



Determinants of Access to Qard Hasan Agricultural Finance among Rural Farmers in Kwara State, Nigeria

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ABSTRACT

Access to affordable and inclusive finance remains a critical constraint to agricultural development in Nigeria, where smallholder farmers face persistent challenges in securing credit from conventional institutions. Qard Hasan (QH), an interest-free, Sharia-compliant financing instrument, has been promoted as a potential alternative, yet empirical evidence on its determinants in sub-Saharan Africa is scarce. This study examined the factors influencing access to QH agricultural finance among rural farmers in Kwara State, Nigeria. A cross-sectional survey design was employed, drawing on data from 400 farming households selected through a multi-stage sampling technique. Primary data were collected via structured questionnaires and key informant interviews with Islamic finance providers and community leaders. Descriptive statistics and binary logistic regression were used to analyze the data. Findings revealed that only 34% of respondents had accessed QH despite relatively high awareness levels (61.5%). Logistic regression results indicated that education, cooperative membership, financial literacy, awareness of QH, farm size, farm income, and proximity to finance providers significantly increased the probability of access ($p < 0.05$). Conversely, gender disparities were evident, with male farmers more likely to access QH than females, while age and household size were not significant predictors. The study concludes that access to QH is shaped more by institutional and informational factors than by demographic characteristics alone. It recommends strengthening cooperative frameworks, promoting financial literacy, addressing gender barriers, and leveraging digital delivery systems to enhance inclusion. Embedding Qard Hasan within broader Islamic social finance ecosystems such as zakat and waqf could also improve sustainability and scale.

Keywords: Qard Hasan, agricultural finance, rural farmers, financial inclusion, Islamic social finance

INTRODUCTION

Access to timely, affordable, and appropriate finance remains a cornerstone for improving smallholder productivity, farm investment and rural livelihoods in sub-Saharan Africa (Steemers, 2022). In Nigeria, agricultural development is constrained not only by limited public funding and unstable input supplies, but also by persistent gaps in financial inclusion for rural producers: formal credit flows to agriculture are small relative to the sector's importance, and many smallholders rely on informal sources or government-led short-term programmes that do not always meet seasonal liquidity needs (Agri-Logic/RVO, 2022). These systemic shortfalls have renewed interest in alternative, ethically framed financing mechanisms that are both socially acceptable and designed to overcome the barriers associated with conventional interest-based lending (Widiastuti et al., 2022). One such instrument is Qard Hasan (QH); an interest-free, benevolent loan which has attracted policy and scholarly attention as a potentially inclusive, Sharia-compliant approach to financing productive rural activities, including

agriculture. Conceptually, Qard Hasan embodies social solidarity and welfare objectives (i.e., loans extended without profit motive and usually with favorable terms for vulnerable borrowers), and recent frameworks propose embedding QH within an integrated Islamic social-finance ecosystem (e.g., linked to waqf, zakat or philanthropic pools) to increase scale and sustainability (Widiastuti et al., 2022; recent conceptual work on qard models).

Despite its promise, empirical evidence about how Qard Hasan performs as an agricultural finance instrument, and which factors determine farmers' access to it, is limited, especially in African countries including Nigeria. Most existing empirical works on financing and smallholder agriculture in Nigeria focused on conventional credit, microfinance, or government credit schemes (e.g., Anchor Borrower Programme), documenting common barriers such as lack of collateral, high transaction costs, geographic distance to formal providers, low levels of financial literacy, farm fragmentation, and gendered constraints (Olatinwo et al., 2012; Ogbemudia et al., 2024). These determinants remain salient for any novel instrument: Qard Hasan may reduce the interest-rate barrier, but it cannot by itself eliminate other access constraints (e.g., documentation requirements, information asymmetries, provider capacity, or social norms).

The Nigerian state of Kwara illustrates both the opportunities and the challenges facing farmer-oriented finance. Kwara's rural economy is heavily agrarian, and smallholders often rely on a mix of formal microfinance, cooperative savings, informal moneylenders and periodic government interventions to meet seasonal credit needs (studies of credit use in Kwara and related research). Local research in Kwara points to determinants such as farm size, type of enterprise, education, membership of cooperatives, and lending terms that shape credit uptake and utilization (Olatinwo et al., 2012). At the same time, more recent research across Nigeria shows that financial literacy and familiarity with modern financial instruments significantly predict access to and effective use of innovative financial services. This has implications for any Qard Hasan-based intervention which may depend on farmers' understanding of how benevolent loans are structured and repaid (Ogbemudia et al., 2024).

Qard Hasan's particular governance, funding and operational features create a distinct set of determinants for access. First, supply-side determinants include the institutional capacity of Islamic social-finance actors (banks, zakat/waqf agencies, NGOs) to administer and recycle QH funds, their ability to underwrite agricultural risk without charging interest, and the availability of complementary instruments (e.g., micro-insurance, technical assistance) that make loans productive and sustainable (Widiastuti et al., 2022). Second, demand-side determinants include farmers' religious preferences and perceptions of Sharia-compliant products, social capital and trust relationships with funders (important for trust-based, no-profit lending), collateral or substitute guarantees, farm enterprise characteristics (crop type, seasonality, expected cash flows), and household socio-demographics (gender, education, age). Third, contextual and policy determinants such as the presence of digital payment and identification infrastructure, government programmes that crowd in or crowd out Islamic social finance, and donor involvement shape both supply capability and farmers' propensity to engage with alternative lenders. Taken together, these factors suggest that QH's accessibility is contingent on an ecosystem of institutional partnerships, literacy/awareness, and risk-management arrangements rather than on the benevolent character of the loan alone.

Several empirical and policy gaps motivate the present study. First, while international literature and recent conceptual work show promising models for integrating QH into broader social-finance systems, there is a shortage of context-specific, empirical studies that identify which determinants matter most for rural farmers in Nigerian states such as Kwara (i.e., microlevel evidence on uptake, barriers and enabling conditions is scarce). Second, much of the Nigerian evidence on agricultural credit predates recent innovations in digital finance and the growing involvement of Islamic social-finance actors in humanitarian and development finance; updated, localised evidence is therefore necessary to inform policy design (Agri-Logic/RVO, 2022; Ogbemudia et al., 2024). Third, policymakers and practitioners need empirically grounded guidance on how to structure Qard Hasan-

based products so that they are both Sharia-compliant and operationally viable for smallholder farmers, for example, how to pair QH funds with technical support, seasonal repayment schedules, or community-guarantee mechanisms to reduce default risk while preserving the instrument's benevolent intent.

This study therefore investigates the determinants of access to Qard Ḥasan agricultural finance among rural farmers in Kwara State, Nigeria. By combining farm-level survey data with qualitative interviews of fund providers and community leaders, the paper aims to (i) measure the prevalence of awareness and uptake of qard ḥasan-style financing in selected Kwara communities; (ii) test how socio-economic, institutional, and farm-level variables influence access; and (iii) draw pragmatic recommendations for designing qard-based programmes that align Sharia-compliant principles with operational feasibility and rural realities. The findings are intended to fill a critical evidence gap for academics, Islamic social-finance practitioners, and policymakers seeking inclusive, ethics-aligned solutions to Nigeria's agricultural finance challenge.

RESEARCH METHOD

This study adopted a cross-sectional survey design, which is appropriate for investigating relationships between socio-economic characteristics of farmers and their access to Qard Ḥasan agricultural finance at a single point in time. A mixed-methods approach was also employed to complement quantitative findings with qualitative insights from interviews with Islamic finance providers and community leaders. The research was conducted in Kwara State, Nigeria, a predominantly agrarian state in the North-Central region. The state has diverse farming systems, including food crops (maize, rice, yam, cassava), cash crops (cocoa, cashew), and livestock production. Despite its agricultural potential, rural farmers face considerable challenges in accessing affordable credit, making it an appropriate context for investigating determinants of access to alternative financing mechanisms such as QH.

The target population comprised rural farming households actively engaged in crop or livestock production across the three senatorial districts of Kwara State. A multi-stage sampling technique was applied: (i) Selection of two Local Government Areas (LGAs) from each senatorial district using stratified random sampling. (ii) Selection of four rural communities from each chosen LGA. (iii) Random selection of farming households within the communities. The sample size was determined using Yamane's (1967) formula for finite populations, with a 5% margin of error. This yielded 400 respondents, ensuring representativeness. In addition, 10 key informant interviews (KIIs) were conducted with Islamic microfinance institutions, cooperative leaders, and religious organizations involved in QH disbursement.

Primary data were collected through a structured questionnaire administered to farmers. The instrument captured information on: Socio-demographic characteristics (age, gender, education, household size); Farm characteristics (farm size, enterprise type, income, cooperative membership); Awareness and perception of Qard Ḥasan finance; Access indicators (binary outcome: accessed = 1, not accessed = 0); Constraints and enabling factors related to Islamic finance. The questionnaire was pre-tested in a neighboring community for validity and reliability, while qualitative data from KIIs provided context on institutional and policy determinants.

Data were analyzed using both descriptive and inferential statistics. Descriptive statistics (frequency, mean, standard deviation) summarized respondents' socio-economic characteristics and access levels. To identify determinants of access, a binary logistic regression model was employed, since the dependent variable (access to Qard Ḥasan finance) is dichotomous.

Model Specification

Let Y_i represent access to Qard Hasan finance for the i^{th} farmer, where:

$$Y_i = \begin{cases} 1, & \text{if farmer has accessed QH finance} \\ 0, & \text{otherwise} \end{cases}$$

The probability of access is given by:

$$P(Y_i = 1) = \frac{e^{\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_k X_{ki}}}{1 + e^{\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_k X_{ki}}}$$

where:

$P(Y_i = 1)$ = probability that the i^{th} farmer has access,

$X_{i..k}$ = explanatory variables (age, gender, education, farm size, income, cooperative membership, awareness),

β_0 = intercept,

$\beta_{i..k}$ = coefficients of the explanatory variables,

ε_i = error term.

The log-odds form is:

$$\ln \left[\frac{P_i}{1 - P_i} \right] = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_k X_{ki} + \varepsilon_i$$

Variables and Measurement

Dependent variable: Access to qard ḥasan agricultural finance (1 = accessed, 0 = not accessed).

Independent variables: Age (years), Gender (male = 1, female = 0), Education (years of schooling), Household size (number), Farm size (hectares), Farm income (₦ per annum), Cooperative membership (1 = yes, 0 = no), Financial literacy (measured via a 5-item scale), Awareness of qard ḥasan (1 = yes, 0 = no) and Distance to finance provider (km)

RESULTS AND DISCUSSION

Result

Table 1: Socio-demographic characteristics of respondents (N = 400)

Variable	Category	N	%
Gender	Male	250	62.50
	Female	150	37.50
Age	≤ 30	68	17.00
	31 – 45	176	44.00
	46 – 60	122	30.50
	≥ 61	34	8.50
Education	No formal	72	18.00
	Primary	112	28.00
	Secondary	148	37.00
	Tertiary	68	17.00
Household size	≤ 4	104	26.00
	5 – 8	224	56.00
	≥ 9	72	18.00
Cooperative membership	Yes	230	57.50
	No	170	42.50

Table 1 presents the socio-demographic characteristics of rural farmers in the study area. Out of the 400 respondents, the majority were male (62.5%), while females accounted for 37.5%. The mean age of respondents was 44 years, indicating a predominantly middle-aged farming population. About 54% had at least secondary education, and the mean household size was 6 members. This

suggests that farming in Kwara State is male-dominated, but with substantial female participation. The moderate education levels imply potential for adoption of new financial services, while the relatively large household sizes may affect financial needs and loan repayment capacity.

Table 2: Awareness and access to Qard Hasan agricultural finance

Variable	Category	N	%
Awareness	Aware	246	61.50
	Not aware	154	38.50
Access	Accessed	136	34.00
	Not accessed	264	66.00

Table 2 shows respondents' awareness and access to QH agricultural finance. While 61.5% reported being aware of QH, only 34.0% had actually accessed it. The relatively high awareness but low actual access suggests that there are constraints beyond farmers' awareness.

To identify determinants, a binary logistic regression model was estimated. The results are presented in Table 3.

Table 3: Logistic regression estimates of determinants of access to Qard Hasan agricultural finance (Dependent variable: Access = 1, No access = 0)

Variable	B	SE	Wald χ^2	Odds Ratio (Exp(β))	p
Constant	-3.215	1.024	9.87	–	0.002
Age	-0.015	0.008	3.52	0.985	0.061
Gender	0.642	0.276	5.40	1.900	0.020**
Education	0.118	0.034	12.50	1.125	0.001***
Household size	0.064	0.037	2.98	1.066	0.084
Farm size	0.221	0.091	5.89	1.247	0.015**
Farmer income	0.004	0.002	4.01	1.000	0.045**
Cooperative membership	0.923	0.285	10.46	2.517	0.001***
Financial literacy	0.314	0.102	9.45	1.369	0.002***
Awareness of QH	1.256	0.317	15.70	3.513	0.000***
Distance to provider	-0.084	0.031	7.34	0.919	0.007***

Model $\chi^2(10) = 92.46$, $p < 0.001$ Nagelkerke $R^2 = 0.39$ Classification accuracy = 77.8%

Gender ($p < 0.05$): Male farmers were about 1.9 times more likely to access qard hasan compared to females. Education ($p < 0.01$): Each additional year of schooling increased the odds of

access by about 12%. Farm size ($p < 0.05$): Larger farm size increased access likelihood. Farm income ($p < 0.05$): Higher income slightly increased access probability. Cooperative membership ($p < 0.01$): Cooperative members were 2.5 times more likely to access QH. Financial literacy ($p < 0.01$): More literate farmers had significantly higher odds of access. Awareness ($p < 0.001$): Awareness was the strongest determinant, with aware farmers being 3.5 times more likely to access QH. Distance ($p < 0.01$): Each additional kilometer reduced the odds of access by 8%. Age and household size were not statistically significant.

Additionally, interviews with Islamic financial institutions and community leaders highlighted that lack of collateral substitution mechanisms, limited funding pools, and gender-related cultural barriers constrained women's access. Providers also emphasized that awareness campaigns and linking Qard Hasan to cooperatives improved repayment and sustainability.

Discussion

This study examined the determinants of access to Qard Hasan agricultural finance among rural farmers in Kwara State, Nigeria. The results revealed that socio-economic, institutional, and contextual variables collectively influenced farmers' ability to access this Sharia-compliant financial instrument. Several key insights emerge.

First, awareness of QH was the strongest determinant of access. Farmers who were aware of the instrument were more than three times as likely to access it. This finding is consistent with earlier studies that highlight awareness and information gaps as major barriers to financial inclusion in rural Nigeria (Ogbemudia et al., 2024). In the context of Islamic social finance, awareness is not only about knowledge of loan availability, but also about understanding its religious permissibility, repayment conditions, and operational mechanisms (Widiastuti et al., 2022). Thus, financial literacy and awareness campaigns remain critical to expanding the reach of QH.

Second, education and financial literacy significantly improved the likelihood of access. Educated farmers were better positioned to understand the terms of Qard Hasan, engage with providers, and manage repayment. This aligns with findings that financial literacy enhances participation in innovative agricultural finance models (Ogbemudia et al., 2024). It also reinforces the argument that investment in human capital through farmer training, extension services, and financial education has the potential to directly improve access to ethical financing.

Third, institutional membership, particularly cooperatives, was a strong positive determinant. Cooperative members were more than twice as likely to access QH compared to non-members. This result resonates with earlier Nigerian studies (Olatinwo et al., 2012) which identified collective action as a facilitator of credit access. In practice, cooperatives reduce transaction costs for providers, strengthen repayment through peer monitoring, and act as social collateral substitutes in no-interest lending schemes.

Fourth, farm characteristics mattered significantly. Larger farm sizes and higher farm incomes increased the probability of access, suggesting that providers favor farmers with stronger productive capacity and repayment potential. Although QH is intended as a benevolent loan, its institutional sustainability depends on prudent allocation, meaning that relatively better-off farmers may have an advantage. This reflects the broader challenge of balancing inclusivity with financial viability in Islamic social finance programs (Widiastuti et al., 2022).

Fifth, gender disparities were evident, with men more likely to access Qard Hasan than women. This finding is in line with research documenting gendered constraints in agricultural finance in Nigeria, where women face cultural barriers, weaker land rights, and limited mobility (Agri-Logic/RVO, 2022). Given that women constitute a large share of the agricultural labor force, targeted interventions, such as women-focused cooperatives or collateral-free women's loan windows are essential to reduce this disparity.

Sixth, distance to providers negatively influenced access. Each additional kilometer reduced the odds of access, underscoring the importance of geographical proximity and transaction costs. This

aligns with studies on rural finance that identify physical distance as a barrier to financial inclusion (Olatinwo et al., 2012). The implication is that digital financial platforms and mobile-based QH models could mitigate this constraint.

Conversely, age and household size were not significant determinants. This suggests that access is shaped less by demographic attributes and more by institutional engagement, awareness, and economic capacity. While some studies have reported age effects on credit uptake (e.g., younger farmers facing higher barriers due to lack of experience), in this case, the results indicate that Qard Hasan providers may prioritize other factors such as cooperatives, literacy, and repayment potential. Taken together, these findings demonstrate that while QH offers an interest-free, religiously acceptable alternative to conventional credit, its accessibility is not automatic. Structural factors such as awareness, financial literacy, institutional affiliation, and provider outreach are decisive in determining who benefits. This reflects the dual nature of Qard Hasan: a socially motivated instrument, but one that must operate within institutional and economic realities.

CONCLUSION

This study investigated the determinants of access to Qard Hasan agricultural finance among rural farmers in Kwara State, Nigeria. The findings revealed that access is shaped by a combination of awareness, education, financial literacy, cooperative membership, farm size, income, and geographical proximity to providers, while gender disparities persist in favor of men. In contrast, demographic factors such as age and household size were not significant predictors.

The results highlight that although QH offers an interest-free and Sharia-compliant alternative to conventional agricultural credit, its accessibility is not universal. Farmers' ability to benefit depends on both demand-side factors (knowledge, literacy, cooperative participation) and supply-side factors (institutional outreach, funding adequacy, gender sensitivity). Thus, Qard Hasan cannot by itself resolve financial exclusion among rural farmers without complementary measures that address structural and institutional barriers.

RECOMMENDATIONS

Based on the findings, the following recommendations are made: (i) Stakeholders should implement structured financial literacy and awareness campaigns to increase farmers' understanding of Qard Hasan and its terms. (ii) Linking QH distribution to farmer cooperatives can enhance outreach, provide social collateral, and improve repayment sustainability. (iii) Islamic finance providers and policymakers should design gender-responsive QH schemes, including women-focused cooperatives, flexible documentation, and community guarantee mechanisms. (iv) Expanding QH through mobile platforms and agent banking can mitigate distance barriers and reduce transaction costs. (v) Embedding QH within zakat, waqf, and Sadaqah frameworks will improve fund sustainability, allowing wider and more equitable distribution among vulnerable farmers.

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REFERENCES

- Adejuma, A., & Asaolu, I. (2024). Determinants of rural farmers' access to commercial bank credit in Enugu State, Nigeria. *E-Proceedings of the Faculty of Agriculture International Conference*, 321–327.
- Adigun, G. T. (2022). Determinants of credit access among smallholder women farmers in Irepodun LGA, Kwara State, Nigeria. *Nigeria Agricultural Journal*, 53(2), 115–124.

- Agri-Logic. (2022). Finance for agriculture and agribusiness in Nigeria: Final report for RVO (Netherlands Enterprise Agency). Agri-Logic B.V.
- Aliyu, S. R., Danlami, A. H., & Shehu, F. M. (2023). Predictors of Islamic financial inclusion in Northwest Nigeria: A preliminary cross-sectional investigation. *International Journal of Islamic Economics and Finance*, 7(2).
- Ibrahim, S. S., & Aliero, H. M. (2012). An analysis of farmers' access to formal credit in the rural areas of Nigeria. *African Journal of Agricultural Research*, 7(47), 6249–6253.
- Ogbemudia, B., Osabohien, R., & Osabuohien, E. (2024). Investing in rural agriculture in the face of innovative financial services: Does financial literacy matter in Nigeria? *Sage Open*, 14(1),
- Olatinwo, A. O., Adewuyi, S. A., & Adepoju, A. O. (2012). Analysis of rural farming households' access to credit in Kwara State, Nigeria. *Journal of Agriculture and Social Research*, 12(1), 120–130.
- Sani, H. S., & Aliero, H. M. (2012). An analysis of access to formal credit among rural farmers in Nigeria using a probit model. *African Journal of Agricultural Research*, 7(47), 6249–6253.
- Usman, A. R., Danlami, A. H., & Shehu, F. M. (2023). Predictors of Islamic financial inclusion in Northwest Nigeria: A preliminary cross-sectional investigation. *International Journal of Islamic Economics and Finance*, 7(2).
- Widiastuti, T., Prasetyo, A., Robani, A., Mawardi, I., Rosida, R., Al Mustofa, M. U. et al. (2022). Toward developing a sustainability index for the Islamic social finance program: An empirical investigation. *PLOS ONE*, 17(11).
- Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper and Row.