

Diaspora networks and export performance of small-scale agro-processing firms in Nigeria

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ABSTRACT

This study examines how diaspora networks influence the export performance of small-scale agro-processing firms in the Federal Capital Territory, Abuja, Nigeria. Drawing on social network theory and diaspora entrepreneurship theory, the study conceptualises diaspora networks through three dimensions: remitting behaviour, diaspora knowledge transfer, and diaspora trade facilitation. Primary data were collected through a structured questionnaire administered to owners and managers of small-scale agro-processing firms, and the hypothesised relationships were analysed using partial least squares structural equation modelling. The results indicate that remitting behaviour, diaspora knowledge transfer, and diaspora trade facilitation each exhibit positive and statistically significant relationships with export performance. The findings highlight the multidimensional role of diaspora communities as providers of financial capital, market-relevant knowledge, and cross-border trade support that can strengthen the international competitiveness of small firms. The study contributes to the diaspora networks and small firm internationalisation literature by providing firm-level evidence from an emerging economy context and by clarifying actionable pathways through which diaspora engagement can be leveraged to improve export outcomes. Policy and managerial implications are discussed, particularly regarding programmes that support productive remittance channelling, structured knowledge exchange platforms, and diaspora-enabled trade linkages.

Keywords: Diaspora networks, remitting behaviour, diaspora knowledge transfer, diaspora trade facilitation, export performance, agro-processing firms, Nigeria

INTRODUCTION

Diaspora networks have become a consequential driver of firm internationalisation in developing economies because they connect domestic producers to transnational resources that are otherwise difficult to access. These networks extend beyond social ties, they function as economic infrastructure that can mobilise finance, circulate market-relevant knowledge, and broker credible cross-border relationships. For small-scale agro-processing firms, which typically face binding constraints in export finance, standards compliance, distribution access, and foreign market intelligence, diaspora engagement can therefore be an important mechanism for improving export performance (Ratha et al., 2011; Kapur, 2004). Yet, despite the increasing policy attention given to diaspora engagement, the micro-level pathways through which diaspora networks shape export outcomes remain insufficiently evidenced in many African contexts.

This gap is particularly salient in Nigeria, where export diversification remains a strategic priority and agro-processing is central to value addition and non-oil export growth. Small-scale agro-processing firms contribute to employment and local value chains, but their export participation is frequently constrained by limited working capital, weak export capabilities, and high transaction costs associated with meeting foreign market requirements (FMARD, 2020). These challenges are acute for firms operating in competitive urban markets such as the Federal Capital Territory, Abuja, where the pressure to upgrade processes, comply with export standards, and secure reliable trade partners is substantial. In this setting, diaspora ties can potentially relax financial constraints through remittances, improve capabilities through knowledge transfer, and lower market-entry frictions through trade facilitation. However, empirical evidence that separates these mechanisms, tests them concurrently, and quantifies their relative contributions to export performance in a Nigerian agro-processing context remains limited.

Prior research often treats diaspora networks as a single aggregate influence, which obscures the fact that diaspora engagement operates through distinct resource channels that may differ in their marginal effects on export outcomes. Conceptually, remitting behaviour provides liquidity and investment capacity, diaspora knowledge transfer strengthens firm capabilities related to process upgrading, quality compliance, and market adaptation, and diaspora trade facilitation reduces information and trust frictions by linking firms to buyers and distribution channels abroad (Kapur, 2004; Rauch & Trindade, 2002). When these mechanisms are not disaggregated, it becomes difficult to identify what actually drives export performance and where policy and managerial interventions should be targeted. Empirically, much of the evidence base is concentrated in non-African settings or in sectors that differ from agro-processing in institutional exposure and export requirements, limiting inference for Nigerian small firms. Theoretically, the literature also requires clearer articulation of how transnational ties translate into measurable export outcomes for small producers operating under infrastructural and institutional constraints.

To address these limitations, this study examines how diaspora networks influence the export performance of small-scale agro-processing firms in FCT-Abuja by modelling diaspora engagement as a multidimensional construct consisting of remitting behaviour, diaspora knowledge transfer, and diaspora trade facilitation. The study is anchored in social network theory, which emphasises that embedded ties can mobilise resources, reduce informational frictions, and support coordinated exchange under uncertainty (Granovetter, 1973). It is also informed by diaspora entrepreneurship perspectives that frame diaspora actors as transnational agents capable of transferring capital, capabilities, and cross-border market access to origin-country firms (Brinkerhoff, 2016). By testing the three diaspora mechanisms simultaneously, the study offers a sharper explanation of how diaspora engagement works, not merely whether it works.

This study makes three contributions. First, it provides firm-level evidence on diaspora-enabled export performance in a Nigerian agro-processing setting where export barriers are pronounced and under-researched. Second, it disentangles diaspora engagement into three theoretically grounded mechanisms and evaluates their relative effects, improving conceptual precision and reducing the risk of overgeneralised claims about diaspora influence. Third, it strengthens theory by clarifying how transnational social ties are converted into export-relevant resources, specifically finance, capability upgrading, and market access, within a small-firm context. The resulting evidence is directly relevant to managers seeking export growth strategies and to policymakers designing diaspora engagement programmes aimed at improving non-oil export competitiveness.

Guided by this logic, the study addressed the following research questions:

- i. How does remitting behaviour affect export performance of small-scale agro-processing firms in FCT-Abuja?
- ii. To what extent does knowledge transfer affect export performance of small-scale agro-processing firms in FCT-Abuja?
- iii. What effect does diaspora trade facilitation have on export performance of small-scale agro-processing firms in FCT-Abuja?

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Social network theory, introduced by Granovetter in 1973, highlights how interpersonal connections facilitate economic transactions through information sharing and trust-building. A key insight of this theory is the value of "weak ties" in accessing new information, which has been validated in numerous studies of migrant networks (Saxenian, 2002). In developing economies like Nigeria, these weak ties help small businesses overcome information gaps in export markets (Mensah & Benedict, 2020). However, critics note the theory's limitations in accounting for structural inequalities that may prevent equal network access (Portes & Vickstrom, 2011), particularly for women-owned and rural businesses (Ado & Su, 2019). These limitations are evident when studying Nigeria's agro-processing sector, where power imbalances often constrain small firms' ability to leverage diaspora connections.

Diaspora entrepreneurship theory, developed by Brinkerhoff in 2012, explains how migrants create value through their dual cultural knowledge. Recent studies confirm that diaspora entrepreneurs significantly boost export performance by providing market intelligence and quality standard information (Elo et al., 2018). Nigerian-specific research demonstrates these effects in agricultural exports, where diaspora members help navigate EU and US regulations (Akinrinade & Ogen, 2021). However, the theory's limitations become apparent in contexts with weak institutions, as found in studies of West African trade networks (Tiemoko, 2020). These limitations particularly affect small agro-processors in Abuja who may lack the digital literacy to connect with diaspora networks effectively (Adeyanju et al., 2022).

This study employs social network theory and diaspora entrepreneurship theory due to their simplicity, robustness, and proven applicability across various domains of diaspora networks and export performance, particularly in contexts where initial acceptance behaviors and economic transactions are being investigated. While acknowledging the limitations of these theories, such as their limited ability to account for social and cultural factors (Portes & Vickstrom, 2011; Tiemoko, 2020), this study complements them by integrating remitting behavior, knowledge transfer, and trade facilitation as moderating variables, addressing unique dimensions not captured in other models.

Diaspora Networks and Export Performance

Diaspora networks are webs of social, economic, and cultural linkages that connect migrants and their descendants with their countries of origin. They extend beyond family ties to encompass flows of finance, knowledge, trade opportunities, and institutional practices (Kshetri, 2015). These networks reduce information asymmetries, open market access, and serve as cultural and institutional bridges between home and host countries (Elo et al., 2020).

A central feature of diaspora networks is their reliance on social capital. Trust, shared identity, and frequent interactions facilitate both tacit and explicit knowledge transfer, enabling home-country firms to navigate international standards, consumer preferences, and regulatory environments (Gevorkyan, 2022). Through mechanisms such as remittances, knowledge transfer, and trade facilitation, diaspora members act as investors, mentors, and cultural intermediaries, thereby enhancing the competitiveness of firms in emerging economies (Epstein, 2016). In this sense, diaspora networks are not passive social ties but dynamic instruments of entrepreneurship and development, providing critical resources that enable small firms to expand into global markets and strengthen their export performance.

Export performance refers to the extent to which firms can compete in international markets, typically evaluated through indicators such as export volume, market diversification, and revenue growth (National Bureau of Statistics, 2023). For small-scale agro-processing firms in Nigeria, export performance is often hindered by structural challenges, including poor infrastructure, stringent trade regulations, and limited access to foreign markets (Olayiwola et al., 2021). However, firms that leverage diaspora networks tend to exhibit better export outcomes due to improved market access, reduced entry barriers, and enhanced credibility in foreign markets (Saxenian, 2006). This study measured diaspora network as remitting behaviour, diaspora knowledge transfer,

diaspora trade facilitation.

Remitting Behaviour and Export Performance

Remitting Behaviour refers to the financial transfers made by diaspora members to their home countries, categorized into household remittances (for family support) and business-oriented remittances (for investment and enterprise development) (Olayiwola et al., 2021). Business-oriented remittances play a crucial role in enhancing export performance by providing small-scale agro-processors with working capital, technology upgrades, and market expansion resources (Chukwuemeka et al., 2020).

Remittances have been widely recognized as a critical driver of economic growth, particularly in developing economies like Nigeria. Studies such as those by Awode et al. (2021) and Lakmal (2021) highlight the positive influence of remittances on GDP, consumption, and investment. However, these studies also emphasize the need for institutional frameworks to channel remittances into productive economic activities.

Business-oriented remittances, in particular, play a pivotal role in enhancing export performance by providing small-scale agro-processors with working capital, technology upgrades, and resources for market expansion (Chukwuemeka et al., 2020; Olayiwola et al., 2021). Despite the potential benefits, the effectiveness of remittances depends on financial literacy and institutional support to ensure funds are directed toward export-oriented ventures. Based on these insights, the following hypothesis is proposed:

H1: Remitting behavior has a significant effect on the export performance of small-scale agro-processing firms in FCT-Abuja.

Diaspora Knowledge Transfer and Export Performance

Knowledge Transfer is the systematic exchange of skills, expertise, technical know-how, and market insights between individuals or groups, often across geographical and organizational boundaries (Argote & Ingram, 2000). It facilitates access to international best practices, quality standards, and innovative processing techniques (Saxenian, 2006; Elo, 2016).

Knowledge transfer within diaspora networks serves as a conduit for skills, expertise, and market insights, which can enhance the competitiveness of small-scale agro-processing firms. Diaspora communities act as conduits for tacit and explicit knowledge, facilitating access to international best practices, quality standards, and innovative processing techniques (Saxenian, 2006; Elo, 2016). For instance, Nigerian agro-processors in FCT-Abuja may benefit from diaspora members sharing insights on export regulations, packaging trends, or consumer preferences in foreign markets, thereby improving product adaptability and compliance (Nielsen & Riddle, 2007). However, challenges such as limited technical infrastructure, language barriers, and weak institutional support can hinder optimal knowledge diffusion (Adegbite & Muthuri, 2020). Structured platforms, such as diaspora-led training programs or digital collaboration tools, can mitigate these gaps and amplify knowledge spillovers (Ojo et al., 2021). Therefore, we hypothesize that:

H2: Diaspora knowledge transfer has a significant effect on the export performance of small-scale agro-processing firms in FCT-Abuja.

Diaspora Trade Facilitation and Export Performance

Diaspora Trade Facilitation encompasses the active role of migrants in easing cross-border trade for firms in their home countries by providing market intelligence, establishing buyer-supplier linkages, and reducing transaction costs (Osabuohien et al., 2019). Diaspora trade facilitation involves the active role of migrants in easing cross-border trade for firms in their home countries. This includes providing market intelligence, establishing buyer-supplier linkages, and reducing transaction costs (Osabuohien et al., 2019).

Diaspora members leverage their understanding of both local and foreign business environments to mediate trade, thereby enhancing market access and credibility for small-scale exporters (Granovetter, 1973). Studies such as those by Gul et al. (2023) and Santhi et al. (2019) emphasize the importance of efficient logistics, transparent trade mechanisms, and simplified customs processes in boosting exports. Hence, the following hypothesis is

proposed:

H3: Diaspora trade facilitation has a significant effect on the export performance of small-scale agro-processing firms in FCT-Abuja.

METHODOLOGY

The methodology adopted for this study is outlined as follows: The research design employed was descriptive and explanatory, enabling the investigation of relationships between diaspora networks and export performance while providing insights into underlying patterns. The target population comprised 240 small-scale agro-processing firms operating within the Federal Capital Territory (FCT), Abuja, as defined by the study sampling frame. Using Yamane's (1967) formula, the minimum sample size was estimated at 150 firms. To accommodate likely non-response and improve the likelihood of achieving the minimum effective sample, a 20 percent contingency was added, resulting in a target of 180 firms. The 180 firms were selected through simple random sampling to ensure that each eligible firm had an equal probability of selection.

Data were collected over a four-month period, from February to June 2025, using a structured questionnaire administered to owners or managers who were deemed sufficiently knowledgeable about firm export activities and diaspora-related engagement. In total, 180 firms were contacted. Of these, 159 questionnaires were returned as valid at the point of receipt, yielding a response rate of 88.3 percent (159 out of 180). Following preliminary screening and data quality checks, including missing data assessment and response pattern evaluation, 148 questionnaires were retained for final analysis, representing 82.2 percent of the contacted firms (148 out of 180) and 93.1 percent of the initially valid returns (148 out of 159).

Eligibility was determined using explicit inclusion and exclusion criteria. Firms were included if they were small-scale agro-processing businesses operating within the FCT and captured in the sampling frame, and if the respondent was an owner or manager with adequate knowledge to answer the survey. Firms were excluded where they did not meet the agro-processing and location criteria, fell outside the small-scale definition adopted for the study, or returned questionnaires that were incomplete or unsuitable for analysis after the preliminary screening.

The collected data were analysed using regression analysis to test hypotheses conducted using smart pls 3.0. To ensure the validity and reliability of the research instrument, a pilot test was conducted among a subset of respondents not included in the main study, and adjustments were made based on feedback to enhance clarity and consistency. This approach ensured robustness in capturing the impact of diaspora networks on export outcomes.

Study Measures

This research employed a set of well-defined and validated measures for each key construct: remitting behaviour, diaspora knowledge transfer, diaspora trade facilitation, and export performance. These constructs were operationalized based on existing literature to ensure validity and reliability.

Remitting behaviour was measured using a multi-item scale adapted from Yang (2008), which captures the frequency and number of financial transfers sent by business owners or their networks abroad. The original item pool captured the frequency and intensity of diaspora-related remittance activity and included items such as: "How often do you send money abroad to support family or business-related activities?" and "What proportion of your income is typically remitted?"

Consistent with recommended PLS-SEM measurement evaluation procedures, the scale was subjected to indicator reliability and discriminant validity assessment during the measurement model evaluation. Three indicators from the original eight were dropped during the purification process because they did not meet the specified measurement criteria.

Specifically, the removed items showed low outer loadings relative to the minimum acceptable threshold, indicating weak indicator reliability, and problematic cross-loadings, indicating insufficient discriminant validity.

After removing these three items, the remitting behaviour construct was retained as a five-indicator latent variable (REBH1 to REBH5). This measure has been widely used in studies examining the impact of remittances on small-scale enterprises (Gupta, 2005; Yang, 2008).

Diaspora knowledge transfer was assessed using a scale adapted from the work of Boucher et al. (2014). The scale is made up of five (5) items and sample items include "Have you received new production techniques from diaspora contacts?" and "Has any information about foreign markets been shared through your diaspora networks?" This construct was measured on a five-point Likert scale, where responses ranged from "strongly disagree" to "strongly agree."

Diaspora trade facilitation scale was self-designed, as it focuses on how diaspora networks assist in reducing transaction costs and improving access to international markets. The scale comprised five (5) items and indicators included assistance in identifying buyers, help with logistics, and support in navigating customs procedures. A composite score was computed based on responses to statements such as "Diaspora contacts have helped establish connections with foreign buyers" and "I have received assistance in shipping products overseas through diaspora networks."

Export performance was measured using five perceptual, self-reported Likert-scale items adapted from Abubakar et al. (2025), capturing firm performance outcomes in export markets. Samples from the scale are "Satisfaction with sales generated from export markets", "Satisfaction with overall export-market performance", "achievement of expected export sales over the last three years". We adopted perceptual measures because objective export records are often unavailable, incomplete, and inconsistently documented among small firms, and validated subjective scales are widely accepted as reliable proxies for export outcomes in SME export research (Yap et al., 2011; Isichei et al., 2023).

Common method variance

Because the data were collected from single respondents at one point in time, we assessed potential common method bias using both procedural and statistical remedies. Procedurally, the questionnaire items were worded clearly and respondents were assured of anonymity and that there were no right or wrong answers, to reduce evaluation apprehension and consistency motives. Statistically, we first conducted a Harman-type single-factor assessment as a diagnostic check, and the result revealed that none of the variables explained more than 50% indicating the absence of common method bias (Podsakoff et al., 2012). We then applied the full collinearity variance inflation factor (VIF) approach recommended for PLS-SEM by estimating VIFs for all latent constructs (Castillo et al., 2025). The full collinearity VIF values were below the conservative threshold of 3.3, suggesting that common method bias is unlikely to confound the results materially.

RESULTS AND DISCUSSIONS

The data analyses were guided by the structural equation modelling (SEM) approach, which is suitable for examining the complex interrelationships among the study constructs. The results are presented in two stages. The first stage focuses on the measurement model, where the validity and reliability of the constructs are assessed to ensure that the items adequately capture the underlying theoretical dimensions. The second stage then evaluates the hypothesised relationships among remitting behaviour, diaspora knowledge transfer, diaspora trade facilitation, and export performance of small-scale agro-processing firms in FCT-Abuja.

Measurement Model

Following the requirement for SEM, this study subjected the scale for iterative analysis. The results are presented and interpreted further below:

Table 1. Outer Loadings, Reliability and Validity

Construct	Indicator	Diaspora knowledge transfer	Diaspora trade facilitation	Export performance	Remitting behaviour	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Diaspora knowledge transfer	DSKT1	0.702				0.782	0.710	0.794	0.743
	DSKT2	0.799							
	DSKT3	0.753							
	DSKT4	0.775							
	DSKT5	0.778							
Diaspora trade facilitation	DSTF1		0.761			0.742	0.752	0.766	0.716
	DSTF2		0.787						
	DSTF3		0.773						
	DSTF4		0.749						
	DSTF5		0.794						
Export performance	EXPF1			0.785		0.764	0.715	0.776	0.731
	EXPF2			0.752					
	EXPF3			0.754					
	EXPF4			0.795					
	EXPF5			0.761					
Remitting behaviour	REBH1				0.734	0.782	0.738	0.790	0.733
	REBH2				0.786				
	REBH3				0.789				
	REBH4				0.755				
	REBH5				0.758				

Source: Authors analysis, 2025

Table 1 shows the outer loading values exhibit strong and acceptable reliability in measuring their respective latent constructs. According to Hair et al. (2019), outer loadings above 0.70 suggest that the indicator contributes significantly to the construct.

The **Table 1** also shows convergent validity, reinforcing the appropriateness of the selected indicators in explaining the latent constructs. However, further improvements can be made by considering indicator refinement or increasing sample size to enhance measurement precision (Sarstedt et al., 2021).

The reliability and validity assessment confirms that the measurement model meets the necessary statistical thresholds, ensuring robustness in construct measurement. The Cronbach's Alpha (≥ 0.70) indicates strong internal consistency, meaning the indicators reliably measure their respective constructs (Hair et al., 2019). However, Cronbach's Alpha assumes tau-equivalence, which may not always hold, making Rho_A (Dillon-Goldstein's Rho ≥ 0.70) an alternative as it provides a more realistic reliability estimate (Henseler et al., 2015) and the result shows that this criterion was satisfied.

The Average Variance Extracted values were above 0.50 confirming that each construct explains at least 50% of its variance, confirming convergent validity (Hair et al., 2019).

Table 2. Heterotrait-monotrait ratio (HTMT) – Matrix

	Diaspora knowledge transfer	Diaspora trade facilitation	Export performance	Remitting behaviour
Diaspora knowledge transfer				
Diaspora trade facilitation	0.835			
Export performance	0.710	0.811		
Remitting behaviour	0.746	0.837	0.825	

Source: Authors analysis, 2025

Table 2 reports the Heterotrait Monotrait (HTMT) ratios for diaspora knowledge transfer, diaspora trade facilitation, export performance, and remitting behaviour. The HTMT criterion was used to assess discriminant validity, following Henseler et al. (2015). All HTMT values range from 0.710 to 0.837, which are below the recommended threshold of 0.85 and the more conservative cut off of 0.90. This indicates that discriminant validity is adequately established among the constructs.

The HTMT ratios between export performance and the other constructs, as well as those involving remitting behaviour, remain within acceptable limits. Overall, the results confirm that the constructs are empirically distinct and that the measurement model demonstrates satisfactory discriminant validity, supporting further structural analysis.

Also, the Variance Inflation Factor results were all less than 5.0, which demonstrates that multicollinearity is not a concern, as highly correlated indicators could inflate standard errors and distort model estimates (Sarstedt et al., 2021). Collectively, these findings validate the measurement model's reliability, convergent validity, and the absence of multicollinearity, strengthening the overall integrity of the structural equation model.

Structural Model

The structural model explains 59.1 percent of the variance in Export Performance ($R^2 = 0.591$). In PLS-SEM terms, this indicates moderate to substantial explanatory power, meaning the three diaspora-network dimensions jointly account for a materially large share of differences in export performance among the sampled agro-processing firms.

Table 3. Hypothetical Relationship

Hypothesis	Relationship (direction)	Beta (β)	t-value	Effect size (f^2)	Decision
H1	Remitting behaviour → Export performance	0.438	5.403	0.259	Supported
H2	Diaspora knowledge transfer → Export performance	0.288	3.441	0.271	Supported
H3	Diaspora trade facilitation → Export performance	0.168	2.752	0.252	Supported

Source: Authors analysis, 2025

The bootstrapping results displayed in **Figure 1** and summarised in **Table 3** confirm that all hypothesised relationships are positive and statistically significant. The hypothesis tests show positive and statistically significant direct effects for all proposed relationships. Remitting behaviour → Export performance is the strongest predictor ($\beta = 0.438$, $t = 5.403$), indicating that increases in diaspora remittance activity are associated with meaningfully higher export performance. Diaspora knowledge transfer → Export performance is also significant ($\beta = 0.288$, $t = 3.441$), confirming that diaspora-enabled skills and knowledge inflows contribute to export outcomes beyond financial remittances. Diaspora trade facilitation → Export performance remains significant but is comparatively weaker ($\beta = 0.168$, $t = 2.752$), suggesting that market-linkage support and network-based facilitation add incremental export benefits, though with smaller marginal impact than remittances and knowledge transfer.

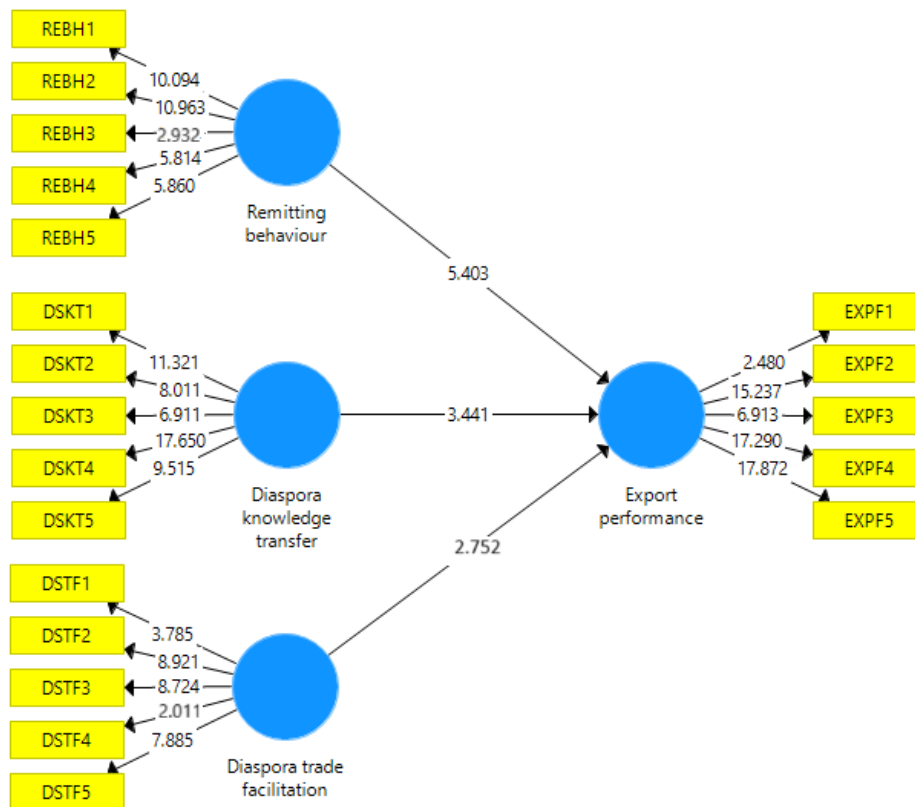


Figure 1. Structural Model

The effect sizes reinforce this pattern. All three predictors exhibit non-trivial contributions to explained variance in export performance: $f^2 = 0.259$ (remitting behaviour), $f^2 = 0.271$ (knowledge transfer), and $f^2 = 0.252$ (trade facilitation). Using standard benchmarks (0.02 small, 0.15 medium, 0.35 large), these effects are consistently medium in magnitude, implying that each diaspora dimension has a practically meaningful role in shaping export performance. Overall, the results support H1 to H3, with remitting behaviour providing the largest standardized impact, followed by knowledge transfer, then trade facilitation, within a model that demonstrates strong explanatory capacity.

DISCUSSION OF FINDINGS

The objective of this study was to examine how diaspora networks influence the export performance of small-scale agro-processing firms in the Federal Capital Territory, Abuja, by focusing on three diaspora mechanisms, namely remitting behaviour, diaspora knowledge transfer, and diaspora trade facilitation. On this basis, the study developed three research questions and formulated three hypotheses that link each diaspora-network dimension to export performance. The objective was achieved through hypothesis testing using PLS-SEM, and the results, supported by the bootstrapped t-values reported in **Figure 1**, indicate that all three hypothesised relationships are positive and statistically significant. Collectively, the model explains a substantial proportion of variance in export performance ($R^2 = 0.591$), indicating that diaspora mechanisms account for a meaningful share of export performance differences among the sampled firms.

Regarding the first hypothesis (H1), the results show that remitting behaviour has a positive and statistically significant effect on export performance ($\beta = 0.438$, $t = 5.403$). This finding is consistent with prior empirical work that reports positive developmental and investment effects of remittances in African contexts, particularly in relation to consumption smoothing, capital formation, and investment support that can indirectly strengthen productive capacity and competitiveness (Awode et al., 2021). The implication of this result is that diaspora remittances constitute a financially consequential mechanism for improving export outcomes among small agro-

processing firms, primarily by easing binding liquidity constraints associated with export readiness, including input procurement, process upgrading, packaging and quality compliance, certification, and logistics financing. In practical terms, the result suggests that policies and firm-level strategies that channel remittances toward productive enterprise use, rather than solely household consumption, are likely to strengthen export performance and international competitiveness for small agro-processors.

For the second hypothesis (H2), diaspora knowledge transfer also demonstrates a positive and statistically significant relationship with export performance ($\beta = 0.288$, $t = 3.441$). This outcome aligns with evidence in the broader knowledge-sharing literature showing that knowledge exchange and transfer mechanisms enhance organisational performance by improving capability development, responsiveness, and innovation outcomes (Rasheed & Pitafi, 2024; Anatan & Bangun, 2024). It is also consistent with studies emphasising that effective knowledge sources and social competencies can reduce knowledge barriers and improve transfer performance (Lee et al., 2022). The implication is that diaspora engagement should be treated as a capability-building lever, not only a financing channel. Specifically, for small agro-processors, diaspora knowledge transfer can improve compliance with export standards, production efficiency, product adaptation, and market intelligence, thereby strengthening export competitiveness. This indicates that structured diaspora knowledge platforms, mentorship arrangements, and skills transfer programmes can yield measurable export performance gains.

Concerning the third hypothesis (H3), diaspora trade facilitation has a positive and statistically significant effect on export performance ($\beta = 0.168$, $t = 2.752$). This finding is consistent with studies showing that trade facilitation, standards compliance, and network-based mechanisms contribute to improved export outcomes by reducing transaction costs, improving border-related efficiency, and strengthening firms' ability to access external markets (Charles, 2016). It also accords with evidence that diaspora presence and coethnic networks can create trade by mitigating information frictions and trust deficits, particularly where formal institutional supports and trade agreements are weak or incomplete (Martínez-Zarzoso & Rudolf, 2020). The implication is that diaspora trade facilitation acts as a market-access mechanism that complements financing and capability upgrading. For small agro-processing firms, diaspora ties can support buyer introductions, distribution linkages, credibility signalling, and real-time market intelligence, which collectively strengthen the probability of sustained export participation and improved export outcomes.

Overall, the findings confirm that diaspora networks significantly enhance export performance through three distinct but complementary pathways. Remitting behaviour has the strongest effect, followed by diaspora knowledge transfer and diaspora trade facilitation. The general conclusion is that diaspora engagement operates as an integrated export-enabling system, combining financial capital, knowledge-based capability enhancement, and market-linkage facilitation, and that interventions aiming to improve small firm export performance in FCT-Abuja are likely to be more effective when they address these diaspora mechanisms concurrently rather than in isolation.

CONCLUSION AND IMPLICATIONS

The study concludes that diaspora networks significantly and positively influence the export performance of small-scale agro-processing firms in FCT-Abuja. It further establishes that remitting behaviour, diaspora knowledge transfer, and diaspora trade facilitation are critical mechanisms through which these networks exert their impact. Remitting behaviour contributes financial capital that allows firms to innovate, improve product quality, and access external networks that would otherwise remain out of reach. Diaspora knowledge transfer enhances firms' competitiveness by equipping them with insights into consumer preferences, global market trends, and compliance requirements. In parallel, diaspora trade facilitation strengthens international engagement by addressing logistical challenges, easing regulatory burdens, and fostering linkages with partners and distributors in foreign markets. Taken together, these findings highlight the transformative potential of diaspora engagement as a strategic enabler of internationalisation and sustainable growth among small-scale agro-processing firms in Nigeria.

From a managerial perspective, the study underscores the importance of strategically integrating diaspora resources into the operational and growth strategies of agro-processing firms. Managers must view diaspora networks not only as sources of remittances but also as platforms for innovation, market entry, and continuous

learning. By institutionalising diaspora relationships into their business models, firms can gain long-term competitive advantages in quality improvement, branding, and market diversification. For financial institutions, the findings also suggest the need to design remittance-linked products that channel diaspora inflows into productive investments, thereby providing managers with access to cheaper and more flexible funding opportunities.

The social implications of this study are equally significant. By demonstrating the role of diaspora engagement in improving export performance, the research highlights the potential of these networks to contribute to local employment generation, poverty alleviation, and community development. Stronger export performance among agro-processing firms translates into higher incomes for farming households, more stable rural economies, and improved livelihoods for vulnerable populations. Furthermore, diaspora-driven initiatives foster transnational solidarity and promote a shared sense of responsibility between Nigerians abroad and those at home, ultimately strengthening community cohesion and national identity.

In terms of practical implications, the study provides actionable insights for policymakers and development agencies. It reveals the necessity of establishing structured knowledge-sharing platforms where diaspora expertise can be systematically harnessed through mentorship, workshops, and digital collaboration. Policymakers are encouraged to integrate diaspora participation into national and regional export promotion frameworks, ensuring that knowledge, financial resources, and trade facilitation efforts are channelled effectively into high-potential sectors such as agro-processing. Such measures will enable small firms to move beyond subsistence operations into globally competitive enterprises, thereby contributing to Nigeria's broader trade diversification agenda.

The theoretical implications of the study are anchored on the use of the social network theory and diaspora entrepreneurship theory. By demonstrating how diaspora networks foster social capital, create trust-based linkages, and facilitate cross-border resource flows, the study extends social network theory into the context of agro-processing export performance in Nigeria. At the same time, it strengthens diaspora entrepreneurship theory by showing that diasporas do not merely contribute through remittances but also act as active co-creators of entrepreneurial ecosystems that bridge local firms with global markets. The study thereby enriches the theoretical discourse by situating diaspora engagement within the nexus of trade facilitation, knowledge transfer, and entrepreneurial performance.

The contributions to knowledge from this research are manifold. Empirically, it provides fresh evidence on how diaspora engagement enhances the export performance of small-scale agro-processing firms, a sector often overlooked in mainstream international business research. Conceptually, it integrates remitting behaviour, knowledge transfer, and trade facilitation into a unified framework that explains the multiple pathways through which diaspora networks shape firm performance. The study also advances literature on diaspora entrepreneurship by demonstrating how diasporas act simultaneously as financiers, knowledge brokers, and trade facilitators. These insights extend the frontiers of scholarship by highlighting the multidimensional character of diaspora contributions, thereby offering a nuanced understanding that goes beyond the narrow view of remittances as purely financial inflows.

Overall, this research advances the frontiers of literature by situating diaspora engagement at the intersection of international trade, entrepreneurship, and development studies. It demonstrates that diaspora networks are not peripheral actors but rather central to the export competitiveness of small-scale firms in emerging economies. By articulating the managerial, social, practical, and theoretical implications of diaspora engagement, the study offers a roadmap for policymakers, business leaders, and scholars who seek to harness the untapped potential of diasporas for sustainable economic transformation.

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