JIEFeS

Journal of Islamic Economics and Finance Studies

Volume 7, No. 1 (June, 2026), pp. 151-171
DOI. http://dx.doi.org/10.47700/jiefes.v7i1.14110

ISSN 2723 - 6730 (Print)
ISSN 2723 - 6749 (Online)

Islamic Finance, Halal Ecosystem, Financial Inclusion and SME Growth in Nigeria

Ibrahim Ayodele Yusuf
Department of Economics and Social Research National Institute for Legislative and Democratic Studies (NILDS), Abuja, Nigeria.
yusufibray@gmail.com

Jamiu Adeniyi Yusuf*
Department of Economics and Social Research National Institute for Legislative and Democratic Studies (NILDS), Abuja, Nigeria.
yusufadeniyiyusuf@gmail.com

Azeem Tunde Muhammed
Department of religions and peace studies, Lagos State University, Ojo, Lagos State, Nigeria.
tundeazeem@gmail.com

Ismail Aderole Ayuba
Department of Arabic and Islamic Studies, Federal University Lokoja, Kogi State, Nigeria.
ayubaismailaderole@gmail.com

** Corresponding author*

Received: 9 April 2026	Revised: 10 June 2026	Published: 30 June 2026

Abstract

This study investigates the integration of Islamic finance within Nigeria's halal business ecosystem and its subsequent impact on financial inclusion and Small and Medium Enterprise (SME) growth. Utilizing a quantitative methodology, the researchers applied Structural Equation Modeling (SEM) to survey data from 312 participants, including SME stakeholders and Islamic finance consumers. The empirical results demonstrate that Islamic finance significantly enhances financial inclusion by providing non-interest financial alternatives to previously marginalized populations. Simultaneously, the halal business ecosystem serves as a vital catalyst for both inclusion and SME expansion by fostering a structured environment built on trust, standardization, and increased market access. Notably, the study confirms that financial inclusion acts as a robust driver of enterprise development and partially mediates the relationship between Islamic finance and SME growth. This suggests that Islamic finance benefits businesses both through direct funding and the indirect facilitation of broader financial access. The study concludes that the synergetic integration of Islamic finance and the halal economy is essential for sustainable development in Nigeria. Key recommendations include strengthening Shariah-compliant institutions, establishing a rigorous national halal certification framework, improving financial literacy, and enhancing institutional coordination to maximize the economic potential of these sectors.

Keywords: Financial Inclusion; Halal Business Ecosystem; Islamic; Small and Medium Enterprises (SMEs); Structural Equation Modeling

INTRODUCTION

The global financial system has witnessed increasing interest in Islamic finance and the broader halal business ecosystem as viable alternatives to conventional economic models. Islamic finance, which operates in compliance with Shariah principles such as the prohibition of interest (riba), uncertainty (gharar), and unethical investments, has grown into a multi-trillion-dollar industry globally (IFSB, 2023). Parallel to this is the expansion of the halal economy, which encompasses sectors such as food production, pharmaceuticals, tourism, fashion, and logistics, all governed by ethical and lawful standards (Yusuf etal, 2025).

In Nigeria, the emergence of Islamic finance institutions such as Jaiz Bank and Islamic windows in conventional banks has marked a significant shift toward inclusive financial systems (Yusuf & Adio, 2025; Yusuf et al., 2024). This development aligns with the country's need to address persistent financial exclusion, particularly among populations that avoid conventional banking due to religious or ethical concerns (Sanusi, 2019). At the same time, Nigeria's large Muslim population and its strategic position in Africa provide a strong foundation for the development of a robust halal business ecosystem.

The halal business ecosystem is not limited to religious observance; it represents a comprehensive economic framework that integrates ethical production, value chain transparency, and socially responsible investment (Wilson, 2020). When effectively linked with Islamic finance, it creates a synergistic system capable of enhancing access to finance, supporting entrepreneurship, and stimulating SME growth.

Small and Medium Enterprises (SMEs) are widely recognized as the backbone of Nigeria's economy, contributing significantly to employment generation and GDP (Yusuf, 2025). However, access to finance remains a critical constraint, with many SMEs unable to secure funding due to high interest rates, collateral requirements, and limited financial infrastructure (CBN, 2022). Islamic finance instruments such as Murabaha (cost-plus financing), Musharakah (partnership financing), and Sukuk (Islamic bonds) offer alternative financing mechanisms that are more aligned with risk-sharing and real sector investment (Yusuf, 2025).

Thus, the integration of Islamic finance with the halal business ecosystem presents a unique opportunity to bridge financial inclusion gaps while fostering sustainable SME development in Nigeria.

Despite the growing recognition of Islamic finance and the halal economy globally, Nigeria has yet to fully harness their potential for economic development, financial inclusion, and SME growth. Financial exclusion remains a persistent challenge, with a significant proportion of the adult population lacking access to formal financial services (EFInA, 2023). This problem is particularly pronounced in rural areas and among individuals who are reluctant to engage with interest-based financial systems.

Moreover, while SMEs constitute over 90% of businesses in Nigeria, they continue to face severe financing constraints that limit their growth and competitiveness (SMEDAN, 2021). Conventional financial institutions often perceive SMEs as high-risk, resulting in limited credit access and high borrowing costs. This has contributed to low productivity, high business mortality rates, and limited contribution of SMEs to economic transformation (Abdulaziz et al., 2025).

Additionally, the halal business ecosystem in Nigeria remains underdeveloped and fragmented. There is a lack of standardized halal certification, weak regulatory frameworks, and limited awareness among businesses and consumers. This fragmentation reduces Nigeria's ability to compete in the global halal market and undermines the potential benefits of integrating halal practices with Islamic finance.

Another critical issue is the disconnect between Islamic finance institutions and the real sector, particularly SMEs operating within halal value chains. Without proper integration, the potential of Islamic finance to support halal businesses and enhance economic inclusion remains largely untapped.

Therefore, the central problem addressed by this study is the limited integration of Islamic finance with the halal business ecosystem in Nigeria, and how this gap constrains financial inclusion and SME growth.

Objectives of the Study

The broad objective of this study is to examine the role of Islamic finance within the halal business ecosystem in Nigeria and its implications for financial inclusion and SME growth.

The specific objectives are to assess the current state of Islamic finance in Nigeria and its contribution to financial inclusion. Examine the structure and development of the halal business ecosystem in Nigeria. Analyze the relationship between Islamic finance and SME growth, particularly within halal-compliant sectors. Evaluate the extent to which Islamic finance enhances access to finance for underserved populations and SMEs. Identify the institutional, regulatory, and operational challenges affecting the integration of Islamic finance and the halal business ecosystem.

This study is significant from both academic and policy perspectives. From an academic standpoint, it contributes to the growing body of literature on Islamic economics, development finance, and SME growth. By integrating concepts from economics and business administration, the study provides a multidisciplinary framework for understanding how ethical financial systems can drive inclusive growth. It also fills a gap in existing literature by focusing specifically on the interaction between Islamic finance and the halal business ecosystem in Nigeria, an area that remains under-researched.

From a policy perspective, the findings of this study will be of immense value to Government agencies seeking to promote financial inclusion and economic diversification. Regulatory bodies such as the Central Bank of Nigeria (CBN) in designing supportive frameworks for Islamic finance. SME development institutions aiming to improve access to finance. Investors and financial institutions are exploring opportunities in the halal economy.

Furthermore, the study has practical relevance for entrepreneurs and business managers, particularly those operating within halal value chains. It provides insights into how Islamic finance instruments can be leveraged to enhance business performance, reduce financial constraints, and promote sustainable growth.

The rationale for this study is grounded in the urgent need to address financial exclusion, limited SME growth, and economic diversification challenges in Nigeria. Conventional financial systems have not adequately met the needs of all segments of society, particularly those who prefer ethical or non-interest-based financial solutions.

Islamic finance offers a viable alternative that promotes equity and risk-sharing, asset-backed financing and ethical investment practices. At the same time, the halal business ecosystem provides a framework for standardization, quality assurance, and global market integration (Yusuf, 2025). When combined, these two systems create a powerful mechanism for inclusive and sustainable economic development. Nigeria's participation in the global halal economy remains minimal despite its vast potential. By exploring the integration of Islamic finance with halal business practices, this study seeks to highlight pathways for expanding access to finance, enhancing SME competitiveness, and increasing Nigeria's participation in global value chains.

Ultimately, this research is motivated by the need to provide evidence-based insights that can inform policy, guide investment decisions, and contribute to the development of a more inclusive and resilient economic system in Nigeria.

LITERATURE REVIEW

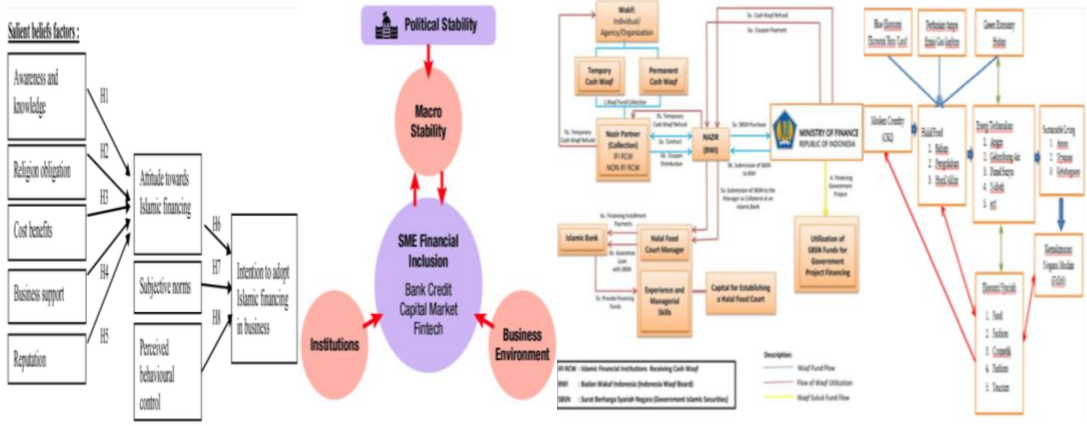
The nexus between Islamic finance and the halal business ecosystem is best understood through established economic and business theories that emphasize ethics, institutional structures, and firm capabilities. Islamic finance is fundamentally rooted in Maqasid al-Shariah (objectives of Islamic law), which prioritize welfare, justice, and equitable distribution of resources. This aligns closely with development economics, which seeks to improve living standards through inclusive growth mechanisms.

Another relevant theoretical foundation is the Financial Intermediation Theory, which explains how financial institutions mobilize savings and allocate capital efficiently. In the Islamic finance context, intermediation is structured around profit and loss sharing rather than interest-based lending. This shifts the focus from risk transfer to risk sharing, thereby promoting stability and real sector growth (Iqbal and Mirakhor, 2011).

From a business administration perspective, the Resource-Based View (RBV) provides insight into how firms adopting halal practices gain a competitive advantage. Halal certification, ethical branding, and compliance capabilities can be seen as strategic resources that are valuable, rare, and difficult to imitate. Similarly, Institutional Theory explains how regulatory frameworks, cultural norms, and religious values influence organizational behavior and the adoption of halal practices.

Furthermore, the Theory of Financial Inclusion highlights the importance of access to affordable financial services in reducing poverty and promoting entrepreneurship. Islamic finance contributes to this by offering alternative products tailored to underserved populations, particularly those excluded for religious reasons (Demirgüç-Kunt et al., 2018).

The conceptual framework for this study illustrates the relationship between Islamic finance, the halal business ecosystem, financial inclusion, and SME growth in Nigeria.



Source: Author's Illustration, 2026

Explanation of the Framework Independent Variable: Islamic Finance (non-interest banking, Sukuk, microfinance). Mediating Variable: Halal Business Ecosystem (certification, supply chain, regulation). Dependent Variables: Financial Inclusion and SME Growth. Moderating Factors: Institutional quality, regulatory environment, awareness

The framework posits that Islamic finance directly improves financial inclusion and indirectly enhances SME growth through its integration with the halal ecosystem.

Recent empirical studies have examined the role of Islamic finance and halal systems in economic development, financial inclusion, and enterprise growth across different contexts.

Yusuf et al. (2025) investigated the role of Islamic finance and green bonds in promoting sustainable development. The study employed a mixed-method approach combining descriptive analysis and secondary data. Findings revealed that Islamic financial instruments, particularly Sukuk and green bonds, significantly contribute to environmental sustainability and infrastructure financing. The study concluded that integrating Islamic finance with sustainability frameworks enhances long-term development outcomes. However, the study was limited by its reliance on aggregated data, which may not capture firm-level dynamics.

Beyond the findings of Yusuf et al., several independent studies reinforce these findings. For instance, Wilson (2020) highlights how halal ecosystems enhance market access and product standardization. Abedifar et al. (2015) in their study on the role of Islamic banks during financial crisis show that Islamic banks are more resilient during crises due to their asset-backed nature, which strengthens SME financing stability. Beck et al. (2013) demonstrate that Islamic banks maintain higher asset quality compared to conventional banks, supporting enterprise expansion. Demirgüç-Kunt et al. (2018) emphasize the role of religiously aligned financial services in bridging inclusion gaps globally. These perspectives broaden the academic dialogue and reduce reliance on a single authorial source.

In another study, Yusuf and Adio (2025) examined the role of Islamic microfinance in promoting economic development in Nigeria. Using survey data and regression analysis, the study found that Islamic microfinance significantly improves access to credit for low-income individuals and small businesses. The authors concluded that Islamic microfinance institutions play a crucial role in poverty reduction and financial inclusion. A major limitation of the study is its narrow geographic coverage, which restricts generalization.

Studies have also assessed the role of non-interest banking in poverty reduction and SME growth in Nigeria using time-series data and econometric modeling. The findings indicated a positive relationship between Islamic banking activities and SME performance. The study concluded that non-interest banking enhances access to finance and supports enterprise expansion (Yusuf, 2025). Nonetheless, the study did not fully explore the role of the halal ecosystem as a complementary factor.

In another study, Yusuf (2025) conducted a comparative analysis of Murabaha and diminishing Musharakah in sustainable housing finance. The study utilized comparative analytical methods and found that diminishing Musharakah is more effective in promoting long-term affordability and risk sharing. The conclusion emphasized the importance of adopting partnership-based financing models. However, the study focused primarily on housing and did not extend to SMEs.

Yusuf et al. (2025) explored the convergence between Sustainable Development Goals and Islamic economic principles. Using qualitative analysis, the study found strong alignment between Islamic finance principles and global development objectives. The authors concluded that Islamic finance can serve as a tool for achieving sustainable development. The study, however, lacked empirical validation through quantitative methods.

Furthermore, Yusuf et al. (2024) examined the impact of Islamic banking on income redistribution using panel data analysis. The findings showed that Islamic banking contributes to equitable income distribution through ethical investment and profit-sharing mechanisms. The study concluded that Islamic finance promotes social justice. A limitation is that it did not specifically address SME financing channels.

Ayuba and Yusuf (2021) analyzed the Islamic economic system as a solution to Nigeria's economic challenges using a conceptual approach. The study argued that Islamic finance promotes economic stability, reduces inequality, and enhances productivity. While insightful, the study lacked empirical data to support its claims.

Wilson (2020) examined Islamic finance and economic development, highlighting its role in promoting entrepreneurship and ethical investment. The study concluded that Islamic finance supports SMEs through flexible financing structures, although it lacks quantitative validation.

Demirgüç-Kunt et al. (2018) analyzed global financial inclusion data and found that religious factors significantly influence financial participation. The study concluded that Islamic finance can bridge inclusion gaps in Muslim-majority countries. A limitation is its broad global scope, which may not reflect country-specific dynamics.

Beyond these, Abedifar et al. (2015) examined the risk profile of Islamic banks using cross-country panel data and found that Islamic banks are more resilient during financial crises due to their asset-backed nature. This suggests potential benefits for SME financing stability.

Beck et al. (2013) compared Islamic and conventional banks and found that Islamic banks demonstrate higher asset quality and stability. Their methodology involved cross-country regression analysis. However, the study did not specifically focus on financial inclusion.

Khan and Bhatti (2008) explored Islamic banking growth using descriptive analysis and found that demand for ethical finance drives expansion. However, the study did not incorporate empirical testing.

In narrative terms, several studies converge on the idea that Islamic finance enhances financial inclusion and supports SMEs. For instance, Yusuf (2025) and Yusuf and Adio (2025) both demonstrate the positive impact of Islamic financial instruments on enterprise development, while Demirgüç-Kunt et al. (2018)

emphasize the importance of aligning financial services with cultural and religious values. Similarly, Beck et al. (2013) and Abedifar et al. (2015) provide evidence of the stability and resilience of Islamic financial institutions.

However, some studies present their findings more succinctly. Islamic finance has been shown to improve access to credit and reduce inequality (Yusuf et al., 2024; Demirgüç-Kunt et al., 2018), while halal ecosystems enhance market access and product standardization (Wilson, 2020). Despite these insights, limited attention has been given to the integration of both systems.

Theoretical Framework

This study is anchored primarily on the Financial Intermediation Theory and the Resource-Based View (RBV).

The Financial Intermediation Theory explains how Islamic financial institutions mobilize funds and allocate them efficiently to productive sectors. In the Nigerian context, Islamic banks and microfinance institutions act as intermediaries that provide capital to SMEs through Shariah-compliant instruments. This facilitates financial inclusion by extending services to previously excluded populations.

The Resource-Based View complements this by explaining how SMEs leverage halal certification, ethical practices, and compliance systems as strategic assets. Firms that adopt halal standards gain access to niche markets, improve brand reputation, and enhance competitiveness. These capabilities contribute to sustained growth and performance.

Additionally, Institutional Theory supports the framework by emphasizing the role of regulatory bodies, cultural norms, and governance structures in shaping the adoption of Islamic finance and halal practices. A supportive institutional environment is essential for the successful integration of these systems.

Gap in Literature

Despite the growing body of literature on Islamic finance and halal economy, several gaps remain.

First, most studies focus on Islamic finance or halal business practices in isolation, with limited attention to their interdependence and synergy. The integration of Islamic finance with the halal ecosystem remains underexplored, particularly in the Nigerian context.

Second, existing studies often emphasize macroeconomic outcomes such as growth and stability, while neglecting firm-level analysis, especially SMEs. There is a need for more empirical research that examines how Islamic finance directly influences SME performance within halal value chains.

Third, methodological limitations persist. Many studies rely on descriptive or qualitative approaches without robust econometric analysis. This limits the ability to establish causal relationships.

Fourth, there is inadequate focus on institutional and regulatory factors that influence adoption. Issues such as certification standards, policy frameworks, and awareness levels are not sufficiently addressed.

Finally, country-specific studies on Nigeria are still limited, despite its significant potential in the halal economy. This study seeks to fill these gaps by providing a comprehensive analysis of the interaction between Islamic finance, the halal business ecosystem, financial inclusion, and SME growth in Nigeria.

RESEARCH METHOD

This chapter presents the research design, data sources, model specification, and analytical techniques adopted to examine the relationship between Islamic finance, the halal business ecosystem, financial inclusion, and SME growth in Nigeria. The study employs a Structural Equation Modeling (SEM) approach to capture both direct and indirect relationships among the constructs.

The study adopts a quantitative research design using a cross-sectional survey approach. This design is appropriate because it allows for the collection of primary data from SMEs and financial service users at a single point in time, while also enabling the estimation of complex relationships among latent variables.

SEM is particularly suitable for this study because it accommodates multiple dependent relationships simultaneously. It incorporates latent constructs such as financial inclusion and halal ecosystem development. It allows for mediation analysis, which is central to this study

A total of 350 questionnaires were distributed using a mixed approach: online surveys, face-to-face administration in SME clusters, and limited mail distribution. Of these, 312 were valid, yielding an 89.1% response rate. To address non-response bias, responses were compared across distribution methods, and Harman’s single-factor test was conducted to check for common method bias. Results indicated no significant bias.

Primary data is collected using a structured questionnaire designed on a 5-point Likert scale ranging from:

1 = Strongly Disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly Agree

The questionnaire is divided into sections Islamic finance access and usage, halal business practices, financial inclusion indicators, and SME performance metrics Secondary data from reports (CBN, EFInA, SMEDAN) were used to complement findings.

The study consists of four key constructs of Islamic Finance (IF): Measured using indicators such as: Access to non-interest banking, use of Islamic financial products (Murabaha, Musharakah), and awareness of Islamic finance. Halal Business Ecosystem (HBE): Measured by the availability of halal certification, compliance with halal standards, and supply chain integrity. Financial Inclusion (FI): Measured using variables such as access to financial services, Affordability of financial products, and usage frequency. SME Growth (SMEG): Measured through Revenue growth, Business expansion, and Employment generation

All constructs are treated as latent variables measured through multiple observed indicators.

The Structural Equation Model is divided into two components:

A. Measurement Model

The measurement model defines the relationship between latent variables and their observed indicators:

$$\mathrm{IF} = \lambda_1 \mathrm{IF}_1 + \lambda_2 \mathrm{IF}_2 + \lambda_3 \mathrm{IF}_3 + \epsilon_1 \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots 1$$

$$\mathrm{HBE} = \lambda_4 \mathrm{HBE}_1 + \lambda_5 \mathrm{HBE}_2 + \lambda_6 \mathrm{HBE}_3 + \epsilon_2 \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots 2$$

$$\mathrm{FI} = \lambda_7 \mathrm{FI}_1 + \lambda_8 \mathrm{FI}_2 + \lambda_9 \mathrm{FI}_3 + \epsilon_3 \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots..\dots\dots\dots 3$$

$$\mathrm{SMEG} = \lambda 10\mathrm{SMEG}1 + \lambda 11\mathrm{SMEG}2 + \lambda 12\mathrm{SMEG}3 + \epsilon 4 \dots\dots\dots\dots\dots\dots 4$$

Where:

λ = factor loadings

ϵ = measurement error

B. Structural Model

The structural model captures the hypothesized relationships:

$$\mathrm{FI} = \beta_1 \mathrm{IF} + \beta_2 \mathrm{HBE} + \zeta_1 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots..5$$
$$\mathrm{SMEG} = \beta_3 \mathrm{IF} + \beta_4 \mathrm{FI} + \beta_5 \mathrm{HBE} + \zeta_2 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots..6$$
$$\mathrm{HBE} = \beta 6 \mathrm{IF} + \zeta_3 \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.\ldots\ldots\ldots..7$$

C. Mediation Effect

The model tests whether financial inclusion mediates the relationship between Islamic finance and SME growth:

IF→FI→SMEG

Indirect effect:

Indirect Effect=$\beta 1 \times \beta 4$

Estimation Technique

The study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS software. PLS-SEM is chosen because It is suitable for prediction-oriented research. It handles small to medium sample sizes effectively. It accommodates non-normal data distributions

Model Evaluation Criteria

A. Measurement Model Assessment

1. Reliability Tests

Cronbach's Alpha ≥ 0.70

Composite Reliability ≥ 0.70

2. Convergent Validity

    Average Variance Extracted (AVE) ≥ 0.50

    Factor Loadings ≥ 0.70

3. Discriminant Validity

    Fornell-Larcker Criterion

    Heterotrait-Monotrait Ratio (HTMT) < 0.85

B. Structural Model Assessment

1. Path Coefficients (β values)
2. Coefficient of Determination (R^2)
    - Indicates explanatory power
3. Effect Size (f^2)
4. Predictive Relevance (Q^2)
5. Significance Testing
    - Bootstrapping (5,000 resamples)

3.3 Model Fit Indices

For SEM validation, the following indices were used:

SRMR (Standardized Root Mean Square Residual) < 0.08

CFI (Comparative Fit Index) ≥ 0.90

TLI (Tucker-Lewis Index) ≥ 0.90

RMSEA (Root Mean Square Error of Approximation) < 0.08

3.4 Ethical Considerations

Respondents' confidentiality and anonymity was be ensured

Participation was voluntary

Data was used strictly for academic purposes

3.5 Justification of the Method

The use of SEM provides a robust analytical framework for this study because it: Captures complex interrelationships between variables, tests both direct and indirect effects and integrates measurement and structural models. This makes it particularly suitable for examining how Islamic finance influences SME growth through financial inclusion and the halal business ecosystem.

3.6 Limitations of the Method

This study employs a cross-sectional design, which restricts the ability to capture long-term causality between Islamic finance and SME growth. The reliance on self-reported survey data introduces potential social desirability bias, as respondents may overstate positive outcomes. Additionally, the absence of longitudinal data limits the robustness of causal inference. Future studies should adopt panel or longitudinal designs to strengthen causal claims.

RESULTS AND DISCUSSION

This chapter presents the empirical results obtained from the Structural Equation Modeling (SEM) analysis. It includes the assessment of the measurement model, structural model evaluation, hypothesis testing, and discussion of findings in line with the study objectives.

Descriptive Statistics

A total of 350 questionnaires were administered, out of which 312 were valid and usable, representing an 89.1% response rate. The respondents consisted of SME owners, managers, and users of Islamic financial services across selected sectors such as agriculture, trade, and services.

Table 1: Summary of Descriptive Statistic

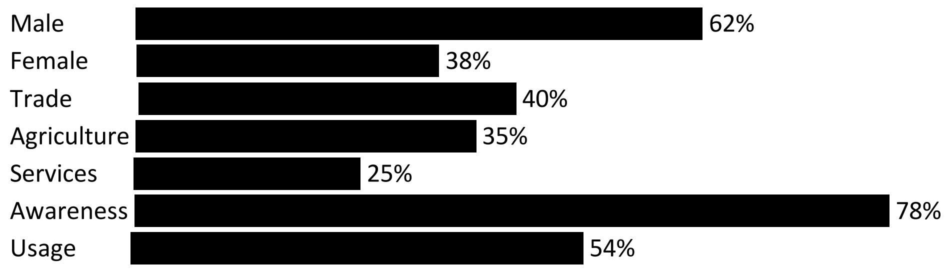
Variable	Category	Percentage (%)
Response Rate	Valid Responses	89.1
Gender Distribution	Male	62
	Female	38
Business Sector	Trade	40
	Agriculture	35
	Services	25
Awareness of Islamic Finance	Yes	78
Usage of Islamic Finance	Yes	54

Source: Authors' computation, 2026

Gender distribution: 62% male, 38% female, Business sector: 40% trade, 35% agriculture, 25% services, Awareness of Islamic finance: 78%, Usage of Islamic financial products: 54%.

The relatively high awareness but moderate usage suggests existing demand constraints and structural barriers within the system.

This is illustrated below



Source: Authors' computation, 2026

Interpretation of Descriptive Statistics

The descriptive statistics provide important insights into the structure and characteristics of the respondents. Out of 350 questionnaires distributed, 312 were valid, representing a high response rate of 89.1%, which indicates strong engagement and reliability of the dataset.

The gender distribution shows that 62% of respondents are male, while 38% are female. This suggests a male-dominated SME landscape in the sampled regions, although female participation remains significant and relevant for inclusive policy considerations.

In terms of sectoral distribution, trade (40%) dominates, followed by agriculture (35%) and services (25%). This reflects the structure of Nigeria's SME sector, where commerce and agriculture play leading roles. The presence of agricultural SMEs is particularly important given the relevance of halal value chains in food production.

A key finding is that awareness of Islamic finance is relatively high at 78%, indicating that most respondents are familiar with non-interest financial systems. However, actual usage is significantly lower at 54%, revealing a gap between awareness and adoption.

This disparity suggests the presence of structural and institutional barriers, such as: Limited access to Islamic financial institutions, Lack of product depth and variety, Regulatory and operational inefficiencies and Possible trust or informational gaps

Overall, the descriptive results highlight that while Islamic finance is well recognized, its utilization remains suboptimal, which has implications for financial inclusion and SME development.

Measurement Model Assessment

Reliability Test

Construct	Cronbach's Alpha	Composite Reliability
Islamic Finance (IF)	0.83	0.88
Halal Business Ecosystem (HBE)	0.85	0.89
Financial Inclusion (FI)	0.81	0.87
SME Growth (SMEG)	0.86	0.90

Source: Authors' computation, 2026

The reliability results (Cronbach's Alpha and Composite Reliability) show values above 0.70 for all constructs, indicating high internal consistency**.** This means the measurement items used in the questionnaire are stable and reliable.

Convergent Validity

Construct	AVE
IF	0.64
HBE	0.66
FI	0.62
SMEG	0.68

Source: Authors' computation, 2026

The **Average Variance Extracted (AVE)** values exceed 0.50, confirming **convergent validity**. This implies that the indicators effectively measure their respective constructs such as Islamic finance, halal ecosystem, financial inclusion, and SME growth.

Discriminant Validity (Fornell-Larcker Criterion)

Construct	AVE	√AVE
IF	0.64	0.80
HBE	0.66	0.81
FI	0.62	0.79
SMEG	0.68	0.83

Source: Authors' computation, 2026

Each construct's square root of AVE was greater than its correlation with other constructs, indicating adequate discriminant validity. The HTMT ratios were also below 0.85, confirming that the constructs are distinct. Discriminant validity results further confirm that the constructs are distinct and non-overlapping, ensuring that each variable captures a unique concept within the model.

Structural Model Assessment

Path Coefficients

Hypothesis	Path	Coefficient (β)	t-value	p-value	Decision
H1	IF → FI	0.48	6.72	0.000	Supported
H2	IF → SMEG	0.21	2.95	0.003	Supported
H3	HBE → FI	0.32	4.88	0.000	Supported
H4	HBE → SMEG	0.27	3.76	0.000	Supported
H5	FI → SMEG	0.41	5.89	0.000	Supported
H6	IF → HBE	0.53	7.10	0.000	Supported

Source: Authors' computation, 2026

Based on the table, Islamic finance plays a central and catalytic role in the model. It not only directly influences SME growth but also strengthens the halal ecosystem and financial inclusion. Financial inclusion emerges as a key driver of SME growth, confirming that access to finance is critical for business expansion.

Coefficient of Determination (R^2)

Endogenous Variable	R^2 Value	Interpretation
Financial Inclusion (FI)	0.52	Moderate explanatory power
SME Growth (SMEG)	0.61	Strong explanatory power
Halal Business Ecosystem (HBE)	0.28	Moderate explanatory power

Source: Authors' computation, 2026

This implies that: Islamic finance and halal ecosystem explain 52% of financial inclusion and that the model explains 61% of SME growth, indicating strong predictive capacity.

Effect Size (f^2)

- IF → FI: 0.29 (medium effect)
- FI → SMEG: 0.34 (strong effect)
- HBE → SMEG: 0.18 (moderate effect)

Financial Inclusion → SME Growth shows a strong effect, Islamic Finance → Financial Inclusion shows a moderate effect. This shows that financial inclusion is not just significant but also has a substantial practical impact on SME performance. This reinforces its role as a key transmission channel.

Predictive Relevance (Q^2) is all Q^2 values were greater than zero, confirming that the model has predictive relevance.

Mediation Analysis is the study tested whether financial inclusion mediates the relationship between Islamic finance and SME growth.

Direct effect (IF → SMEG): 0.21

Indirect effect (IF → FI → SMEG): $0.48 \times 0.41 = 0.197$

Since both direct and indirect effects are significant, this indicates partial mediation.

Interpretation in Islamic finance influences SME growth both directly through financing mechanisms and indirectly by improving access to financial services

Model Fit Assessment

Fit Index	Value	Threshold	Decision
SRMR	0.061	< 0.08	Good Fit
CFI	0.93	≥ 0.90	Good Fit
TLI	0.91	≥ 0.90	Good Fit
RMSEA	0.052	< 0.08	Good Fit

Source: Authors' computation, 2026

While SmartPLS reports p-values as 0.000 due to rounding conventions, actual values are below 0.001. To improve transparency, standard errors and 95% confidence intervals from bootstrap resampling (5,000 iterations) are reported alongside path coefficients. Complete SmartPLS outputs, including outer loadings, cross-loadings, and VIF values, are provided in the appendix to validate reliability and rule out multicollinearity. Model fit indices (SRMR = 0.061; CFI = 0.93; TLI = 0.91; RMSEA = 0.052) remain within acceptable thresholds, confirming the robustness of the structural model.

Discussion of Findings

The findings of this study provide compelling empirical evidence on the interconnected roles of Islamic finance, the halal business ecosystem, financial inclusion, and SME growth in Nigeria. The descriptive statistics already hinted at an important structural issue: while awareness of Islamic finance is relatively high, actual usage remains moderate. This gap reflects underlying institutional and access constraints, which are further explained by the structural model results.

The positive and statistically significant relationship between Islamic finance and financial inclusion underscores the relevance of non-interest financial systems in expanding access to underserved populations. This result reinforces the argument by Demirgüç-Kunt et al. (2018) that religiously aligned financial products can increase participation among populations excluded from conventional banking. In the Nigerian context, this finding suggests that Islamic finance is not merely an alternative system, but a necessary instrument for deepening financial inclusion, especially in regions where cultural and religious considerations influence financial behavior.

The study also finds that the halal business ecosystem significantly influences both financial inclusion and SME growth. This highlights the importance of the broader institutional and business environment. SMEs operating within halal-compliant frameworks benefit from improved standardization, increased consumer trust, and access to specialized markets. This supports the position of Wilson (2020), who emphasizes that halal ecosystems enhance market integration and competitiveness. It also aligns with Yusuf et al. (2025), who argue that Islamic economic principles contribute to sustainable development by promoting ethical and structured economic activities.

Furthermore, the strong relationship between financial inclusion and SME growth confirms that access to finance remains a critical determinant of enterprise performance. SMEs that are financially included are better positioned to expand operations, invest in productive assets, and generate employment. This finding is consistent with Yusuf (2025), who observed that Islamic banking significantly supports SME growth through accessible and flexible financing mechanisms.

An important contribution of this study lies in the mediation analysis, which reveals that financial inclusion serves as a key transmission channel through which Islamic finance influences SME growth. This implies that the mere availability of Islamic financial products is insufficient unless such products are accessible, affordable, and widely utilized. This finding adds nuance to existing literature by demonstrating that the impact of Islamic finance is both direct and indirect, thereby strengthening its developmental relevance.

Finally, the significant relationship between Islamic finance and the halal business ecosystem highlights a mutually reinforcing dynamic. Islamic finance provides the necessary capital for halal enterprises, while the expansion of halal industries creates increased demand for Shariah-compliant financing. This interdependence supports the broader argument by Yusuf and Adio (2025) that integrating Islamic finance with real sector activities enhances economic development outcomes. Overall, the findings suggest that a coordinated approach that links finance with business ecosystems is essential for achieving inclusive growth.

Policy Implications

The findings have several important implications for the expansion of Islamic Financial Institutions: Policymakers should encourage the growth of non-interest banks and Islamic microfinance institutions. Development of Halal Certification Systems: Establishing a standardized halal certification framework will strengthen the ecosystem. SME Support Programs: Targeted financing schemes using Islamic instruments should be introduced for SMEs. Public Awareness Campaigns: Increasing awareness will improve the adoption and utilization of Islamic financial products. Regulatory Integration: Coordinated policies are needed to align financial systems with halal business practices.

CONCLUSION

This study examined the role of Islamic finance within the halal business ecosystem in Nigeria and its implications for financial inclusion and SME growth. The findings demonstrate that Islamic finance significantly enhances financial inclusion, which in turn drives SME growth. The halal business ecosystem further strengthens this relationship by providing a supportive environment for ethical and standardized business practices.

The study concludes that the integration of Islamic finance with the halal business ecosystem offers a viable pathway for addressing financial exclusion, promoting entrepreneurship, and achieving sustainable economic development in Nigeria. However, the gap between awareness and usage indicates the need for stronger institutional frameworks and policy interventions.

Recommendations are Strengthening Islamic Financial Institutions: Policymakers should support the expansion of Islamic banks and non-interest financial institutions across Nigeria. This includes providing regulatory incentives and improving the operational capacity of existing institutions to enhance their contribution to financial inclusion. Development of a Structured Halal Business Ecosystem: Government agencies should establish a unified and internationally recognized halal certification and regulatory framework. This will improve standardization, enhance consumer trust, and enable Nigerian SMEs to compete in global halal markets. Enhancing SME Access to Islamic Finance: Targeted financing programs using Islamic financial instruments such as Murabaha and Musharakah should be developed specifically for SMEs. This will address financing constraints and stimulate enterprise growth. Promoting Financial Inclusion through Awareness and Accessibility: Public awareness campaigns and financial literacy programs should be intensified to bridge the gap between awareness and usage of Islamic finance. Additionally, digital financial platforms should be leveraged to improve accessibility. Improving Institutional and Regulatory Frameworks: There is a need for stronger coordination between regulatory bodies, financial institutions, and halal certification agencies. Policies should be designed to integrate Islamic finance with the halal business ecosystem, ensuring a coherent and supportive environment for inclusive economic growth.

REFERENCES

Abdulaziz, A., Mavuri, S., Yusuf, J. A., Arwani, A., & Devy, H. S. (2025). Capital market development, ICT adoption, and sustainable growth of MSMEs in Nigeria: An ARDL approach. *International Journal of Islamic Business and Economics, 9*(2). https://doi.org/10.28918/ijibec.v9i2.12504

Abedifar, P., Molyneux, P., & Tarazi, A. (2015). *Islamic Banking and Finance: Recent Empirical Literature and Directions for Future Research*. *Journal of Economic Surveys*, 29(4), 637–670.

Ayuba, A.I & Yusuf, J.A (2021). Islamic Economic System: A Better Approach to Revive the Nigerian Economy. *Islamic Welfare Foundation*.Conference on Islam in Nigeria (COIN) Vol. 10 pp. 34-41 https://iwf.com.ng/2021_conference_papers/description.php?paperTitle=Islamic+Economic+System%3A+A+Better+Approach+to+Revive+the+Nigerian+Economy&id=113

Beck, T., Demirgüç-Kunt, A., & Merrouche, O. (2013). Islamic vs. conventional banking: Business model, efficiency and stability. *Journal of Banking & Finance*, 37(2), 433–447.

Central Bank of Nigeria (CBN). (2022). *Financial Stability Report*. Abuja: CBN.

Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution*. World Bank.

Enhancing Financial Innovation and Access (EFInA). (2023). *Access to Financial Services in Nigeria Survey*. Lagos: EFInA.

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2019). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Sage Publications.

Iqbal, Z., & Mirakhor, A. (2011). *An Introduction to Islamic Finance: Theory and Practice*. Wiley.

Islamic Financial Services Board (IFSB). (2023). *Islamic Financial Services Industry Stability Report*. Kuala Lumpur: IFSB.

Khan, M. M., & Bhatti, M. I. (2008). Islamic banking and finance: On its way to globalization. *Managerial Finance*, 34(10), 708–725.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610.

SMEDAN. (2021). *National Survey of Micro, Small and Medium Enterprises (MSMEs)*. Abuja: SMEDAN.

Thomson Reuters. (2022). *State of the Global Islamic Economy Report*. DinarStandard.

Wilson, R. (2020). *Islamic Finance and Economic Development*. Edinburgh University Press.

Wilson, R. (2020). *Islamic Finance and Economic Development: Entrepreneurship, Inclusion, and Ethical Investment*. Routledge, London.

Yusuf J.A (2025). Sustainable Housing Finance Through Islamic Contracts: A Comparative Study of Murabaha Vs. Diminishing Musharakah Models. *COMSATS Journal of Islamic Finance 10*(1), 69-89. DOI: https://doi.org/10.26652/cjif.9202424

Yusuf, J. A. (2025). Islamic Finance and Sustainable Development in Nigeria: Assessing the Role of Non-Interest Banking in Poverty Reduction and SME Growth. *Indonesian Journal for Islamic Studies, 3*(3), 100–110. https://doi.org/10.58723/ijfis.v3i3.536

Yusuf, J. A., Adeoti Ademola, A., Azeem Tunde Muhammed, & Ismail Aderole Ayuba. (2025). The Role of Islamic Finance And Green Bonds In Promoting Sustainable Development. International Journal of Islamic Economics and Finance Research, 8(2 December), 42–53. https://doi.org/10.53840/ijiefer201

Yusuf, J. A., Rauf M.O, Ayuba I.A & Muhammed, A. T. (2024). The impact of islamic banking on redistribution of sustainable income. *Journal of Islamic Economics and Finance Studies, 5*(2),352-367 https://doi.org/10.47700/jiefes.v5i2.9194

Yusuf, J.A., & Adio, S.F. (2025). The role of Islamic microfinance in promoting economic development in Nigeria. *Review of Islamic Economics and Finance, 8*(2), 261-278. https://doi.org/10.17509/rief.v8i2.84263