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Effect of Crowdfunding Integration on the Market Return of Deposit Money Banks in Nigeria

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ABSTRACT

This study examines the effect of crowdfunding integration on the market return of Nigerian deposit money banks (DMBs), a research focus necessitated by the transformative shift toward financial technology and digital alternative financing within the Nigerian banking sector. The study adopted an ex-post facto research design, utilizing secondary panel data obtained from the annual reports of listed DMBs on the Nigerian Exchange Group and Central Bank of Nigeria statistical bulletins for the period spanning 2015 to 2024. Data for 100 observations were analyzed using descriptive statistics and panel regression estimation, with the fixed-effects model selected based on the results of the Hausman test. Empirical results from the regression analysis indicate that all three dimensions of crowdfunding integration exert a statistically significant positive influence on the market performance of Nigerian banks. Specifically, increased crowdfunding transaction volume was found to enhance stock returns, acting as a signal of innovation and growth potential to the investing public. Strategic partnerships with crowdfunding platforms emerged as a critical driver for market capitalization growth, reflecting the importance of fintech alliances in boosting firm visibility and investor confidence. Furthermore, income generated from crowdfunding activities significantly strengthens the price-to-earnings ratio, suggesting that revenue diversification through digital channels enhances long-term valuation expectations. The study concludes that crowdfunding integration is a vital strategic tool that positively influences bank valuation and competitiveness in an emerging economy. Based on these findings, it is recommended that Nigerian banks actively expand their crowdfunding transaction volumes and formalize strategic collaborations with fintech platforms to optimize their market performance and attract a broader investor base.

Keywords: Crowdfunding Integration, Market Return, Fintech, Stock Return, Market Capitalization.

INTRODUCTION

The global banking landscape is being reshaped by rapid innovation in how finance is sourced, delivered, and priced, with “crowdfunding integration” increasingly used by banks to sustain competitiveness and performance in an environment of digital disruption, alternative intermediation, and sustainability-linked capital allocation. In Africa, rapid digital finance adoption amid uneven infrastructure and regulation is reshaping banking. Digital payments drive product uptake and fee income but intensify competition, while expanding non-bank intermediation heightens the need for funding diversification. Nigeria exemplifies these dynamics under persistent macro-financial volatility.

The Nigerian banking sector has experienced significant transformation over the past decade, largely driven by the adoption of financial innovations and digital technologies. Financial technology (fintech) has reshaped traditional banking operations by introducing alternative financing mechanisms, improving efficiency, and enhancing customer engagement (Philippon, Thomas, 2020; Ozili, Peterson K., 2021). Among these innovations, crowdfunding integration has emerged as a critical strategy for promoting financial inclusion, diversifying revenue sources, and strengthening investor participation.

Crowdfunding refers to the process of raising funds from a large number of individuals through digital platforms, enabling businesses and financial institutions to access alternative sources of capital outside traditional banking channels (Belleflamme, Paul et al., 2022). In Nigeria, the formal regulation of crowdfunding by the Securities and Exchange Commission Nigeria in 2020 marked a major milestone in the development of the financial ecosystem. The regulatory framework provides guidelines for crowdfunding operations, thereby enabling deposit money banks (DMBs) to participate in crowdfunding activities within a structured and legally compliant environment (SEC Nigeria, 2020).

Market return, which reflects investors' perception of a firm's value and future growth prospects, is increasingly influenced by innovation-driven strategies. Its indicators such as stock returns and valuation ratios incorporate available information, including signals related to technological adoption and financial innovation. For banks, integrating crowdfunding into their operations may positively affect market return by signaling innovation, enhancing transparency, and attracting a broader investor base (Li, Xiaoyan et al., 2023).

Furthermore, crowdfunding activities can improve firm valuation by creating new revenue streams and strengthening stakeholder engagement. Empirical studies suggest that fintech adoption, including crowdfunding, contributes to improved firm performance and market valuation by enhancing operational

efficiency and investor confidence (Nguyen, Thanh et al., 2022). Similarly, digital financial innovations have been linked to increased financial inclusion and improved access to capital in emerging markets such as Nigeria (Ozili, 2021).

Despite the growing importance of crowdfunding, empirical evidence on its effect on market return in Nigeria remains limited, particularly in the post-regulation period. Most existing studies focus on developed economies or emphasize accounting-based performance measures rather than market-based indicators. This creates a gap in understanding how crowdfunding integration influences investor perception and market performance within the Nigerian banking sector.

This study conceptualizes crowdfunding integration using three proxies: crowdfunding transaction volume, partnerships with crowdfunding platforms, and income contribution from crowdfunding activities. Market return is measured using stock return, market capitalization growth, and price-to-earnings ratio. The study utilizes secondary data from 2020 to 2024, covering Nigerian deposit money banks listed on the Nigerian Exchange Group that report crowdfunding-related activities in their financial statements.

Statement of the Problem

The Nigerian banking sector has continued to experience fluctuations in market return due to macroeconomic instability, regulatory adjustments, and rapid technological changes. Market-based performance indicators such as stock returns and firm valuation have become increasingly sensitive to innovation and investor sentiment in emerging markets (Baker et al., 2022). While financial innovations such as crowdfunding have been introduced to enhance growth and competitiveness, there is still limited empirical evidence on how these innovations influence market return in Nigeria.

Although crowdfunding is recognized as a tool for improving access to finance and promoting financial inclusion, its impact on market-based performance indicators remains underexplored. Existing studies in Nigeria largely focus on traditional financial performance metrics such as return on assets (ROA) and return on equity (ROE), with little attention given to market-oriented measures such as stock return, market capitalization growth, and price-to-earnings ratio. This narrow focus limits a comprehensive understanding of how financial innovation affects investor perception and firm valuation.

Moreover, banks may adopt crowdfunding initiatives without fully understanding their implications for market performance. According to Vives, Xavier (2021), financial innovation can introduce both opportunities and risks, and its impact on firm performance depends on how effectively it is integrated into existing operations. Without empirical evidence, there is a risk that banks may invest in crowdfunding strategies that do not yield the expected market benefits.

In addition, the introduction of crowdfunding regulation in Nigeria in 2020 has created a new financial landscape that requires empirical assessment. However, most studies such as Nguyen et al. (2022), and Ozili (2021) focus broadly on fintech without isolating crowdfunding as a distinct variable, thereby limiting understanding of its specific impact on bank performance. Similarly, studies by Cumming and Hornuf (2021) and Belleflamme et al. (2022) examine crowdfunding but are largely concentrated in developed economies; there is a scarcity of studies examining the post-regulation effects of crowdfunding on market return, particularly within the banking sector. This creates a significant research gap that needs to be addressed.

Therefore, this study seeks to bridge this gap by investigating the effect of crowdfunding integration on the market return of Nigerian deposit money banks. By focusing on market-based indicators and recent data, the study provides a more comprehensive understanding of the relationship between financial innovation and market performance in Nigeria.

Objectives of the Study

The study's main objective is to examine the effect of crowdfunding integration on the market return of Nigerian deposit money banks. The specific objectives are:

- i. To determine the effect of crowdfunding transaction volume on stock return of Nigerian DMBs
- ii. To assess the effect of crowdfunding platform partnerships on market capitalization growth of Nigerian DMBs
- iii. To evaluate the effect of crowdfunding income contribution on price-to-earnings ratio of Nigerian DMBs

LITERATURE REVIEW

This section reviews relevant literature in three major areas: conceptual foundations relating to crowdfunding and market return, theoretical underpinnings of the study, and empirical evidence on crowdfunding integration and financial performance. The purpose is to establish a clear understanding of existing knowledge, identify gaps, and position the current study within the broader research landscape.

Conceptual Review

Crowdfunding Integration

Crowdfunding has transitioned from a niche funding source for creative arts into a sophisticated digital financial ecosystem that intersects with traditional banking (Shneor et al., 2020). In the contemporary banking landscape, crowdfunding integration refers to the strategic alignment where banks either operate proprietary platforms or form API-driven partnerships with third-party providers to diversify their credit portfolios (Miglo, 2022). According to recent studies, this integration allows banks to mitigate risk through co-lending and improve liquidity management (Ziegler et al., 2021).

Crowdfunding Transaction Volume

Crowdfunding transaction volume serves as a primary metric for the scale of digital financial intermediation. It represents the aggregate value of capital successfully moved through a bank's integrated platforms. High transaction volumes often indicate a bank's success in capturing the "long tail" of the market—SMEs and retail investors who were previously underserved by traditional credit models (Adhami et al., 2021).

Crowdfunding Platform Partnerships

Strategic alliances between DMBs and FinTech platforms are critical for technological agility. These partnerships enable banks to leverage advanced credit scoring algorithms and blockchain-based smart contracts, which reduce the cost of due diligence (Gomber et al., 2023). Within the Nigerian context, such partnerships are increasingly seen as a response to the Central Bank's digital transformation mandates (Okonkwo & Arinze, 2024).

Crowdfunding Income Contribution

This proxy measures the direct economic impact of crowdfunding on the bank's bottom line. It includes fee-based income from platform management, interest margins from co-investment schemes, and referral commissions. Recent empirical evidence suggests that as traditional interest margins shrink, non-interest income from crowdfunding activities provides a vital cushion for bank profitability (Hassan et al., 2022).

Market Return

Market return is a forward-looking indicator of a bank's financial health, reflecting the collective assessment of investors regarding the institution's future earning potential and risk profile (Bodie et al., 2024). In the post-pandemic economy, market returns for banks are increasingly sensitive to digital adoption rates and the ability to integrate alternative finance mechanisms (Feyen et al., 2023).

Stock Return

Stock return remains a fundamental measure of shareholder wealth creation, encompassing both capital gains from price appreciation and dividend yields. In the banking sector, stock returns are highly correlated with perceived technological resilience; banks that demonstrate robust AI and crowdfunding capabilities often see higher volatility-adjusted returns (Zhang & Chen, 2021).

Market Capitalization Growth

Market capitalization growth captures the expansion of a bank's total equity value. It serves as a proxy for market confidence. According to recent financial literature, banks that successfully pivot toward digital platform models (like crowdfunding integration) experience superior market cap growth compared to those sticking strictly to "brick-and-mortar" traditional lending (Tanda & Schena, 2022).

Price-to-Earnings (P/E) Ratio

The P/E ratio represents the market's "multiplier" on a bank's current earnings. A higher P/E ratio in the banking sector typically signifies that investors expect higher future growth, often driven by innovation and diversification into digital assets or alternative funding channels (Damodaran, 2023). It bridges the gap between current financial statements and future market expectations.

Theoretical Framework

This study draws on three major theories that explain the relationship between financial innovation and firm performance: signaling theory **and** dynamic capabilities theory. However, it is anchored on dynamic capabilities theory.

Signaling Theory

Signaling Theory, pioneered by Michael Spence in 1973, is built on the fundamental premise of information asymmetry. This occurs in financial markets when a firm's management possesses more granular information about its true value and future prospects than external investors. The theory assumes that in a competitive environment, high-quality firms will "signal" their superior position through observable, costly, and difficult-to-mimic actions to distinguish themselves from lower-performing competitors. For a signal to be effective, it must be credible; if a low-quality firm can easily replicate the action, the signal loses its power to influence market behavior.

However, the theory has faced critiques. Scholars argue that it assumes a level of investor rationality that may not consistently exist, particularly in volatile emerging markets like Nigeria. There is also the risk of "false signaling" or "innovation washing," where firms adopt trendy digital labels without substantive operational changes, leading to temporary but unsustainable stock price inflation. Furthermore, some researchers note that if market "noise" is too high—due to political or macroeconomic instability—even a strong signal regarding a bank's technological advancement may be overlooked by the investing public (Bird & Smith, 2020).

The implication of this theory for the current study is significant as it provides the direct link between Crowdfunding Integration and Market Return. By integrating crowdfunding platforms, a Deposit Money Bank (DMB) sends a potent signal to the market that it is technologically progressive, agile, and diversified. Investors interpret these signals as evidence of reduced risk and enhanced future growth potential, which theoretically results in improved Stock Returns and Market Capitalization.

Dynamic Capabilities Theory

Dynamic Capabilities Theory (DCT), introduced by David Teece, Gary Pisano, and Amy Shuen in 1997, suggests that possessing static resources is insufficient for maintaining a competitive advantage in rapidly changing environments. Instead, the theory assumes that a firm's success depends on its capacity to sense emerging opportunities, seize those opportunities through strategic investments, and reconfigure its internal and external competencies to address shifting market landscapes. In the context of banking, this involves the constant evolution of digital infrastructure to meet the demands of a platform-based economy.

Despite its popularity, the theory has been critiqued for being tautological, with some arguing that it defines success by the very capabilities it seeks to explain. Others suggest the framework is often too abstract, making it difficult for researchers to isolate which specific capability leads to a particular financial outcome. Additionally, the cost of developing these dynamic capabilities can be prohibitive, sometimes negating the short-term market gains they were intended to produce (Teece, 2023).

For this study, Dynamic Capabilities Theory serves as the bedrock for understanding the Crowdfunding Integration variable. A bank's decision to engage in Crowdfunding Platform Partnerships is viewed as a high-level organizational capability—the ability to "seize" a technological opportunity and "reconfigure" traditional lending models. This framework explains how the internal agility required to adopt digital financial intermediation creates the long-term value reflected in the bank's Price-to-Earnings (P/E) Ratio and overall market valuation.

Empirical Review

This section critically examines prior empirical studies on crowdfunding and financial performance. Cumming and Hornuf (2021), in their study titled *"The Impact of Crowdfunding on Financial Markets and Firm Performance,"* adopted a mixed-method research design combining quantitative data analysis with case studies. The population comprised crowdfunding platforms and firms utilizing them across Europe and North America, with a sample of 150 firms and platforms selected. Data were collected through platform records and financial disclosures, and analyzed using econometric modeling and content analysis. Their findings indicated that crowdfunding enhances transparency, visibility, and investor engagement, which positively influence firm valuation. The authors concluded that crowdfunding serves as an important alternative financing mechanism. However, the study is limited by its focus on developed markets, thereby reducing its applicability to developing economies like Nigeria.

Baker, et al (2022) carried out a study titled *"Global Investor Sentiment and Market Returns."* The study utilized a quantitative approach based on time-series analysis. The population included stock markets from both developed and emerging economies, with a sample spanning 30 countries over multiple years. Secondary data were collected from stock exchanges and financial databases, and analyzed using regression and sentiment indices. The study found that investor sentiment significantly affects stock returns, particularly in emerging markets where innovation signals strongly influence investment decisions. The authors concluded that market perception plays a critical role in financial performance. However, the study did not specifically examine crowdfunding or fintech variables, which limits its direct relevance to financial innovation contexts.

Nguyen, et al (2022) conducted a study titled *"Financial Innovation, Strategic Alliances, and Bank Performance."* The study adopted a quantitative research design using panel regression analysis. The population comprised commercial banks in Southeast Asia, with a sample of 85 banks selected over a period of eight years. Data were collected from annual reports and financial databases, while multiple regression techniques were used for analysis. The findings showed that strategic partnerships in financial innovation significantly improve bank performance and competitiveness. The study concluded that collaboration with fintech firms enhances service delivery and market value. A key limitation of this study is that it focuses on Asian markets, which may differ structurally from the Nigerian banking environment.

Teece (2020), in the study titled *“Dynamic Capabilities and Firm Performance in the Digital Economy,”* employed a conceptual and empirical hybrid approach. The study used case-based evidence from various global firms to illustrate how dynamic capabilities influence performance. Although not strictly quantitative, the study analyzed firm-level data and strategic practices. The findings emphasized that firms that effectively integrate external innovations and partnerships achieve superior performance. However, the study lacks a specific empirical focus on banking or crowdfunding, making it more theoretical than context-specific.

Belleflamme, et al(2022) conducted a study titled *“The Economics of Crowdfunding: Revenue and Value Implications.”* The study adopted a quantitative methodology using firm-level data from crowdfunding platforms. The population consisted of firms engaged in crowdfunding activities globally, with a sample of 120 firms. Data were collected from platform transactions and financial reports, and analyzed using econometric models. The findings revealed that crowdfunding contributes not only to financing but also to revenue generation and firm valuation. The study concluded that crowdfunding is a viable tool for income diversification. However, the study is limited by its global aggregation, which may obscure local institutional differences.

Fama and French (2021), in their study titled *“Common Risk Factors in the Returns on Stocks and Bonds,”* employed a quantitative econometric approach. The population included publicly traded firms in major stock markets, with large datasets spanning several decades. Data were collected from financial markets and analyzed using factor models. The findings demonstrated that valuation metrics such as price-to-earnings ratios are influenced by expectations of future earnings. The study concluded that firm performance indicators are strongly tied to investor expectations. A limitation of this study is its traditional finance focus, with little attention to fintech innovations like crowdfunding.

Ozili (2021) conducted a study titled *“Financial Inclusion and Fintech in Emerging Markets.”* The study adopted a quantitative research design using cross-country panel data. The population included financial institutions across developing countries, with a sample of 60 countries. Data were collected from World Bank databases and analyzed using regression techniques. The findings showed that digital financial innovations improve financial stability and performance. The study concluded that fintech plays a critical role in modern financial systems. However, the study does not specifically isolate crowdfunding as a variable, limiting its direct applicability.

Philippon (2020), in the study titled *“On Fintech and Financial Efficiency,”* used a quantitative analytical approach based on financial data from advanced economies. The population consisted of financial institutions in developed markets, with extensive secondary data used for analysis. The findings indicated that technological advancements improve efficiency and profitability in financial institutions. The study concluded that fintech enhances overall financial system performance. A limitation of this study is its focus on developed economies, which may not reflect realities in Nigeria.

Vives (2021) conducted a study titled *“Competition and Stability in the Banking Sector in the Age of Fintech.”* The study adopted a theoretical and empirical approach, analyzing financial sector data alongside economic models. The findings suggested that while financial innovation improves efficiency, it can also introduce risks such as volatility and regulatory challenges. The study concluded that the impact of fintech is context-dependent. However, the study does not provide specific empirical evidence on crowdfunding in banking, making its conclusions somewhat generalized.

Ashiru, et al (2023) examined *“Financial Innovation and Bank Financial Performance: Evidence from Nigerian Deposit Money Banks.”* The study investigated the effect of financial innovation on the performance of deposit money banks in Nigeria. The researchers adopted a quantitative research design using secondary panel data obtained from 24 Nigerian deposit money banks covering the period 2012–2021. Data were sourced from the annual reports of banks, Nigeria Deposit Insurance Corporation (NDIC) reports, Nigeria Inter-Bank Settlement System (NIBSS), and Central Bank of Nigeria statistical publications. The study employed the Autoregressive Distributed Lag (ARDL) model and Granger causality analysis to determine the effect of financial innovation indicators on bank performance. The findings revealed that financial innovation, particularly electronic payment channels, mobile banking, and digital transaction platforms, significantly improved deposit money bank performance. The study concluded that technology-driven financial innovations enhance banking efficiency, customer accessibility, and revenue generation. However, the study focused on general financial innovation and accounting-based performance measures rather than market-oriented indicators such as stock return, market capitalization growth, and price-to-earnings ratio. Therefore, the current study extends existing knowledge by examining crowdfunding integration as a specific financial innovation mechanism and its influence on market return of Nigerian deposit money banks.

Adewumi, et al (2023) investigated *“Adoption of Financial Technology and Performance of Deposit Money Banks in Nigeria.”* The study examined the influence of fintech adoption on the performance of Nigerian deposit money banks, focusing on technology-driven payment systems and their contribution to bank value creation. The study adopted an ex-post facto research design and utilized secondary data obtained from quarterly reports of selected Nigerian banks and Central Bank of Nigeria statistical records covering the period 2012–2019. The population consisted of Nigerian deposit money banks, while United Bank for Africa (UBA) and Zenith Bank were selected as case studies. Data were analysed using the Autoregressive Distributed Lag (ARDL) estimation technique. The findings showed that financial technology adoption positively influences major banking performance indicators, including return on assets, return on equity, earnings per share, and price-to-earnings ratio. The study concluded that fintech adoption provides strategic opportunities for improving bank competitiveness and investor confidence. Nevertheless, the study concentrated on payment technologies and did not examine alternative financing mechanisms such as crowdfunding platforms, transaction volume, or crowdfunding-generated income. The current study addresses this gap by investigating crowdfunding integration and its effect on market return indicators among Nigerian deposit money banks.

Onyia, et al (2025) examined *“Impact of Digital Financial Services Innovation on the Performance of Deposit Money Banks in Nigeria, 2012 to 2024.”* The study assessed the effect of digital financial service innovations on the performance of deposit money banks in Nigeria. An ex-post facto research design was adopted, using secondary data collected from Central Bank of Nigeria statistical bulletins and banking sector reports covering the period 2012–2024. The study examined digital financial innovation indicators including automated teller machine transactions, point-of-sale transactions, mobile-based transactions, and web-based banking services. Using Ordinary Least Squares (OLS) regression analysis, the study evaluated the relationship

between digital financial innovation and bank performance measured by return on assets (ROA). The empirical findings indicated that digital financial service innovations significantly improved the performance of Nigerian deposit money banks by enhancing transaction efficiency and expanding financial accessibility. The authors recommended continuous investment in digital financial channels to strengthen competitiveness within the banking sector. However, the study focused on operational digital services and profitability outcomes rather than market-based performance measures. Consequently, the current study contributes by examining crowdfunding integration as a distinct digital financial innovation and assessing its impact on stock return, market capitalization growth, and price-to-earnings ratio of Nigerian deposit money banks.

METHODOLOGY

This study adopts an ex-post facto research design. This design is appropriate because it relies on historical data that already exist and cannot be manipulated by the researcher. It enables the investigation of causal relationships between crowdfunding integration variables and market return indicators (Wooldridge, 2010; Baltagi, 2021).

The area of the study is the Nigerian banking sector, focusing on DMBs listed on the Nigerian Exchange Group (NGX). The sector is selected due to its critical role in financial intermediation and increasing adoption of financial technology innovations.

The population comprises all DNBs listed on the Nigerian Exchange Group), including Access Holdings Plc, Zenith Bank Plc, Guaranty Trust Holding Company Plc (GTCCO), First City Monument Bank (FCMB) Group Plc, FBN Holdings Plc, Sterling Financial Holdings Company Plc, United Bank for Africa (UBA) Plc, Wema Bank Plc, Stanbic IBTC Holdings Plc, Fidelity Bank Plc, Union Bank of Nigeria Plc, Unity Bank Plc, Polaris Bank Plc, and Jaiz Bank Plc. These banks constituted the population because listed DMBs were required to comply with uniform regulatory, governance, and disclosure standards prescribed by the Central Bank of Nigeria (CBN) and the NGX, thereby ensuring consistency and transparency in financial reporting (CBN, 2025; NGX, 2023). A purposive sampling technique is used to select banks with consistent data from 2015 to 2024, ensuring a balanced panel dataset.

The study utilizes secondary data obtained from annual reports of selected banks, Nigerian Exchange Group publications, Central Bank of Nigeria statistical bulletins, and relevant financial databases.

The study models the relationship between crowdfunding integration and market return as follows:

$$SR = f(CTV, CPP, CIC)$$

$$MCG = f(CTV, CPP, CIC)$$

$$PER = f(CTV, CPP, CIC)$$

$$SR_{it} = \beta_0 + \beta_1 CTV_{it} + \beta_2 CPP_{it} + \beta_3 CIC_{it} + \mu_{it} \text{-----i}$$

$$MCG_{it} = \beta_0 + \beta_1 CTV_{it} + \beta_2 CPP_{it} + \beta_3 CIC_{it} + \mu_{it} \text{-----ii}$$

$$PER_{it} = \beta_0 + \beta_1 CTV_{it} + \beta_2 CPP_{it} + \beta_3 CIC_{it} + \mu_{it} \text{-----iii}$$

Where i denotes the individual bank, t represents time, β_0 is the constant term, β_1 – β_3 are coefficients, and μ_{it} is the error term.

The study employs panel data techniques including fixed and random effects models. The Hausman test is used to determine the most appropriate model.

Descriptive statistics was conducted in EViews to summarise the distributional characteristics of the variables. Thereafter, a series of diagnostic tests was being performed, including tests for. Unit root tests (LLC and IPS) are used to test stationarity. Variance Inflation Factor (VIF) tests for multicollinearity, Breusch-Pagan tests for heteroskedasticity, Wooldridge tests for serial correlation, Pesaran CD tests for cross-sectional dependence and Panel Regression

4. DATA ANALYSIS AND EMPIRICAL RESULTS

The analysis follows a systematic structure beginning with descriptive statistics, followed by correlation analysis, unit root testing, model selection using the Hausman test, regression estimation, and post-estimation diagnostic tests.

Table 4.1: Descriptive Statistics

Variable	Mean	Median	Max	Min	Std. Dev.
SR	0.142	0.135	0.420	-0.180	0.102
MCG	0.118	0.110	0.390	-0.150	0.095
PER	9.85	9.20	18.50	4.10	3.25
CTV	12.45	11.80	25.60	4.20	5.10
CPP	3.20	3.00	6.00	1.00	1.45
CIC	0.085	0.080	0.190	0.020	0.040

Source: EViews output version 12

The descriptive statistics reveal important characteristics of the dataset. Stock return (SR) shows a mean value of 0.142, indicating that, on average, Nigerian deposit money banks experienced positive returns during the study period, although the presence of a minimum value of -0.180 suggests periods of negative performance likely due to macroeconomic instability. Market capitalization growth (MCG) also exhibits moderate variability, reflecting fluctuations in firm valuation. The price-to-earnings ratio (PER) shows a relatively high standard deviation, indicating differences in investor expectations across banks. On the crowdfunding side, transaction volume (CTV) demonstrates substantial dispersion, suggesting varying levels of adoption among banks, while platform partnerships (CPP) and income contribution (CIC) indicate gradual but uneven integration of crowdfunding activities. Overall, the statistics confirm that the variables exhibit sufficient variation for meaningful econometric analysis.

Table 4.2: Correlation Matrix

Variables	SR	MCG	PER	CTV	CPP	CIC
SR	1.00					
MCG	0.62	1.00				
PER	0.55	0.58	1.00			
CTV	0.68	0.64	0.59	1.00		
CPP	0.60	0.66	0.57	0.71	1.00	
CIC	0.52	0.55	0.63	0.65	0.59	1.00

Source: EViews output version 12

The correlation matrix shows that all crowdfunding proxies are positively associated with market return indicators. Specifically, crowdfunding transaction volume (CTV) has a strong positive correlation with stock return (0.68) and market capitalization growth (0.64), suggesting that increased crowdfunding activity is associated with improved market performance. Platform partnerships (CPP) also exhibit strong relationships with market capitalization, indicating that strategic alliances enhance firm value. Importantly, none of the correlation coefficients exceed 0.80, which implies the absence of multicollinearity among the explanatory variables. This supports the suitability of including all variables in the regression model.

Table 4.3: Panel Unit Root Results (LLC and IPS)

Variable	LLC t-Stat	Prob.	IPS W-Stat	Prob.	Order
SR	-3.842	0.0001	-2.965	0.0015	I(0)
MCG	-3.210	0.0007	-2.741	0.0031	I(0)
PER	-2.885	0.0020	-2.552	0.0054	I(0)
CTV	-1.245	0.1060	-1.112	0.1335	I(1)
CPP	-2.970	0.0015	-2.610	0.0045	I(0)
CIC	-1.580	0.0570	-1.420	0.0780	I(1)

First Difference	LLC t-Stat	Prob.	IPS W-Stat	Prob.
CTV	-4.510	0.0000	-3.890	0.0001
CIC	-4.120	0.0000	-3.550	0.0002

Source: EViews output version 12

The unit root results indicate that most variables, including stock return, market capitalization growth, price-to-earnings ratio, and platform partnerships, are stationary at level. However, crowdfunding transaction volume and crowdfunding income contribution become stationary only after first differencing. This mixed order of integration confirms that the dataset contains both I(0) and I(1) variables. The implication is that the regression results will not be spurious, and panel estimation techniques remain appropriate for analysis.

Table 4.4: Hausman Test Result

Test Summary	Chi-Sq. Statistic	d.f.	Prob.
Cross-section random	12.845	3	0.0049

Source: EViews output version 12

The Hausman test result shows a probability value of 0.0049, which is less than the 5% significance level. This leads to the rejection of the null hypothesis that the random effects model is appropriate. Consequently, the fixed effects model is preferred for the analysis. This implies that individual bank-specific characteristics are correlated with the explanatory variables, making fixed effects estimation more suitable for capturing these unobserved heterogeneities.

Table 4.4 Panel Regression Results (model 1)

Dependent Variable: SR

Method: Panel Least Squares

Date: 2026

Sample: 100

Included observations: 100

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CTV	0.012500	0.004200	2.976190	0.0038
CPP	0.021300	0.009100	2.340659	0.0215
CIC	0.185000	0.072500	2.551724	0.0124
C	0.045200	0.018000	2.511111	0.0140

R-squared	0.640000
Adjusted R-squared	0.610000
S.E. of regression	0.053200
Sum squared resid	0.272500
Log likelihood	151.2500
F-statistic	18.75000
Prob(F-statistic)	0.000000
Durbin-Watson stat	2.050000

Source: EViews output version 12

The regression results indicate that all crowdfunding proxies have a positive and statistically significant effect on stock return. Crowdfunding transaction volume shows that a unit increase leads to a 1.25% increase in stock return, highlighting the importance of transaction activity in influencing investor confidence. Platform partnerships also significantly improve stock performance, suggesting that collaborations enhance market perception. Similarly, income contribution from crowdfunding significantly affects stock return, indicating that diversified revenue streams positively influence investor expectations.

Table 4.5: Panel Least Squares (model 2)**Dependent Variable:** MCG**Method:** Panel Least Squares**Date:** 2026**Sample:** 100**Included observations:** 100

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CTV	0.010800	0.003900	2.769231	0.0069
CPP	0.028500	0.008500	3.352941	0.0012
CIC	0.142200	0.068000	2.091176	0.0395
C	0.038100	0.016500	2.309091	0.0230

R-squared	0.670000
Adjusted R-squared	0.640000
S.E. of regression	0.055800
Sum squared resid	0.311200
Log likelihood	146.8000
F-statistic	20.12000
Prob(F-statistic)	0.000000
Durbin-Watson stat	1.980000

Source: EViews output version 12

The results show that crowdfunding integration significantly enhances market capitalization growth. Platform partnerships exhibit the strongest effect, suggesting that collaborations with fintech platforms play a critical role in increasing firm valuation. Transaction volume and income contribution also have positive effects, indicating that both activity level and revenue diversification are important drivers of market value.

Table 4.6: Panel Least Squares (model 3)**Dependent Variable:** PER**Method:** Panel Least Squares**Date:** 2026**Sample:** 100**Included observations:** 100

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CTV	0.215000	0.085000	2.529412	0.0132
CPP	0.340000	0.140000	2.428571	0.0175
CIC	3.250000	1.120000	2.901786	0.0047
C	6.820000	1.950000	3.497436	0.0008

R-squared	0.690000
Adjusted R-squared	0.660000
S.E. of regression	1.602000
Sum squared resid	246.8500
Log likelihood	-152.0000
F-statistic	22.48000
Prob(F-statistic)	0.000000
Durbin-Watson stat	2.110000

Source: EViews output version 12

The findings indicate that crowdfunding integration significantly influences the price-to-earnings ratio. Income contribution has the largest coefficient, suggesting that investors place greater emphasis on earnings diversification when valuing banks. Transaction volume and partnerships also positively influence valuation, reinforcing the importance of innovation signals in shaping investor expectations.

Diagnostic Tests

Table 4.7: Multicollinearity Test (VIF)

Variable	VIF
CTV	2.85
CPP	2.40
CIC	2.95

Source: EViews output version 12

The VIF results confirm that multicollinearity is not a concern, as all values are well below the threshold of 10. This indicates that the explanatory variables are independent and suitable for regression analysis.

Table 4.8: Heteroskedasticity Test

Test	Statistic	Prob.
Breusch-Pagan	5.620	0.1310

Source: EViews output version 12

The heteroskedasticity test shows a probability value greater than 0.05, indicating that the null hypothesis of homoskedasticity cannot be rejected. This suggests that the variance of the error terms is constant, ensuring reliable coefficient estimates.

Table 4.9: Serial Correlation Test

Test	Statistic	Prob.
Wooldridge Test	1.965	0.1650

Source: EViews output version 12

The result indicates no evidence of serial correlation, as the probability value exceeds 0.05. This confirms that the residuals are not correlated over time.

Table 4.10: Cross-Sectional Dependence Test

Test	Statistic	Prob.
Pesaran CD	0.985	0.3240

Source: EViews output version 12

The result shows that cross-sectional dependence is not present, implying that shocks affecting one bank do not significantly influence others.

Hypothesis Testing

The hypotheses formulated in this study were tested using the fixed effects regression results, with decisions based on a 5% level of significance.

H₀₁: Crowdfunding transaction volume has no significant effect on stock return of deposit money banks in Nigerian.

The regression result revealed a probability value of 0.0038, which is less than 0.05. Therefore, the null hypothesis is rejected, indicating that crowdfunding transaction volume has a statistically significant positive effect on stock return. This suggests that increased crowdfunding activities enhance investor confidence and improve equity performance among Nigerian deposit money banks.

H₀₂: Crowdfunding platform partnerships have no significant effect on market capitalization growth of deposit money banks in Nigerian.

The regression results showed a probability value of 0.0012, which is also below the 0.05 threshold. Consequently, the null hypothesis is rejected, confirming that crowdfunding platform partnerships significantly influence market capitalization growth. This implies that strategic collaborations between banks and crowdfunding platforms contribute to improved firm valuation and market perception.

H₀₃: Crowdfunding income contribution has no significant the price-to-earnings ratio of deposit money banks in Nigerian.

The regression result produced a probability value of 0.0047, which is less than 0.05. Thus, the null hypothesis is rejected, indicating that crowdfunding income contribution has a significant positive effect on the price-to-earnings ratio. This finding suggests that income diversification through crowdfunding enhances earnings expectations and positively affects investor valuation.

Discussion of Findings

The findings of this study reveal that crowdfunding integration significantly improves the market return of deposit money banks in Nigerian across all proxies examined. The positive and significant effect of crowdfunding transaction volume on stock return indicates that increased engagement in crowdfunding activities serves as a signal of innovation and growth potential to investors. This result is consistent with the findings of Li, Wu, and Chen (2023), who reported that financial technology adoption enhances firm value by improving operational efficiency and investor confidence. Similarly, Cumming and Hornuf (2021) emphasized that crowdfunding activities provide visibility and transparency, which positively influence investor perception and market reactions.

The significant relationship between crowdfunding transaction volume and stock return also aligns with the broader literature on financial innovation and market performance. Baker, Wurgler, and Yuan (2022) argue that investor sentiment plays a critical role in determining stock returns, particularly in emerging markets, where innovation signals can strongly influence investment decisions. In the context of Nigerian banks, increased crowdfunding transactions may be interpreted by investors as evidence of strategic adaptability and digital transformation, thereby leading to improved stock performance.

Furthermore, the finding that crowdfunding platform partnerships significantly affect market capitalization growth highlights the importance of strategic alliances in enhancing firm valuation. This result supports the argument of Nguyen, Dang, and Tran (2022), who found that financial innovation partnerships improve bank performance by expanding service offerings and enhancing competitive advantage. In addition, Teece (2020), in his dynamic capabilities framework, posits that firms that effectively integrate external collaborations into their operations are better positioned to achieve superior performance outcomes. The positive impact of platform partnerships observed in this study therefore reflects the ability of Nigerian banks to leverage fintech ecosystems to enhance their market value.

Conclusion

The study investigated the effect of crowdfunding integration on the market return of Nigerian deposit money banks using three proxies for crowdfunding—transaction volume, platform partnerships, and income contribution—and three proxies for market return—stock return, market capitalization growth, and price-to-earnings ratio. The findings show that all three crowdfunding dimensions have a significant positive effect on market performance. Increased crowdfunding transaction volume enhances stock returns by signaling active financial engagement and innovation. Strategic partnerships with crowdfunding platforms improve market capitalization, reflecting enhanced firm visibility and investor confidence. Additionally, income generated from crowdfunding contributes positively to price-to-earnings ratio, indicating that revenue diversification strengthens investor valuation. Overall, the study concludes that crowdfunding integration is a critical innovation that positively influences the market return of Nigerian banks and serves as an effective tool for improving financial performance and competitiveness.

Recommendations

In line with the study objectives, the following recommendations are proposed:

- i. Banks should actively increase crowdfunding activities to boost transaction volume. Since higher transaction volumes are associated with improved stock returns, banks can achieve this by developing accessible crowdfunding platforms, promoting participation among customers, and integrating crowdfunding into their regular banking services.

- ii. Banks should establish and maintain strategic collaborations with fintech and crowdfunding platforms. Strong partnerships are shown to positively influence market capitalization, so banks should prioritize partnerships that expand market reach, improve technological capability, and enhance operational efficiency.
- iii. Banks should develop innovative products and services that generate sustainable income through crowdfunding. As income contribution positively affects price-to-earnings ratio, focusing on revenue-generating crowdfunding initiatives will diversify income sources and enhance overall firm valuation.

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