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## Exploring Constraints Facing Smallholder Cashew Nut Farmers in Bagamoyo towards Accessing the Foreign Markets

**Tatu Hamisi Mwenda**

Master's in international business, BBA-Marketing, Tanzania Cooperative Development Commission, Ministry of Agriculture, Dodoma Region, Tanzania, <https://orcid.org/0009-0005-8563-7602>

**Chacha Magasi\***

PhD, Senior Lecturer, Department of Marketing, College of Business Education, Mwanza Region, Tanzania, <https://orcid.org/0000-0003-0376-8886>

\*Corresponding author: [magasitza@gmail.com](mailto:magasitza@gmail.com).

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**Abstract:** This study investigated the constraints hindering Bagamoyo smallholder farmers from internationally exporting cashew nuts, aiming to identify their specific challenges and contribute valuable knowledge to enhance their market access. With the help of a cross-sectional design, the study employed purposive sampling, in-depth interviews, and focus group discussions for data collection. The thematic analysis was used to analyse the qualitative data. The findings indicated that Bagamoyo smallholder farmers faced various constraints in exporting cashew nuts. These include limited access to market information (32%), inadequate market infrastructure (24%), stringent quality and certification requirements (17%), limited financial resources and credit (15%), inconsistent government policies (7%), lack of technical knowledge and skills (3%), and limited market diversification options (2%). The findings imply the need for interventions to address these constraints. Enhancing market information channels, improving infrastructure, streamlining quality processes, increasing financial access, and promoting consistent government policies are vital for farmers' effective participation in international markets. Based on the findings, recommendations included establishing mechanisms for better market information access, investing in infrastructure, supporting quality compliance, expanding financial

resources, promoting consistent government policies, and strengthening farmer organisations through capacity-building initiatives. This study contributes valuable knowledge by identifying the specific challenges faced by Bagamoyo smallholder farmers in accessing international markets for cashew nuts. The findings offer insights into these constraints and propose interventions to enhance farmers' capacity for global trade.

**Keywords:** Smallholder farmers, cashew nuts, foreign markets, constraints, market access

## Introduction

In the Tanzanian context, micro-businesses typically involve up to four individuals, often comprised of family members, or they operate with a capital investment not exceeding TZS 5 million. The majority of micro-businesses operate within the informal sector. Conversely, small businesses are typically formalised businesses that employ between 5 and 49 workers or have capital investments ranging from TZS 5 million to TZS 200 million. Medium-sized businesses employ between 50 and 99 individuals or have capital investments ranging from TZS 200 million to TZS 800 million. Large businesses, on the other hand, employ more than 100 people or have capital investments exceeding TZS 800 million. In cases where a business falls into multiple categories, the determining factor is the level of investment URT (2012). For the purpose of this study, the focus was specifically on smallholder cashew nut farmers in Bagamoyo district, characterised by capital investments ranging from over TZS 5 million to TZS 200 million. This decision was influenced by the fact that the majority of smallholder cashew nut farmers in Tanzania fall within this category.

Smallholder cashew nut farmers across Africa, including Tanzania, play a critical role in the local economy, significantly contributing to the income generation, employment, and export revenue. Cashew nuts are a cornerstone of economic activity in the region, providing livelihoods and fostering rural development (Lengai et al., 2022; Nyirenda, 2021). Furthermore, cashew nut shells have diverse industrial and medical applications, including the production of oil, chemicals, brake fluid, and colour (Malhotra et al., 2017). Despite the substantial economic importance of cashew nuts to the Tanzanian economy, smallholder farmers in Bagamoyo face numerous challenges when trying to export their cashew nut crops to foreign markets. This research aimed to uncover the constraints faced by these smallholder cashew nut farmers in Bagamoyo, with findings that can inform policy decisions and interventions to enhance their prosperity and promote regional economic growth.

Brazil stands out as one of the globally leading producers of cashews, and in Europe and North America, additional value is added through processes like roasting, packaging and branding the cashew nuts (Gordon, 2022; Shehata, 2016). Asia, particularly India, Indonesia, Philippines, Malaysia, and Vietnam, accounts for over 90% of global cashew nut production and consumption worldwide (Mouzam, 2020). Cashew nuts play a significant role in Tanzania's economy, contributing to revenue generation, employment, and foreign exchange (Kerlin & Pollak, 2011). Since the 1970s, Tanzania has emerged as a major producer of cashew nuts in Africa, accounting for over 30% of the world's production (Tola & Mazengia, 2019). Cashew nuts have emerged as a major agricultural export product in Tanzania, significantly contributing to foreign exchange earnings (Bank of Tanzania, 2021). In the mainland Tanzania, cashew nut production spans in regions such as Mtwara, Lindi, Ruvuma, and the Coast. The production of cashew nuts in Tanzania is primarily dominated by small-scale farming, serving both domestic and export markets (Kerlin & Pollak, 2011). The value of cashew nuts extends beyond Tanzania, as they provide greater value to the countries where they are sold and consumed (Peter, 2020).

Beyond Tanzania, other African countries such as Côte d'Ivoire, Guinea-Bissau, Benin, Ghana, Mozambique, Nigeria, and Kenya are also involved in cashew nut production (Tola & Mazengia, 2019). In order for cashew nut processors to thrive, they require a supportive policy environment that fosters competitiveness and innovation in the market (Bank of Tanzania, 2021; Peter, 2020; Webber & Labaste, 2009). Also, farmers in the cashew nut industry need access to high-quality seedlings, technological knowledge, and market information to improve their production practices (Pivoto, et al., 2018). Infrastructure development, particularly the improvement of roads, is crucial for efficiently connecting cashew plantations and processing facilities (Dubbart, 2019). The development of technical skills and the enhancement of market access are essential for the growth and advancement of the cashew nut industry (Sturgeon, 2021).

### ***Research Problem***

Multiple research studies conducted in Tanzania have focused on examining the factors that impede the contribution of cashew nuts among small-scale holders (Mallya, 2013; Mgonja & Shausi, 2022; Musa, 2016). These studies have aimed to deepen the understanding of the challenges faced by small-scale cashew nut farmers in Tanzania and provide valuable insights into the barriers that limit their productivity and overall contribution to the cashew nut sector. The studies uncovered several noteworthy findings. Firstly, a shortage of capital for modern agro-mechanization emerged as a significant factor contributing to the reduction in cashew nut production. Secondly, the fluctuations in cashew nut prices pose challenges for farmers in obtaining the necessary funds to purchase pesticides and fertilizers. Moreover, the study identified poor management practices and inadequate wages for laborers as additional factors that adversely impacted the production of new and high-quality cashews.

In order to enhance their access to foreign markets, smallholder cashew nut farmers need to adhere to international quality and technical standards. Compliance with food safety requirements, such as ensuring high quality and freedom from contamination, is crucial (Lengai et al., 2022). For instance, cashew nuts must be free from mycotoxins, micro-organisms, pesticide residues, heavy metals, and any other impurities. Failure to meet these international standards can limit the export opportunities for African food crops, including cashew nuts. Establishment of Cashew Board of Tanzania (CBT) has played a role in increasing cashew nut output and export, benefiting both individuals and the government (Nyirenda, 2021; Deepika, 2015). Despite the continuous efforts by the government and other developmental partners, farmers and other stakeholders in the cashew nut, the industry still encounter ongoing challenges (Dubbart, 2019; Manda, et al., 2020). Additionally, the access to foreign markets holds important significance for Tanzanian cashew nut farmers due to the domestic market absorbing only a small portion, approximately 10%, of the total production (Mouzam, 2020). Also, there is a lack of scientific evidence explaining the reasons behind the current situation where only 10% of cashew nut farmers sell their products abroad (Nyirenda, 2021). Furthermore, the rejection of low domestic prices offered by 13 business firms in Tanzania in 2018 prompted President Magufuli to assign the Tanzania People's Defence Forces (TPDF) to purchase cashew nuts at a fixed price of \$1.43 (Tsh3300) per kilo (Nyirenda, 2021). The aforementioned scenario not only highlights the low and unstable domestic price of cashew nuts but also underscores the necessity for accessing foreign markets.

### ***Research Focus***

The primary focus of this study is to investigate the impediments faced by smallholder cashew nut farmers in Bagamoyo, Tanzania, as they seek access to foreign markets for their produce. The research aims to comprehensively understand and address the challenges these farmers encounter, taking into account the economic importance of cashew nuts in the region, sustainability considerations, and the specific barriers hampering their participation in international trade. The study's outcomes are expected to provide valuable insights for shaping policies and interventions aimed at enhancing the economic prospects of these farmers and promoting regional economic development.

## ***Research Aim and Research Questions***

The objective of this study was to investigate the constraints that hinder Bagamoyo smallholder farmers from exporting cashew nuts to international markets. The findings of this study will contribute valuable knowledge regarding the specific challenges faced by Bagamoyo smallholder farmers in accessing international markets for cashew nuts. What are the key constraints preventing smallholder farmers in Bagamoyo from exporting cashew nuts to international markets, and how can an understanding of these challenges contribute to improving their access to such markets?

## **Theoretical Overview**

The Theoretical delves into the Comparative Advantage theory proposed by Ricardo (2005), emphasising the significance of international trade and the exchange of goods. The theory recognises that nations possess different resources and endowments, making trade essential for their survival (Hu et al., 2020). This implies that no country can solely rely on its own resources, necessitating the promotion of international trade between nations. For instance, Tanzania exports cashew nuts to India while India exports cars to Tanzania. This theory sheds light on the importance of exporting Tanzania's cashew nuts to international markets, considering the limited domestic market size, thereby enabling smallholder farmers to secure a reliable demand and obtain favourable prices. However, it is crucial to exercise caution and prudence when applying the concept of comparative advantage to prevent economic crises and downturns (Watson, 2017).

## **Research Methodology**

### ***General Background***

With the help of a cross-sectional design and qualitative approaches, this research delved into the obstacles confronted by smallholder cashew nut farmers in Bagamoyo as they seek access to foreign markets. The study placed a strong emphasis on adhering to ethical principles to safeguard data reliability and the rights of participants.

### ***Research design and approach***

A cross-sectional design, which involves collecting data at a specific moment in time, aligning with the nature of the research being conducted was adopted in the study (Kothari, 2009). The chosen research design is explanatory in nature, aiming to delve into the underlying factors that impede Bagamoyo smallholder farmers from accessing foreign markets for their cashew nut exports (Creswell & Creswell, 2017; Yin, 2014). In Tanzanian context, small business has a capital investment ranging from Tzs 5m to 200m. This design is well-suited for addressing the research question and exploring the “what” and “why” aspects, particularly when there is limited existing knowledge on the subject matter. The research approach for this study involved qualitative methods exclusively, specifically focus group discussions and in-depth interviews. This approach provided a deep understanding of the constraints encountered by smallholder cashew nut farmers. Through focus group discussions, participants were engaged in group interactions and shared their perspectives, while in-depth interviews allowed for more individualised exploration of experiences and challenges (Iqbal et al., 2023). By employing these qualitative methods, the researchers could capture rich contextual information and personal insights.

### ***Study area and population***

The study was conducted in the Bagamoyo district of Tanzania, chosen for its significant contribution to cashew nut production and its potential as an export hub. With a considerable population of smallholder cashew nut farmers, Bagamoyo offers an excellent opportunity to investigate the challenges they face when accessing foreign markets. In the Tanzanian context, small businesses are typically formalised businesses that employ between 5 and 49 workers or have capital investments ranging from TZS 5 million to TZS 200 million. For the purpose of this study, the focus was specifically

on smallholder cashew nut farmers since the majority of smallholder cashew nut farmers in Tanzania fall within this category. The target participants for the study included smallholder farmers who are members of Agricultural Marketing Co-operative Societies (AMCOS), purchasers (small enterprises), agricultural extension officers, and Cashew Board of Tanzania (CBT) executives in the Bagamoyo district. These individuals possess valuable first-hand knowledge of cashew nut marketing and production. The selection of participants based on their involvement in cashew nut production, supervisory roles, buying and selling. By examining their experiences and perspectives, the study aimed to gain valuable insights into the specific constraints that smallholder cashew nut farmers encounter when attempting to access foreign markets.

### ***Sampling techniques and size***

A purposive sampling was employed in order to select participants for the study. This sampling technique allowed for the intentional selection of smallholder cashew nut farmers and other stakeholders with first-hand experience in accessing or attempting to access foreign markets. Purposive sampling offers benefits like precise participant selection for specific research objectives, but if not carefully managed, it can introduce challenges such as bias and limited generalizability. To ensure research authenticity and address potential limitations associated with purposive sampling, strategies like integrating diverse criteria such as demographics, expertise, roles, behaviors, and accessibility, conducting member checking, and applying triangulation were implemented. The sample size for this study was determined based on data saturation, which indicated that data collection continued until no new information or insights were obtained from the participants in their natural settings, reaching a point of data saturation with a total of 31 respondents as indicated in Table 1.

**Table 1**

#### *Interviewed Population*

<b>Unit category</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>	<b>Alphabet naming interviewees</b>
Fukayosi AMCOS	4	3	7	A-G
Taratibu AMCOS	6	2	8	H-O
Umoja ni Nguvu AMCOS	3	2	5	P-T
Agricultural extension officers	2	1	3	U-W
Purchasers (small enterprises)	2	2	4	X-AB
Cashew Board of Tanzania executives	2	2	4	AC-AF
<b>Total</b>	<b>19</b>	<b>12</b>	<b>31</b>	

### ***Data collection tools and analysis***

In this study, triangulation was applied by utilising a combination of in-depth interviews and focus group discussions as data collection methods (Rosenthal, 2016). This approach aimed to gather diverse perspectives, explore different aspects of the research topic, and enhance the credibility and validity of the findings (Creswell & Creswell, 2017; Yin, 2014). To ensure data saturation and capture a range of perspectives, purposive sampling techniques were employed in participant selection for both the interviews and focus group discussions. The qualitative data collection involved using interview guide questions to gather detailed information and obtain a comprehensive understanding of the phenomenon under investigation. These questions aimed exploring unexplored aspects and challenges that may not be easily explained by existing theories. The researchers systematically maintained consistency in the interview process through the use of a predetermined question, employing interpretive and holistic approaches during the interviews.

A total of 31 participants were asked the same interview guide question, which focused on identifying the key constraints faced by Bagamoyo smallholder farmers when exporting cashew nuts to international markets. The interviews were conducted over a one-month period and spanned a total of 30.10 hours. Data capture was carried out using a notebook and a Techno CAMON18 smartphone, accommodating the individual preferences of the participants. In addition, a focus group discussion was conducted, involving a varied group of 12 participants representing different sectors within the cashew nut industry in the Bagamoyo district. The participants included 6 smallholder farmers who are members of Agricultural Marketing Co-operative Societies (AMCOS), 2 representatives from small enterprises engaged in cashew nut purchasing, 2 agricultural extension officers, and 2 CBT executives. The focus group discussion aimed to gather collective insights and perspectives on the primary obstacles and challenges faced by Bagamoyo smallholder farmers in exporting cashew nuts to international markets.

The qualitative data collected from focus group discussions and in-depth interviews underwent thematic analysis, involving the identification of recurring patterns, themes, and categories within the data (Creswell & Creswell, 2017). Throughout this process, data familiarisation, initial code generation, diligent theme searching, reviewing and refining themes, and the subsequent definition and naming of identified themes were conducted. Following this, a narrative was crafted to present the research findings, culminating in a comprehensive interpretation. The analysis process encompassed coding, categorisation, and interpretation, deriving meaningful insights into the constraints faced by smallholder cashew nut farmers. To ensure robustness, triangulation was applied, integrating both in-depth interviews and focus group discussions. This methodological approach captured diverse perspectives, exploring various dimensions of the research topic (Iqbal et al., 2023), thereby enhancing the credibility and validity of the findings.

### ***Reliability and validity testing***

To ensure data reliability, the researchers established rigor in the study by using established research methods, maintaining consistency in data collection and analysis procedures, and employing member checking (Iqbal et al., 2023). Member checking involved verifying the accuracy of findings by providing participants with the opportunity to review and confirm the researchers' interpretations of their data. This process enhanced the credibility and trustworthiness of the research findings.

### ***Ethical considerations***

Ethical considerations were prioritised in this study to protect the rights and well-being of the participants (Kumar, 2018). An informed consent was obtained from all participants, ensuring their voluntary participation and the confidentiality of their responses. The researchers adhered to ethical guidelines and obtained necessary approvals from relevant institutions and authorities. The data collected was used solely for research purposes, handled with confidentiality, and anonymised to maintain participant privacy.

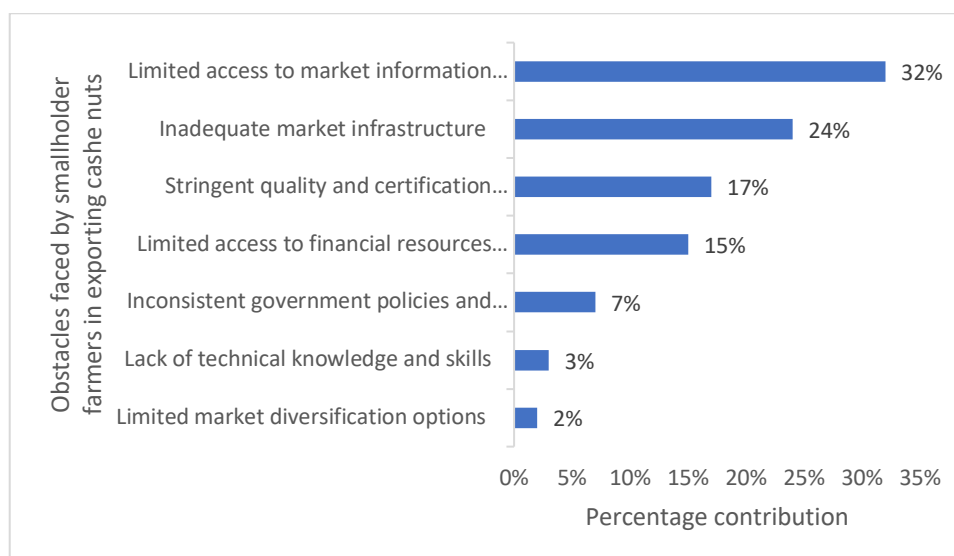
## **Research Results**

This section presents the qualitative findings that address the research question: What are the primary constraints faced by Bagamoyo smallholder farmers that hinder their capacity to export cashew nuts to international markets? These findings are derived from a triangulation approach, utilizing data collected through in-depth interviews as the primary method and supplemented by focus group discussions (Iqbal, Knaggs, Anderson, & Toh, 2023).

The findings reveal the main obstacles faced by Bagamoyo smallholder farmers in exporting cashew nuts to international markets. Figure 1 visually illustrates the findings, while the subsequent sections offer a thorough discussion of the key challenges faced by Bagamoyo smallholder farmers in exporting cashew nuts to global markets.

**Figure 1**

*The Main Obstacles Faced by Bagamoyo Smallholder Farmers in Exporting Cashew Nuts to International Markets*



These constraints include limited access to market information and knowledge (32%), inadequate market infrastructure such as transportation and storage facilities (24%), stringent quality and certification requirements (17%), limited access to financial resources and credit (15%), inconsistent government policies and regulations (7%), lack of technical knowledge and skills (3%), and limited market diversification options (2%). Table 2 provides a summary of the qualitative findings, including the percentage of mentions for each obstacle and key themes and participant recommendations related to each obstacle. It gives information on the main challenges faced by Bagamoyo smallholder farmers in exporting cashew nuts to international markets based on the qualitative data collected in the study.

**Table 2**

*Key qualitative findings on obstacles faced by Bagamoyo smallholder farmers in exporting cashew nuts to international markets*

Obstacle	Percentage of mentions	Key themes	Participant recommendations
Limited access to market information and knowledge	32%	-Lack of awareness about market trends and requirements -Ineffectiveness of marketing strategies - Challenges in accessing market reports and industry news - Limited digital literacy	Participants emphasized the need for collaboration with agricultural extension services and cooperatives to address the issue.
Inadequate market infrastructure	24%	-Poorly maintained roads and limited transportation services -Inadequate storage facilities and drying infrastructure -Increased transportation costs -Risk of product spoilage and deterioration	Participants stressed the importance of efficient transportation and proper post-harvest infrastructure.
Stringent quality and certification requirements	17%	-Complexities and financial burdens in meeting international quality standards	Participants called for support in meeting quality standards and streamlining regulations.

		-Challenges in obtaining certifications such as Good Agricultural Practices and Organic certification -Increasing need for traceability and transparency in supply chains	
Limited access to financial resources and credit	15%	-Insufficient funds for production, infrastructure improvements, and value addition - Impact on product quality and export prices -Need for financial support and investment in modern farming techniques	Participants emphasized the importance of access to capital for farmers.
Inconsistent government policies and regulations	7%	-Lack of expertise in international markets -Limited recognition of product value -Production disruptions due to environmental factors -Complications arising from intermediaries	Participants stressed the need for government support, awareness campaigns, and effective policies.

## Discussion

### *Limited Access to Market Information and Knowledge*

The study highlighted noteworthy hurdles faced by smallholder farmers in Bagamoyo when it comes to exporting cashew nuts to international markets, with limited access to market information and knowledge being the primary contributing factor, accounting for 32%. These challenges arise from the scarcity of market information and knowledge, encompassing a lack of awareness regarding market trends, inadequate understanding of market requirements, restricted availability of buyer and channel information, limited knowledge of pricing dynamics, and ineffective marketing strategies. The findings revealed that a significant majority of respondents (68.1%) identified a lack of skill and understanding of international markets as the primary challenge.

The participants from Fukayosi AMCOS, Taratibu AMCOS and Umoja ni Nguvu AMCOS emphasise the crippling impact of limited access to market information on their business operations. They claim that their inability to consistently keep up with the latest trends on consumer demands in foreign markets results in missed opportunities and an inability to adapt to changing preferences. They also emphasize the potential of collaborating with agricultural extension services, local cooperatives, CBT executives or government agencies to address this issue. However, they express their frustration with the unfortunate reality that the aforementioned resources are scarce and difficult to access for them. Despite the potential offered by digital platforms and social media for accessing market reports and industry news, farmers face insurmountable challenges such as limited internet connectivity and a lack of digital literacy. As a result, they are unable to engage with potential buyers, traders, and experts who possess valuable market insights. This overarching lack of access to market information significantly hampers their business growth and places them at a considerable disadvantage in the highly competitive global market. Participant B from Fukayosi AMCOS provides a poignant illustration of how the ongoing struggle they face severely impedes their ability to thrive and succeed:

*"Our business operations are severely crippled due to the overwhelming limitation in accessing market information. We find ourselves constantly falling behind, unable to keep up with the ever-changing trends and consumer demands in foreign markets. This detrimental situation results in missed opportunities and a complete inability to adapt to evolving preferences. It is truly disheartening to witness our business suffer as a direct consequence of this profound lack of access to crucial market information."* (Interview held with participant B on 16<sup>th</sup> May 2022).

This compelling depiction vividly captures the profound influence of restricted market information access on their capacity to thrive in the fiercely competitive business environment, as supported by the previous studies (Lengai et al., 2020).

Besides, participant H from Taratibu AMCOS expressed concerns regarding limited marketing channels, highlighting that the raw cashew nut is currently the only product being marketed worldwide, with India serving as the dominant market. This monopoly gives buyers significant power, leaving farmers with little room for negotiation and forcing them to accept very low profit margins in the raw nut market. The lack of processing limits the qualification of our product for only one market, which presents a considerable challenge. However, participant H suggested that expanding and diversifying the market could be made possible through local processing. By processing cashew nuts locally, a broader range of markets may become accessible. (Interview held with participant H on 18<sup>th</sup> May 2022).

### ***Inadequate Market Infrastructure***

Insufficient market infrastructure, specifically the absence of adequate transportation facilities like roads and storage capabilities, is identified as the second primary factor, representing 24% of the challenges faced. This limitation has a substantial impact on impeding the timely and efficient transportation of cashew nuts to foreign markets. Cashew nuts Small holder famers argue that the inadequacy of infrastructure not only undermines their competitiveness but also imposes restrictions on their ability to access distant markets. For example, the interviewee R from Umoja ni Nguvu AMCOS argued that”

*“The insufficient transportation infrastructure, including poorly maintained roads, limited access to transportation services, and inadequate logistical support, presents substantial challenges in transporting our cashew nuts from our farms to reputable markets. The lack of reliable and efficient transportation options results in delays, increased transportation costs, and the potential deterioration of our product's quality. These obstacles not only undermine our competitiveness but also limit our ability to meet delivery deadlines, resulting in missed market opportunities and decreased profitability.”* (Interview held with participant R on 22<sup>nd</sup> May 2022).

Based on the information gathered through in-depth interviews and focus group discussions, it is evident that insufficient storage infrastructure presents a major obstacle for cashew nut farmers. The absence of proper storage facilities, such as limited cold storage and inadequate drying infrastructure, gives rise to several challenges. The foremost concern is the potential for spoilage, mold growth, and a deterioration in the quality of the cashew nuts. This directly impairs the ability to meet the stringent quality requirements of foreign markets, consequently leading to the risk of rejection or lower prices for our produce. Furthermore, cashew nut small holder farmers argue that the inadequate post-harvest infrastructure exacerbates the issue at hand. Insufficient availability of drying facilities and processing equipment significantly increases the likelihood of post-harvest losses. Participant K from Taratibu AMCOS concurs with this viewpoint by arguing that:

*“The high perishability of cashew nuts and the substantial risk posed by improper processing and preservation methods. These suboptimal practices significantly contribute to losses that occur before the cashew nuts even reach foreign markets. As a result, the overall productivity and profitability are negatively affected, and the ability to consistently meet the demands of foreign buyers is impeded.”* (Interview held with participant K on 22<sup>nd</sup> May 2022).

### ***Stringent Quality and Certification Requirements***

Despite the intended purpose of the Cashew Board of Tanzania (CBT) to regulate and improve the quality of raw and processed cashew nuts for marketing and export, the achieved outcomes have not met the initial intentions and expectations (Bank of Tanzania, 2021; Nyirenda, 2021). The adherence to international quality standards and certifications, including traceability and supply chain transparency, packaging and labelling regulations, is crucial for accessing foreign markets. These requirements were identified as the third major obstacle, accounting for 17% of the challenges faced by cashew nut

exporters. Nevertheless, smallholder farmers often encounter complexities and financial burdens in adhering to the aforementioned standards, primarily due to their limited resources, knowledge, and infrastructure (Lengai et al., 2022). Participants in the focus group discussion highlighted the frustrations faced by cashew nut smallholder farmers when exporting their produce. They emphasised the challenges of meeting international quality standards and certifications required by foreign markets due to limited resources, infrastructure, and expertise. Obtaining certifications such as Good Agricultural Practices and Organic certification was described as complex and financially burdensome, acting as significant barriers. The increasing need for traceability and transparency in supply chains adds further complexity to the already challenging tasks of complying with record-keeping, packaging, and labelling regulations.

When asked for suggestions to enhance international markets for cashew nuts among small-scale farmers, respondents emphasised the need to prioritise cashew nut quality. Their suggestions included establishing a dedicated mechanism for small-scale farmers to access foreign markets, with a strong emphasis on producing high-quality cashew nuts. Respondents also emphasised the importance of providing farmers with education and training in modern agricultural technologies. They further highlighted the role of government support in terms of equipment and assistance to help farmers meet the quality standards demanded by international markets. The findings are consistent with other studies (Dubbert, 2019; Lengai et al., 2022; Mouzam, 2020), which suggest that stringent quality requirements hinder smallholder farmers' access to markets and limit their potential in international trade. Stakeholders further emphasise the importance of streamlining regulations and licensing procedures in the acquisition and processing of cashew nuts to improve efficiency and uphold quality standards (Ngamjan & Buranasiri, 2020; Peter, 2020; URT, 2015). These stakeholders have the responsibility to effectively engage with both domestic and international buyers, ensuring proper oversight of processing, packaging, and marketing activities in accordance with industry standards, with a strong emphasis on maintaining the quality of cashew nuts. Moreover, the lack of standardised warehouses in cashew-producing regions, has adverse consequences for the export of premium cashew nuts (Mbelwa et al., 2019). Farmers made the argument that the Tanzania Warehouse Licensing Board (TWLB) should provide them with warehouses to store harvested cashew nuts, particularly during periods of price fluctuations. This would enable them to preserve the quality of the cashew nuts and sell them when the price is favourable.

### ***Limited Access to Financial Resources and Credit***

Limited access to financial resources and credit emerged as a significant constraint, accounting for 15% of the obstacles faced in internationally exporting cashew nuts. Smallholder cashew farmers expressed concerns about the challenge posed by insufficient funds for production, market expansion, and working capital. They highlighted the limited access to financial resources, hindering investments in cashew nut production, essential inputs, and modern farming techniques. Insufficient funds impact infrastructure improvements, scaling up production, and obtaining crucial components like irrigation systems and fertilizers, leading to lower yields and compromised product quality. The participants further argued that lack of financial resources restricts investments in value addition and processing, forcing farmers to export raw nuts at lower prices. Thus, addressing the aforementioned financial constraints is vital to empower farmers, enhance competitiveness, and access foreign markets for cashew nut exports.

### ***Inconsistent Government Policies and Regulations***

The study's findings indicate that the exportation of Tanzanian cashew nuts abroad is significantly hindered by 7% due to inconsistent government policies and regulations, including export regulations, as well as a lack of support programs, inefficient export procedures, and inadequate stakeholder engagement. The research reveals numerous obstacles confronted by cashew nut farmers,

encompassing inadequate expertise in international markets, limited recognition of the value of their product, production disruptions caused by environmental factors, and complications arising from intermediaries. Notably, a considerable percentage of respondents (68.1%) encounter difficulties due to insufficient skills in the international market, while 6.6% remain unaware of the true value of their products. Environmental concerns impact 3.7% of farmers, while 21.4% face challenges associated with intermediaries. The study identifies the primary cause of the aforesaid challenges as the farmers' lack of skills and knowledge, hindering their understanding of the product's value in international markets stemming from insufficient information provided by the government, ministry of agriculture, Board of External Trade, and AMCOS.

Respondents emphasize the urgent need for the government, ministry of agriculture, Tanzania Bureau of Standards and Board of External Trade to establish mechanisms and infrastructure that support small-scale farmers in improving international markets. They stress the importance of producing high-quality cashew nuts, adopting modern agricultural technology, and accessing production-enhancing equipment. Access to reliable information on government regulations and training facilities is considered crucial. Cooperative networks and value chain financing are seen as essential for facilitating market access and sales. The study highlights the significance of establishing strong linkages and collaboration among smallholder farmers, cooperative unions, the government, ministry of agriculture, Board of External Trade and AMCOS to access foreign markets. Respondents suggest attaching farmers to primary cooperative societies as the most effective approach. However, weaknesses in farmer organisations, such as challenges in managing marketing activities, limited purchasing power, and a shortage of trained staff, pose additional obstacles. Addressing these issues requires supportive policies, financial backing, and the establishment of an effective marketing information system.

The respondents, however, are not satisfied by the government, ministry of agriculture and Board of External Trade roles in facilitating smallholder farmers' access to international markets. They call for improvements in planning, information channels, and the development of effective plans, mechanisms, and policies. They emphasise the importance of government-business partnerships, awareness campaigns, and comprehensive education and training initiatives to raise awareness of the significance of international market sales.

## **Conclusions**

The study uncovered significant obstacles faced by Bagamoyo's smallholder farmers when exporting cashew nuts to international markets, offering practical solutions and showcasing its novelty. Through in-depth exploration, it unveiled these primary findings, offering profound insights into their challenges. The study not only met but exceeded its goals by meticulously analysing these core challenges, including the major hindrance of limited access to market information and knowledge. This constraint hinders farmers' decision-making regarding market demand, pricing, and quality standards, demanding additional resources, technical knowledge, and adherence to complex procedures. Moreover, the study emphasises the critical importance of addressing limited access to market information, inadequate market infrastructure, stringent quality and certification requirements, financial constraints, and inconsistent government policies. These interconnected challenges collectively obstruct the path of smallholder cashew nut farmers seeking international market access.

The research carries immense practical significance, poised to drive substantial changes in policy and practice, ultimately benefiting these farmers' lives. It offers practical recommendations for implementation, such as prioritising cashew nut quality, providing education and training in modern agricultural practices, enhancing government support for quality standards, streamlining regulatory processes, establishing standardized storage facilities, and fostering collaborative partnerships among stakeholders. These actions support farmers with training programs, financial assistance, and simplified

certification processes, enabling them to meet quality standards and access premium markets. Furthermore, the study aligns with the global understanding of limited access to financial resources and credit as common constraints faced by smallholder farmers. Inadequate capital restricts investment in cashew nut production, market expansion, and the adoption of improved farming practices. Tailored financial products and credit facilities designed specifically for smallholder farmers have been shown to enhance their productivity, income, and competitiveness.

The study's novelty lies in its focused exploration of Bagamoyo's smallholder cashew nut farmers, shedding light on their unique challenges and opportunities within this specific agricultural context. It contributes valuable knowledge by offering fresh perspectives and a deeper understanding of their circumstances. In conclusion, addressing these constraints through practical interventions and consistent government policies significantly will enhance Bagamoyo smallholder farmers' capacity to engage in international markets. This research, with its practical contributions and original insights, promises to empower these farmers, promising a brighter and more prosperous future for them and their communities, if identified constraints are practically solved.

### ***Suggestions for Future Research***

The existing study, although valuable, had limitations, failing to comprehensively explore all aspects of the challenges faced by Bagamoyo smallholder farmers in exporting cashew nuts. Future research initiatives can significantly contribute to a deeper understanding of the challenges encountered by Bagamoyo smallholder farmers in the cashew nut export industry. By investigating these complexities, researchers can provide crucial insights that can inform effective interventions tailored to the specific needs of these farmers. Moreover, conducting comparative analyses in diverse contexts is essential. Exploring successful strategies and interventions employed in regions facing similar challenges can offer valuable lessons. Understanding how similar obstacles were overcome elsewhere equips policymakers and stakeholders with valuable knowledge, enabling the development of context-specific interventions. These targeted strategies, informed by global best practices, can enhance the accessibility of international markets for Bagamoyo smallholder farmers, fostering economic growth and sustainability within the local community. A comprehensive study using a mixed methods approach would offer more understanding of the constraints faced by smallholder farmers, encompassing both contextual details and statistical trends related to market information, infrastructure, quality and certification, financial resources, and government policies. Furthermore, an in-depth analysis of the policy and institutional environment is imperative. Identifying gaps and barriers within existing frameworks can pave the way for evidence-based recommendations, shaping policy reforms and institutional strengthening. These recommendations are vital in creating an enabling environment for smallholder farmers, ensuring sustainable growth in the cashew nut export industry. Longitudinal studies, tracking changes over time, offer another valuable perspective. By observing trends and adaptation strategies, researchers can gain insights into the evolving dynamics of the cashew nut market, enabling a deeper understanding of challenges faced by farmers across different periods. Additionally, a systematic literature review can serve as a foundational step, in identifying existing knowledge, gaps, and trends in cashew nut farming. This review would provide researchers with a solid platform to build upon, ensuring that new studies contribute meaningfully to the existing body of knowledge.

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## Conflict of Interest

None.

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