

# Mango Exports in Ghana: Prospects, Strategies, and Challenges: A Qualitative Study of Private Exporting Firms

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### ABSTRACT

*This study explores the prospects, strategies, and challenges of mango exports in Ghana through a qualitative analysis of 15 private exporting firms. Data were collected via face-to-face and telephone interviews with industry experts possessing 4–12 years of experience. The findings reveal diversified export strategies among firms: about 60% rely on intermediaries to access international markets, 27% adopt hybrid strategies combining local and export sales, and 13% engage in direct exports to supermarkets, emphasizing delivery within 48 hours to maintain product quality. The results highlight strong export prospects. Over 75% of respondents identified Ghana's favorable agroclimatic conditions, which support two production seasons annually, while 60% noted high profitability driven by increasing demand in European and Middle Eastern markets. Despite these opportunities, significant challenges persist. More than 65% of participants reported limited access to finance, characterized by high interest rates and short repayment periods. Additionally, 53% identified exchange rate volatility as a major threat to export profitability. About 47% of firms also face difficulties sourcing export-quality fruits from smallholder farmers, affecting compliance with international standards. The study further shows that improved mango varieties, particularly Kent and Keitt, are highly preferred due to their superior quality and strong market acceptance. These findings contribute to existing literature by providing empirical insights into firm-level export behavior in Ghana's horticultural sector, emphasizing the importance of strategic flexibility and market-oriented approaches. The study recommends improved access to flexible financing, strengthened quality assurance systems, and investment in climate-resilient varieties to enhance export competitiveness.*

**Keywords:** Export strategies; Agricultural trade; Ghana; Qualitative research; Value chain

### INTRODUCTION

Exports of agricultural products continue to be a major driver of economic expansion, employment generation, and foreign exchange earnings in emerging nations. Global data currently shows that agri-food exports are taking center stage in international trade,

particularly in the field of horticultural products, which have grown over the past few decades due to changes in dietary habits, urbanization, and consumer demand for both fresh and processed fruits (FAO, 2023; World Bank, 2024).

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The tropical fruits, particularly the mango, have become high-value export products that have good potential for boosting the competitiveness of developing nations in the international markets. The mango industry is still on the rise, globally, with the rising demand in Europe, the Middle East, and Asia, as well as the rising focus on climate-resistant and sustainable agricultural infrastructure (FAO, 2024; Tengsetasak *et al.*, 2024; Akhtar *et al.*, 2025). The contribution of Africa to the world mango exports is comparatively low in the agroecological, which shows the problem of competitiveness, inefficiency of value chains, and insufficient integration of high-value markets (World Bank, 2023). This highlights the necessity of country-specific analysis to learn what can be done to strengthen export systems. Agriculture is also at the heart of the economy in Ghana, and the mango sub-sector has been gaining more and more focus as a sub-sector of the non-traditional export (NTE) portfolio (Ayambila *et al.*, 2023; Agbolosoo *et al.*, 2026). The favourable climate and bimodal rainfall distribution allow the country to have two production seasons per year, which also gives it a comparative advantage of supplying products all year round (Mensah-Brako *et al.*, 2026).

Despite these strengths, Ghana has a small portion of the world mango market, implying that there is great potential for market export. Although exports of cocoa, gold, and oil lead the economy, there is a significant opportunity to diversify the economy with horticultural exports like mango (Alho *et al.*, 2021; Kofi, 2024; Attah *et al.*, 2025; Sheikh *et al.*, 2025). Despite the current increase in the export of mangoes, the industry remains vulnerable to systematic and operational issues (Kiloes *et al.*, 2024). They have poor access to affordable credit, tremendous certification and compliance expenses (e.g., GlobalG.A.P.), pest and disease strains, poor cold chain infrastructure, and variability in exchange rates (Barrett *et al.*, 2024; Atiq *et al.*, 2025). Moreover, production systems formed of smallholders are not usually able to meet high-quality international standards, which limits the competitiveness of exports (Jaffee & Masakure, 2005). Meanwhile, new trends in the global market in terms of climate-smart agriculture and sustainable sourcing also demand exporters to consider new approaches to production and marketing in order to stay competitive. Another unanswered yet important aspect of the mango export industry in Ghana is the presence of the private exporting firms, which are the most important intermediaries between producers and the international markets (Ouma *et al.*, 2013; Boakye *et al.*, 2025). Although the contribution of agriculture to GDP or overall export performance is investigated at the macro-level in most studies, the empirical research on the firm-level export strategies, adaptive mechanisms, and constraints in the mango value chain is limited in Ghana (Soundararajan *et al.*, 2025; Annan *et al.*, 2026). This is a

major gap in research, especially with respect to how companies maneuver through the changing environment in the global market, as well as national limitations. It is against this context that the paper takes a qualitative approach in presenting detailed information on the prospects, strategies, and challenges of mango export in Ghana, with a particular focus on the case of private exporting firms. The current study will provide a better picture of the export behavior in the horticulture industry and offer evidence-based recommendations on how to increase competitiveness. It will also take into account the experiences and contributions of industry participants. In order to fill in the gaps in the firm-level analysis of exports, the study will also critically evaluate the opportunities, tactics, and difficulties facing Ghana's mango export industry, with a focus on privately owned exporting companies.

## METHODOLOGY

### Research Design

Research design provides the conceptual and operational framework that guides how a study is conducted, ensuring coherence between research objectives, data collection, and analysis procedures. In social science research, design choices typically span quantitative, qualitative, and mixed-methods approaches, each differing in epistemological orientation and analytical depth (Oranga *et al.*, 2025; Weil, 2025). While quantitative designs emphasize measurement, hypothesis testing, and statistical generalization, qualitative designs are grounded in interpretivist paradigms that prioritize meaning, and lived experiences (Kumatongo & Muzata, 2021; Kalita, 2026).

This study adopts a qualitative research design because the research problem—understanding the prospects, strategies, and challenges of mango exports in Ghana requires deep contextual insight rather than numerical generalization. The qualitative approach enables the exploration of exporters' perceptions, decision-making processes, and institutional constraints within the real-world context of Ghana's horticultural export sector. Such an approach is particularly relevant in agri-export studies where socio-economic, policy, and logistical dynamics are intertwined and not easily reducible to quantifiable variables.

The design is specifically anchored in an exploratory-descriptive qualitative framework, which facilitates both the identification of emerging patterns and the interpretation of underlying mechanisms shaping export performance. Through in-depth semi-structured interviews, the study captures nuanced narratives that reveal how exporters navigate market access, certification requirements, supply chain inefficiencies, and climate-related risks. This aligns with contemporary qualitative research practices that emphasize thick

description and contextual embeddedness (Creswell & Poth, 2018; Bazen et al., 2021). Furthermore, the study integrates a thematic analytical orientation, allowing patterns to emerge inductively from the data while also being guided deductively by the study objectives. This dual approach enhances analytical rigor and ensures that findings are both grounded in empirical evidence and theoretically meaningful. The qualitative design, therefore, is not only appropriate but essential for generating Ghana-specific insights that contribute to the broader discourse on agricultural export competitiveness in developing economies.

### Population of the Study

The population of a study refers to the entire set of units or entities that possess the characteristics relevant to the research problem (Willie, 2024). In the context of this study, the population comprises all registered mango exporting firms operating within Ghana. These firms represent the institutional actors directly engaged in the international mango value chain, including production coordination, postharvest handling, certification, logistics, and export marketing. According to records obtained from the Ghana Export Promotion Authority (GEPA, 2023), there are approximately 80 registered mango-exporting firms in Ghana. This population reflects a relatively specialized and concentrated sector, characterized by varying levels of operational capacity, market orientation, and compliance with international standards such as Global G.A.P. and phytosanitary regulations. The study's concentration on registered exporters ensures that it gathers information from officially recognized players who are actively engaged in export markets. This makes the findings more credible and relevant, especially when it comes to the ramifications for industry and policy. The study creates a transparent sampling frame that promotes scientific rigor and reproducibility by precisely characterizing the population.

### Sampling Technique

Purposive sampling was used to select those who had the most appropriate knowledge and expertise, considering the study was exploratory in nature. Purposive sampling is widely used in qualitative research because it allows for the deliberate selection of information-rich cases that can provide deep insights into the phenomenon under investigation (Alaba et al., 2026). In this study, participants were selected based on specific inclusion criteria, including active involvement in mango export operations, managerial or decision-making roles within the firm, and a minimum number of years of experience in the export sector. This ensured that respondents possessed sufficient expertise to provide meaningful and reliable information on export strategies, challenges, and opportunities. The sampling process also

considered variation across firms in terms of size, export destinations, and operational capacity. This heterogeneity allowed the study to capture diverse perspectives and avoid overly narrow interpretations. Through focusing on key informants such as export managers and company executives, the study ensured that the data reflected strategic-level insights rather than purely operational observations.

### Sample Size and Data Saturation

In qualitative research, sample size is not determined by statistical power but by the principle of data saturation, which occurs when additional data collection no longer yields new themes or insights (Braun & Clarke, 2021). In this study, a total of fifteen mango exporting firms were selected for in-depth interviews. Rather than relying solely on numerical recommendations, the adequacy of this sample size was justified through an iterative data collection and analysis process. Interviews were conducted sequentially, and preliminary coding was undertaken concurrently. After approximately the twelfth interview, the researcher observed that no substantially new themes were emerging, indicating that thematic saturation had been reached. The remaining interviews were conducted to confirm and refine existing categories, thereby enhancing the strength of the findings. This approach aligns with contemporary qualitative research standards, which emphasize saturation as a dynamic and context-dependent criterion rather than a fixed numerical threshold (Ahmed, 2025). The relatively homogeneous nature of the study population—registered mango exporters operating within a shared regulatory and market environment also supports the sufficiency of the sample size.

### Sources of Data

The study relied primarily on primary data, which were collected directly from participants through in-depth interviews. Primary data are particularly valuable in qualitative research because they provide firsthand accounts of experiences, perceptions, and practices (Creswell & Poth, 2018; Bazen et al., 2021). Data collection was conducted using both face-to-face and virtual (telephone) interviews to accommodate participants' availability and geographical distribution. This flexible approach ensured broader participation while maintaining the depth and quality of data. In addition to interview data, limited observational notes were recorded during field visits to capture contextual information such as operational practices and infrastructure conditions.

### Data Collection Instrument and Procedure

Data were collected using a semi-structured

interview guide designed to align with the study's objectives. The interview guide consisted of open-ended questions that allowed participants to elaborate on their experiences while ensuring consistency across interviews. Sample questions included inquiries into export market access, certification challenges, logistics constraints, and strategies for competitiveness. To address concerns related to data reliability, all interviews were audio-recorded with participants' consent and subsequently transcribed verbatim. This approach minimized data loss and reduced the risk of researcher bias associated with reliance on handwritten notes alone. Field notes were used to complement the recordings by capturing non-verbal cues and contextual observations. The use of verbatim transcripts enhanced the accuracy of the data and provided a reliable basis for rigorous analysis. Interviews typically lasted between 45 and 75 minutes, allowing sufficient time for in-depth exploration of key issues.

### Data Analysis

The study employed thematic analysis as the primary analytical method, supported by NVivo software for data management and coding. Thematic analysis involves identifying, analyzing, and reporting patterns within qualitative data, making it suitable for exploratory studies (Christou, 2022; Ahmed et al., 2022). The analysis followed a systematic six-phase process, beginning with data familiarization through repeated reading of transcripts, followed by initial coding. Codes were generated both inductively from the data and deductively based on the study objectives. These codes were then organized into broader categories and themes, forming a coherent thematic framework. The coding framework included themes such as export market opportunities, institutional and regulatory constraints, supply chain inefficiencies, and adaptive strategies employed by firms. To enhance transparency, examples of coded excerpts were documented, illustrating how raw data were transformed into analytical categories. Inter-coder reliability was ensured by involving two independent coders in the analysis process. A subset of transcripts (30%) was coded independently, and the level of agreement was assessed using Cohen's Kappa coefficient, which yielded a value above 0.75, indicating substantial agreement. Discrepancies were discussed and resolved through consensus, thereby strengthening the reliability of the findings.

### Validity and Reliability

Ensuring rigor in qualitative research requires attention to credibility, dependability, confirmability, and transferability (Gunbayi, 2024). In this study, credibility was enhanced through prolonged engagement with participants and the use of verbatim transcripts. Member checking was also

conducted by sharing summaries of findings with selected participants to verify accuracy. Dependability was addressed by maintaining a clear audit trail documenting all stages of the research process, including data collection, coding decisions, and theme development. Confirmability was ensured through reflexivity, with the researcher acknowledging potential biases and taking steps to minimize their influence on data interpretation. Transferability was supported by providing detailed contextual descriptions of the study setting, enabling readers to assess the applicability of the findings to similar contexts.

### Ethical Considerations

Ethical considerations were central to the conduct of this study. Informed consent was obtained from all participants before data collection, with clear explanations provided regarding the purpose of the study, the voluntary nature of participation, and the right to withdraw at any time. Confidentiality and anonymity were strictly maintained by assigning codes to participants and omitting identifying information from transcripts and reports. Audio recordings and transcripts were securely stored and accessible only to the research team. The study adhered to principles of beneficence and non-maleficence by ensuring that participants were not exposed to harm and that their contributions were treated with respect and integrity. Cultural sensitivity was also observed throughout the research process, recognizing the socio-cultural context of Ghana's mango export industry.

## RESULTS AND DISCUSSION

### Profile of Participants

**Table 1:** Demographic Characteristics of Responses

Variable	Category	Frequency	Percentage (%)
Gender	Male	15	100
	Female	0	0
Age	35–40	4	26.7
	41–45	3	20.0
	46–50	5	33.3
	51–55	3	20.0
	56–60	0	0
Position	Managing Director	3	20.0
	General Manager	5	33.3
	Manager	5	33.3
	Others	2	13.4
Experience	1–5	7	46.7
	6–10	6	40.0
	11–15	2	13.3

The demographic background of the respondents as outlined in Table 1 gives significant contextual basis in the interpretation of the study results. The respondents were all men working in mid to senior level management positions as Managing Directors, General

Managers, Export Managers, and Accountants. They were aged mostly between 31 and 54 years with experience in the industry ranging between 4 and 12 years. Such a profile implies that the data were collected among people who had considerable operational and strategy expertise in the mango export business in Ghana. Nevertheless, the lack of female participants is important to analyze and structure. Although the preponderance of the male respondents could represent larger gender inequities in agribusiness management in Ghana, it is also an indicator of a narrowness in the range of insights that the study was able to elicit. The recent findings also show that women are heavily involved in the agricultural value chains, specifically in production, processing, and informal trade, but they are underrepresented in export-oriented leadership (FAO, 2023). This lack of female voices in this study points out an exclusion in structure that can impact the decision-making, innovation, and inclusiveness in the sector. Analytically, this gender imbalance implies that findings should be approached carefully, and it is mainly based on the male view of managerial bases. Gender-inclusive sampling techniques should be purposefully included in future research to ensure that a more comprehensive picture of the value chain of mango export is taken.

### Export Strategies Employed by Private Mango Exporters

The results also indicate that Ghanaian mango export companies use various export-related strategies such as direct to supermarket sources, intermediary export intermediaries and mixed diversification strategies in the market. As opposed to perceiving such strategies as individual practice, the analysis suggests that firms strategically integrate them to the extent that they are able to deal with risk, improve access to the market and maximize returns. High value and time-sensitive supply chain model represented in Figure 1 is the direct-to-supermarket strategy in which exporters focus on freshness, quality assurance and quick logistics.

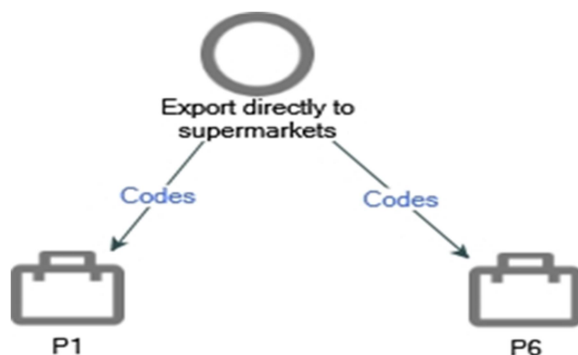


Figure 1: Export strategies utilized by farmers

This model is in line with world-wide fresh produce supply chains that focus on shortened value chains and traceability to attain very high standards of retail in the European and Middle Eastern markets (World Bank, 2023). The capability of shipment in 48 hours implying that companies that distribute mangoes by their respective strategies have rather effective logistical systems, such as cold chain facilities and effective air freight transfers. Nevertheless, the approach is capital-intensive and can be available only to more prosperous or bigger companies, which further strengthens disparities in the industry. Conversely, the adoption of intermediaries, as shown in Figure 2, is a market-access strategy that minimizes entry barriers to those exporters who do not have direct international contacts. The intermediaries offer key services like market intelligence, distribution logistics, and compliance services. Although it is one way of increasing market penetration, it is also a way of decreasing the profit margins and limiting the ability of the exporters to control branding and pricing. This trade-off is a typical example of a dilemma in export marketing, such that a firm's trade-off between control and access (Mann, 2025). Adaptive behavior is observed in the hybrid strategy that some companies follow to react to uncertainty in the market (Gutiérrez-Broncano et al., 2024). The exporters are also able to reduce risks by diversifying revenue sources, as well as reducing the risks related to changes in demand and fluctuations in currencies by targeting both the local and international markets simultaneously. This result aligns with the current data, which shows that agribusiness SMEs in developing economies become more and more inclined to use a multi-channel export strategy as a strategy to become more resilient (ITC, 2023). In general, the analysis indicates that selecting an export strategy is not a purely a matter of choice but is influenced by the capability of a firm, financial resources, and institutional restrictions. The results are thus not limited to mere descriptive categorization but are

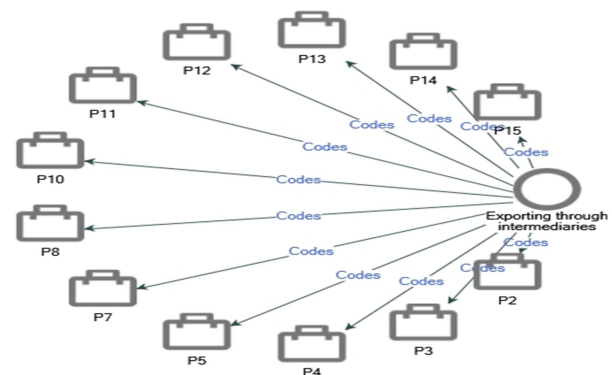
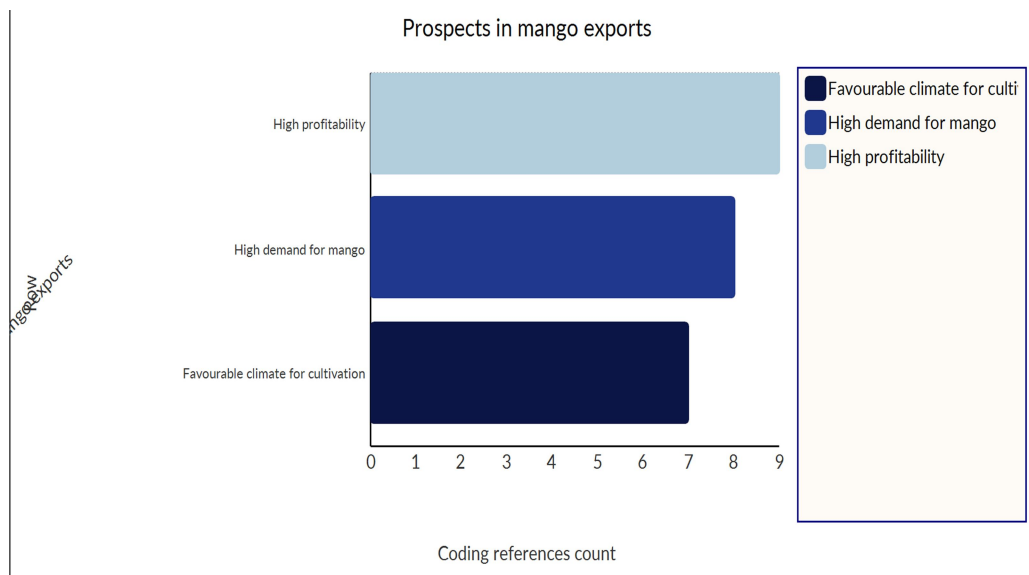


Figure 2: Export Strategies



**Figure 3:** Prospects in mango export

used to show strategic logics that underlie the behavior of exporters.

### Prospects of Mango Exports in Ghana

Three themes interrelated, namely, agro-ecological advantage, market demand, and profitability potential, are at the core of the prospects of the mango exports, as shown in Figure 3. The beneficial climate of Ghana was revealed as the key comparative advantage, which allowed doing bimodal production cycles and relatively stable yields. Such ecological appropriateness makes Ghana a competitive force in the international market of mango, especially during off-season periods when other areas are not supplying. Other studies have also made similar conclusions in recent FAO (2024) analyses, which find West Africa increasingly relevant in terms of global horticultural exports, both in terms of climatic suitability and growing production capacity. In addition to the production, there is a large opportunity for growth with the high demand for mangoes in other parts of the world, especially in Europe and the Middle East (Galán Saúco, 2011; Evans et al., 2017). But the analysis shows that demand is not the only factor that can be automatically translated into export success. Rather, companies have to comply with high-quality, safety, and certification standards in order to penetrate such markets (Wren, 2014; Guo et al., 2019). This is in line with the world of global trade literature that suggests that non-tariff barriers and demand constraints are not the main challenges facing agricultural exporters in the developing countries (World Bank, 2024). Another significant factor that was found to drive the growth of the sector was profitability.

Respondents indicated that there has been growing investor interest in the production and export of mangoes, which indicates the perceived economic feasibility of this sector. This profitability should, however, be viewed with some caution. Gross returns can be high, but the cost base of compliance, logistics, and post-harvesting can greatly decrease the net margins. According to recent research, the horticultural exports will not be profitable without improvements in efficiency and value addition, making them volatile (UNCTAD, 2023). Therefore, mango exports in Ghana have a bright future, but it is subject to changes in the infrastructure, quality assurance, and institutional backing.

### Challenges Facing Mango Exporters

The challenges identified in Figure 4 reveal a complex interplay between financial, institutional, and operational constraints. Rather than treating these challenges as isolated issues, the analysis demonstrates that they are structurally interconnected and mutually reinforcing. Financial constraints emerged as a dominant theme, with exporters citing limited access to credit, high interest rates, and unfavorable loan conditions. These challenges reflect broader structural issues within Ghana's financial system, where agricultural enterprises are often perceived as high-risk investments. The lack of long-term financing is particularly problematic for mango exporters, given the perennial nature of mango cultivation and the delayed returns on investment. This finding is consistent with Yaro (2013) and World Bank (2023) reports highlighting finance as a critical bottleneck in agribusiness development across Sub-Saharan Africa.

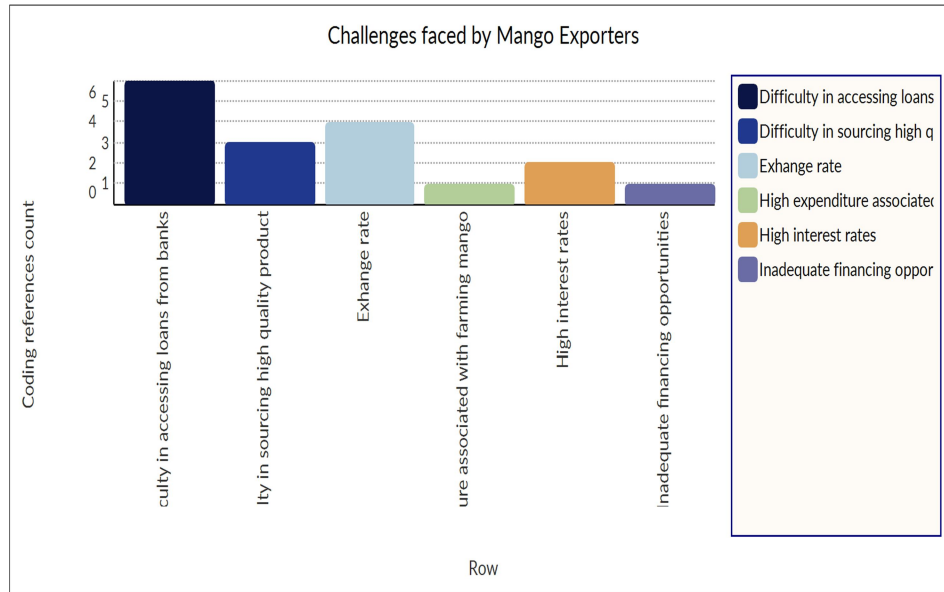


Figure 4: Challenges faced by mango exporters

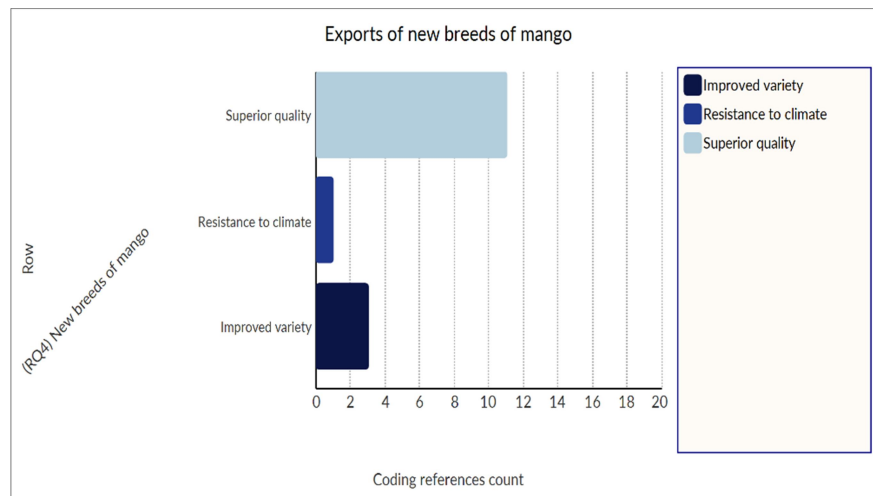


Figure 5: Export of new breeds of mango

Exchange rate volatility further compounds financial risks by introducing uncertainty into pricing and revenue projections. The depreciation of the Ghanaian cedi increases the cost of imported inputs while simultaneously affecting export earnings. This macroeconomic instability underscores the vulnerability of export-oriented firms to external economic shocks. Quality assurance challenges, particularly in sourcing consistent and high-quality produce from smallholder farmers, highlight weaknesses in the upstream segment of the value chain (Louw & Jordaan, 2016; Clark & Hobbs, 2018). The fragmentation of production systems and the limited adoption of good agricultural practices hinder exporters' ability to meet international standards. This

finding aligns with recent FAO (2023) studies emphasizing the need for stronger linkages between exporters and smallholder producers through contract farming and extension services. Importantly, these challenges are not merely operational but systemic, requiring coordinated interventions at policy, institutional, and firm levels.

**Export of Improved Mango Varieties and Market Expansion**

The findings on improved mango varieties, particularly Kent and Keitt, as shown in Figure 5, reveal their central role in enhancing export competitiveness. These varieties

are preferred in international markets due to their superior taste, longer shelf life, and favorable postharvest characteristics. Their adoption reflects a strategic alignment with global consumer preferences and retail requirements. However, the analysis also highlights an emerging tension between market preferences and climate resilience. While Kent and Keitt varieties are commercially successful, they may not be sufficiently resilient to climate variability, including changing rainfall patterns and pest pressures. This underscores the need for investment in research and development to produce improved varieties that combine market appeal with environmental adaptability. Recent studies in climate-smart agriculture emphasize the importance of developing resilient crop varieties as a key strategy for sustaining export-oriented agriculture under climate change (FAO, 2024; Oyadeyi & Oyadeyi, 2025). The findings of this study, therefore, point to a critical area for innovation within Ghana's mango sector.

## Conclusion

The research provides a detailed analysis of the export of mangoes in Ghana and how exporting companies privately exploit opportunities and limitations in the international market. It draws the conclusion that exporters are dynamic and responsive and adopt a combination of direct exporting and intermediation to meet changing demand in the international market. Such significant theoretical perspectives as the Resource-Based View (RBV) and Export Market Orientation Model (EMOM) are encouraged by this strategic flexibility and prove that organizational capabilities, competitiveness, and organizational culture are critical success factors in exports. Despite the good comparative advantages that Ghana enjoys such as good agro-climatic factors, all time production opportunities and growing global demand, systemic factors limit the development of the sector. These are inadequate access to proper financing, poor loan terms, fluctuations in the exchange rates, and rigidity in quality standards, all of which discourage scaling and sustainability. Innovation, in the form of the introduction of superior varieties of mango like Kent and Keitt, is cited in the analysis as one of the ways through which competitiveness can be enhanced. This is indicative of a wider change to market-oriented and climate-resilient production, which shows the necessity of more decisive cooperation between exporters, research institutions, and policymakers. Practically, the findings underline that Ghanaian mango export sector requires a multi-stakeholder strategy which would assist in securing sustainable development of the sector. The exporters also need to continue improving quality and market policies and the government and financial institutions need to address structural bottlenecks through improving

infrastructure, good policies and long-term funding.

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