ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XI Issue XI November 2024

Unpacking the Zimbabwean Smallholder Banana Farmers' Dilemma along Value Chains: A Survey in Mutasa District

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DOI: https://doi.org/10.51244/IJRSI.2024.11110062

Received: 08 November 2024; Accepted: 22 November 2024; Published: 16 December 2024

ABSTRACT

This article unpacks the Zimbabwean smallholder banana farmers' dilemma along value chain. Despite a plethora of interventions seeking to empower the smallholder banana farmers, cocktail of challenges compromises success. The study adopted a quantitative and descriptive research approach to examine the challenges faced by the Zimbabwean smallholder banana farmers. A survey in Mutasa District of Manicaland Province culminated in the collection of data from 218 smallholder banana farmers. Data were collected using a structured questionnaire, and there was use of descriptive statistics in analysis. Smallholder banana farmers' efforts were constrained by their limited voice and power to influence profitable returns. Value chain players guarded jealously their returns with limited to no support made to alleviate farmers from poverty. Smallholder farmers continue to be marginalised along the value chain, and encounter stumbling blocks during pre-production, production, post-harvest management, and marketing. The dilemma of Zimbabwean smallholder banana farmers along the value chain is subject to limited research. The study recommends strategies to economically empower the smallholder banana farmers.

Keywords – Challenges faced by smallholder banana farmers, agricultural value chains, smallholder banana farming profitable economic returns.

Paper Type – Research Article

INTRODUCTION

Economically empowering smallholder banana producers is still an issue worldwide despite several stakeholder efforts. (Gebre *et al*., 2022a). Management and Landscapes (2020) describe an agricultural value chain as the people and activities that carry a fundamental agricultural commodity such as corn, vegetables, or cotton from inputs and production in the field to the customer, through processing, packaging, and distribution. The banana value chains follow four crucial stages: pre-production, production, post-harvest management, and marketing (Gebre *et al*., 2020a). Key stakeholders in the value chain include smallholder farmers, buyers, processors, and merchants, as well as government agencies, non-governmental organizations, and private enterprises that provide technical, commercial, and financial services (Ramírez-Orellana *et al*., 2021). Gebre *et al*. (2022a) stated that agriculture in developing nations is often characterized by parallel informal or traditional and formal value chains working for the same crop. Smallholders usually participate in informal supply networks that transfer goods to local intermediaries and ultimately tiny local retailers. However, (Rahman *et al*., 2020) highlight that formal value chains may convey the same product, often of a higher or more consistent quality, from bigger farms or more organized groupings of small farmers to commercial wholesalers, and then to supermarkets or exporters. (Rahman *et al*., 2020) concur that the fast rise of supermarkets in underdeveloped nations has reinforced this contradiction. It may confine many small producers to markets with poor-quality goods, low pricing, and low returns; hence, it is a common issue to develop methods to incorporate small producers into more contemporary domestic and export-oriented value chains (Management & Landscapes, 2020). Consequently, a value chain approach in agricultural development assists in identifying weak links in the chain and measures that may be taken to add additional value.

To improve their efficiency and effectiveness there has been efforts to organize farmers into cooperatives.

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Agricultural reforms early 1990s were meant towards removing inefficiencies of state led agricultural and marketing systems (Kirimi *et al*., 2021). This was mainly replaced through producer driven cooperative systems. In the early years, cooperative systems performed competitively, however, over the course of the time they were affected by political interference. One of the success cases was Kilimanjaro Native Cooperative. After the Arusha Declaration in 1967 cooperatives were seen as vehicles to further socialists' policies. This development affected the performance of these cooperatives (Kirimi *et al*., 2021). The same effects were also observed in countries such as Uganda. Cooperatives continued to be affected by mismanagement and political interference. Within the context of East African countries, cooperatives are far from being models of sustainable value chains. Despite the new wave of success under the newly established Cooperative Societies Act, very few small scale farmers belong to these institutions. The Act is premised on independence, member controlled and democracy in governance. However, major policies are mainly formulated within the context of large formal farmers. There has often undermined their existence and sustainability. This means that main stream policies are blind to the majority of farmers (Kirimi *et al*., 2021).

Kirimi *et al*. (2021) found that efforts to formalize operations of small scale farmers have remained fruitless. Their study found out that some farmers have been doing informal exports of agricultural commodities to neighbouring countries. Formalising exports of small scale farmers has been failing to work due to many requirements and standardization procedures. Smallholder farmers have opted to participate in established markets informally. A study by (Ssennoga *et al*., 2019) on Bukonzo Joint Cooperative Society in and Nyakatonzi Cooperative Union in Uganda gave an insight on market participation based on informality and social networks. These banana farmers were benefiting from decentralized government policies, better roads, communication network and improved technologies (Ssennoga *et al*., 2019). Despite benefiting from informality, banana producers in Kabarole in Uganda are disadvantaged in bargaining for higher prices mainly due to perishability of bananas, lack of access to ideal storage facilities and lack of capacity to process the product. In addition, farmers continue to lack price and market information which always make them at the messy of intermediaries. Due to these challenges, smallholder farmers strive to enter larger and better paying urban markets (Ssennoga *et al*., 2019).

Muzira *et al*. (2019) found out that to guard against market access limitations, smallholders farmers were consulting relatives in cities to get correct information on markets and prices, sharing information at village level, establishing collection centres and identifying trusted individuals within their community to transact on behalf of community members. Despite all these efforts, limited economic benefits have been accrued (Muzira *et al*., 2019). In addition, these forms market governance mechanisms are underpinned on social networks and are not based on written rules and policies which often do not endure (Muzira *et al*., 2019). Cooperative have often proved to be good to boost smallholder farmers' market access. The fact that majority of farmers shun to be part of these arrangements explains shortcomings of these challenges. This shows the need to rethink sustainable models that benefit farmers and ultimately the economy (Muzira *et al*., 2019).

A study by Bunyasiri & Chatanavin, 2021 in South Africa was focused on the struggles of smallholder farmers using a cause of modern agricultural value chains in South Africa. Their study found that smallholder farmers' value chain participation were being affected by limited access to loans, limited access to insurance, limited access to profitable markets and limited capacity to conduct milling and agro-processing (Bunyasiri & Chatanavin, 2021). A study by (Sinha *et al*., 2020) was establishing factors influencing successful inclusion of smallholder farmers in modern value chains in Uganda. The study was mainly focused on pig, banana and fish value chains. The study found out that sustainable ad inclusive value chains are based on smallholder farmers having defined market outlets (Sinha *et al*., 2020). The study found out that smallholder farmers were delivering their commodities in an adhoc basis with limited establishment of ready markets. Since the banana was a staple food in Uganda there were many traders of the product due to high demand. Buyers of bananas included local traders, bicycle traders, local consumers, local markets and urban traders. Different channels in most instances have different contribution to profitability of smallholder farmers (Sinha *et al*., 2020).

Usually buyers determine the prices and the prices are often very low. Production of bananas is affected by diseases and pests that include Banana Bacterial Wilt. However, the study found out that majority of farmers had business relationships with the buyers which formed an inclusive value chain (Sinha *et al*., 2020). It was observed that there was open competition. It was observed farmers who were more educated, more arable land,

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having access to phones and internet had better profits. In addition, farmers who were investing in soil fertility had better yield (Sinha *et al*., 2020).

There are growing efforts towards value addition of bananas. The government of Uganda established the Presidential Initiative Banana Industrial Development which aimed at setting up of a state of the art banana processing enterprises in Uganda (Sinha *et al*., 2020). These initiatives were meant to exploit opportunities in the international market. The biggest challenge in value addition efforts as well as exploitation of the international markets were due to high operating costs, high volume requirements and specific logistical capabilities. Bananas are highly perishable hence the need for innovations in processing into long last products (Sinha *et al*., 2020). The study found that when farmers sell individually, they found themselves at the very long chain of agents. This means they will be many different middlemen between the farmer and the retailer which implies that farmers get low prices of the product (Sinha *et al*., 2020). Some farmers where selling in groups thereby being able to supply big retail outlets. Most common challenges in accessing profitable markets were poor state of road infrastructure, declining soil fertility, increasing land pressure, fluctuating seasonal prices, post-harvest losses, pests and diseases. Organised value chains were seen as improving profitability of farmers (Sinha *et al*., 2020).

A study done by the Mjonono (2020) on Agricultural Value Chain Financing and Development found out that agricultural value chain is increasingly becoming complex mainly due to market changes, climate changes, technological advancements and government policies. Mjonono (2020) found that along the value chain, financing remains a critical factor. Further, the study found out that value chain actors have unique financial needs which should be addressed if sustainable value chain initiatives are to be achieved. The study concluded that there was need of unique models and financing by the government, development finance institutions, micro finance institutions and international development partners. Mjonono (2020) found that financing for value chain development can be through the value chain players or outsiders. External actors that include banks and micro finance institutions are critical in sustainable value chain financing. This implies that sustainable agriculture funding is aimed at ending sustainable development goal number which seeks to end hunger, achieve food security and improved nutrition and promote sustainable agriculture (Mjonono, 2020).

Doherty and Kittipanya-Ngam (2021) found out the existence of intermediaries in the development of sustainable smallholder farming. Examples cited included efforts by TechnoServe in Malawi and Tanzania which was supporting and enhancing smallholder farmers' income through processing business, supply business and out-grower models. TechnoServe is a non-governmental organisation which is making efforts towards financing farmers and linking smallholder farmers to markets (Eriyatno *et al*., 2021). Another example noted was BRAC which was based in Bangladesh which was aimed at developing sustainable agriculture of farmers across the globe. The organisation was mainly focused on training farmers, developing technical service providers, enabling availability of inputs, provision of loan schemes and development of linkages of farmers with markets (Doherty & Kittipanya-Ngam, 2021)

A study by Eriyatno *et al*. (2021) on banana value chains in Central Africa found out that there were weak linkages within the banana value chains. The major reason was due to poor linkages and integration among value chain actors. The value chains had little or minimal involvement with regional and international high value markets. Agro-processing efforts were based on rudimentary techniques which often compromised on quality output. Most of the processed outputs were for local consumption in the local markets. The integration of value chain actors had failed to address exorbitant transport, handling and storage costs. Alho *et al*. (2021) found out that efficiency and effectiveness in collective marketing, processing techniques and penetration into high value markets was the only solution for Central Africa's banana smallholder farmers. Alho *et al*. (2021) notes that supply chains with new networks of integration and more heterogeneous structures have arisen, with small suppliers from developed countries operating in both low-value and, in some cases, higher-value specialized niche operations through new arrangements focused on ethical trade standards.

Sharma *et al*. (2021) found out that the role of government in agricultural trade financing is crucial in African economies. Most government in Africa offer free inputs to smallholder farmers. In addition, some governments create cheaper forms of credit to farmers. In some instances governments creates local and foreign markets for the produce. This has resulted in establishment of marketing boards. During the 1990s,

ISSN No. 2321-2705 | DOI: 10.51244/IJRSI |Volume XI Issue XI November 2024

most governments in Africa and other developing countries implemented market reforms in order to increase market access for local producers while also attracting foreign direct investments (Sharma *et al*., 2021). Gebre *et al*., (2020a) discovered that only a small number of large companies in certain industries were able to respond, and most small producers were excluded

Rahman *et al*. (2020) notes that despite globalisation moving from fragmented economies to a unit trading bloc weaker market players such as small farmers in Africa have been pushed out. Despite increased market opportunities emanating from globalisation, this development has become a threat to small Africa's farmers. Agricultural export from small scale farmers has not matched the encouraging world economic growth records in the past decades. Small scale farmers have not benefited from World Trade Organisations (Ncube, 2020). In addition, the global market is becoming too demanding for smallholder farmers to match. The global market is demand of high quality products, convenience, environmentally safe products and traceability which can only be met through the value (Shonhe & Scoones, 2022). According to Viceisza *et al*. (2020) after the ineffective promotion of small producers by market reforms, the focus turned to external linkages in global value chains. However, the efforts were hampered by governance constraints and a lack of clarification about the positions of the intermediaries. Viceisza *et al*. (2020) noted that participating in contract farming with exporters or overseas buyers is a significant route for rural farm-households in developed countries to benefit from agri-food exports and increased value in export sectors. However, whether or not smallholder farmers benefit from trading is determined by the degree to which they are involved in contract-farming agreements and the effect that participating in contract-farming has on their incomes and well-being (Krishnan *et al*., 2020; Viceisza *et al*., 2020).

The heart of any value chain model proposal is through analysis of the current value chain and the existing systemic problems and the proposed interventions that are necessary. Evidence from literature informs of a weak analysis in the field under investigation. The models being used in Africa have shown that despite their perennial banana farming agricultural activities, smallholder banana farmers remain impoverished living. Smallholder farmers continue to be marginalized along the value chain with limited opportunities for increasing their income margins from pre-production to marketing. This implies that the existing value chains are the source of the problem at hand which is global in nature.

The examination of the Making Money for the Poor (M4P) Theory, the Actor Network Theory, and the Sustainable Livelihood Approach reveals that these theories contributed to these fundamental concepts of challenges faced by smallholder banana farmers. M4P framework is based on beneficiation and value addition, market development and market penetration, and competitive advantage, which are connected to pre-production framework, production framework, post-harvest management framework, and marketing framework. Actor network theory is predicated on network construction, institutional behaviour and stakeholder support, as well as non-human objects and technology. This is related to the marketing structure and secondary stakeholder support. The Sustainable Livelihood Approach examines Material and Social Assets, Activities, and Capabilities that are related to marketing frameworks and secondary stakeholder support. Moreover, the stakeholder theory highlights the necessity for stakeholder support in order for farmers to achieve economic returns. The reviewed theories and literature influenced this present study, whose focus was on the pre-production, production, post-harvest management, marketing, and secondary stakeholder support challenges faced by the smallholder banana farmers in Zimbabwe. This articles therefore unpacked the Zimbabwean smallholder banana farmers' dilemma along value chains using a survey in Mutasa District.

RESEARCH METHODOLOGY

The study was guided by the positivism research philosophy. The adoption of the positivism research philosophy meant that the researcher chose the gathering of and analysis of quantitative data. The study adopted the descriptive research design. This provided a deep insight into the value chain subject and its constructs, which gave birth to more subjects and provided more opportunities for the researchers to study new things and questions new things. In line with the adopted philosophical framework that is the positivism research philosophy, the study adopted the quantitative research approach. The study made use of 218 smallholder banana farmers in Mutasa District (Heads of households). The Slovin's Formula for sample determination model was used to deduce sample size from the 480 registered banana farmers in Mutasa

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District, in Wards 10 and 29. The study made use of the stratified random sampling to ensure that every ward was represented. A structured questionnaire was used in the study. Primary data were collected during period of two months, from July to August 2024. The researcher carried out a pilot study which helped to establish the instruments to be used in order for the instruments to measure what they are intended to measure before using them in the main study. The researcher sought consent of participants. Respondents were guaranteed that confidentiality would be upheld. Data was collected and coded into the Statistical Package for Social Scientists (SPSS) version 23. Analysis was mainly through descriptive statistics.

Pre-production challenges faced by smallholder banana farmers in Zimbabwe

The study explored the pre-production challenges faced by smallholder banana farmers in Mutasa District. Table 1 shows the pre-production challenges faced by smallholder banana farmers in Zimbabwe.

Table 1: Pre-production challenges

	Mean	Mode	Median	Standard Deviation
Unavailability of affordable and competent labour for land preparation	4.4	5	5	1.04
Limited access to quality planting material	4.2	5	5	1.13
Limited access to better yielding banana variety	4.1	5	5	1.11
Unsuitable area for banana farming	1.4	1	1	1.07
Limited network for cheaper inputs	4.2	5	5	1.08

These results show that smallholder banana farmers were faced with preproduction challenges that include availability of affordable and competent labour for land preparation, use of and access to quality planting material, access to better yielding banana variety and network for cheaper inputs. This was confirmed by the mode answer of 5 and mean values of 4.4, 4.2, 4.1 and 4.2 respectively. This implies that smallholder banana farmers had limited control over their pre-production activities. The challenges identified in the study, such as limited access to quality planting materials and affordable labor, align with Value Chain Theory, which highlights how constraints in pre-production hinder overall profitability. Additionally, the Livelihoods Framework illustrates how these limitations affect farmers' resources and capabilities, reducing their ability to sustain viable practices. These theoretical perspectives reinforce the findings that while farmers in the Mutasa District face significant barriers, the favorable climatic conditions present an opportunity for targeted interventions to enhance productivity and empower smallholder farmers. These findings are related to Ssennoga *et al* (2019) and Taku-Forchu (2019) who did their study in Uganda and Cameroon respectively. However, the study found that smallholder banana farmers had suitable area for banana farmers. These results were confirmed by (Ndlovu *et al*., 2021).

Production challenges faced by smallholder banana farmers in Zimbabwe

The production challenges are in five categories, namely labour costs, limited access to fertilisers, moisture stress, crop management challenges, and limited adaptation to climate variability. Table 2 shows the production challenges faced by smallholder banana farmers in Zimbabwe.

Table 2: Production framework challenges

	Mean	Mode	Median	Standard Deviation
Unavailability of cost competitive labour	4.5	5	5	1.11
Limited access to fertilisers and the management of pests	4.6	5	5	1.12
Low soil fertility and water/moisture stress	4.4	5	5	1.15

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Poor crop management practices	4.4	5	5	1.09
Limited adaption to climate variability and change	4.3	5	5	1.09

These results show that smallholder banana farmers were faced with production challenges that include availability of cost competitive labour, access to fertilisers and the management of pests, soil fertility and water/moisture stress, crop management practices and adapting to climate variability and change. This was confirmed by the mode answer of 5 and mean values of 4.5, 4.6, 4.4, 4.4 and 4.3 respectively. This implies that smallholder banana farmers had limited control over their production activities. The production challenges identified in the study can be examined through Value Chain Theory, which emphasizes the critical role of each stage in enhancing overall efficiency and profitability. Additionally, the Livelihoods Framework highlights how limited resources and capabilities hinder farmers' capacity to adapt to environmental changes and market demands. Together, these theories underscore the necessity for targeted interventions that empower smallholder farmers to improve their production practices and increase their competitiveness in the export market. These findings are related to Ao, *et al*. (2019) and Bunyasiri and Chatanavin (2021) who did their studies in Vietnam and Malawi. These authors found that banana smallholder farmers were incapacitated to handle banana production to the satisfaction of the export market.

Post-harvest challenges faced by smallholder banana farmers in Zimbabwe

The post-harvest challenges faced by the smallholder farmers include inadequate infrastructure for packaging, transportation costs, limited value addition, physical, mechanical and physiological damages. Table 3 shows the post-harvest management challenges faced by smallholder banana farmers in Zimbabwe.

Table 3: Post-harvest management challenges

	Mean	**Mode**	**Median**	**Standard Deviation**
In adequate infrastructure for pre-packaging	4.4	5	5	1.21
Lack of proper mechanisms for storage	4.4	5	5	1.32
Unavailability of transport to minimise post-harvest losses	4.3	5	5	1.45
Limited value addition opportunities	4.4	5	5	1.23
Limitations in avoiding physical, mechanical and physiological damages	4.6	5	5	1.29

These findings demonstrate that small-scale banana farmers faced post-harvest management challenges, such as the need for adequate pre-packaging infrastructure, appropriate storage mechanisms, accessibility to transportation to reduce post-harvest losses, value addition, and the prevention of physical, mechanical, and physiological damages. This was confirmed by the mode answer of 5 and mean values of 4.4, 4.4, 4.3, 4.4 and 4.6 respectively. This implies that post-harvest period was contributing to lose. The post-harvest challenges identified in the study can be analyzed through Value Chain Theory, which underscores the importance of each stage in contributing to overall product quality and profitability. Additionally, the Systems Theory perspective highlights the interconnectedness of infrastructure, management practices, and market access, illustrating how deficiencies in one area adversely affect the entire supply chain. Together, these theories reinforce the need for comprehensive interventions to improve post-harvest practices and enhance the resilience of small-scale banana farmers. Studies done in Africa by Ncube, (2020) and Ndlovu, *et al*. (2021) found similar challenges as farmers were have loses for up to 30% during the post-harvest period.

Marketing challenges faced by smallholder banana farmers in Zimbabwe

The smallholder farmers face some challenges at the marketing stage, and these include limited exports,

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quality constraints, and limited digital marketing skills. The Table 4 shows the marketing challenges faced by smallholder banana farmers in Zimbabwe.

Table 4: Marketing challenges

	Mean	**Mode**	**Median**	**Standard Deviation**
Limited Export Marketing	4.8	5	5	1.14
Limited Agricultural clusters	4.2	5	5	1.23
Limited Marketing research	4.9	5	5	1.01
Limited Quality Standards	4.4	5	5	1.17
Limited Digital marketing	4.9	5	5	1.01

These results show that smallholder banana farmers were faced with marketing challenges that include export marketing, agricultural clusters, marketing research, quality standards and digital marketing. This was confirmed by the mode answer of 5 and mean values 4.8, 4.2, 4.9, 4.4 and 4.9 respectively. This implies that smallholder banana farmers were incapacitated to market. Hence, it was not possible for them to get profitable returns from the farming activities. The marketing challenges faced by smallholder banana farmers can be understood through Value Chain Theory, which emphasizes the importance of effective marketing strategies in enhancing product value and profitability. Additionally, the Agricultural Innovation Systems (AIS) framework highlights the role of knowledge and expertise in facilitating market access and competitiveness. Together, these theories suggest that improving marketing capabilities and establishing robust networks are essential for empowering smallholder farmers to achieve better market outcomes and financial sustainability. These findings are related to Ssennoga *et al* (2019) and Taku-Forchu (2019) who did their study in Uganda and Cameroon respectively. These authors noted that smallholder banana farmers lacked marketing expertise. It was further noted that this challenge was contributing low sales and low margins from their produce.

Secondary stakeholder challenges faced by smallholder banana farmers in Zimbabwe

The study explored the challenges that the smallholder farmers face when interacting stakeholders who seek to assist them. Table 5 shows secondary stakeholder support challenges faced by smallholder banana farmers in Zimbabwe.

Table 5: Secondary stakeholder challenges

	Mean	**Mode**	**Median**	**Standard Deviation**
Lack of support of non-governmental organisations and private players	4.5	5	5	1.23
Limited financial services providers support	4.6	5	5	1.22
Limited retail chains support	4.6	5	5	1.35
Limited village resource persons and community extension agents support	4.4	5	5	1.32
Limited government support in infrastructure development and funding	4.5	5	5	1.21

These findings demonstrate that small-scale banana farmers faced limited support from secondary stakeholder actors as evidenced by lack of support of non-governmental organisations and private players, financial services providers support, retail chains support, village resource persons and community extension agents support, government support in infrastructure development and funding. This was shown by mode of 5 and

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mean values of 4.5, 4.6, 4.6, 4.4 and 4.5 respectively. These findings show that smallholder banana farmers had limited power to attain profitable farming returns. The lack of support for smallholder banana farmers can be analyzed through the Stakeholder Theory, which emphasizes the importance of collaboration among various actors to enhance value creation in agricultural systems. Additionally, the Empowerment Framework highlights how limited access to resources and support diminishes farmers' capacity to achieve profitable outcomes. Together, these theories suggest that fostering stronger partnerships and improving resource access are crucial for empowering smallholder farmers and enhancing their market competitiveness. Studies by Ssennoga *et al*., (2019) and Gebremedhn *et al*. (2019) found limited power of banana smallholder farmers in accessing support from government, private sector and NGOs.

CONCLUSION

The study found that smallholder banana farmers exist in dilemma as they have limited options in addressing their plight. Options available to smallholder farmers to address their plight are subdued. Stakeholders have power over smallholder banana farmers and they guide their interests jealously. The Mutasa District's climatic conditions favour banana farming, however, smallholder banana farming continues to be unprofitable to farmers. This was mainly due to preproduction challenges that include availability of affordable and competent labour for land preparation, use of and access to quality planting material, access to better yielding banana variety and network for cheaper inputs. In addition, smallholder banana farmers were faced with production challenges that include availability of cost competitive labour, access to fertilisers and the management of pests, soil fertility and water/moisture stress, crop management practices and adapting to climate variability and change. Furthermore, small-scale banana farmers faced post-harvest management challenges, such as the need for adequate pre-packaging infrastructure, appropriate storage mechanisms, accessibility to transportation to reduce post-harvest losses, value addition, and the prevention of physical, mechanical, and physiological damages. In addition, smallholder banana farmers were faced with marketing challenges that include export marketing, agricultural clusters, marketing research, quality standards and digital marketing. More so, small-scale banana farmers faced limited support from secondary stakeholder actors as evidenced by lack of support of non-governmental organisations and private players, financial services providers support, retail chains support, village resource persons and community extension agents support, government support in infrastructure development and funding.

RECOMMENDATIONS

There is need for pre-production frameworks in the value chains of smallholder agricultural operations. There is a requirement for labor availability for land preparation, the usage of and access to high-quality planting material, as well as societal support. Small-scale farmers demand social assistance. Gender, partnerships, and networks are critical factors in the pre-production framework.

At the production stage, availability of cost competitive labour for plantation management soil fertility, moisture management, adapting to climate variability, good crop management practises, access to fertilisers and the management of pests and diseases are critical factors in profitable smallholder farming returns. Production management practices employed for the control of pests and diseases should include the elimination of infected plants, use of disease-free planting materials, disinfection of cutting instruments/tools, early removal of male flower buds and strict quarantine.

Adequate infrastructure for pre-packaging, proper mechanisms for storage, availability of transport to minimise post-harvest losses value additions and avoiding physical, mechanical and physiological damages are critical factors in profitable farming returns that help farmers get out of poverty. Postharvest losses provide a significant problem for the value chains of frying bananas and plantains. Maximization of economic returns should take into consideration a competitive post-harvest management framework.

The efforts of value chain leaders to connect producers to both adjacent and distant markets enables producers to realize greater profits. In order to address post-harvest restrictions associated with processing and marketing, value chain operators and public sector institutions must increase their cooperative investments and actions. Improving the road network and warehouses is essential for decreasing post-harvest losses, cutting transaction

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costs, and maximizing banana commercialization.

Tax rebates, low-cost lending, and other institutional incentives may be used to encourage private sector participation in agro-processing and infrastructure co-funding. It is possible to improve ties between suppliers of technical, business, and financial services by bringing them together with producers, processors, and dealers at business roundtables and promoting the provision of complementary services. Hence, further studies should be focused on the development of a value chain model to support smallholder banana farmers in Mutasa district in Zimbabwe.

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