capital Turnover (WCT); liability management's indicators were Cash Flow Ratio (CFR), Capitalization Ratio (CAPR), Current Ratio (CR), and Return on Asset (ROA). **Results:** The study found that measures like ACR and TAT, under asset management, positively and significantly affect ROA, whereas WCT, a measure of asset management, negatively and insignificantly affects ROA. **Conclusions:** Conversely, measures under liability management, such as CFR and CR, positively influence ROA, whereas CAPR negatively impacts it.

Keywords: Assets management; liabilities management, performance, deposit money bank

JEL Classification:

DOI: 10.54933/jmbrp-2025-17-1-3

Raji, S. A., Agbaje, A. A., Oke, A. A., & Balogun, M. A., (2024). Asset-Liability Management and Performance of Listed Deposit Money Banks in Nigeria. Journal of Management and Business: Research and Practice. doi: 10.54933/jmbrp-2025-17-1-3

Introduction

The long-term success of a financial institution, especially a bank, hinges on its ability to manage its assets and debts efficiently. Managing assets and debts (ALM) is vital for monitoring all the various bank activities. Banks deal with all sorts of risks, such as credit risk, changes in interest rates, and not having enough cash on hand. These risks include operational, legal, and foreign exchange risks. Onaolapo and Adegoke (2020) highlight three main risks at the heart of ALM: the risk of changing interest rates, not having enough cash, and not getting paid back. It's essential for a financial institution to fully understand these concepts without a structured ALM program. This comprehension enables the institution to evaluate the risk-return trade-off it is dealing with accurately.

The ALM system plays a vital role in managing market, trading, and liquidity risks, as well as in planning for profits and projecting growth (Tee, 2017). Banks cannot offer loans without having deposits, and their earnings are primarily from the interest on loans (Kazeem & Adeoye, 2020). How well a bank is doing financially is tied to how good it is at handling credit, showing just how important it is for a bank to have deposits in banking operations. To meet its goals, a bank must focus on effective ALM, especially in managing liquidity, interest rate, and credit risks (Kazeem & Adeoye, 2020). Banks can make better business decisions by considering these risks within a structured framework. ALM is a plan that sorts out various kinds and amounts of money stuff and debts, considering how complicated the money market can be (Onaolapo & Adegoke, 2020). Banks mainly earn from interest on loans after subtracting deposits and loan interest. However, it is crucial to remember that banks cannot lend without deposits, and their primary profit source is from loan origination. The financial success of a bank is linked to its credit management, which, in turn, depends on the availability of deposits. A bank must adopt suitable ALM strategies to achieve its goals, including managing liquidity, interest rate, and credit risks (Francis, 2007). This study aims to look into how the management of ALM affects the financial outcomes of deposit money banks in Nigeria.

The purpose of this research is to answer the following research questions:

1. How does assets management affect the financial performance of deposit money banks in Nigeria?
2. Is there relationship between liability management and financial performance of deposit money banks in Nigeria?

Theoretical background

ALM is a method organizations use to manage their finances to reduce risks. It involves making smart decisions to keep money, handle losses, and grow assets. This is important for banks to operate efficiently and grow, ensuring the economy stays stable and can handle any unexpected challenges. ALM is essential for banks to be successful and expand.

ALM focuses on matching when money comes in and goes out in banks, aiming to reduce risks. Banks usually borrow money for short periods but lend it out for longer, which can lead to problems with having enough cash. ALM also involves monitoring the financial situation, assessing risks, and deciding how to best manage assets and liabilities to earn more interest while staying within safe limits. The goal is to keep interest income stable over time and protect the bank's long-term value rather than altogether avoiding risks.

This study presents a variety of theories related to asset liability management. These theories include the liabilities management theory, theory of mismatch, portfolio theory, efficient frontiers and asset allocation theory, and financial hierarchy theory. Liability theory management is a fundamental idea that banks may meet liquidity demands by borrowing money from capital markets. The theory of mismatching, often known as the multi-dimensional model, is a broad method for analyzing insurance portfolios. This approach includes a collection of investment pools, some of which are made up of securities sensitive to changes in interest rates, while others are focused solely on stocks. Portfolio theory is a strategy for investing that aims to find the right balance between risk and potential return to achieve the highest possible profit from a collection of investments. The concepts of the efficient frontier and asset allocation suggest that investors must evaluate how risky investments affect the expected profit and the range of profits their portfolio could earn. On the other hand, financial hierarchy theory concentrates on how the value of a company's liquid assets relates to its overall worth and how these assets can enhance the company's financial structure over time.

Arhinful and Radmehr (2023) examined the impact of financial leverage on the financial performance of firms listed on the Tokyo Stock Exchange. The study used 257 firms from 2000 to 2021. The study used GMM to analyse the effect of financial leverage on the financial performance. The study found that debt financing has positive and significant impact on performance of firms.

In a study by Folake and Mfon (2021) on Nigerian life insurance companies, it was discovered that there was a strong link between how well these companies managed their assets and their profitability, with certain types of liabilities also connected to higher profits.

The research by Onaolapo and Adegoke (2020) looked into how ALM influenced the financial health of DMBs in Nigeria from 2005 to 2018. This research, which analyzed the financial statements of fourteen banks, revealed that how assets and liabilities were managed affected the bank's return on assets and investment, with the size of the bank, demand deposits, and borrowing activities all playing a role in investment.

Evans (2017) study on Ghanaian listed banks found that asset management positively impacts profitability, while liabilities management, primarily savings and fixed deposits, has significant adverse effects on commercial banks' profitability, based on a robust panel regression analysis of seven banks from 2008 to 2012.

Simatwa (2015) study on ALM in Kenyan commercial banks found that asset quality significantly impacts financial performance. Non-performing loans had an inverse relationship with economic performance, while increased liabilities impacted considerable performance. Operational efficiency was found to be substantially associated with bank performance. The study also revealed that ALM factors like loans, liability, and efficiency levels directly affect banks' performance.

Methodology

For this research, a quantitative approach is chosen to explore how the management of liabilities related to assets (ALM) affects deposit money banks' performance. The study used data to examine how handling debts connected to assets (ALM) affects deposit money banks' performance. The study will focus on all quoted deposit money banks in Nigeria. As of January 26, 2024, fourteen (14) banks were included on the NGX.

Table 1: Total Deposit Money Banks Listed

S/N	Banks
1	Access Holdings Plc
2	Ecobank transnational Incorporated
3	Fidelity Bank Plc
4	FCMB Group Plc
5	First Bank of Nigeria Limited
6	Guaranty Trust Holding Company Plc
7	Jaiz Bank Plc
8	Stanbic IBTC Holdings Plc
9	Sterling Financial Holding Company Plc
10	Union Bank Nigeria Plc
11	United Bank of Africa Plc
12	Unity Bank Plc
13	Wema Bank Plc
14	Zenith Bank Plc

Source: Author's computation (2024)

The study sample comprises solely quoted banking institutions in Nigeria Exchange Group (NGX). It considers enterprises that have been mentioned since 2012 and are still in existence whose financial report is accessible for the sample period (2013-2022). The information to be used will be gathered from the audited financial reports of the chosen bank from 2013 to 2022. The goal of the sample period is to ensure more banking institutions and the bank's economic reports are readily available. To ensure uniformity in the classification of banks, only banks listed on the NGX are considered.

Table 2: Selected Deposit Money Banks

S/N	Banks
1	Fidelity Bank PLC
2	FCMB Group Plc
3	First Bank of Nigeria Limited
4	Stanbic IBTC Holdings PLC
5	Union Bank Nigeria PLC
6	United Bank of Africa PLC
7	Unity Bank PLC
8	Wema Bank PLC
9	Zenith Bank PLC

Source: Author's computation (2024)

The aim of dividing Asset and Liability Management (ALM) into Assets Management (AM) and Liability Management (LM) is to distinctly demonstrate the impact of Asset Management (AM) on performance and the influence of Liability Management (LM) on performance. Therefore, the mathematical equations for the models in this study are as follows:

$$ROA = F(AM, Size) \quad \text{eqn 1a}$$

$$ROA = F(LM, Size) \quad \text{eqn 1b}$$

Model expansions of AM expressed in Mathematical function form are then classified into:

$$ROA = F(ACR, TAT, WCT, Size) \quad \text{eqn 2a}$$

$$ROA = F(CFR, CAPR, ICR, Size) \quad \text{eqn 2b}$$

In econometric modelling, expanding the AM into its components gives:

$$= \alpha + \beta_1 ACR_{it} + \beta_2 TAT_{it} + \beta_3 WCT_{it} + \beta_4 FZ_{it} + \beta_5 EPS_{it} \quad \text{eqn 3a}$$

$$= \alpha + \beta_1 CFR_{it} + \beta_2 CAPR_{it} + \beta_3 CR_{it} + \beta_4 FZ_{it} + \beta_5 EPS_{it} \quad \text{eqn 3b}$$

Where:

ROA= Return on Assets, AM= Asset Management, LM= Liability Management, ACR= Assets Coverage Ratio, TAT= Total Assets Turnover, WCT= Working Capital Turnover, CFR= Cash Flow Ratio, CAPR= Capitalization Ratio, CR= Current Ratio, FZ= Firms' Size, EPS= Earnings per Share

The table below shows how the variables will be measured.

Table 3: Measurement of Variables

S/N	Variables Names	Variable Type	Proxy	Formula
1	Return on Assets (ROA)	Dependent Variable	Performance	Profit divided by Total Assets Edmonds (2020),
2	Asset Coverage Ratio (ACR)	Independent Variable	Asset Management	Total assets minus short-term liability divided by total debt (Folake & Mfon, 2021).
3	Total Asset Turnover (TAT)	Independent Variable	Asset Management	Sales are divided by total assets (Anjili, 2014).
4	Working Capital Turnover (WCT)	Independent Variable	Asset Management	Sales are divided by working capital (Simatwa, 2015).
5	Cash flow Ratio (CFR)	Independent Variable	Liability Management	Operating cash flow is divided by total debt (Greuning & Sonja, 2003).
6	Capitalization Ratio (CAPR)	Independent Variable	Liability Management	Non-current debt is divided by total assets (Simatwa, 2015).

7	Current Ratio (CR)	Independent Variable	Liability Management	Current assets are divided current liabilities (Anjili, 2014).
8	Firm's Size (FZ)	Control Variable	Firm's Size	Log of total assets (Simatwa, 2015).
9	Earnings per share (EPS)	Control Variable	Asset Management	Net income divided by the number of shares outstanding (Anjili, 2014).

Source: Author's computation (2024)

Results

Table 4: Descriptive Statistics

	ROA	ACR	TAT	WCT	CFR	CAPR	CR	FZ	EPS
Mean	0.036707	19.25637	0.108226	0.623396	0.496140	0.183729	1.747263	6.884712	0.859004
Median	0.018147	0.449213	0.100556	0.364335	0.070977	0.123781	1.059461	6.533624	0.480000
Maximum	0.282878	817.3471	0.574581	61.52778	9.941800	1.752215	16.51753	9.156459	5.010000
Minimum	-0.091003	-0.481563	0.003316	-74.34552	-0.748960	0.000764	0.098639	4.877377	-1.276200
Std. Dev.	0.062594	89.15931	0.078287	13.63862	1.612506	0.246143	2.647112	1.256354	1.076322
Skewness	2.366612	8.175081	2.821124	-1.163165	4.557704	4.375011	3.888625	0.262850	1.648992
Kurtosis	9.123945	73.05785	16.15488	19.01672	24.72840	25.98583	18.68951	1.814364	5.849913
Jarque-Bera	224.6479	19407.86	768.3214	982.3015	2082.053	2268.418	1149.923	6.307847	71.24513
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.042684	0.000000
Observations	90	90	90	90	90	90	90	90	90

Source: Author's computation (2024)

The mean, as shown in Table 4, shows the descriptive statistics for the ROA, ACR, TAT, WCT, CFR, CAPR, CR, FZ, and EPS, which are 0.036707, 19.25637, 0.108226, 0.623396, 0.496140, 0.183729, 1.747263, 6.884712 and 0.859004. This indicates the average for each variable. This is computed by dividing the total of each respective variables by the total number of observations. In Table 4, the median result for the ROA, ACR, TAT, WCT, CFR, CAPR, CR, FZ, and EPS for the listed banks throughout 2013-2022 using the panel data descriptive test analysis are 0.018147, 0.449213, 0.100556, 0.364335, 0.070977, 0.123781, 1.059461, 6.533624, and 0.480000 respectively. This indicates the midpoint for each variable after the data have been arranged in ascending order or in descending order. The maximum value shows the value for each of samples ROA, ACR, TAT, WCT, CFR, CAPR, CR, FZ and EPS are 0.282878, 817.3471, 0.574581, 61.52778, 9.941800, 1.752215, 16.51753, 9.156459, and 5.010000 respectively while the minimum indicates the lowest value for each variable as -0.091003, -0.481563, 0.003316, -74.34552, -0.748960, 0.000764, 0.098639, 4.877377 and -1.276200 as shown in Table 4.

The standard deviation tells us how much the numbers vary from the mean. If the standard deviation is little, it suggests the values were very close together around the mean. However, if it is enormous, the values are distributed across a greater range. The spread of the numbers in Table 4 for ROA, ACR, TAT, WCT, CFR, CAPR, CR, FZ, and EPS are 0.062594, 89.15931, 0.078287, 13.63862, 1.612506, 0.246143, 2.647112, 1.25635, and 1.076322, respectively. This means the numbers are pretty close to the average.

Skewness is a way to look at how the numbers are shaped. It can be positive, negative, or zero. The skewness for Table 4 for ROA, ACR, TAT, WCT, CFR, CAPR, CR, FZ, and EPS are 2.366612, 8.175081, 2.821124, -1.163165, 4.557704, 4.375011, 3.888625, 0.262850, and 1.648992, respectively. This shows how spread out the numbers are compared to the average. If it's positive, there are more numbers on the right side. If it is negative, there are more on the left side. If it is zero, there's an equal number on both sides.

Kurtosis is about how peaked the shape of the numbers is. It is a way to measure how much the numbers curve around the highest point. In a regular shape, if the kurtosis is over three, it is really peaked. If it's under three, it is not as peaked. If it is precisely three, it is a perfect peak. The kurtosis values for ROA, ACR, TAT, WCT, CFR, CAPR, CR, FZ, and EPS are 9.123945, 73.05785, 16.15488, 19.01672, 24.72840, 25.98583, 18.68951, 1.814364, and 5.849913, respectively. All the numbers are pretty peaked except for FZ, which is not as peaked.

The Jarque-Bera test test is employed to verify the goodness of fit. It looks at if the skewness and kurtosis match up with what we would expect from a regular shape. If the test says the skewness and kurtosis do not match, it means the numbers do not fit a regular shape. The Jarque-Bera test for ROA, ACR, TAT, WCT, CFR, CAPR, CR, FZ, and EPS are 224.6479, 19407.86, 768.3214, 982.3015, 2082.053, 2268.418, 1149.923, 6.307847, and 71.24513. The test says the numbers fit a standard shape because the probability for each number is less than 0.05, which is the level we are looking for. This means we can use these numbers for more detailed analysis.

Table 5: Correlation Matrix Result

	ROA	ACR	TAT	WCT	CFR	CAPR	CR	FZ	EPS
ROA	1.000000								
ACR	0.028334	1.000000							
TAT	0.336225	-0.169460	1.000000						
WCT	0.007638	0.050460	0.049390	1.000000					
CFR	0.277407	0.729113	0.016817	-0.041246	1.000000				
CAPR	0.206018	-0.150946	0.484159	0.004593	-0.177952	1.000000			
CR	0.153389	0.561643	-0.109495	0.118325	0.516620	-0.161145	1.000000		
FZ	-0.532784	0.147100	-0.073011	0.098624	0.058093	0.012480	0.154228	1.000000	
EPS	0.489864	-0.108132	0.175140	0.006598	-0.002145	0.052340	-0.033455	-0.413009	1.000000

Source: Author's computation (2024)

Table 5 describes the strength of relationship (strong or weak) between variables and their direction (either positive, negative or zero relationship). A positive indicate relationship indicates that as one negative relationship indicates that one variables decreases the other trends decrease.

Fixed Effect Method (Asset Management)

Table 6: Fixed Effect Result

Dependent variable: ROA				
Method: Panel Least squares				
Variable	Co-efficient	Std.Error	T-statistics	Prob
C	0.017724	0.097989	0.180876	0.8569
ACR	0.0000226	0.000042	0.533268	0.5954
TAT	0.088139	0.056949	1.547682	0.1259
WCT	-0.000012	0.000243	-0.049500	0.9607
FZ	-0.000639	0.014179	-0.045092	0.9642
EPS	0.015620	0.003991	3.913998	0.0002
R-Squared	0.800158			
Adjusted R-squared	0.765975			
F-Statistics	23.40777			
Prob(F-Statistics)	0.000000			
Durbin- Watson stat	1.886585			

Source: Author's computation (2024)

From the coefficient (see Table 6), The model's constant (α) is 0.0177, showing that ROA changes by 0.0177 when all other factors (ACR, TAT, WCT, Size, and EPS) remain constant. The β_1 coefficient is 0.0000226, meaning an increase in the value of ACR leads to a 0.0000226 increment in ROA. Similarly, an increase in TAT results in a 0.088139 increase in ROA. A decrease in WCT lead to lowers ROA by 0.000012, a decrease in FZ by lead to lowers ROA by 0.000639, and an increase in EPS raises ROA by 0.015620.

A variable's statistical significance is ascertained by comparing the computed t-value to the t-table. The null hypothesis would be rejected if the computed t-value is smaller than the t-table value. The null hypothesis is accepted if it is greater.

For ACR, TAT, WCT, and FZ, the null hypothesis is not rejected, but for EPS, it is rejected, according to the t-table, at a level of significance of 0.05.

Decisions are made using the t-probability, which is greater than the t-statistic. The significance level is greater than 0.05 for ACR, TAT, WCT, and FZ, indicating that the null hypothesis is accepted. The null hypothesis is rejected for EPS since the p-value is less than 0.05.

The F-statistic, used to test multiple hypotheses, is rejected when its value exceeds the critical value of 0.05. This indicates that, for the listed Nigerian deposit money institutions, ROA is influenced by ACR, TAT, WCT, FZ, and EPS.

Determining the validity of a joint hypothesis is aided by the F-probability value. The null hypothesis is rejected if the F-probability is less than the significance level (0.05); otherwise, it is not rejected. In table 6, F-probability is less than 5%, the null hypothesis is rejected, demonstrating how all of the variables work together to affect the dependent variables.

The R-squared value indicates the data's fit to the model. An R-squared of 0.800158 indicates that the explanatory factors account for approximately 80.02% of the variation in the variable being investigated, leaving 19.98% unaccounted for as error.

The adjusted R-squared, 76.60%, is an adjusted version that considers how well the explanatory variables improve the model.

The Durbin-Watson test is a statistical method used to determine the presence of autocorrelation. There is autocorrelation if the DW statistic falls between the lower and upper values. In the result from the table above, the Durbin- Watson is 1.886585. The DW table indicates that the DW statistic does not fit within the specified range of 1.406 and 1.636, respectively. This means that autocorrelation is not present.

Table 7: Random Effect Regression Result

Dependent variable: ROA				
Method: Panel Least squares				
Variable	Co-efficient	Std. Error	T-statistics	Prob
C	0.116215	0.054584	2.129114	0.0362
ACR	0.0000285	0.0000417	0.682711	0.4967
TAT	0.104150	0.054926	1.896170	0.0614
WCT	-0.0000391	0.000243	-0.161131	0.8724
FZ	-0.015313	0.007629	-2.007224	0.0479
EPS	0.016440	0.003876	4.241165	0.0001
R-Squared	0.249498			
Adjusted R-squared	0.204825			
F-Statistics	5.585021			
Prob(F-Statistics)	0.000172			
Durbin- Watson stat	1.621009			

Source: Author's computation (2024)

From the coefficient, the constant (α) is determined to be 0.1162. When all variables (ACR, TAT, WCT, FZ, and EPS) are held constant, the Return on Assets (ROA) is set to 0.1162. The equation reveals that the coefficient for β_1 is 0.0000285, suggesting that an increase in ACR corresponds to a 0.0000285 change in ROA. Similarly, the coefficient for β_2 is 0.104150, indicating that a decrease in TAT leads to a 0.104150 change in ROA. Conversely, the coefficient for β_3 is -0.000391, signifying that an increment in WCT will lead to a reduction in ROA by -0.000391. The coefficient for β_4 is -0.015313, which denotes a decrease in ROA by -0.015313 for every change in FZ. Lastly, the coefficient for β_5 is 0.016440, signifying an increase in ROA by 0.016440 for every change in EPS.

A T-test is conducted to ascertain the statistical significance of these variables. For this, the t-value from the t-table must be found. It is statistically significant to reject the null hypothesis if the computed t-value is smaller than the t-value in the t-table. On the other hand, the null hypothesis is not rejected if the computed t-value is higher than the t-value found in the t-table.

The t-table for the given parameters is $t(0.05/2, 90-5) = 2.284$. Based on the findings, the null hypothesis for ACR, TAT and WCT and FZ has not been rejected because the variable has t-statistic of 0.6827, 1.8962, -0.1611 and -2.0072 respectively. However, under EPS (t-statistic of 4.2412), the null hypothesis is not accepted.

When making judgments, the t-probability estimate is more valuable than the t-statistic. The null hypothesis is not rejected for ACR, TAT and WCT as the p-value is higher than the threshold for significance level ($5\% = 0.05$). On the other hand, the p-value for FZ and EPS is lower than the significance level, indicating that the null hypothesis is rejected.

The joint hypothesis is tested using the F-probability figure with a threshold value of less than 5%. The null hypothesis is rejected, and it is shown that all factors jointly affect the dependent variables since the F-probability value is lower than 0.05.

In Table 7, R-squared value, the explanatory variables are responsible for 24.95% of the variation in the dependent variable. The error term explain the remaining 75.05% of the variance.

The Durbin-Watson test is employed to ascertain the presence of autocorrelation. This test examines both the upper and lower bounds of the observations. The data in the table above shows that the Durbin-Watson statistic is 1.621009. The Durbin-Watson table show an upper and lower limit of 1.406 and 1.636, respectively. Consequently, this suggests the existence of autocorrelation, as the DW statistic is within the range specified in the Durbin-Watson table.

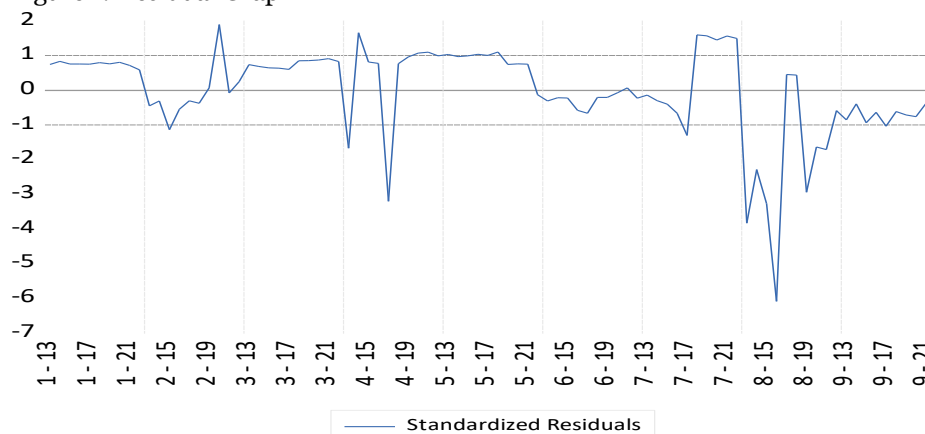
Table 8: Hausman Test Result
Correlated Random Effects - Hausman Test
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	10.251398	5	0.0684

Source: Author's computation (2024)

Hausman test is used to check if the random variable isn't connected to the other factors being examined. In Table 8, the Hausman test's p-value, which measures how likely the results are due to chance, is 0.0684. This is higher than the 1% mark, so we can't just throw out the idea that the random effect model is a good fit.

Figure 1: Residual Graph



Source: Author's computation (2024)

Heteroscedasticity test was carried out in order to determine the appropriate estimation regression model for the study. Figure 1 shows that there is presence of outlier in the variables. Outlier is an observation point that lies in an abnormal distance from other observation values in the sample. This shows that there is presence of heteroscedasticity in the variables which is not in line with the assumptions of ordinary least square. In other to make the model homoscedastic, the generalized least square method will be used.

Table 9: Generalized Linear Model Result

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.140826	0.033386	4.218176	0.0000
ACR	0.000120	5.75E-05	2.083501	0.0372
TAT	0.226257	0.065701	3.443748	0.0006
WCT	-0.000140	0.000370	-0.379671	0.7042
FZ	-0.021066	0.004425	-4.760603	0.0000
EPS	0.016536	0.005170	3.198723	0.0014

Source: Author's computation (2024)

The constant (α) from the coefficient is 0.140826. When all the factors (ACR, TAT, WCT, FZ, and EPS) remain constant, the ROA will remain at 0.140826. From table 9, the coefficient for β_1 is 0.000120. This suggests that as ACR increases, it would result in a 0.000120 increment in ROA, β_2 factor is 0.226257, showing when TAT grows it would also result in the increment of 0.226257 in ROA, β_3 factor is -0.000140, meaning a decrease in WCT would cause a 0.000140 decrease in ROA, β_4 factor is -0.021066, showing a decline in FZ would lead to a 0.021066 decrease in ROA, and β_5 factor is 0.016536, meaning that when EPS it would result in a 0.016536 increment in ROA.

The z-probability is more favorable for the decision compared to the z-statistic. For the z-probability, the WCT p-value is higher than the significance level of 5%, which means the null hypothesis is not rejected. While the factors ACR, TAT, FZ, and EPS the significance level is less than the p-value, suggesting that the null hypothesis is rejected.

Regression Analysis (Liability Management)

Table 10: Fixed Effect Regression Results

Dependent variable: ROA				
Method: Panel Least squares				
Variable	Co-efficient	Std. Error	T-statistics	Prob
C	0.061082	0.095348	0.640622	0.8569
CFR	0.003300	0.002430	1.358150	0.5954
CAPR	-0.023485	0.013551	-1.733028	0.1259
CR	0.001828	0.001606	1.1383	0.9607
FZ	-0.005518	0.013824	-0.399167	0.9642
EPS	0.015248	0.003877	3.932985	0.0002
R-Squared	0.811596			
Adjusted R-squared	0.779369			
F-Statistics	25.18370			
Prob(F-Statistics)	0.000000			
Durbin- Watson stat	1.768601			

Source: Author's computation (2024)

The constant (α) from the equation is 0.061082. When all the factors (ACR, TAT, WCT, FZ, and EPS) remain constant, the ROA value remains at 0.061082. From the equation, the β_1 coefficient is 0.003300, showing that a change in CFR leads to a 0.003300 growth in ROA. The β_2 coefficient is -0.023485, indicating that a change in CAPR results in a decrease of 0.023485 in ROA. The β_3 coefficient is 0.001828, showing that a change in CR leads to an increase of 0.001828 in ROA. The β_4 coefficient is -

0.005518, indicating that a change in FZ results in a decrease of 0.005518 in ROA. The β_5 coefficient is 0.015248, showing that a change in EPS leads to an increase of 0.015248 in ROA.

If the p-value is less than 5%, we say we don't accept the null hypothesis. Here, the CFR, CAPR, CR, and FZ all have p-values over 5%, which means we do not reject the null hypothesis. On the other hand, for EPS, the p-value is under 5%, so we do reject the null hypothesis.

The F-probability figure looks at the same thing but with a threshold of 5%. If it's over 5%, we say the null hypothesis should be rejected. In Table 10, the F-probability value is under 5%, showing that all the variables together affect the dependent variables for the listed DMBs in Nigeria. The F-probability value is also used to see if two or more hypotheses are working together, with a threshold of 0.05. If it's over 0.05, we reject the null hypothesis. Here, the F-probability value is under 0.05, meaning all the variables together affect the dependent variables for the listed DMBs in Nigeria.

The R-squared value tells us how well the model fits the data, going from 0 to 1, with 1 being a perfect fit. In Table 10, the R-squared value is 0.811596, showing that about 81.16% of the variation in the dependent variable is explained by the independent variables. This means that 18.84% (100% minus 81.16%) of the changes in the variable is because of the error term.

The adjusted R-squared, an enhancement of the R-squared measure, fine-tunes the explanatory variable in the equation, only growing if the variable enhances the model beyond what is anticipated.

The Durbin-Watson test is employed to identify any correlation among the observations. The chart displays a Durbin-Watson score of 1.768601, whereas the DW chart presents a range of 1.406 to 1.636, suggesting no correlation since the calculated score aligns with the data provided in the chart.

Table 11: Random Effect Regression Results

Dependent variable: ROA				
Method: Panel Least squares				
Variable	Co-efficient	Std.Error	T-statistics	Prob
C	0.147437	0.049513	2.977708	0.0038
CFR	0.004014	0.002404	1.669264	0.0988
CAPR	-0.026295	0.013400	-1.962356	0.0530
CR	0.002032	0.001571	1.293099	0.1995
FZ	-0.018193	0.006963	-2.612901	0.0106
EPS	0.016083	0.003753	4.285725	0.0000
R-Squared	0.305413			
Adjusted R-squared	0.264069			
F-Statistics	7.387048			
Prob(F-Statistics)	0.000009			
Durbin- Watson stat	1.448302			

Source: Author's computation (2024)

The constant (α) from the coefficient is 0.147437. When all the variables (ACR, TAT, WCT, FZ, and EPS) are kept constant, the ROA value remains at 0.147437. From the equation, the β_1 coefficient is 0.004014, showing that a change in CFR leads to a 0.004014 growth in ROA, while the β_2 factor is -0.026295, indicating that a change in CAPR results in a decrease of 0.026295 in ROA. The β_3 coefficient is 0.002032, meaning a change in CR leads to an increase of 0.002032 in ROA, the β_4 coefficient is -0.018193, showing a change in FZ results in a decrease of -0.018193 in ROA, and β_5 coefficient is 0.016083, indicating a change in EPS results in an increase of 0.016083 in ROA.

T-probability is utilized in decision-making processes based on the t-statistic. Should the t-probability surpass the t-statistic, the decision is made based on the t-probability. In this scenario, CFR, CAPR, and CR have t-probabilities surpassing the significance level (5%), indicating that the null hypothesis is not rejected. Conversely, EPS and FZ have t-probabilities falling below the significance level, suggesting that the null hypothesis is rejected for EPS, and the significance level is exceeded by the t-probability for FZ, indicating that the null hypothesis is rejected for FZ.

The combined theory is examined through F-probability figures, showing a value above 0.05, which suggests the null hypothesis should be dismissed. The outcome in Table 11 is 0.000009, which is less than 5%, showing that all factors together influence the outcome variables.

The R-squared figure in Table 11 shows that the explanatory factors account for 30.54% of the outcome variable's impact, while 69.49% is attributed to the residual error.

The adjusted R-squared, a tweaked version of R-squared, is applied to the model, increasing only if the explanatory factors enhance the model more than anticipated.

The Durbin-Watson test is used to verify the existence of autocorrelation in the data, with the findings showing a link between the highest and lowest values, as shown in the DW table.

Table 12: Hausman Effect Regression
Correlated Random Effects - Hausman Test
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	12.121450	5	0.0332

Source: Author's computation (2024)

Researchers often use the Hausman test to decide between fixed or random effect models by examining their connection with the model. If the p-value is less than the null hypothesis, it is considered significant, and if it is not, the null hypothesis is not deemed necessary.

Brook (2008) explains that the Hausman test determines if the random effect result is independent of the explanatory variables. Table 4.4.3 indicates that the p-value of the Hausman test is 0.0332, which is higher than a 1% significance level; therefore, the null hypothesis is accepted, indicating that the random effect model is appropriate.

Figure 2: Residual Graph

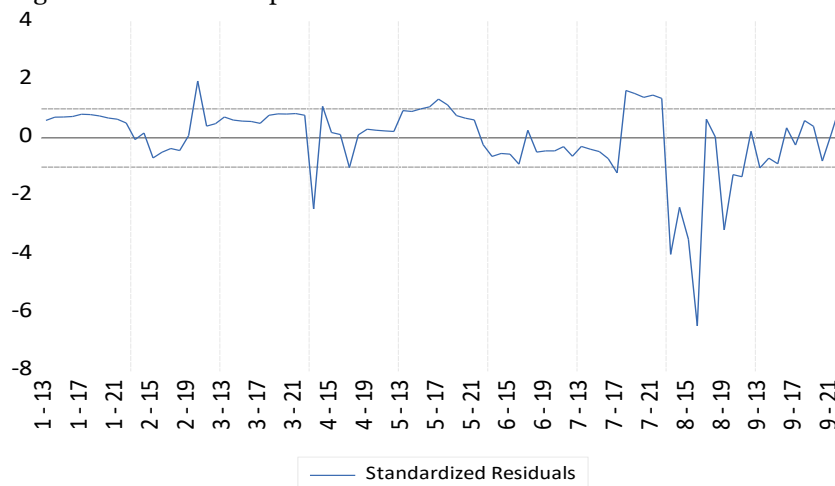


Figure 2 shows that there is presence of outlier in the variables. Outlier is an observation point that lies in an abnormal distance from other observation values in the sample. This shows that there is Heteroscedasticity in the variables which is not in line with the assumptions of ordinary least square. In other to make the model homoscedastic, the generalized least square model will be used.

Table 13: Generalized Linear Model Result

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	0.166955	0.032148	5.193285	0.0000
CFR	0.009108	0.003570	2.551298	0.0107
CAPR	-0.032680	0.020320	-1.608235	0.1078
CR	0.002087	0.002192	0.951795	0.3412
FZ	-0.021471	0.004333	-4.955495	0.0000
EPS	0.017947	0.005004	3.586494	0.0003

Source: Author's computation (2024)

The table 13 shows that the coefficient β_1 is 0.009108, meaning that a change in CFR will lead to a 0.009108 increase in ROA. Similarly, β_2 is - 0.032680, showing opposite direction movement between CAPR and ROA. This means that a change in CAPR will cause a reduction in ROA by 0.032680. β_3 is 0.002087, indicating that a change in WCT leads to a 0.002087 increase in ROA. β_4 is - 0.021471, showing that a opposite movement between FZ and ROA. This means that a change in FZ causes a reduction in ROA by 0.021471. Lastly, β_5 is 0.017947, meaning that a change in EPS would cause increase in ROA by 0.017947.

For the z-probability, CAPR and CR have a p-value exceeding the significance level of 5%, suggesting that the null hypothesis is not rejected. Conversely, for CFR, FZ, and EPS, the level of significance is not up to the p-value, indicating that the null hypothesis is rejected.

Discussion of Findings

This study examined the influence of asset-liability management on financial performance of listed deposit money banks in Nigeria over the period 2013 – 2022. The study used GLM findings to make choice because it is better to the result from the fixed and random effect regression analysis.

The results indicate that the Asset Coverage Ratio (ACR) positively and significantly influences the financial performance of the publicly listed deposit money institutions in Nigeria. An increase in ACR signifies an enhancement in the functioning of deposit money banks. The study is against the finding of Arhinful and Radmehr (2023), Mesak and Imade (2019) and Kuncoro and Augustina (2017) but inline with Folake and Mfon (2021) and Kazeem and Adeoye (2020). Total Asset Turnover (TAT) has a positive and strong correlation with financial success, as assessed by return on assets. This indicates that when asset management methods with TAT enhance, the financial performance of the listed deposit money institutions in Nigeria would also improve. The study is against the findings of Deelstra and Janssen (2015) but in line with Onaolapo and Adegoke (2020). It was shown that Working Capital Turnover (WCT) has a negative and negligible correlation with the financial performance of the listed deposit money banks in Nigeria. This suggests that when asset management practices using WCT enhance, the financial performance of the listed deposit money banks in Nigeria would concurrently diminish. This result contradicts the findings of Abebe (2020) but inline with Onaolapo and Adegoke (2020).

The Cash Flow Ratio (CFR) is positively and strongly correlated with financial success as measured by return on assets. This indicates that when liability management methods with CFR enhance, the financial performance of the listed deposit money banks in Nigeria would also improve. This finding is in line with the a-priori expectation of this research which states a positive relationship between the variables as well as the findings from the works of Dada (2021) but against the findings of Onaolapo and Adegoke (2020). Capitalization Ratio (CAPR) shows a negative and negligible link with financial performance of the listed deposit money banks in Nigeria. This implies that when liability management procedures using CAPR improves, the financial performance of the listed deposit money institutions in Nigeria would also drop. This result, however, is in line with the findings of Dada (2021) but against the findings of Onaolapo and Adegoke (2020). Current Ratio (CR) shows a positive and insignificant link with financial performance of the listed deposit money banks in Nigeria. This implies that when liability management procedures with CR improves, the financial performance of the listed deposit money institutions in Nigeria would also drop. This finding is not in accordance with the a-priori expectation of this investigation. The current ratio gives insight into a company's liquidity and its capacity to pay down its short-term commitments. A greater current ratio implies a healthy liquidity situation, whereas a lower ratio may signify possible liquidity concerns. However, an overly high ratio can suggest underutilization of assets. The optimal current ratio varies by sector and firm, but typically, a ratio of 2:1 or greater is considered healthy.

Conclusion

The Asset Coverage Ratio really helped improve the bank's financial results, showing that it is important for determining a bank's performance. The Total Asset Turnover also boosts the bank's financial success, proving that it is a determinant of financial success. The Working Capital Turnover also helped the bank's financials, showing that this is a vital part of being financially sound. The Cash Flow Ratio also played an important role in the bank's financial health, proving that it's a good way to determine a bank's health.

On the other hand, Capitalization Ratio hurts the bank's performance, suggesting it doesn't help the bank succeed. Similarly, the Coverage Ratio negatively affects the bank's performance, showing that it harms a bank's health. In conclusion, this study showed that the Asset Coverage Ratio, Total Asset Turnover, Working Capital Turnover, and Cash Flow Ratio all positively impact the bank's performance. In contrast, the Capitalization Ratio and Current Ratio have the opposite effect.

Only data from Nigerian deposit banks and money banks were used in the study. The results have not considered banks from other nations. The study is further limited by the fact that certain banks do not have the data. As a result, the study sample's representativeness was eventually compromised and its size was decreased. The banking industry was the sole focus of this study, therefore results may differ in other industries. This indicates that it is unknown how ALM and financial success in other industries that use the model are related.

The study focused on DMBs in Nigeria from 2013-2022 but it has not benchmarked the findings with other countries. It is thus suggested a similar study to be done to bench the findings with deposit money banks in other countries. The study only concentrated on banks which represents only one sector of the economy. This left other sectors uncovered. A similar study in other sectors is desired to ensure full disclosure on the relationship between ALM and financial performances.

Acknowledgement

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UNDERSTANDING MOTORIST PREFERENCES FOR FUEL STATIONS IN ADO EKITI METROPOLIS

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Received:
December 2024
1st Revision:
February, 2024
Accepted:
June, 2025

Background: *The increasing competitive markets for petrol station services has made customers more selective on the quality of services they expect, thereby making the service providers more committed to service offerings.* **Aims:** *This study examined the determinants of patronage in filling stations in Ado Ekiti Metropolis.* **Methods:** *The study uses a sample size of 316 from the 1500 population of motorist chosen through a convenience sampling. The method of data analysis used was simple regression.* **Results:** *The study found out that there is a significant and positive relationship between service quality and motorists' patronage of petrol station in Ado-Ekiti metropolis, there is a significant relationship between price and motorists' patronage of petrol station in Ado-Ekiti metropolis, there is a significant relationship between location and motorists' patronage of petrol station in Ado-Ekiti metropolis and there is a significant relationship between trust and motorists' patronage of petrol station in Ado-Ekiti metropolis.* **Conclusion:** *The study concluded and implies that location, trust, service quality and price contributes to patronage in the highest ranking respectively.*

Keywords: *patronage, trust, price, location and service quality*

JEL Classification: *M31*

DOI: 10.54933/jmbrp-2025-17-1-4

Ajayi, Omobola. M. (2025). Understanding Motorist Preferences for Fuel Stations in Ado Ekiti Metropolis . Journal of Management and Business: Research and Practice, 17(1), doi: 10.54933/jmbrp-2025-17-1-4

Introduction

A petrol station, fueling station, or service station is a retail business which sells energy and lubricants for vehicles; the most common energy vended is petrol and kerosene. Petrol station is a retail establishment where motor vehicles are refueled, waxed, serviced, and occasionally repaired. Petrol stations should be located not only where they're in fact accessible but where they can be easily located, they should be situated where there will be little peril and traffic as possible. petrol stations vend petrol or diesel, some carry specialty energies similar as thawed petroleum gas (LPG), natural gas, hydrogen, biodiesel, kerosene, or butane while the rest add shops to their primary business, and convenience stores (Ayodele, 2011; Abdul Hamid, 2019).

Consumers make decisions every day concerning different aspects of their daily lives. In the most general terms (Schiffman & Kanuk, 2017), a decision is an option that is chosen from among two or more alternatives. Yet in the context of today's market environment fighting over scarce resources and keeping valuable customers for an extended time period has become simply too difficult (Dutsenwai, 2015). Competition, at the same time, has yielded more power and choice for consumers (PWC, 2017).

In fact, Consumers' elaborate nature is impelled by many factors (personal beliefs, purchasing experiences, marketing plans and communications) and then finally evolves into a decision making process or method (Posavac, 2017).

The market has become saturated with the same type of products and brands, so marketers are turning their attention to a cause for which reason people choose one brand over another (Khan & Rohi 2013). In consequence, most large companies compulsion in great depth the consumer buying decision so as to give answers to questions such as what do people buy, where do they buy it at and how much are they willing to pay (the price), when is the best time for them to make their purchase (timing) and lastly headache or trouble broke out soon after they started using what was ever bought: why? (Kotler, 2016).

Due to the increasing size of the population and greater numbers of people owning cars, there has been an unprecedented demand for petrol which is caused primarily by an increase in both the control- and black market price. As a result, more and more people have felt impelled to enter petrol stations business (Smart, 2012). For this reason, large numbers of oil marketers, having found themselves confronted with such a demand, have begun to build PFSs here and there scarcely weighing its location effects. In Keeble's words (2018), PFSs ought not only to be easy of approach but in a matter demanding more attention it is also called for that they should embrace places where danger potentialities can be both minimized and concentrated into short periods, so they are less pervasive and long-lasting.

One of the many demands created by the growing urban population and the rise in automobiles is for gasoline and diesel (Mohammed, Musa, and Jeb, 2014). The use of cars, bikes, tricycles, and generators has increased due to the fast population growth in the majority of Ekiti State's urban centers. As the most populated area, Ado-Ekiti metropolis' pitiful power situation has made the growing demand for diesel and petroleum products worse, which has resulted in an increase in gas stations (Afolabi, Olajide & Omotayo, 2016).

The demands of consumers have become more varied, complex, and dynamic. Threats and opportunities are presented by these shifts in consumer behavior, which are further supported by developments in the retail industry (Klaus, 2013). Additionally, consumers are now more assertive and pickier. They don't have time for goods and services that don't meet their needs; they want things that do.

Customers are therefore more discerning and resilient these days, and they are so sensitive to subpar service that they frequently leave and never return. To make matters worse, the average unhappy customer tells nine to ten other people about their bad experience (Muciimi and Ngumo, 2014). Therefore, in order to effectively market their goods, gas stations need to assess the variables that affect customer preference (Masese, 2014).

Customers now frequently purchase more than just fuel when they visit a retail fuel station (Netz and Taylor, 2012), and the industry seems to be driven by customer satisfaction. In this sense, convenience stores, car washes, and specialty shops boost a fuel station's market share, and fuel retail stations are increasingly setting themselves apart with the extra services they provide (Netz & Taylor, 2012). Nonetheless, the retail service stations in Ado Ekiti have been going through a difficult period lately. Rising pump prices, rising crude oil prices, the entry of new independent competitors into the market, and an increase in the number of retail service stations are a few of the difficulties (Masese, 2014). As a result, if customers are unhappy, they will quickly move to another gas station.

Furthermore, the general consensus is that most drivers prefer filling stations with reliable fuel pumps, and most drivers also frequent filling stations with consistent service. The purpose of this study is to investigate the factors that influence drivers' use of the Ado-Ekiti gas station.

Theoretical Background

Customer Patronage

The term "customer patronage" may be used interchangeably in this study because client patronage precedes loyalty (Ogbojafor et al., 2019). Patronage is burned out of a desire to contribute to a company based either on the quality of service or assumed qualities of service (Norizan & Zulhaimi, 2017). Hence, the degree to which a customer patronises the network provider's services reflects how the audience evaluates the organisation's physical environment (Onuoha & Nnenanya, 2017; Sheppard et al., 2018). According to Reichheld and Detrick (2018), customer patronage is the unit of purchase made by a buyer and the sales volume captured by a company.

Egan (2017) argued that consumer patronage is the act of constantly or frequently bargaining for the purchase of a company's product or service. It is commonly identified through purchasing products or services and interaction. Thus, Fogli (2016; 2018) asserted that the purpose of every business organisation is to create value by maintaining a good relationship with customers. Therefore, satisfying them in socio-economic interaction justifies a firm's existence. In the 21st century, petrol filling stations often face stiff competition for customers to increase their market share. The success of these network providers in accomplishing their stated goals depends on their ability to innovate products (services) that suit their target customers' needs and expectations better than their competitors (Swan et al., 2018). The quality of service and distribution approaches should also be enhanced when searching for new ways to attract and keep their customers regularly. Regular customer patronage is vital because a rise in sales volume can eventually and substantially affect the company's profitability (Morgan & Knights, 2014; Cronin & Taylor, 2018).

Petroleum Products

Petrol otherwise called Gasoline is a byproduct of petroleum or say Crude oil. The word was borrowed from French petrol which in turn came from Latin petroleum (itself taken over directly into English in the 16th century). It is also called Benzene in Germany which is derived from a chemical named Benzene Desulphurization can be defined as the extraction of sulphur from fossil fuels which, if it were to remain, would oxidize and react with water to create acid rain. Desulphurization is a chemical process for the removal of sulphur from a material; this involves either the removal of sulphur from a molecule or the removal of sulphur compounds from a mixture such as oil refinery streams. The Nigerian economy was greatly characterized by the dominance of exports and commercial activities. There was no viable industrial sector. According to Eromosele (2017) observed that after almost half a century of oil exploration in Nigeria, the oil industry is earning a mature status in comparison to other industry in the country such that significant progress has been made in terms of oil exploration and sales of crude oil abroad.

Methodology

Research Design

The research design adopted for this study is the descriptive survey design. Survey as a research technique is questionnaire to gather information from a sample of people (Zikmund, 2003; Pickard, 2007). Fowler (2008) suggested that if one is going to use self-administered questionnaire, one must reconcile oneself to close-ended questions, which can be answered by simply checking a box or circling the proper response from a set provided by the researcher.

Population of the Study

The population of the study consists of total number of motorist customers of petroleum in Ado Ekiti. The exact population of motorist that patronize this filling station cannot be ascertained. 1500 motorist was chosen conveniently.

Sample Size

The population of the study is a total of 1500 motorist which is considered too large for this study. The researcher has resolved to draw a sample representative of the whole population. The simplified formula for determining sample size is that of Tao-Yamane (1967). This formula assumes a 95% confidence level and a 5% level of precision. The formula is as stated below:

$$n = \frac{N}{1 + N(e)^2}$$

, where n is the sample size, N is the population size, and e is the level of precision. When the formula is applied, we get the following figures:

$$\frac{1500}{1 + 1023 (0.05)^2} = 316$$

A total of 316 questionnaires was spread and administered to motorist patronizing fuel filling stations in Ado Ekiti, Ekiti State.

Source of Data

This study will use primary data sources by using a structured questionnaire as the research instrument. Questionnaires are centered on the various objective of the study.

Validity and Reliability of Research Instruments

Research Instruments

The research instrument is a four-point Likert scale structured questionnaire to obtain responses from the respondents. The reason for the use of the scale instrument is because it is to be administered to respondents who are, as a necessity, patronize filling stations in Ado Ekiti. The questionnaire is divided into six sections. Section (A) consists of items to get information on demographic characteristics. Section (B) consists of five items to measure the effect of service quality on motorists' patronage of petrol station. Section (C) consists of five items to measure the effect of price on motorists' patronage of petrol station in Ado-Ekiti. Section (D) consists of five items to measure the effect of location on motorists' patronage of petrol station in Ado Ekiti. Section (E) consists of five items to measure the effect of trust on motorists' patronage of petrol station in Ado Ekiti.

Reliability of Research Instrument

According to Foxcroft and Roodt (2002) the reliability of a measure refers to the consistency with which it measures whatever it measures. In suooort, Colin and Sulie (2005-2006) state that reliability is the degree to which an assessment tool produces stable and consistence result. The Cronbach alpha coefficient indicates that consistency of responses to items in a measure (Foxcroft & Roodt, 2002). Reliability is the ability of a research instrument to consistently measure characteristics of interest over time. It is the degree to which a research instrument yields consistent results or data after repeated trials, (Mugenda & Mugenda, 2009).

Table 1: Variable and Measurement Scales

S/N	Variables	Measurement	No of items	Source
1	Service Quality	Affective Service Quality	5	Onyeizugbe (2018)
2	Price	Affective Price	5	Onyeizugbe (2018)
3	Location	Affective Location	5	Onyeizugbe (2018)
4	Trust	Affective Trust	5	Onyeizugbe (2018)

Authors Compilation, 2024

Method of Data Analysis

Data collected was analyzed and presented using descriptive and simple regression analysis. Descriptive analysis was used to present the result of the data collected in sections A and B, the data collected in sections C to F.

Method of Testing Hypotheses

Chi-Square Statistics: A chi-square (X^2) statistic is a measure of the difference between the observed and the expected frequencies of the outcomes of a set of events or variables. Chi-square is useful for analyzing the differences in categorical variables, especially those nominals. It can be used to test whether two variables are independent of one another, and it can also be used to test the goodness of fit between an observed distribution and theoretical distribution of frequencies.

Results

Service Quality and Motorists' Patronage

To test this hypothesis, the respondents' scores on two variables of service quality and motorist patronage were computed and subjected to simple regression analysis. From Table 1.2, the R (correlation Coefficient) gives a positive value of 0.851; this indicates that there is a very strong and positive relationship between service quality and motorist patronage. The R^2 is a portion of the total variation in the dependent variable that is explained by the variation in the independent variables. From the results obtained, R^2 is equal to 0.724, this implies that service quality brought about 72.4% variance in motorist patronage, this is further proven by the adjusted R^2 that shows the goodness of fit of the model which gives a value of 0.723, implying that when all errors are corrected and adjustments are made, the model can only account for 72.3% by service quality; while the remaining 27.7% are explained by the error term in the model as shown in Table 2. The unstandardized beta co-efficient of service quality is 0.1.680 with $t = 27.129$ and ($p = 0.000 < 0.05$).

From the Table 1.2 discussion in objective one, and by F-Stat. $p\text{-value} < .05$, it showed that the null hypothesis, there is no significant positive relationship between service quality and motorists' patronage of petrol station in Ado-Ekiti metropolis is not true therefore the null hypothesis is rejected. Based on this, we accepted the alternative hypothesis that there is a significant positive relationship between service quality and motorists' patronage of petrol station in Ado-Ekiti metropolis.

Table 2: Service Quality and Motorist Patronage

Variables	Coeff.	Std. Error	t-value	p-value
Constant	-0.266	0.088	-3.030	0.003
Service quality	1.680	0.062	27.129	0.000
R	0.851			
R Square	0.724			
Adj. R Square	0.723			
F Stat.	735.990 (0.000)			

Result Computation, 2024

Price and Motorist Patronage

To test this hypothesis, the respondents' scores on two variables of price and motorist patronage were computed and subjected to simple regression analysis. From Table 1.3, the R (correlation Coefficient) gives a positive value of 0.762; this indicates that there is a strong and positive relationship between price and motorist patronage. The R^2 is a portion of the total variation in the dependent variable that is explained by the variation in the independent variables. From the results obtained, R^2 is equal to 0.581, this implies that price brought about 58.1% variance in motorist patronage, this is further proven by the adjusted R^2 that shows the goodness of fit of the model which gives a value of 0.579, implying that when all errors are corrected and adjustments are made, the model can only account for 57.9% by price; while the remaining 42.1% are explained by the error term in the model as shown in Table 3. The unstandardized beta co-efficient of product colour is 0.529 with $t = 19.689$ and ($p = 0.000 < 0.05$).

From the Table 3 discussion in objective two, and by F-Stat. p -value $< .05$, it showed that the null hypothesis, there is no significant relationship between price and motorists' patronage of petrol station in Ado-Ekiti metropolis is not true therefore, the null hypothesis is rejected. Based on this, we accepted the alternative hypothesis that there is a significant relationship between price and motorists' patronage of petrol station in Ado-Ekiti metropolis.

Table 3: Price and Motorist Patronage

Variables	Coeff.	Std. Error	t-value	p-value
Constant	0.471	0.085	5.555	0.000
Price	0.529	0.027	19.689	0.000
R	0.762			
R Square	0.581			
Adj. R Square	0.579			
F Stat.	387.654(0.000)			

Results Computation, 2024

There is no significant relationship between location and motorists' patronage of petrol station in Ado-Ekiti metropolis.

Location and Motorist Patronage

To test this hypothesis, the respondents' scores on two variables of location and motorist patronage were computed and subjected to simple regression analysis. From Table 1.4, the R (correlation Coefficient) gives a positive value of 0.877; this indicates that there is a very strong and positive relationship between location and motorist patronage of filling stations in Ado Ekiti. The R^2 is a portion of the total variation in the dependent variable that is explained by the variation in the independent variables. From the results obtained, R^2 is equal to 0.769, this implies that location brought about 76.9% variance in motorist patronage of filling station, this is further proven by the adjusted R^2 that shows the goodness of fit of the model which gives a value of 0.769, implying that when all errors are corrected and adjustments are made, the model can only account for 76.9% by consumer purchase decision of petrol; while the remaining 23.1% are explained by the error term in the model as shown in Table 4. The unstandardized beta co-efficient of product convenience is 1.047 with $t = 30.560$ and ($p = 0.000 < 0.05$). From the Table 4.4 discussion in objective three, and by F-Stat. p -value $< .05$, it showed that the null hypothesis, there is no significant relationship between location and motorists' patronage of petrol station in Ado-Ekiti metropolis is not true therefore, the null hypothesis is rejected. Based on this, we accepted the alternative hypothesis that There is a significant relationship between location and motorists' patronage of petrol station in Ado-Ekiti metropolis.

Table 4: Location and Motorist Patronage

Variables	Coeff.	Std. Error	t-value	p-value
Constant	0.336	0.060	5.561	0.000
Location	1.047	0.034	30.560	0.000
R	0.877			
R Square	0.769			
Adj. R Square	0.769			
F Stat.	933.888 (0.000)			

Result Computation, 2024

Trust and Motorist Patronage

To test this hypothesis, the respondents' scores on two variables of trust and motorist patronage were computed and subjected to simple regression analysis. From Table 5, the R (correlation Coefficient) gives a positive value of 0.873; this indicates that there is a very strong and positive relationship between trust and motorist patronage of filling stations. The R^2 is a portion of the total variation in the dependent variable that is explained by the variation in the independent variables. From the results obtained, R^2 is equal to 0.763, this implies that trust brought about 76.3% variance in motorist patronage, this is further proven by the adjusted R^2 that shows the goodness of fit of the model which gives a value of 0.762, implying that when all errors are corrected and adjustments are made, the model can only account for 76.2% by students' enrolment; while the remaining 23.8% are explained by the error term in the model as shown in Table 5.

The unstandardized beta co-efficient of product design is 1.062 with $t = 30.008$ and ($p = 0.000 < 0.05$). From the Table 5 discussion in objective three, and by F-Stat. $p\text{-value} < .05$, it showed that the null hypothesis, there is no significant relationship between trust and motorists' patronage of petrol station in Ado-Ekiti metropolis is not true therefore, the null hypothesis is rejected. Based on this, we accepted the alternative hypothesis that There is a significant relationship between trust and motorists' patronage of petrol station in Ado-Ekiti metropolis.

Table 5: Trust and Motorist Patronage

Variables	Coeff.	Std. Error	t-value	p-value
Constant	0.229	0.065	3.553	0.000
Trust	1.062	0.035	30.008	0.000
R	0.873			
R Square	0.763			
Adj. R Square	0.762			
F Stat.	900.491(0.000)			

Result Computation, 2024

Discussion of Findings

The study revealed that there is a significant positive relationship between service quality and motorists' patronage of petrol station in Ado-Ekiti metropolis, there is a significant relationship between price and motorists' patronage of petrol station in Ado-Ekiti metropolis, there is a significant relationship between location and motorists' patronage of petrol station in Ado-Ekiti metropolis and there is a significant relationship between trust and motorists' patronage of petrol station in Ado-Ekiti metropolis.

This finding aligns with Ribbink, Liljander and Streukens (2014) findings, which revealed that customer trust is a means to buy a product or service. That customer trust has a linear relationship with the customers' patronage. Customer trust boost up when the trust worthy branded item is placed at the trust admirable environment and sells by a trustworthy individual. The finding of significant relationships is also consistent with extant studies of (Guenzi, Johnson & Castaldo, 2019; Ribbink, Liljander, & Streukens, 2014).

According to their findings, customer trust increases the customer patronage. When the customers have trust on services and products of a company then it leads to loyalty which will eventually lead the customer to patronize the organisation's products or services. The study discovered that trust as proxied by staff civility, pump accuracy and quality of product is crucial and important in determining customers' patronage. Rauyruen and Miller (2017) opine that trust has greater impact over patronage, that when the level of trust is greater on the supplier, then loyalty will increase and customer would want to retain the supplier by increasing the level of commitment.

Implication of Findings

The implication of the findings of the study showed that customers' trust plays a significant role in motorist patronage. The study also established that price of the product, trust, the location of the filling station and trust are determinants of the motorist patronage of filling station.

Conclusion and Recommendations

From the study it was concluded that location, trust, service quality and price contributes to patronage respectively. All these factors are tools for improving customer repurchase intention with an organisation. Also, after conducting this study and validating it through various data and quantitative analysis, it can be effectively stated that trust is needed in the petrol filling stations, which can results in optimising customer patronage as one of the utmost variable that provide customers' patronage. Finally, the study concluded that there are several determinants of customer patronage, but the role of location and trust is crucial, as evident by the analysis conducted.

Recommendations

Based on the findings of the study, the study recommended the following:

- i. Petrol filling stations need to ensure that their staff are civil while dealing with customers in other to encourage customers to revisit the station for further patronage.
- ii. Also, filling stations need to maintain an accurate fuel pump in dispensing fuel to customer as it will build customers' confidence in their filling stations.
- iii. Entrepreneurs and business owners should make sure to make location one of the paramount factors as a determinant of patronage of filling stations

Limitations of the Study

The small sample size of this study will limit the generalizability of the findings, which means that the result of this study may not be applicable to the larger population. This study was only carried out in a metropolis among all the other local governments in the state. Other factors not accounted for in the study may have also influence the outcome. These variables may create false relationships or mask real ones, affecting the validity of the conclusions.

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The Influence of Country Branding on Student's mobility: An Academic Perspective

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Received: April, 2025

1st Revision: May, 2025

Accepted: June, 2025

Background: Country branding has emerged as a crucial factor in shaping a nation's reputation, cultural appeal, and competitive positioning in the global academic landscape. **Aims:** This paper explores the relationship between country branding and student mobility, investigating how the branding of a country impacts international student enrollment and higher education attractiveness. **Methods:** This study employs a qualitative multiple case study design to explore how country branding influences international student mobility in four selected national contexts of Finland, China, the United Kingdom, and Germany. **Results.** This study points out in the "Cross-Case Comparison" based on published studies, the approach of four selected countries in terms of using their own brand, campaigns, strategies and policies in relation to attracting students' interest in higher education. **Conclusions:** The findings highlight the need for strategic alignment between national branding efforts and higher education policies, recommending future research into the interplay between both. **Implications:** The study examines key factors such as the reputation of academic institutions, visa policies, economic conditions, and cultural perception, arguing that effective country branding enhances a nation's ability to attract and retain global talent.

Keywords: Country Branding, Student Mobility, Higher Education, Internationalization, National Image

JEL Classification: example Do2, O17, P31

DOI: 10.54933/jmbrp-2025-17-1-5

Kamenský, J., Laudárová, L. & Mikulášová, Z.. (2025). The Influence of Country Branding on Student's mobility: An Academic Perspective. Journal of Management and Business: Research and Practice, 17(1). doi: 10.54933/jmbrp-2025-17-1-5

Introduction

In an era of globalization, the international mobility of students has increased significantly, with millions of students seeking higher education opportunities abroad (Knight, 2024). Country branding has become an essential tool for nations aiming to attract international students, as it shapes the perception of academic excellence, cultural openness, and career prospects (Altbach & Knight, 2007). Countries with strong education brands, such as the United States, the United Kingdom (Moscovitz, 2024), and Australia, continue to dominate student mobility trends due to their well-established reputations for academic excellence and career opportunities (UNESCO, 2021).

This paper explores the influence of country branding on student mobility. Through an analysis of the role of national identity, academic reputation, and international perception, it examines how country branding initiatives can create favorable conditions for universities to attract global talent (Hong & Hardy, 2022). It also investigates how policy measures, including visa regulations and post-study work opportunities, contribute to a nation's academic appeal.

Theoretical background

Country branding in the context of higher education refers to the strategic efforts undertaken by governments, academic institutions, and national agencies to promote a country's education system as attractive to international students. Dinnie (2008) defines country branding as the use of marketing, policy frameworks, and cultural assets to enhance a country's reputation in the global education market.

Anholt's (2010) Nation Brand Hexagon framework conceptualizes country branding as a multidimensional construct encompassing six interrelated dimensions: tourism, exports, governance, investment, culture, and people. These dimensions collectively shape international perceptions of a country and contribute to its overall attractiveness as a study destination. While the model does not explicitly include education as a distinct dimension, the higher education sector is often closely interwoven with several of these elements.

A country's education system serves as both a reflection and a projection of its cultural identity and economic competitiveness, thereby influencing the decision-making processes of prospective international students (Kavaratzis & Ashworth, 2005). The reputation of academic institutions, the quality of governance and infrastructure supporting education, as well as cultural openness and societal values, all interact to form a comprehensive national image that influences student mobility choices. International students often consider multiple factors when selecting a study destination, including not only reputation of the considered institution.

International student mobility is influenced by a combination of interrelated factors. A primary determinant is the reputation of academic institutions. Countries that host globally renowned universities, such as the United States, the United Kingdom, and Canada, consistently serve as preferred destinations for international students, largely due to the global prestige associated with their higher education institutions (QS World Rankings, 2022). Closely linked to institutional reputation are economic opportunities, particularly the prospects for employment following graduation, which serve as significant incentives in the decision-making process (Knight, 2012). In addition to academic and economic considerations, cultural appeal and inclusivity play a substantial role in attracting international students. Countries that project an image of cultural diversity, social openness, and inclusiveness are often perceived as more desirable study destinations, as these characteristics contribute to a supportive and enriching student experience (Altbach & de Wit, 2015). Furthermore, visa and immigration policies critically shape mobility patterns. Favorable regulations that enable post-study employment or simplified pathways to residency have been shown to exert considerable influence on international students' destination choices (OECD, 2020).

A strong national brand enables a country to position itself as an academic hub, attracting students seeking high-quality education and global career opportunities. Countries with well-established education brands, such as Germany and Canada, have successfully leveraged their reputations for academic excellence and innovation to increase international student enrollment (UNESCO, 2021). For

instance, Germany's "Study in Germany" campaign highlights its tuition-free education model, advanced research opportunities, and strong employment prospects for graduates. Similarly, Canada's nation branding emphasizes multiculturalism, high-quality education, and post-graduation employment opportunities, making it one of the most sought-after destinations for students globally (OECD, 2020).

Visa regulations and post-study work opportunities significantly impact student mobility. Countries with streamlined visa policies and favorable employment prospects for graduates tend to attract higher numbers of international students. For example, Australia's Post-Study Work Visa scheme has played a crucial role in enhancing the country's attractiveness to international students (Australian Government, 2022). Similarly, the UK's Graduate Route visa allows students to stay and work in the country for two years after graduation, reinforcing its appeal as a long-term study destination (British Council, 2022).

Methodology

This study employs a qualitative multiple case study design to explore how country branding influences international student mobility in four selected national contexts: Finland, China, the United Kingdom, and Germany. These countries were purposefully chosen due to their diverse approaches to nation branding, their active participation in global higher education markets, and the availability of relevant data sources.

The multiple case study approach enables an in-depth investigation of real-world phenomena within their national contexts (Yin, 2018). This design is particularly suitable for the research objective, which requires examining complex policy environments, branding strategies, and student mobility patterns across countries with distinct political, economic, and cultural settings. The case study approach offers several methodological advantages for this research. It enables a context-sensitive understanding of real-world phenomena, capturing the specific political, cultural, and economic conditions shaping each country's branding strategy. Furthermore, it allows for the integration of multiple data sources through triangulation, enhancing the robustness and credibility of the findings. The design is particularly well-suited to capturing the inherent complexity of nation branding, where multiple actors, narratives, and policy instruments interact. Additionally, the case study method is flexible and adaptive, permitting the incorporation of emerging insights as the research progresses and as new data become available.

For each case, being the subject of the study conducted and presented, the analysis focuses on the following dimensions: the nation branding strategies employed, student inflow statistics reflecting mobility trends, the effectiveness of branding campaigns, and the range of policy support mechanisms implemented to attract international students. Data from the studies chosen are drawn from a variety of sources, including official government reports, agency publications, media coverage, and policy documents, ensuring a comprehensive and multi-perspective examination. The case study method is particularly well-suited for this research due to the context-dependent nature of country branding, where national strategies, strengths, and challenges vary significantly across countries. This approach facilitates the exploration of the real-world application of nation branding within the domain of student mobility, allowing for the integration of both qualitative and quantitative data sources. Moreover, the case study design enables the identification of complex causal mechanisms and policy interactions that may not be fully captured through purely quantitative methods, thereby offering richer insights into the multifaceted relationship between country branding and international student mobility.

The four countries were selected based on the following rationale:

- Finland: A smaller nation with highly values-based branding emphasizing innovation, equality, and sustainability.
- China: A unique case as both a major sender and increasingly prominent receiver of international students, characterized by strong government-led nation branding.
- United Kingdom: A traditional global leader in higher education facing significant shifts in branding and policy following Brexit.

- Germany: A highly attractive host country offering tuition-free education for many international students, with a strong reputation in technical and scientific fields.

The data obtained from respective research papers were analyzed in two stages, as a "Within-Case Analysis" and as a "Cross-Case Comparison". Each country was analyzed independently to reconstruct the nation branding narrative related to higher education, the policy instruments employed to support student mobility and the evolution of international student enrollment over the last two decades. By conducting both within-case and cross-case analyses, the study seeks to identify patterns, contrasts, and context-dependent mechanisms in how country branding strategies relate to the attraction of international students. The diverse sample enables exploration of multiple models of higher education branding and policy, enhancing the study's theoretical contribution.

The primary data collection method involved systematic document analysis of official nation branding materials (websites, campaigns, slogans), National education agency reports (e.g., DAAD, British Council, CSC, EDUFI), government policy documents on higher education internationalization, statistical data on student mobility from UNESCO, OECD, and national statistics agencies and secondary academic literature relevant to each case.

Following Yin's (2018) cross-case synthesis approach, findings from individual cases were systematically compared to identify shared patterns across different branding models, context-specific factors shaping branding effectiveness and contradictions or tensions between national policies and branding messages. A coding scheme was developed to classify data along key dimensions such as brand personality traits (Yousaf et al., 2020), pull factors in student mobility (Mazzarol & Soutar, 2002), and national branding strategies (Anholt, 2007).

Despite its strengths, the case study approach presents several limitations that must be acknowledged. First, the findings may have limited generalizability, as case studies do not provide statistically representative results applicable to all contexts. Second, data accessibility may vary across countries, depending on the availability of official documents, transparency of agencies, and willingness of participants to engage in interviews. Third, there is a potential risk of researcher bias in case selection and interpretation, particularly if the selection process is not sufficiently systematic or transparent. Finally, case study research is often time-intensive, requiring extensive data collection, analysis, and iterative refinement to ensure the depth and accuracy of the findings.

Future research could explore how digital marketing strategies influence country branding in higher education and the role of student testimonials in shaping perceptions of study destinations. Longitudinal studies assessing the long-term impact of branding initiatives on student enrollment trends would also provide valuable insights.

To complement the documentary analysis, semi-structured expert interviews could be conducted with key stakeholders, including officials from national education agencies, administrators from university international offices, academic experts specializing in higher education internationalization, and, where feasible, international students themselves. The interview protocol should be designed to elicit insights on perceptions of branding effectiveness, challenges encountered in the implementation of branding strategies and observed patterns in international student mobility.

To strengthen the validity of the findings, data triangulation could be employed by integrating evidence from multiple sources, including official documents, interview data, and statistical records. This multi-perspective approach would facilitate a more comprehensive and nuanced understanding of the country branding processes and their influence on student mobility.

Results

Table 1 provides a summary of Finland's strengths, challenges and focus in attracting students to live and study in Finland.

Table 1. Finland

Country	Key Features	Strengths	Challenges	Focus
Finland	Small country with a highly distinct brand emphasizing innovation, equality, and sustainability, substantial investment in international education branding (e.g., Study in Finland).	Clear values-based branding, widely recognized for innovation and social equality.	Limited global visibility: introduction of tuition fees for non-EU students reduced non-EU enrollment.	Examining whether soft values (equality, happiness, sustainability) serve as effective pull factors compared to hard factors (cost, career opportunities).

Source: Schatz et al. (2015)

In Finland, national interest in branding education intensified notably following the country's strong performance in the Programme for International Student Assessment (PISA), which significantly enhanced the international reputation of its basic education system. This authors further explore how that reputation has been strategically transformed into a broader Finnish education brand, drawing on the narratives presented in Finland's official Country Brand Report in 2010 called "Mission for Finland," focused on leveraging the country's strengths to address global challenges. The report identified functionality, nature, and education as key elements of Finland's national identity and brand. The authors argue that the governmental discourse reflects a deliberate fusion of education and nation branding, prompting them to conceptualize the emerging brand as "Finnish Education®."

The study by Schatz et al. (2015) critically examines how Finland's exceptional performance in the Programme for International Student Assessment (PISA) has been strategically transformed into a central component of the country's nation branding efforts. Education, in this context, is positioned as a core element of Finland's international image, associated with high quality, social equality, and innovation. Central to their analysis is the concept of "Finnish Education®", which the authors describe as a deliberately constructed brand. This brand presents Finland's education system not only as efficient and equitable, but also as a moral and intellectual model on the global stage. The study underscores how this branding process reflects a commodification of education, framing it as a product that can be marketed and exported under the umbrella of national identity. A key discourse identified is that of "ethno-preneurialism". Drawing on Finland's Country Brand Report from 2010, the authors argue that Finnish citizens are implicitly encouraged to act as entrepreneurial ambassadors for the nation. In this framework, promoting the Finnish education system internationally becomes part of a broader narrative that links personal and national success to proactive global engagement. However, the authors also identify a fundamental tension within this branding strategy. Although the public narrative emphasizes values such as equity, sustainability, and social cohesion, the underlying mechanisms are deeply embedded in market logic. This creates a paradox where the egalitarian ethos of the Finnish education system is potentially undermined by its instrumental use for international prestige and economic gain. Finally, the study cautions against the risks of cultural essentialism. By portraying Finland as a homogeneously successful and idealized educational utopia, the branding discourse may obscure the internal complexities, regional differences, and social challenges within the Finnish education system. This simplification could lead to misleading perceptions, both internationally and within domestic policy debates.

Schatz et al. (2015) provides a critical perspective on how Finland's international educational reputation has been strategically harnessed for nation branding purposes. By conceptualizing Finnish Education® as a state-driven brand, the authors highlight both the strengths and contradictions of this approach. While the brand capitalizes on values such as equity, innovation, and trust, it also risks oversimplifying national identity and commodifying education. This study ultimately calls for a more reflective and ethically grounded dialogue on the role of education in national image construction.

Table 2 provides a brief characteristic on China being unique because it is both a sending country and increasingly a receiving country. The Belt and Road Initiative (BRI) is a state-led global development and foreign policy strategy launched by the Chinese government in 2013. According to BRI Investment Report 2024, more than 140 countries had formally joined the Belt and Road Initiative (BRI), collectively representing nearly 75 % of the global population and over half of the world's GDP (<https://greenfdc.org>, 2024). Its essence is a strong government led nation branding consisting of international education as part of its soft power diplomacy under the BRI umbrella. China offers thousands of scholarships to students from BRI countries through programs like the China Scholarship Council (CSC). Many universities in China have launched joint programs, branch campuses, and partnerships with institutions in BRI regions.

Table 2. China

Country	Key Features	Strengths	Challenges	Focus
China	Simultaneously a major sender and growing host country, strong government-led nation branding integrated with soft power strategies (e.g., Belt and Road Initiative).	Centralized strategic governance, expansive scholarship programs, active global soft power projection.	Limited cultural appeal among some Western student groups, ongoing political concerns may affect perceptions.	Evaluating whether state-driven nation branding is as effective as market-driven models, assessing the geopolitical dimensions of student mobility (Belt & Road influence).

Source: Yousaf et al. (2020)

Yousaf et al. (2020) provide an insightful examination of the relationship between China's nation branding efforts and international students' perceptions and behavioral intentions. Their study, based on empirical data collected from 547 international students representing 41 nationalities and enrolled at 18 universities across seven major Chinese cities, offers a detailed account of the factors influencing China's national image and its attractiveness as a destination for higher education. Contrary to conventional expectations, the study identifies cultural and economic distance not as barriers but as strategic assets for China's internationalization strategy. While traditional models often suggest that greater cultural or economic dissimilarity between host and sending countries deters international student mobility, Yousaf et al. find that, in China's case, larger cultural and economic distances positively shaped international students' perceptions. For students, particularly from Europe and North America, China's distinct cultural heritage and its expanding global economic influence generated cultural curiosity and a desire for unique educational experiences. China's position as a rising global power served to reinforce its appeal as an emerging center for higher education. The study also highlights the close interdependence between China's national image and the brand equity of its higher education institutions (HEIs). A positive perception of China's political stability, economic growth, cultural richness, and international engagement contributed directly to enhancing the perceived quality, prestige, and attractiveness of its universities. This positive national image fostered brand loyalty toward Chinese HEIs, increasing both the willingness of international students to choose Chinese universities and their satisfaction with their educational experience. Importantly, Yousaf et al. (2020) emphasize the role of international education as a component of education diplomacy. Students who develop favorable perceptions of China during their studies are more likely to engage in long-term behaviors that support China's broader soft power objectives. These include intentions to promote Chinese products and tourism, sustain personal and professional connections with China, and serve as informal ambassadors for Chinese culture and society upon returning to their home countries. This aligns with China's broader state-led strategy to embed international education within its global public diplomacy and nation branding agenda. The study further identifies regional variations in student perceptions. Students from regions characterized by greater cultural and economic distance from China (e.g., Europe, North America) generally held more favorable views of the country than students from regions geographically or administratively closer to China. Interestingly, administrative or geographical proximity was found

to have limited influence on students' perceptions, suggesting that perceived cultural difference may, in certain contexts, enhance rather than hinder China's attractiveness as a study destination.

Overall, Yousaf et al. (2020) illustrate how China's state-led nation branding, which integrates higher education with soft power diplomacy and global economic positioning, shapes international student mobility patterns in distinctive ways. The study challenges conventional assumptions about cultural distance as a deterrent and underscores the complex interplay between national image formation, higher education branding, and international students' long-term behavioral intentions. In the context of this research, China emerges as a unique case where centralized branding efforts, strong state coordination, and education diplomacy converge to advance both educational and geopolitical objectives.

The study concluded that China's efforts to position itself as a key destination for international education, coupled with strategic nation branding, are yielding positive outcomes in terms of international perception and soft power. However, continued improvements in the quality of higher education and greater unification of institutional identity are recommended to enhance long-term results (Yousaf et al., 2020).

Table 3 describes UK as a global higher education hub with long tradition. After Brexit UK's repositioning efforts reflect a coordinated, multi-faceted approach, combining policy reform, visa facilitation, marketing investment, mobility program redesign, and institutional agility. In 2019 the Departments of Education and International Trade released a new strategy aimed to raise the value of UK education exports - from app. £20 billion to £35 billion by 2030 - and increase international student numbers by 30%, targeting 600,000 by that year (UK Government, 2019). It emphasized attracting students from ASEAN, MENA, and Latin America and committed to support UK universities in developing global partnerships and transnational education. Following Brexit, the UK launched the Turing Scheme in 2021, a £100 million/year alternative to Erasmus+, supporting outbound study/work experiences for UK students globally. It also aims to support international recruitment through global partnerships. Building on the broader "Britain is GREAT" campaign, the "Education is GREAT" initiative (launched in 2015) was expanded to include higher education with the "Study UK: Discover You" deployment across over 65 countries - initially focusing on China, India, Malaysia, Turkey, and Thailand.

Table 3. United Kingdom

Country	Key Features	Strengths	Challenges	Focus
UK	Long-standing global higher education hub, highly commercialized sector, ongoing post-Brexit repositioning efforts.	Prestigious world-class universities, strong global brand recognition, extensive international alumni networks.	Brexit-related policy changes, increasing tuition fees, visa uncertainty for EU students post-Brexit.	Analyzing post-Brexit repositioning and the effectiveness of visa liberalization measures (e.g., Graduate Route) in maintaining international competitiveness.

Source: Lomer et al. (2016)

Lomer et al. (2016) provide a comprehensive analysis of the United Kingdom's national higher education branding strategy and its role in attracting international students within the broader framework of soft power diplomacy. Their study, based on a thematic analysis of over 100 policy documents produced between 1999 and 2014, traces the evolution of the UK's international education narrative and identifies the key mechanisms through which higher education branding has been integrated into national identity construction, economic strategy, and global influence. One of the central features of the UK's branding strategy, as identified by Lomer et al., is the promotion of elite institutions as emblematic of British educational excellence. Prestigious universities such as Oxford and Cambridge are routinely presented as iconic symbols of the UK's academic tradition, serving as powerful

representations of the country's broader higher education system. The branding strategy leverages the global recognition of these elite institutions to elevate the reputation of the entire sector, even though only a small proportion of international students ultimately attend these universities. This selective emphasis contributes to the global perception of British higher education as synonymous with world-class academic quality. The UK's national branding efforts also focus on enhancing the student experience and employability outcomes, recognizing these as major drivers of international student decision-making. British policy narratives frequently highlight the combination of rigorous academic training with a vibrant student life, multicultural campuses, and extensive career opportunities. The promise of strong employment prospects, both in the UK and internationally, serves as a key selling point for the brand, appealing particularly to ambitious international students seeking to maximize the long-term return on their educational investment. Beyond the direct educational benefits, Lomer et al. emphasize the economic and political significance of international student recruitment. International students are framed not only as substantial contributors to institutional revenue streams but also as long-term assets to the UK's global influence. The presence of international alumni networks, ongoing cultural exchanges, and durable professional ties contribute to the UK's broader soft power objectives. International graduates often serve as informal ambassadors for British values, culture, and institutions, extending the UK's influence beyond conventional diplomatic channels. The UK's higher education branding has also been closely integrated with national identity construction. Branding initiatives such as Education UK and later the more comprehensive Britain is GREAT campaign link the appeal of British higher education with broader national narratives of cultural heritage, historical prestige, innovation, and global leadership. This fusion of education with national branding reinforces the UK's image as a center of excellence, creativity, and tradition, further enhancing its competitive position in the global education market. However, Lomer et al. (2016) also caution that this market-driven, elite-focused branding approach carries certain risks. The overemphasis on elite institutions may marginalize the diversity and breadth of the UK's higher education sector, potentially overshadowing the contributions of newer or less prestigious universities. Furthermore, the commodification of higher education through aggressive branding risks reducing education to a transactional product, potentially undermining the academic, cultural, and civic dimensions of internationalization. This tension reflects broader debates on the balance between higher education's economic instrumentalization and its role as a public good.

In summary, the study by Lomer et al. (2016) demonstrates how the UK's higher education branding strategy has effectively positioned the sector as a central component of national soft power and economic policy. Through a carefully constructed narrative that combines academic prestige, employability, cultural identity, and economic benefit, the UK has successfully maintained its position as one of the world's leading destinations for international students. However, the findings also point to critical questions regarding the sustainability and inclusiveness of this branding approach within an increasingly competitive global higher education landscape.

Table 4 provides key data on Germany's main characteristics and focus on higher education. The basis is a free tuition model for internationals. Its focus remains on quality and reputation and driven branding via DAAD and Land of Ideas. The German Academic Exchange Service (DAAD) remains the linchpin of internationalization. DAAD's "Strategy 2025" articulates a vision to expand academic exchange, reinforce institutional international networks, and elevate scientific leadership through international cooperation.

Table 4. Germany

Country	Key Features	Strengths	Challenges	Focus
Germany	Tuition-free higher education model for internationals, quality- and reputation-driven branding supported by DAAD and Land of Ideas initiatives.	Tuition-free access, strong technical and engineering reputation, consistent global presence through DAAD.	Limited institutional capacity, housing shortages in major student cities, occasionally rigid administrative systems.	Assessing the comparative strength of tuition-free policies versus active international marketing in attracting global talent.

Source: Wächter (2008)

Wächter's (2008) study portrays Germany as one of the most systematically engaged and strategically organized actors within the broader European internationalization agenda. His analysis emphasizes the multifaceted and policy-driven nature of Germany's internationalization efforts, positioning them as a model of coordinated national and institutional branding within higher education. At the core of Germany's approach lies policy-driven internationalization, which has been prioritized by both federal and state governments as a national strategic objective. This political commitment has materialized in a series of well-funded programs—most notably through the German Academic Exchange Service (DAAD) and initiatives of the Federal Ministry of Education and Research (BMBF)—designed to enhance the international visibility and competitiveness of German higher education institutions. Germany's policies are deliberately aligned with the Bologna Process and broader European Higher Education Area (EHEA) objectives, using internationalization not only as an educational strategy but also as a mechanism for strengthening Germany's soft power and global reputation. Within this framework, the DAAD emerges as a central operational actor, playing a pivotal role in both implementing internationalization policies and projecting Germany's academic brand globally. DAAD's responsibilities extend well beyond the administration of scholarships; it actively coordinates international marketing campaigns - such as the Study in Germany initiative - and fosters institutional partnerships worldwide. As such, DAAD serves simultaneously as a facilitator of academic mobility and as a global ambassador for German higher education. An important feature of Germany's strategy, as Wächter notes, is the expansion of English-taught programs, particularly at the master's level. This development directly addresses linguistic barriers that previously limited Germany's accessibility to non-German speaking students and reflects an adaptive response to increasing global competition for international talent. Another significant competitive advantage identified in Wächter's analysis is Germany's tuition-free model for higher education. The absence of tuition fees (or the imposition of only minimal administrative charges) functions as a powerful pull factor for prospective international students, especially when combined with Germany's high academic standards and research excellence. This policy framework stands in contrast to the tuition-dependent models prevalent in key competitor countries such as the United States, the United Kingdom, and Australia. Wächter further highlights the increasing professionalization of German higher education institutions in their internationalization efforts. Universities have developed more structured international offices, formulated comprehensive internationalization strategies, and implemented monitoring mechanisms to assess progress using specific indicators. This reflects a systematic and data-informed approach to managing international engagement at the institutional level. Finally, Germany demonstrates a balanced mobility approach, effectively managing its dual role as both a major destination for inbound international students and a significant source of outgoing student mobility, particularly within the Erasmus+ program and other bilateral exchange frameworks. Wächter emphasizes that Germany's internationalization strategy seeks not only to attract foreign students but also to ensure that German students gain international experience, contributing to the broader objectives of cultural exchange and global competence.

In sum, Wächter's findings position Germany as a state-coordinated yet institutionally professionalized model of higher education internationalization and branding. The integration of national policy support, institutional strategic capacity, and internationally oriented marketing initiatives constitutes a comprehensive and coherent national branding approach. These dimensions are directly relevant to examining Germany's role within broader research questions concerning the effectiveness of policy support mechanisms, the alignment of institutional and national branding strategies, and the influence of tuition policies on international student mobility.

The Cross-Case comparative analysis in Table 5 summarizes the main findings from all four research papers. Based on the six identified dimensions, it supports the comparison of the specifics of individual countries and highlights the differences in the communication of each country's national branding strategy.

Table 5. Cross-Case Comparative Analysis

Dimension	Finland	China	UK	Germany
Branding Model	Values-based, emphasis on innovation, equality, sustainability	State-led, tightly integrated with soft power diplomacy	Market-driven, elite institutions as flagship symbols	Policy-driven, highly coordinated state-institutional collaboration
Core Branding Message	Innovation, social equality, safety, sustainability	Global rise, cultural uniqueness, economic opportunity	Academic prestige, employability, global networks	Free tuition, technical excellence, global partnerships
Primary Pull Factors	Safe society, strong research reputation, work permits	Scholarships, global power status, cultural curiosity	Elite university reputation, post-study work, cultural heritage	Free tuition, strong STEM fields, DAAD global support
Main Challenges	Fee introduction for non-EU students, limited global visibility	Political concerns, Western student skepticism	Brexit uncertainty, rising tuition, visa restrictions	Housing shortages, capacity limits, administrative complexity
Soft Power Role	Moderate: promotes Nordic model and wellbeing society	High: education integral to foreign policy (Belt & Road)	High: education as economic soft power and cultural diplomacy	High: education supports European integration and scientific diplomacy
Policy Support Structure	National branding agency (Study in Finland), EDUFI	Centralized government control, CSC scholarships	British Council, Education UK, GREAT campaign	DAAD as central agency, federal & state coordination

Source: Own processing based on presented research papers

Conclusion and discussion

While nation branding offers considerable benefits in enhancing a country's attractiveness as a destination for international students, several persistent challenges complicate efforts to sustain and expand academic appeal in an increasingly competitive global higher education landscape.

First, economic and political instability remains a significant vulnerability. Countries facing political unrest, governance crises, or economic downturns often experience corresponding declines in international student enrollment (Fidler et al., 2022). Uncertainty regarding political stability, personal safety, or economic viability may deter prospective students who prioritize secure and predictable environments for their studies and future employment prospects. Even countries with well-established academic brands are not immune to sudden shifts in political climate, which can undermine long-standing reputational advantages.

Second, the alignment between national branding narratives and the actual quality of academic provision is crucial. When nation branding efforts present aspirational images that exceed the realities experienced by international students - whether in terms of academic rigor, campus infrastructure, student support services, or living conditions - the risk of reputational damage grows. Negative word-

of-mouth, critical media coverage, or alumni dissatisfaction can quickly erode carefully cultivated national images, as international student communities increasingly share experiences through global digital platforms (Girardin et al., 2023).

Third, the intensifying global competition for international students places constant pressure on emerging academic destinations. Countries with well - established higher education brands - such as the United States, United Kingdom, Australia, Canada, and parts of Western Europe - continuously innovate their policies, visa regimes, scholarship programs, and institutional partnerships to sustain their competitive edge. For newer entrants seeking to strengthen their global position, keeping pace with these developments requires sustained investment, coordinated policy frameworks, and adaptive institutional strategies (Shadiyev, 2025). The dynamic nature of international student flows means that even successful branding campaigns must be regularly updated to address shifting student priorities, new competitors, and changing global economic conditions.

Collectively, these challenges underscore the complex, fragile, and context-dependent nature of country branding in higher education. While successful nation branding can enhance a country's visibility and appeal, maintaining credibility, policy coherence, and authentic alignment with students' lived experiences is essential to ensure long-term sustainability in the global education market.

Furthermore, the effectiveness of country branding efforts depends on sustained policy support, investment in higher education, and a student-friendly regulatory environment (Altbach & Knight, 2007).

Country branding plays a pivotal role in shaping student mobility by enhancing national reputation, promoting academic institutions, and influencing policy measures. Countries that successfully align branding efforts with visa policies, employment opportunities, and cultural appeal are more likely to attract international students. However, maintaining a strong national education brand requires ongoing investment in higher education quality, student services, and global engagement.

The findings derived from the case study analysis have the potential to make several significant contributions. From a theoretical perspective, the study may offer refinements to existing nation branding models by extending their application to the field of higher education. In terms of policy implications, the results may inform governments and national agencies in developing more effective branding strategies to attract international students. Furthermore, the study may yield practical recommendations for university-level marketing strategies, particularly concerning the alignment of institutional branding efforts with broader national branding objectives to enhance international competitiveness.

Acknowledgement

This paper is the output of the Grant of Comenius University Bratislava UK/1119/2025 to support the completion of doctoral student projects.

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