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Supply Chain Market Linkage Strategies for Small Holder Tomato Producers in Zimbabwe

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ABSTRACT

There is a lack of coordinated market linkages to assist the smallholder farmer, especially tomato producers in Zimbabwe. The study's goal was to establish supply chain market linkage strategies for small-holder tomato producers in Zimbabwe using a qualitative approach informed by the interpretivism paradigm. A semi-structured interview guide was used to collect data from 24 participants, which consisted of smallholder tomato producers, Zimbabwe Farmers Union district managers, and Market Linkage Association of Zimbabwe representatives. Data were analysed using the thematic approach to analysis of qualitative data. The findings pointed to the need for reduction in communication and transport costs, adopting technology to reduce pre-marketing processing costs, linking farmers to the value chain, take advantage of ICT to market produce, launching educational programs for farmers on the value chain system and finally training farmers in marketing function.

Keywords*:* market linkage, smallholder tomato producers, supply chain, Zimbabwe

1. INTRODUCTION

Globally, the view that the fruit and vegetable industry, and in particular the tomato industry, is being influenced by new and developed market linkage strategies is gaining support, particularly from emerging empirical proof to support that perception. Mmbengwa (2020) insists that the original market systems that were officially used in the past and were attracting huge sales have

been overtaken by well-orchestrated, coordinated marketing linkages between producers' retailers, consumers, and the middleman. The International Labour Organization's 2017 report outlined two key challenges experienced by tomato growers. One of the challenges was that growers did not have a clear understanding of market trends, which allowed opportunity buyers to manipulate them. Secondly, there was a market linkage gap that existed between producers and end-users (retailers and wholesalers). Thirdly, producers lacked a general awareness of what the market demanded when it came to potentially marketable by-products, as well as the distribution of products and pricing.

Tomatoes exported to Djibouti come from as far away as markets located along highways in Africa. Due to the disorganization of markets in Ghana and a failure to use market linkage strategies, smallholder tomato producers' income is said to be low (Crawford, 2019). eMkambo (2016) asserts that Sub-Saharan Africa is characterized by a string of challenges in the marketing and distribution of tomatoes, which are hugely exacerbated by unusable and very unreliable information, causing most producers to lose out on the lucrative crop. Shoko (2019) attributes this kind of scenario to the failure of smallholder tomato producers to understand lucrative markets and how they can improve their income. Likewise, smallholder tomato producers in Southern Africa have familiar challenges that stem from the temporary tenure of the land they currently occupy and their failure to establish markets that link producers and consumers. In a nutshell, farmers lack marketing know-how, a scenario prevalent in Zimbabwe.

Middlemen in Zimbabwe profit greatly more from the produce they get than the small-holder tomato producers themselves due to the absence of marketing linkages, which in most cases leaves small-holder farmers stranded and without any profits. Smallholder tomato producers are then forced to

dispose of their produce at very low and unprofitable prices as they fear huge losses due to the perishability of their commodity. eMkambo (2016) suggests poor packaging as one of the major reasons why tomatoes produced by smallholder farmers in Zimbabwe are not easily exported, which leads to the downgrading of the quality of the produce. Meniga (2014) insists that the packaging of the tomatoes and their storage before distribution to the retailer may be a gap that exists in creating a better-quality tomato for the market. Tanyanyiwa and Bakasa (2018), in a case study on tomato production in Chihota District in Zimbabwe, concluded that there is a lot of pressure between the production of tomatoes on the field and the marketing. In most cases, the smallholder tomato producer would have exhausted all the resources at their disposal, and the only meaningful solution would be to sell to the next bidder. The idea of exporting these tomatoes for a higher and better profit margin would fade, making it extremely difficult for smallholder tomato producers to establish export marketing links.

Most smallholder tomato producers' failure to export is attributed to their lack of market linkage utilization strategies, relegating the smallholder tomato producer to the status of an ordinary player in Zimbabwe's fruit and vegetable industry. Prior researchers (Birthal et al., 2017; Mmbengwa, 2020; Shoko, 2019; Zivenge & Karavinga, 2017; Nandi & Bokelmann, 2019; Shepherd, 2020), among others, have focused on strategies to improve the sustainability of smallholder farmers. None of these studies addressed the market linkage strategy gap that exists among smallholder tomato producers, allowing the players to attract larger buyers and markets and determine the price by negotiating for higher prices, inevitably increasing their profit margins. Thus, the current study sought to close this gap by establishing supply chain market linkage strategies for smallholder tomato producers in Zimbabwe. Specifically,

researchers sort to establish the status of market linkages within the smallholder tomato sector; analyse their market linkage strategies and then come up with market linkage strategies for smallholder tomato producers.

2. LITERATURE REVIEW

Review of literature focused on theories that underpinned our study, namely, the Value Chain Theory, Market Orientation Theory, Collective Action Theory and the Cooperative Theory (Model); concept of market linkage strategy and supply chain,

2.1. Value Chain Theory

In this context, the word "value chain" was initially proposed in the 1980s by Michael Porter, who described it in detail in his work entitled "Competitive Advantage" (Porter, 1985). According to Lowitt et al. (2015), the value chain theory has been consistently used in international agriculture and food systems research to understand how actors fit into economic activities and to investigate the contribution of smallholder farmers, particularly in rural development. Most importantly, "a value chain is the range of activities required to bring a product or service from production through to final consumption" (Graef, 2014; Margiadi & Wibowo, 2020).

2.2 Market Orientation Theory

Market-oriented theories of economic development assume that individuals will achieve the best possible economic outcomes if they are free to make their own economic decisions (Al Amiri et al., 2020), uninhibited by any constraints. Deloitte (2021) defines market orientation as the consolidation of the organization-wide generation of market intelligence concerning the prevailing as well as tomorrow's client needs, the broadcasting of the intelligence across

departments, and organization-wide alertness towards it. Olutosin et al. (2019) discuss the application of the market orientation concept in the manufacturing sector, particularly the food industry, in which producers use market information, specifically clients and charges, as an excuse to make information-based decisions on three general economic questions: what to produce, how to produce, and how to market. In a way, such knowledge is crucial for market participation, which is necessary for linking smallholder farmers to markets for expanding demand for goods grown and creating avenues for revenue streams (Kemisola, Olorunsomo, & Ezealaji, 2020).

2.3 The Collective Action Theory

The logic of collective action theory was proclaimed by Mancur Olson, an economist, in 1965, who consequently developed the collective action model. According to collective action theory, rational social actors regularly assess the actions of others in order to inform their own decisions to cooperate. The model proposed by Olson is anchored on illustrating collective action challenges with the aid of the rational option, self-interest, and a free-rider challenge (Olson, 1989). Olson's work contradicted the conventional narrative that collective interest drives collective action. Olson (1989), cited in Cele (2020), convincingly argued that "collective action might be challenged by the free rider, especially in larger groups." Graef (2014) insists that the collective action group must have a coherent collection of rules designed to enable the group to attain a unified goal. Carletto, Corral, and Guelfi (2017) likewise agree with the view of an endless incremental proof suggesting that farmer organizations or groups provide one way for smallholder farmers to take part in the market in a more effective manner. In cases where they act collectively,

communal farmers are better positioned to minimize transaction costs of getting inputs and output, acquire market data, obtain access to modern technologies, and venture into value markets, allowing them to compete with well-established farmers and businesses in the agricultural industry (Radchenko & Corral, 2018).

2..4 Cooperative Theory or Model

The cooperative model, which works in tandem with collective action theory, benefits smallholder farmers directly by sharing critical market information. Consequently, smallholder farmers (Deloitte, 2021), who form part of a group, tend to benefit from the value-added returns such as better access to credit, informal and formal markets, equipment, training, and technical advice. Deloitte (2021) insists that smallholder farmers directly benefit from cooperative marketing that comes from being associated with that particular group, which individual farmers lack. Ideally, Delforce and Gill (2018) stress that the group (farmers) should have a clearly identified marketing objective. Ferris et al. (2014) advise that experience in negotiating skills with traders, understanding the difference between grades of produce, and knowledge of improving products are skills that every employee within the group should possess.

2.2 Market linkage strategy

Wilson et al. (2019) describe market linkage strategies as a plan for linking smallholder producers to mainstream commercial markets. Chikazhe and Nyakunuwa (2021) add that market linkage is the process of connecting customers with markets more directly. It is also about connecting aggregators more directly to upstream markets (Handika & Wibowo, 2018). Iyer et al. (2019) opined that it is about connecting the end user all the way to the point of

origin. According to Deloitte (2021), "market linkage" is a marketing and distribution process for producers and retailers that provides consumers with access to a diverse range of products and services. This study understands market linkage strategy as an approach that promotes trade relationships between the target population, also known as "customers," small producers, local firms, and cooperatives, and the external market.

Market linkage strategies provide smallholder producers with information that enables them to choose commodities for production, the type of technologies to use in production activities, the period of production, the target market for which the production is intended, the time and selling price (Gilliland, 2021; Phiri, 2020).Likewise, Amani (2014) describes market linkage strategies as a plan for linking smallholder producers to mainstream commercial markets. Kemisola et al. (2020) propose that market linkage strategies capacitate smallholder producers to effectively and meaningfully participate in market-oriented production. Market linkages, as an important component in developing sustainable trading links, attempt to help farmers link to markets that significantly reduce the challenges that most smallholder farmers face due to a lack of connectivity as well as connections between demand and supply (Zemanek et al., 2021). Market linkage strategies capacitate smallholder producers to effectively and meaningfully participate in market-oriented production (Kemisola et al., 2020; Wu & Cui, 2021).

2.3 Supply Chain

Mollenkopf et al. (2020) describe the supply chain as the entire system of producing and delivering a product or service, beginning with the sourcing of raw materials and ending with the delivery of the product or service to end users. Fatorachian and Kazemi (2021) say that the supply chain describes all

aspects of the manufacturing process, such as the activities involved at each stage, the information that is communicated, the natural resources that are converted into useful materials, the human resources, and other components that go into the finished product or service. Guan et al. (2020) define the supply chain as a network that connects all of the people, organizations, resources, activities, and technology involved in the manufacture and sale of a product.

A good supply chain includes everything from the delivery of raw materials from a supplier to a manufacturer to the final delivery to the end user (Sodhi & Tang, 2021). A supply chain's links have only two physical connections: one on the input and one on the output, which is hardly representative of how our supply systems work today. When the chain is in operation, its links may rub together as they pull against each other (Sodhi & Tang, 2021). Planning is one of the most crucial steps in the supply chain (Calatayud et al., 2018). It is critical to finalize and implement the strategies prior to the start of the entire supply chain, examining the products' or services' demand, viability, cost, profit, and manpower.

3. RESEARCH METHODOLOGY

The research adopted a qualitative approach informed by the interpretivist paradigm. This allows the researcher to gather and generate data to account for and explain the phenomenon (Creswell & Creswell, 2018). Primary data were collected to meet the study objectives by distributing a semi-structured interview guide to participants in Mashonaland West Province of Zimbabwe, where most of the agricultural activities take place. Most tomato producers in Zimbabwe are situated in this province since the area receives good annual rainfall that supports the farming of tomatoes. The population of the study

comprised smallholder tomato producers, Zimbabwe Farmers Union district managers, and Market Linkage Association of Zimbabwe representatives.

The sample size for the study involved seven (7) smallholder tomato producers representing the seven districts of Mashonaland West Province, seven (7) Zimbabwe Farmers Union district managers from each district, and ten (10) Market Linkage Association representatives. A purposive sampling technique was used to obtain information from respondents who were deemed to be well informed on some aspects of the production, distribution, and marketing of agricultural products in Mashonaland West.The collected data was then analysed using systematic grounded theory principles. The entire process of the qualitative data analysis produced themes that illuminated the phenomenon of market linkage strategies.

4. RESULTS

This section presents findings on the main thrust of the study which was to establish the supply chain market linkage strategies for small holder tomato producers in Mashonaland West Province of Zimbabwe. To start with we present the schedule of the in-depth interviews held with respondents involved in study of smallholder tomato producers.

Table 1: Interview Schedule for Smallholder Tomato Producers

Code name	Position	Location	Number of participants
Participant 1	Smallholder Tomato Producer	Hurungwe District	1
Participant 2	Smallholder Tomato Producer	Chegutu District	1
Participant 3	Smallholder Tomato Producer	Kariba District	1
Participant 4	Smallholder Tomato Producer	Zvimba District	1
Participant 5	Saturation reached	Makonde District	1

Table 1 depicts code names, identified as Participant 1 to Participant 5. The second column identifies the respondents in the research, who in this case were smallholder tomato producers in different districts of Mashonaland West Province in Zimbabwe. The digitally recorded responses from the in-depth interviews were done with the consent of the participants, transcribed into a written format, and coded using grounded theory principles called a systematic procedure (Strauss & Corbin, 2007). Despite the fact that the population consisted of seven intended participants, the saturation point was reached at five smallholder tomato producers, resulting in participant number of five. Table 2 below presents the schedule of the in-depth interviews held with Zimbabwe Farmers Union managers.

Table 2: Interview Schedule for Zimbabwe Farmers Union Managers

Code name	Position	Organisation	Number of participants
Participant A	Manager	Zimbabwe Farmers Union Hurungwe District	1
Participant B	Manager	Zimbabwe Farmers Union Chegutu District	1
Participant C	Manager	Zimbabwe Farmers Union Kariba District	1
Participant D	Manager	Zimbabwe Farmers Union Zvimba District	1
Participant E	Saturation reached	Zimbabwe Farmers Union Makonde District	1

Table 2 depicts the code names, identified as Participant A to Participant E, which were for interview guide questions 1–5. The second column identifies the respondents in the research, who were Zimbabwe Farmers Union Managers in the seven districts of Mashonaland West province. The responses

from the in-depth interviews were also digitally recorded, transcribed into a written format, and coded using grounded theory principles again. Although the sample had seven intended participants, the saturation point was also reached at fiveZimbabwe Farmers Union ManagersTable 3 below presents the schedule of the in-depth interviews for Market Linkage Association of Zimbabwe representatives.

Table 3: Interview Schedule for Representatives of the Market Linkage Association of Zimbabwe

Code name	Position	Organisation	Number of participants
Participant 1	Representatives	Market Linkage Association of Zimbabwe.	1
Participant 2	Representatives	Market Linkage Association of Zimbabwe.	1
Participant 3	Representatives	Market Linkage Association of Zimbabwe.	1
Participant 4	Representatives	Market Linkage Association of Zimbabwe.	1
Participant 5	Saturation reached	Market Linkage Association of Zimbabwe.	1

Table 3 depicts code names, identified as Participant 1 to Participant 5, which are reflective of respondents to interview guide questions 1–5. The second column identifies the respondents within the research, who in this case are representatives of the Market Linkage Association of Zimbabwe. Data obtained was analysed in the same manner as in other interview cases above. Table 4 below shows the themes that emerged from the interviews that were conducted.

Table 4: Market Linkage Strategies for Smallholder Farmers

Theme	Major finding	Participants interviewed
1. Assistance of smallholder tomato producers.	Reduction of transactional costs.	1, 2, 3, 4 & 5.
2. Training programmes to increase market access.	Increasing market accessibility using ICT.	1, 2, 3, 4 & 5.
3. Education of smallholder tomato producers in market access.	Education programmes for value chains market accessibility.	1, 2, 3, 4 & 5.
4. Effective marketing training strategies.	Collective Marketing training.	1, 2, 3, 4 & 5.

Deloitte (2021) observes that the exchange of goods and services for small holder farmers operating in rural areas is faced with transactional costs, whether fixed or variable, due to poor road networks and poor communication infrastructure. The reduction of these costs increases the participation of farmers in any activity on the market.

Communication

A respondent from the Market Linkage Association of Zimbabwe (MLAZ) highlighted the issue of communication:

> *We are in the process of making them understand that communication costs are high where one has to travel searching for trading partners (Participant 5).*

Another participant from MLAZ again spoke on how search costs need to be controlled and cheaper applications used.

> *Farmers should reduce the waiting time on the market before selling the produce. They should come to the market when it is the right time to sell and to the right market. (Participant 3)*

Smallholder producers have to sell products at a market that has been accessed before instead of just going there without planning and waiting for a few customers to trickle in (Chikulo, Hebinck & Kinsey, 2020). They spend a lot of days selling at the market, where there are few takers because of little research. It affects sales; moreover, tomatoes are perishable goods that must be purchased while they are fresh.

Transport

Participant 1 from MLAZ red-flagged the issue of transport as key to the small holder producer:

> *Transport costs are exceedingly high as most smallholder farmers come from remote places, a distance away from the market. Transport cost reduction leads to increased farm profitability. Markets should be created for smallholder farmers with sufficient transport to ferry the produce. (Participant 1)*

Smallholder farmers who sell their produce by the farm gate or who use local markets within their own districts incur reasonable transport costs but face challenges like a scarcity of customers and consumers. To reduce transport costs, smallholder farmers can use local markets or form groups so that they share transport costs.

Technology

Another participant number 5 from MLAZ zeroed in on the issue of technology:

> *The use of technology and the latest equipment can reduce labor costs as sorting out and grading the produce can be done by machines. (Participant 2)*

This view finds anchor in Blaser (2014) who observes that smallholder farmers who use modern agricultural technologies increase the productivity of

their horticultural crops per unit area, which alternatively increases output and market participation.

Being linked to the value chain

Participant number 4 from MLAZ raised the issue of costs at the market and observed that:

> *Smallholder farmers can avoid payment of rentals by not using municipal markets, where rentals are required monthly and can be linked to wholesalers, retailers, or schools. (Participant 4)*

Respondents also picked on contract farming as a way of having ready markets available and reduce the risk of time-wasting and losing perishable products. The smallholder farmers could be linked with traders, wholesalers, end consumers, spot markets, large-scale farmers, to do forward contracting, and do contract farming. .

Use of ICT

Increasing market accessibility using ICT can help the . smallholder farmers to increase market accessibility using ICT solutions. The use of ICT helps smallholder farmers network with consumers and other producers.

> *We have been encouraging farmers to use cellphones to call and use SMS services to access new markets. (Participant 3)*

The farmers can afford to buy cheap cellphones, which can be used to call and send messages, as echoed by participant 3. The smallholder farmers should embrace this and use the phones to advertise tomatoes to existing and potential customers so as to gain new markets.

> *The use of mobile platforms was encouraged, but program organizers did not work with system developers to produce platforms to enable smallholder farmers to use their cellphones to market the tomatoes.*

(Zimbabwe Farmers Union, Participant 4).

Software designers can create software used by Zimbabwe Farmers Union smallholder producers to increase value chains.

> *Though most people are encouraged to use social networks to market their products, this requires gadgets like smartphones or computers, but the majority of farmers operate from very remote parts of the country, which makes it difficult for them to access any electrical gadget. (Zimbabwe Farmers Union, Participant 5)*

Participant 5 from MLAZ supports the use of social networks like WhatsApp, Facebook, LinkedIn, and Twitter by people conducting farming activities. A lot of people use social media, and customers can be reached using these platforms.

> *The use of ICT has been focusing on the use of mobile phones, tablets, and computers while ignoring the use of radio and television to increase market accessibility and product awareness by smallholder farmers. (Participant 1)*

When referring to the use of ICT tools, most farmers focus on phones, tablets, and computers. Radio and television can be used to market tomatoes throughout the country. Smallholder tomato producers could also take advantage of the use of virtual markets to market their products.

Education Programs

Education programs can be used effectively for value chains' market accessibility. Smallholder farmers need to continue accessing knowledge for market accessibility through education programs, which can be formal or informal. Having knowledge gives you the confidence to look for better markets. According to one of the respondents from MLAZ:

> *In Zimbabwe, tomatoes are sold as raw products with no value addition. People have a wide range of places to buy tomatoes, and this affects the smallholder farmer by not getting the much-needed sales. (Participant 4)*

Participant 4 also highlighted a problem that affects a lot of smallholder producers of selling tomatoes without any value addition. Value-added products create more revenue. Educating farmers on value addition means that the market will be easy to access since the products come in different forms other than the raw ones, and this enables the smallholder farmer to penetrate a niche market.

The environment in which smallholder producers are working experiences a lot of climatic changes, and it is even difficult for the farmer to understand the dynamics of the seasons. Thus, training farmers equips them with ways of handling tomatoes in the value chain without any losses.

> *Workshops have been done without paying any particular attention to educating smallholder tomato producers to increase market accessibility in value chains. Commercial farmers have been given room to talk about the export. (Commercial Farmers Union, Participant 3).*

According to Participant 3 workshops were done periodically but without focusing on smallholder tomato producers. Brewster (2018) advocates that business meetings could be done with experienced farmers so that they could create opportunities for smallholder tomato farmers.

Marketing training

The smallholder farmers engage in marketing the tomatoes before they understand the market. According to Amani (2014), in order for a product to stand out among competitors, differentiation strategies must be developed.

> *In my view, marketing training has been done verbally, where people*

> *have been encouraged to use cellphones for marketing purposes, especially the use of text messages. (MLAZ, Participant 1)*

Participant 1 shows that marketing training for tomato producers has not received much attention. Marketing through the use of cellphones was easier since it did not require internet use to the extent that every farmer would be able to use that. Smallholder tomato producers couldbe trained in this area and use it effectively to market their products.

> *Training courses are needed for smallholder tomato producers so as to effectively market their produce and increase market accessibility. Post-harvest losses are experienced as farmers fail to sell the tomatoes while they are fresh. (MLAZ, Participant 2)*

There wasa need to train producers, as they were not well-versed in the use of social media platforms for business purposes. New markets could be established without even traveling physical distances. The use of social media sites like Twitter, Facebook, and Instagram can assist the farmers in marketing their produce.

> *I do advocate that training of smallholder tomato producers in marketing will improve market accessibility, especially if farmers implement market penetration as a strategy (Zimbabwe Farmers Union, Participant 5)*

This strategy could be implemented because the farmers were selling an existing product in a market with which they were familiar. Munyimi and Chari (2018) observed that relationships wereformed and customers would continue buying from the same market because quality was not compromised.

We have done a lot of seminars, but no training of smallholder tomato producers in effective marketing. They need to be trained that customers are the ones who help increase market share if they speak well about your product. (MLAZ, Participant 4)

Respondents observed that smallholder farmers had to be trained to treat their customers like kings all the time. According to them, existing customers could be offered discounts if they introduced a new customer. This referral program could work best if social media was used to create product awareness. That way a broad customer base could be established.

5. CONCLUSION

An investigation into the supply chain market linkage strategies for small holder tomato producers in Zimbabwe resulted in emergence of a number of factors regarded as critical for achieving market linkages. These were reduction in communication and transport costs, adopting technology to reduce pre-marketing processing costs, linking farmers to the value chain, take advantage of ICT to market produce, launching educational programs for farmers on the value chain system and finally training farmers in marketing function. Once these elements are attended to, most smallholder tomato farmers from Mashonaland West Province would be able to find anchor in the market and derive optimum value from it.

6.3 Implications for further studies

In light of the findings and the limitations of the research, directions for future research are suggested. Firstly, more provinces and countries (other than Zimbabwe) could be involved to contribute information on market linkage strategies for tomato producers. For example, samples from a number of countries or economic development levels could be compared. Secondly, continuous academic research is critical to the generation of theory on on smallholder farmers market linkages, especially for developing countries.

REFERENCES

Agriculture Forestry and Fisheries. (2012). A Frame Work for the Development of Smallholder Farmers Through Cooperatives Development. *Directorate Co-operative and Enterprise Development,* pp.1 - 16.

Al Amiri, N., Rahima, R. E. A., & Ahmed, G. (2020). Leadership styles and organizational knowledge management activities: A systematic review. *Gadjah Mada International Journal of Business*, *22*(3), pp.250-275.

Amani, S. (2014). *Smallholder Farmers' Marketing Choices*". P4P Global Learning Series New York: Management Systems International. 4, pp.1-98.

Birthal, P., Awadhesh, K., and Singh, H. (2017). Linking Farmers to Markets for High-value Agricultural Commodities, Agricultural Economics Research Review, 20 (Conference Issue) 2007 pp.425-439.

Blaser, M. (2014). Can the Making Markets Work for the Poor (M4P) approach reach the poorest and are there measures to improve its inclusiveness?', *Swiss Federal Institute of Technology Journal*, pp.24-35.

Brewster, J. (2018). Improving Small Producers Access to Profitable Markets. People in Need. CZECH Republic.

Calatayud, A., Mangan, J., & Christopher, M. (2018). The self-thinking supply chain. *Supply Chain Management: An International Journal*. 24(1), pp.22-38. https://doi.org/10.1108/SCM-03-2018-0136

Carletto, C., Corral, P., and Guelfi, A. (2017). Agricultural commercialization and nutrition revisited: Empirical evidence from three African countries. *Food Policy Journal*, 67, pp.106-118. https://doi.org/10.1016/j.foodpol.2016.09.020

Cele, T. (2020). Effects of Collective Action on Market Participation and Food

Security among Smallholder Farmers in Msinga Local Municipality. *Journal of International Studies*, 34-56. https://researchspace.ukzn.ac.za/handle/10413/19476

Chikazhe, L., & Nyakunuwa, E. (2022). Promotion of perceived service quality through employee training and empowerment: the mediating role of employee motivation and internal communication. *Services Marketing Quarterly*, *43*(3), pp.294-311. https://doi.org/10.1080/15332969.2021.1992560

Chikulo, S., Hebinck, P. & Kinsey, B. (2020). 'Mbare Musika Is Ours': An Analysis of a Fresh Produce Market in Zimbabwe. Journal of African Affairs, 119(476), pp.311–337. https://edepot.wur.nl/519719

Crawford, J. (2019). More Market Linkages for South African Smallholders. Solidaridad, pp. 6-7. https://www.solidaridadnetwork.org/news/more-market-linkages-for-south-african-smallholders/

Creswell, J. & Creswell, J. (2018). *Research Design: Qualitative Quantitative and Mixed Methods Approaches.* 5th ed. London: Sage. 3. Pp.1-270. https://www.ucg.ac.me/skladiste/blog_609332/objava_105202/fajlovi/Creswell.pdf

Delforce, J. & Gill, T. (2018). Beyond value chains: emerging lessons from Market Systems Development approaches in Australia's aid program. Adelaide: AARES Pvt Ltd.

Deloitte. (2021). 2021 Global Marketing Trends. London: Deloitte CMO Publishing.

eMkambo (2016). How agriculture markets are more than just memorizing facts and figures, available at: http://www.emkambo.co.zw/?p=716 (accessed 01 August 2016).

Fatorachian, H. & Kazemi, H. (2021). Impact of Industry 4.0 on supply chain performance. *Production Planning & Control*, *32*(1), pp.63-81.

Ferris, S., Robbins, P., Best, P., Seville, D., Buxton, A., Shriver, J. & Wei, J. (2014). Linking Smallholder Farmers to Markets and the Implications for Extension and Advisory Services. London: International Institute for Environment and Development.

Gilliland, D. (2021). Transitioning to the Journal of Inter-Organizational Relationships. *Journal of Inter-Organizational Relationships, 27*(1-2), pp.1-11. https://doi.org/10.1080/26943980.2021.1992244

Graef, F. (2014). Framework for participatory food security research in rural food value chains. Global Food Security Journal, 3, pp.8–15.

Guan, D., Wang, D., Hallegatte, S., Davis, S. J., Huo, J., Li, S., ... & Gong, P. (2020). Global supply-chain effects of COVID-19 control measures. *Nature human behaviour*, *4*(6), pp.577-587.

Hagos, A., Dibaba, R., Bekele, A. & Alemu, D. (2020). Determinants of market participation among smallholder mango producers in Assosa Zone of Benishangul Gumuz Region in Ethiopia. *International Journal of Fruit Science*, *20*(3), pp.323-349.

Handika, R. F., & Wibowo, A. (2018). Top management team diversity, the strategic isomorphism and firms' performance: a study in the Indonesian banking industry. *Academy of Strategic Management Journal*, *17*(3), pp.1-14.

International Labour Organization, (2017). Global Employment Trends for Youth 2017. Paths to Better Working Future. International Labour Organization, Geneva.

Iyer, P., Davari, A., Zolfagharian, M. & Paswan, A. (2019). Market orientation,

positioning strategy and brand performance. Industrial Marketing Management, 81, pp.16-29.

Kemisola, K., Olorunsomo, S. & Ezealaji, N. (2020). Determinants of Market Orientation among Smallholders in Nigeria. Global Journal of Management and Business Research, pp.1-12.

Lowitt, K., Hickey, G., Ganpat, W. & Phillip, L. (2015). Linking Communities of Practice with Value Chain Development in Smallholder Farming Systems. World Development Journal, Vol 15 pp.363- 373.

Margiadi, B., & Wibowo, A. (2020). Authentic leadership: A bibliometric analysis. In *Advanced Issues in the Economics of Emerging Markets*. Emerald Publishing Limited.

Meniga, M. (2014). The Major Problems and Prospects of Tomato Marketing: An Empirical Analysis. International Journal of Management Research and Business Strategy, 1 19.

Mmbengwa, V. (2020). Small Holder Market Access Research Unit. Cape Town: Marketing and Economic Research Centre (MERC).

Mollenkopf, D. A., Ozanne, L. K. & Stolze, H. J. (2020). A transformative supply chain response to COVID-19. Journal of Service Management. 32(2), pp.190-202. https://doi.org/10.1108/JOSM-05-2020-0143

Munyimi. T., F. & Chari. F. (2018). The role of buyer–supplier relationships in achieving economic sustainability in the private telecommunication sector in Zimbabwe. Cogent Business and Management, 5(1), pp.154-167, http://dx.doi.org/1080/23311975.2018.1540917

Nithya, V. G. R. N. & Wolfgang B. (2019). Determinants of Social Capital Formation among organic and conventional smallholder producers in Karnataka, *India. Agriculture Economics Research Review,* 32(1), pp.81-

89. http://dx.doi.org/10.22004/ag.econ.292205

Olson, T. (1989). *Theory of Collective Action*. New York: Palgrave MacMillan.

Olutosin, A., Otekunrin, S., Siaka, M. & Ayide, E. (2019). Smallholder Farmers Market Participation: Concepts and Methodological Approaches for Sub Saharan Africa. *Current Agriculture Research Journal,* 4(6), pp.139-157. http://dx.doi.org/10.12944/CARJ.7.2.02

Phiri, M. (2020). Impact of digital marketing capabilities on market performance of small to medium enterprise agro-processors in Harare, Zimbabwe. *Verslas: Teorija ir praktika/Business: Theory and Practice*, *21*(2), pp.746-757. http://hdl.handle.net/10419/248073

Radchenko, N., & Corral, P. (2018). Agricultural commercialisation and food security in rural economies: Malawian experience. *The Journal of Development Studies*, 54(2) pp.256-270. https://doi.org/10.1080/00220388.2017.1283014

Rana, S., Prashar, S., Barai, M. K., & Hamid, A. B. A. (2020). Determinants of international marketing strategy for emerging market multinationals. *International Journal of Emerging Markets*, *16*(2), pp.154-178. https://doi.org/10.1108/IJOEM-09-2019-0742

Shepherd, A. (2020). Including Small-Scale Farmers in Profitable Value Chains. Netherlands: Technical Centre for Agricultural and Rural Cooperation ACP-EU (CTA). https://hdl.handle.net/10568/77059

Shoko, C., (2019). Improving the viability of Smallholder Market Gardening in Zimbabwe: The case of Mutoko smallholder Farmers. 5(1), pp.1-16. https://www.semanticscholar.org/4ff0a

Sodhi, M. S., & Tang, C. S. (2021). Supply chain management for extreme conditions: research opportunities. *Journal of Supply Chain Management*,

57(1), pp.7-16. https://doi.org/10.1111/jscm.12255

Strauss, A., & Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Thousand Oaks, CA: Sage Publications, Inc.

Tanyanyiwa, V., & Bakasa, G. (2018). Market gardening as livelihood option in Zimbabwe's rural areas: Glimpses from ward 17, Chihota. *International Journal of Development and Sustainability, 7*(2), pp.848-862. https://www.researchgate.net

Wilson, N., Keni, K., & Tan, P. H. P. (2019). The effect of website design quality and service quality on repurchase intention in the e-commerce industry: A cross-continental analysis. *Gadjah Mada International Journal of Business*, *21*(2), pp.187-222.

Wu, J. P., & Cui, Q. (2021). The evolution of retail channels in China since 2000. *Journal of Inter-Organizational Relationships*, *27*(1-2), pp.38-52. https://doi.org/10.1080/1046669X.2021.1885243

Zemanek Jr, J. E., & Tran, T. P. (2021). Two decades of the Journal of Marketing Channels' research: Providing direction for the future of inter-organizational research. *Journal of Inter-Organizational Relationships*, *27*(1-2), pp.2-14. https://doi.org/10.1080/26943980.2021.1973850

Zivenge, E., & Karavina, C. (2017). Analysis of factors influencing market channel access by communal horticulture farmers in Chinamora District, Zimbabwe. *Journal of Development and Agricultural Economic* https://doi.org/10.5897/JDAE10.070

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Supply Chain Market Linkage Strategies for Small Holder Tomato Producers in Zimbabwe

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ABSTRACT

There is a lack of coordinated market linkages to assist the smallholder farmer, especially tomato producers in Zimbabwe. The study's goal was to establish supply chain market linkage strategies for small-holder tomato producers in Zimbabwe using a qualitative approach informed by the interpretivism paradigm. A semi-structured interview guide was used to collect data from 24 participants, which consisted of smallholder tomato producers, Zimbabwe Farmers Union district managers, and Market Linkage Association of Zimbabwe representatives. Data were analysed using the thematic approach to analysis of qualitative data. The findings pointed to the need for reduction in communication and transport costs, adopting technology to reduce pre-marketing processing costs, linking farmers to the value chain, take advantage of ICT to market produce, launching educational programs for farmers on the value chain system and finally training farmers in marketing function.

Keywords*:* market linkage, smallholder tomato producers, supply chain, Zimbabwe

1. INTRODUCTION

Globally, the view that the fruit and vegetable industry, and in particular the tomato industry, is being influenced by new and developed market linkage strategies is gaining support, particularly from emerging empirical proof to support that perception. Mmbengwa (2020) insists that the original market systems that were officially used in the past and were attracting huge sales have

been overtaken by well-orchestrated, coordinated marketing linkages between producers' retailers, consumers, and the middleman. The International Labour Organization's 2017 report outlined two key challenges experienced by tomato growers. One of the challenges was that growers did not have a clear understanding of market trends, which allowed opportunity buyers to manipulate them. Secondly, there was a market linkage gap that existed between producers and end-users (retailers and wholesalers). Thirdly, producers lacked a general awareness of what the market demanded when it came to potentially marketable by-products, as well as the distribution of products and pricing.

Tomatoes exported to Djibouti come from as far away as markets located along highways in Africa. Due to the disorganization of markets in Ghana and a failure to use market linkage strategies, smallholder tomato producers' income is said to be low (Crawford, 2019). eMkambo (2016) asserts that Sub-Saharan Africa is characterized by a string of challenges in the marketing and distribution of tomatoes, which are hugely exacerbated by unusable and very unreliable information, causing most producers to lose out on the lucrative crop. Shoko (2019) attributes this kind of scenario to the failure of smallholder tomato producers to understand lucrative markets and how they can improve their income. Likewise, smallholder tomato producers in Southern Africa have familiar challenges that stem from the temporary tenure of the land they currently occupy and their failure to establish markets that link producers and consumers. In a nutshell, farmers lack marketing know-how, a scenario prevalent in Zimbabwe.

Middlemen in Zimbabwe profit greatly more from the produce they get than the small-holder tomato producers themselves due to the absence of marketing linkages, which in most cases leaves small-holder farmers stranded and without any profits. Smallholder tomato producers are then forced to

dispose of their produce at very low and unprofitable prices as they fear huge losses due to the perishability of their commodity. eMkambo (2016) suggests poor packaging as one of the major reasons why tomatoes produced by smallholder farmers in Zimbabwe are not easily exported, which leads to the downgrading of the quality of the produce. Meniga (2014) insists that the packaging of the tomatoes and their storage before distribution to the retailer may be a gap that exists in creating a better-quality tomato for the market. Tanyanyiwa and Bakasa (2018), in a case study on tomato production in Chihota District in Zimbabwe, concluded that there is a lot of pressure between the production of tomatoes on the field and the marketing. In most cases, the smallholder tomato producer would have exhausted all the resources at their disposal, and the only meaningful solution would be to sell to the next bidder. The idea of exporting these tomatoes for a higher and better profit margin would fade, making it extremely difficult for smallholder tomato producers to establish export marketing links.

Most smallholder tomato producers' failure to export is attributed to their lack of market linkage utilization strategies, relegating the smallholder tomato producer to the status of an ordinary player in Zimbabwe's fruit and vegetable industry. Prior researchers (Birthal et al., 2017; Mmbengwa, 2020; Shoko, 2019; Zivenge & Karavinga, 2017; Nandi & Bokelmann, 2019; Shepherd, 2020), among others, have focused on strategies to improve the sustainability of smallholder farmers. None of these studies addressed the market linkage strategy gap that exists among smallholder tomato producers, allowing the players to attract larger buyers and markets and determine the price by negotiating for higher prices, inevitably increasing their profit margins. Thus, the current study sought to close this gap by establishing supply chain market linkage strategies for smallholder tomato producers in Zimbabwe. Specifically,

researchers sort to establish the status of market linkages within the smallholder tomato sector; analyse their market linkage strategies and then come up with market linkage strategies for smallholder tomato producers.

2. LITERATURE REVIEW

Review of literature focused on theories that underpinned our study, namely, the Value Chain Theory, Market Orientation Theory, Collective Action Theory and the Cooperative Theory (Model); concept of market linkage strategy and supply chain,

2.1. Value Chain Theory

In this context, the word "value chain" was initially proposed in the 1980s by Michael Porter, who described it in detail in his work entitled "Competitive Advantage" (Porter, 1985). According to Lowitt et al. (2015), the value chain theory has been consistently used in international agriculture and food systems research to understand how actors fit into economic activities and to investigate the contribution of smallholder farmers, particularly in rural development. Most importantly, "a value chain is the range of activities required to bring a product or service from production through to final consumption" (Graef, 2014; Margiadi & Wibowo, 2020).

2.2 Market Orientation Theory

Market-oriented theories of economic development assume that individuals will achieve the best possible economic outcomes if they are free to make their own economic decisions (Al Amiri et al., 2020), uninhibited by any constraints. Deloitte (2021) defines market orientation as the consolidation of the organization-wide generation of market intelligence concerning the prevailing as well as tomorrow's client needs, the broadcasting of the intelligence across

departments, and organization-wide alertness towards it. Olutosin et al. (2019) discuss the application of the market orientation concept in the manufacturing sector, particularly the food industry, in which producers use market information, specifically clients and charges, as an excuse to make information-based decisions on three general economic questions: what to produce, how to produce, and how to market. In a way, such knowledge is crucial for market participation, which is necessary for linking smallholder farmers to markets for expanding demand for goods grown and creating avenues for revenue streams (Kemisola, Olorunsomo, & Ezealaji, 2020).

2.3 The Collective Action Theory

The logic of collective action theory was proclaimed by Mancur Olson, an economist, in 1965, who consequently developed the collective action model. According to collective action theory, rational social actors regularly assess the actions of others in order to inform their own decisions to cooperate. The model proposed by Olson is anchored on illustrating collective action challenges with the aid of the rational option, self-interest, and a free-rider challenge (Olson, 1989). Olson's work contradicted the conventional narrative that collective interest drives collective action. Olson (1989), cited in Cele (2020), convincingly argued that "collective action might be challenged by the free rider, especially in larger groups." Graef (2014) insists that the collective action group must have a coherent collection of rules designed to enable the group to attain a unified goal. Carletto, Corral, and Guelfi (2017) likewise agree with the view of an endless incremental proof suggesting that farmer organizations or groups provide one way for smallholder farmers to take part in the market in a more effective manner. In cases where they act collectively,

communal farmers are better positioned to minimize transaction costs of getting inputs and output, acquire market data, obtain access to modern technologies, and venture into value markets, allowing them to compete with well-established farmers and businesses in the agricultural industry (Radchenko & Corral, 2018).

2..4 Cooperative Theory or Model

The cooperative model, which works in tandem with collective action theory, benefits smallholder farmers directly by sharing critical market information. Consequently, smallholder farmers (Deloitte, 2021), who form part of a group, tend to benefit from the value-added returns such as better access to credit, informal and formal markets, equipment, training, and technical advice. Deloitte (2021) insists that smallholder farmers directly benefit from cooperative marketing that comes from being associated with that particular group, which individual farmers lack. Ideally, Delforce and Gill (2018) stress that the group (farmers) should have a clearly identified marketing objective. Ferris et al. (2014) advise that experience in negotiating skills with traders, understanding the difference between grades of produce, and knowledge of improving products are skills that every employee within the group should possess.

2.2 Market linkage strategy

Wilson et al. (2019) describe market linkage strategies as a plan for linking smallholder producers to mainstream commercial markets. Chikazhe and Nyakunuwa (2021) add that market linkage is the process of connecting customers with markets more directly. It is also about connecting aggregators more directly to upstream markets (Handika & Wibowo, 2018). Iyer et al. (2019) opined that it is about connecting the end user all the way to the point of

origin. According to Deloitte (2021), "market linkage" is a marketing and distribution process for producers and retailers that provides consumers with access to a diverse range of products and services. This study understands market linkage strategy as an approach that promotes trade relationships between the target population, also known as "customers," small producers, local firms, and cooperatives, and the external market.

Market linkage strategies provide smallholder producers with information that enables them to choose commodities for production, the type of technologies to use in production activities, the period of production, the target market for which the production is intended, the time and selling price (Gilliland, 2021; Phiri, 2020).Likewise, Amani (2014) describes market linkage strategies as a plan for linking smallholder producers to mainstream commercial markets. Kemisola et al. (2020) propose that market linkage strategies capacitate smallholder producers to effectively and meaningfully participate in market-oriented production. Market linkages, as an important component in developing sustainable trading links, attempt to help farmers link to markets that significantly reduce the challenges that most smallholder farmers face due to a lack of connectivity as well as connections between demand and supply (Zemanek et al., 2021). Market linkage strategies capacitate smallholder producers to effectively and meaningfully participate in market-oriented production (Kemisola et al., 2020; Wu & Cui, 2021).

2.3 Supply Chain

Mollenkopf et al. (2020) describe the supply chain as the entire system of producing and delivering a product or service, beginning with the sourcing of raw materials and ending with the delivery of the product or service to end users. Fatorachian and Kazemi (2021) say that the supply chain describes all

aspects of the manufacturing process, such as the activities involved at each stage, the information that is communicated, the natural resources that are converted into useful materials, the human resources, and other components that go into the finished product or service. Guan et al. (2020) define the supply chain as a network that connects all of the people, organizations, resources, activities, and technology involved in the manufacture and sale of a product.

A good supply chain includes everything from the delivery of raw materials from a supplier to a manufacturer to the final delivery to the end user (Sodhi & Tang, 2021). A supply chain's links have only two physical connections: one on the input and one on the output, which is hardly representative of how our supply systems work today. When the chain is in operation, its links may rub together as they pull against each other (Sodhi & Tang, 2021). Planning is one of the most crucial steps in the supply chain (Calatayud et al., 2018). It is critical to finalize and implement the strategies prior to the start of the entire supply chain, examining the products' or services' demand, viability, cost, profit, and manpower.

3. RESEARCH METHODOLOGY

The research adopted a qualitative approach informed by the interpretivist paradigm. This allows the researcher to gather and generate data to account for and explain the phenomenon (Creswell & Creswell, 2018). Primary data were collected to meet the study objectives by distributing a semi-structured interview guide to participants in Mashonaland West Province of Zimbabwe, where most of the agricultural activities take place. Most tomato producers in Zimbabwe are situated in this province since the area receives good annual rainfall that supports the farming of tomatoes. The population of the study

comprised smallholder tomato producers, Zimbabwe Farmers Union district managers, and Market Linkage Association of Zimbabwe representatives.

The sample size for the study involved seven (7) smallholder tomato producers representing the seven districts of Mashonaland West Province, seven (7) Zimbabwe Farmers Union district managers from each district, and ten (10) Market Linkage Association representatives. A purposive sampling technique was used to obtain information from respondents who were deemed to be well informed on some aspects of the production, distribution, and marketing of agricultural products in Mashonaland West.The collected data was then analysed using systematic grounded theory principles. The entire process of the qualitative data analysis produced themes that illuminated the phenomenon of market linkage strategies.

4. RESULTS

This section presents findings on the main thrust of the study which was to establish the supply chain market linkage strategies for small holder tomato producers in Mashonaland West Province of Zimbabwe. To start with we present the schedule of the in-depth interviews held with respondents involved in study of smallholder tomato producers.

Table 1: Interview Schedule for Smallholder Tomato Producers

Code name	Position	Location	Number of participants
Participant 1	Smallholder Tomato Producer	Hurungwe District	1
Participant 2	Smallholder Tomato Producer	Chegutu District	1
Participant 3	Smallholder Tomato Producer	Kariba District	1
Participant 4	Smallholder Tomato Producer	Zvimba District	1
Participant 5	Saturation reached	Makonde District	1

Table 1 depicts code names, identified as Participant 1 to Participant 5. The second column identifies the respondents in the research, who in this case were smallholder tomato producers in different districts of Mashonaland West Province in Zimbabwe. The digitally recorded responses from the in-depth interviews were done with the consent of the participants, transcribed into a written format, and coded using grounded theory principles called a systematic procedure (Strauss & Corbin, 2007). Despite the fact that the population consisted of seven intended participants, the saturation point was reached at five smallholder tomato producers, resulting in participant number of five. Table 2 below presents the schedule of the in-depth interviews held with Zimbabwe Farmers Union managers.

Table 2: Interview Schedule for Zimbabwe Farmers Union Managers

Code name	Position	Organisation	Number of participants
Participant A	Manager	Zimbabwe Farmers Union Hurungwe District	1
Participant B	Manager	Zimbabwe Farmers Union Chegutu District	1
Participant C	Manager	Zimbabwe Farmers Union Kariba District	1
Participant D	Manager	Zimbabwe Farmers Union Zvimba District	1
Participant E	Saturation reached	Zimbabwe Farmers Union Makonde District	1

Table 2 depicts the code names, identified as Participant A to Participant E, which were for interview guide questions 1–5. The second column identifies the respondents in the research, who were Zimbabwe Farmers Union Managers in the seven districts of Mashonaland West province. The responses

from the in-depth interviews were also digitally recorded, transcribed into a written format, and coded using grounded theory principles again. Although the sample had seven intended participants, the saturation point was also reached at fiveZimbabwe Farmers Union ManagersTable 3 below presents the schedule of the in-depth interviews for Market Linkage Association of Zimbabwe representatives.

Table 3: Interview Schedule for Representatives of the Market Linkage Association of Zimbabwe

Code name	Position	Organisation	Number of participants
Participant 1	Representatives	Market Linkage Association of Zimbabwe.	1
Participant 2	Representatives	Market Linkage Association of Zimbabwe.	1
Participant 3	Representatives	Market Linkage Association of Zimbabwe.	1
Participant 4	Representatives	Market Linkage Association of Zimbabwe.	1
Participant 5	Saturation reached	Market Linkage Association of Zimbabwe.	1

Table 3 depicts code names, identified as Participant 1 to Participant 5, which are reflective of respondents to interview guide questions 1–5. The second column identifies the respondents within the research, who in this case are representatives of the Market Linkage Association of Zimbabwe. Data obtained was analysed in the same manner as in other interview cases above. Table 4 below shows the themes that emerged from the interviews that were conducted.

Table 4: Market Linkage Strategies for Smallholder Farmers

Theme	Major finding	Participants interviewed
1. Assistance of smallholder tomato producers.	Reduction of transactional costs.	1, 2, 3, 4 & 5.
2. Training programmes to increase market access.	Increasing market accessibility using ICT.	1, 2, 3, 4 & 5.
3. Education of smallholder tomato producers in market access.	Education programmes for value chains market accessibility.	1, 2, 3, 4 & 5.
4. Effective marketing training strategies.	Collective Marketing training.	1, 2, 3, 4 & 5.

Deloitte (2021) observes that the exchange of goods and services for small holder farmers operating in rural areas is faced with transactional costs, whether fixed or variable, due to poor road networks and poor communication infrastructure. The reduction of these costs increases the participation of farmers in any activity on the market.

Communication

A respondent from the Market Linkage Association of Zimbabwe (MLAZ) highlighted the issue of communication:

> *We are in the process of making them understand that communication costs are high where one has to travel searching for trading partners (Participant 5).*

Another participant from MLAZ again spoke on how search costs need to be controlled and cheaper applications used.

> *Farmers should reduce the waiting time on the market before selling the produce. They should come to the market when it is the right time to sell and to the right market. (Participant 3)*

Smallholder producers have to sell products at a market that has been accessed before instead of just going there without planning and waiting for a few customers to trickle in (Chikulo, Hebinck & Kinsey, 2020). They spend a lot of days selling at the market, where there are few takers because of little research. It affects sales; moreover, tomatoes are perishable goods that must be purchased while they are fresh.

Transport

Participant 1 from MLAZ red-flagged the issue of transport as key to the small holder producer:

> *Transport costs are exceedingly high as most smallholder farmers come from remote places, a distance away from the market. Transport cost reduction leads to increased farm profitability. Markets should be created for smallholder farmers with sufficient transport to ferry the produce. (Participant 1)*

Smallholder farmers who sell their produce by the farm gate or who use local markets within their own districts incur reasonable transport costs but face challenges like a scarcity of customers and consumers. To reduce transport costs, smallholder farmers can use local markets or form groups so that they share transport costs.

Technology

Another participant number 5 from MLAZ zeroed in on the issue of technology:

> *The use of technology and the latest equipment can reduce labor costs as sorting out and grading the produce can be done by machines. (Participant 2)*

This view finds anchor in Blaser (2014) who observes that smallholder farmers who use modern agricultural technologies increase the productivity of

their horticultural crops per unit area, which alternatively increases output and market participation.

Being linked to the value chain

Participant number 4 from MLAZ raised the issue of costs at the market and observed that:

> *Smallholder farmers can avoid payment of rentals by not using municipal markets, where rentals are required monthly and can be linked to wholesalers, retailers, or schools. (Participant 4)*

Respondents also picked on contract farming as a way of having ready markets available and reduce the risk of time-wasting and losing perishable products. The smallholder farmers could be linked with traders, wholesalers, end consumers, spot markets, large-scale farmers, to do forward contracting, and do contract farming. .

Use of ICT

Increasing market accessibility using ICT can help the . smallholder farmers to increase market accessibility using ICT solutions. The use of ICT helps smallholder farmers network with consumers and other producers.

> *We have been encouraging farmers to use cellphones to call and use SMS services to access new markets. (Participant 3)*

The farmers can afford to buy cheap cellphones, which can be used to call and send messages, as echoed by participant 3. The smallholder farmers should embrace this and use the phones to advertise tomatoes to existing and potential customers so as to gain new markets.

> *The use of mobile platforms was encouraged, but program organizers did not work with system developers to produce platforms to enable smallholder farmers to use their cellphones to market the tomatoes.*

(Zimbabwe Farmers Union, Participant 4).

Software designers can create software used by Zimbabwe Farmers Union smallholder producers to increase value chains.

> *Though most people are encouraged to use social networks to market their products, this requires gadgets like smartphones or computers, but the majority of farmers operate from very remote parts of the country, which makes it difficult for them to access any electrical gadget. (Zimbabwe Farmers Union, Participant 5)*

Participant 5 from MLAZ supports the use of social networks like WhatsApp, Facebook, LinkedIn, and Twitter by people conducting farming activities. A lot of people use social media, and customers can be reached using these platforms.

> *The use of ICT has been focusing on the use of mobile phones, tablets, and computers while ignoring the use of radio and television to increase market accessibility and product awareness by smallholder farmers. (Participant 1)*

When referring to the use of ICT tools, most farmers focus on phones, tablets, and computers. Radio and television can be used to market tomatoes throughout the country. Smallholder tomato producers could also take advantage of the use of virtual markets to market their products.

Education Programs

Education programs can be used effectively for value chains' market accessibility. Smallholder farmers need to continue accessing knowledge for market accessibility through education programs, which can be formal or informal. Having knowledge gives you the confidence to look for better markets. According to one of the respondents from MLAZ:

> *In Zimbabwe, tomatoes are sold as raw products with no value addition. People have a wide range of places to buy tomatoes, and this affects the smallholder farmer by not getting the much-needed sales. (Participant 4)*

Participant 4 also highlighted a problem that affects a lot of smallholder producers of selling tomatoes without any value addition. Value-added products create more revenue. Educating farmers on value addition means that the market will be easy to access since the products come in different forms other than the raw ones, and this enables the smallholder farmer to penetrate a niche market.

The environment in which smallholder producers are working experiences a lot of climatic changes, and it is even difficult for the farmer to understand the dynamics of the seasons. Thus, training farmers equips them with ways of handling tomatoes in the value chain without any losses.

> *Workshops have been done without paying any particular attention to educating smallholder tomato producers to increase market accessibility in value chains. Commercial farmers have been given room to talk about the export. (Commercial Farmers Union, Participant 3).*

According to Participant 3 workshops were done periodically but without focusing on smallholder tomato producers. Brewster (2018) advocates that business meetings could be done with experienced farmers so that they could create opportunities for smallholder tomato farmers.

Marketing training

The smallholder farmers engage in marketing the tomatoes before they understand the market. According to Amani (2014), in order for a product to stand out among competitors, differentiation strategies must be developed.

> *In my view, marketing training has been done verbally, where people*

> *have been encouraged to use cellphones for marketing purposes, especially the use of text messages. (MLAZ, Participant 1)*

Participant 1 shows that marketing training for tomato producers has not received much attention. Marketing through the use of cellphones was easier since it did not require internet use to the extent that every farmer would be able to use that. Smallholder tomato producers couldbe trained in this area and use it effectively to market their products.

> *Training courses are needed for smallholder tomato producers so as to effectively market their produce and increase market accessibility. Post-harvest losses are experienced as farmers fail to sell the tomatoes while they are fresh. (MLAZ, Participant 2)*

There wasa need to train producers, as they were not well-versed in the use of social media platforms for business purposes. New markets could be established without even traveling physical distances. The use of social media sites like Twitter, Facebook, and Instagram can assist the farmers in marketing their produce.

> *I do advocate that training of smallholder tomato producers in marketing will improve market accessibility, especially if farmers implement market penetration as a strategy (Zimbabwe Farmers Union, Participant 5)*

This strategy could be implemented because the farmers were selling an existing product in a market with which they were familiar. Munyimi and Chari (2018) observed that relationships wereformed and customers would continue buying from the same market because quality was not compromised.

We have done a lot of seminars, but no training of smallholder tomato producers in effective marketing. They need to be trained that customers are the ones who help increase market share if they speak well about your product. (MLAZ, Participant 4)

Respondents observed that smallholder farmers had to be trained to treat their customers like kings all the time. According to them, existing customers could be offered discounts if they introduced a new customer. This referral program could work best if social media was used to create product awareness. That way a broad customer base could be established.

5. CONCLUSION

An investigation into the supply chain market linkage strategies for small holder tomato producers in Zimbabwe resulted in emergence of a number of factors regarded as critical for achieving market linkages. These were reduction in communication and transport costs, adopting technology to reduce pre-marketing processing costs, linking farmers to the value chain, take advantage of ICT to market produce, launching educational programs for farmers on the value chain system and finally training farmers in marketing function. Once these elements are attended to, most smallholder tomato farmers from Mashonaland West Province would be able to find anchor in the market and derive optimum value from it.

6.3 Implications for further studies

In light of the findings and the limitations of the research, directions for future research are suggested. Firstly, more provinces and countries (other than Zimbabwe) could be involved to contribute information on market linkage strategies for tomato producers. For example, samples from a number of countries or economic development levels could be compared. Secondly, continuous academic research is critical to the generation of theory on on smallholder farmers market linkages, especially for developing countries.

REFERENCES

Agriculture Forestry and Fisheries. (2012). A Frame Work for the Development of Smallholder Farmers Through Cooperatives Development. *Directorate Co-operative and Enterprise Development,* pp.1 - 16.

Al Amiri, N., Rahima, R. E. A., & Ahmed, G. (2020). Leadership styles and organizational knowledge management activities: A systematic review. *Gadjah Mada International Journal of Business*, *22*(3), pp.250-275.

Amani, S. (2014). *Smallholder Farmers' Marketing Choices*". P4P Global Learning Series New York: Management Systems International. 4, pp.1-98.

Birthal, P., Awadhesh, K., and Singh, H. (2017). Linking Farmers to Markets for High-value Agricultural Commodities, Agricultural Economics Research Review, 20 (Conference Issue) 2007 pp.425-439.

Blaser, M. (2014). Can the Making Markets Work for the Poor (M4P) approach reach the poorest and are there measures to improve its inclusiveness?', *Swiss Federal Institute of Technology Journal*, pp.24-35.

Brewster, J. (2018). Improving Small Producers Access to Profitable Markets. People in Need. CZECH Republic.

Calatayud, A., Mangan, J., & Christopher, M. (2018). The self-thinking supply chain. *Supply Chain Management: An International Journal*. 24(1), pp.22-38. https://doi.org/10.1108/SCM-03-2018-0136

Carletto, C., Corral, P., and Guelfi, A. (2017). Agricultural commercialization and nutrition revisited: Empirical evidence from three African countries. *Food Policy Journal*, 67, pp.106-118. https://doi.org/10.1016/j.foodpol.2016.09.020

Cele, T. (2020). Effects of Collective Action on Market Participation and Food

Security among Smallholder Farmers in Msinga Local Municipality. *Journal of International Studies*, 34-56. https://researchspace.ukzn.ac.za/handle/10413/19476

Chikazhe, L., & Nyakunuwa, E. (2022). Promotion of perceived service quality through employee training and empowerment: the mediating role of employee motivation and internal communication. *Services Marketing Quarterly*, *43*(3), pp.294-311. https://doi.org/10.1080/15332969.2021.1992560

Chikulo, S., Hebinck, P. & Kinsey, B. (2020). 'Mbare Musika Is Ours': An Analysis of a Fresh Produce Market in Zimbabwe. Journal of African Affairs, 119(476), pp.311–337. https://edepot.wur.nl/519719

Crawford, J. (2019). More Market Linkages for South African Smallholders. Solidaridad, pp. 6-7. https://www.solidaridadnetwork.org/news/more-market-linkages-for-south-african-smallholders/

Creswell, J. & Creswell, J. (2018). *Research Design: Qualitative Quantitative and Mixed Methods Approaches.* 5th ed. London: Sage. 3. Pp.1-270. https://www.ucg.ac.me/skladiste/blog_609332/objava_105202/fajlovi/Creswell.pdf

Delforce, J. & Gill, T. (2018). Beyond value chains: emerging lessons from Market Systems Development approaches in Australia's aid program. Adelaide: AARES Pvt Ltd.

Deloitte. (2021). 2021 Global Marketing Trends. London: Deloitte CMO Publishing.

eMkambo (2016). How agriculture markets are more than just memorizing facts and figures, available at: http://www.emkambo.co.zw/?p=716 (accessed 01 August 2016).

Fatorachian, H. & Kazemi, H. (2021). Impact of Industry 4.0 on supply chain performance. *Production Planning & Control*, *32*(1), pp.63-81.

Ferris, S., Robbins, P., Best, P., Seville, D., Buxton, A., Shriver, J. & Wei, J. (2014). Linking Smallholder Farmers to Markets and the Implications for Extension and Advisory Services. London: International Institute for Environment and Development.

Gilliland, D. (2021). Transitioning to the Journal of Inter-Organizational Relationships. *Journal of Inter-Organizational Relationships, 27*(1-2), pp.1-11. https://doi.org/10.1080/26943980.2021.1992244

Graef, F. (2014). Framework for participatory food security research in rural food value chains. Global Food Security Journal, 3, pp.8–15.

Guan, D., Wang, D., Hallegatte, S., Davis, S. J., Huo, J., Li, S., ... & Gong, P. (2020). Global supply-chain effects of COVID-19 control measures. *Nature human behaviour*, *4*(6), pp.577-587.

Hagos, A., Dibaba, R., Bekele, A. & Alemu, D. (2020). Determinants of market participation among smallholder mango producers in Assosa Zone of Benishangul Gumuz Region in Ethiopia. *International Journal of Fruit Science*, *20*(3), pp.323-349.

Handika, R. F., & Wibowo, A. (2018). Top management team diversity, the strategic isomorphism and firms' performance: a study in the Indonesian banking industry. *Academy of Strategic Management Journal*, *17*(3), pp.1-14.

International Labour Organization, (2017). Global Employment Trends for Youth 2017. Paths to Better Working Future. International Labour Organization, Geneva.

Iyer, P., Davari, A., Zolfagharian, M. & Paswan, A. (2019). Market orientation,

positioning strategy and brand performance. Industrial Marketing Management, 81, pp.16-29.

Kemisola, K., Olorunsomo, S. & Ezealaji, N. (2020). Determinants of Market Orientation among Smallholders in Nigeria. Global Journal of Management and Business Research, pp.1-12.

Lowitt, K., Hickey, G., Ganpat, W. & Phillip, L. (2015). Linking Communities of Practice with Value Chain Development in Smallholder Farming Systems. World Development Journal, Vol 15 pp.363- 373.

Margiadi, B., & Wibowo, A. (2020). Authentic leadership: A bibliometric analysis. In *Advanced Issues in the Economics of Emerging Markets*. Emerald Publishing Limited.

Meniga, M. (2014). The Major Problems and Prospects of Tomato Marketing: An Empirical Analysis. International Journal of Management Research and Business Strategy, 1 19.

Mmbengwa, V. (2020). Small Holder Market Access Research Unit. Cape Town: Marketing and Economic Research Centre (MERC).

Mollenkopf, D. A., Ozanne, L. K. & Stolze, H. J. (2020). A transformative supply chain response to COVID-19. Journal of Service Management. 32(2), pp.190-202. https://doi.org/10.1108/JOSM-05-2020-0143

Munyimi. T., F. & Chari. F. (2018). The role of buyer–supplier relationships in achieving economic sustainability in the private telecommunication sector in Zimbabwe. Cogent Business and Management, 5(1), pp.154-167, http://dx.doi.org/1080/23311975.2018.1540917

Nithya, V. G. R. N. & Wolfgang B. (2019). Determinants of Social Capital Formation among organic and conventional smallholder producers in Karnataka, *India. Agriculture Economics Research Review,* 32(1), pp.81-

89. http://dx.doi.org/10.22004/ag.econ.292205

Olson, T. (1989). *Theory of Collective Action*. New York: Palgrave MacMillan.

Olutosin, A., Otekunrin, S., Siaka, M. & Ayide, E. (2019). Smallholder Farmers Market Participation: Concepts and Methodological Approaches for Sub Saharan Africa. *Current Agriculture Research Journal,* 4(6), pp.139-157. http://dx.doi.org/10.12944/CARJ.7.2.02

Phiri, M. (2020). Impact of digital marketing capabilities on market performance of small to medium enterprise agro-processors in Harare, Zimbabwe. *Verslas: Teorija ir praktika/Business: Theory and Practice*, *21*(2), pp.746-757. http://hdl.handle.net/10419/248073

Radchenko, N., & Corral, P. (2018). Agricultural commercialisation and food security in rural economies: Malawian experience. *The Journal of Development Studies*, 54(2) pp.256-270. https://doi.org/10.1080/00220388.2017.1283014

Rana, S., Prashar, S., Barai, M. K., & Hamid, A. B. A. (2020). Determinants of international marketing strategy for emerging market multinationals. *International Journal of Emerging Markets*, *16*(2), pp.154-178. https://doi.org/10.1108/IJOEM-09-2019-0742

Shepherd, A. (2020). Including Small-Scale Farmers in Profitable Value Chains. Netherlands: Technical Centre for Agricultural and Rural Cooperation ACP-EU (CTA). https://hdl.handle.net/10568/77059

Shoko, C., (2019). Improving the viability of Smallholder Market Gardening in Zimbabwe: The case of Mutoko smallholder Farmers. 5(1), pp.1-16. https://www.semanticscholar.org/4ff0a

Sodhi, M. S., & Tang, C. S. (2021). Supply chain management for extreme conditions: research opportunities. *Journal of Supply Chain Management*,

57(1), pp.7-16. https://doi.org/10.1111/jscm.12255

Strauss, A., & Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Thousand Oaks, CA: Sage Publications, Inc.

Tanyanyiwa, V., & Bakasa, G. (2018). Market gardening as livelihood option in Zimbabwe's rural areas: Glimpses from ward 17, Chihota. *International Journal of Development and Sustainability, 7*(2), pp.848-862. https://www.researchgate.net

Wilson, N., Keni, K., & Tan, P. H. P. (2019). The effect of website design quality and service quality on repurchase intention in the e-commerce industry: A cross-continental analysis. *Gadjah Mada International Journal of Business*, *21*(2), pp.187-222.

Wu, J. P., & Cui, Q. (2021). The evolution of retail channels in China since 2000. *Journal of Inter-Organizational Relationships*, *27*(1-2), pp.38-52. https://doi.org/10.1080/1046669X.2021.1885243

Zemanek Jr, J. E., & Tran, T. P. (2021). Two decades of the Journal of Marketing Channels' research: Providing direction for the future of inter-organizational research. *Journal of Inter-Organizational Relationships*, *27*(1-2), pp.2-14. https://doi.org/10.1080/26943980.2021.1973850

Zivenge, E., & Karavina, C. (2017). Analysis of factors influencing market channel access by communal horticulture farmers in Chinamora District, Zimbabwe. *Journal of Development and Agricultural Economic* https://doi.org/10.5897/JDAE10.070

Supply Chain Market Linkage Strategies for Small Holder Tomato Producers in Zimbabwe

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ABSTRACT

There is a lack of coordinated market linkages to assist the smallholder farmer, especially tomato producers in Zimbabwe. The study's goal was to establish supply chain market linkage strategies for small-holder tomato producers in Zimbabwe using a qualitative approach informed by the interpretivism paradigm. A semi-structured interview guide was used to collect data from 24 participants, which consisted of smallholder tomato producers, Zimbabwe Farmers Union district managers, and Market Linkage Association of Zimbabwe representatives. Data were analysed using the thematic approach to analysis of qualitative data. The findings pointed to the need for reduction in communication and transport costs, adopting technology to reduce pre-marketing processing costs, linking farmers to the value chain, take advantage of ICT to market produce, launching educational programs for farmers on the value chain system and finally training farmers in marketing function.

Keywords*:* market linkage, smallholder tomato producers, supply chain, Zimbabwe

1. INTRODUCTION

Globally, the view that the fruit and vegetable industry, and in particular the tomato industry, is being influenced by new and developed market linkage strategies is gaining support, particularly from emerging empirical proof to support that perception. Mmbengwa (2020) insists that the original market systems that were officially used in the past and were attracting huge sales have

been overtaken by well-orchestrated, coordinated marketing linkages between producers' retailers, consumers, and the middleman. The International Labour Organization's 2017 report outlined two key challenges experienced by tomato growers. One of the challenges was that growers did not have a clear understanding of market trends, which allowed opportunity buyers to manipulate them. Secondly, there was a market linkage gap that existed between producers and end-users (retailers and wholesalers). Thirdly, producers lacked a general awareness of what the market demanded when it came to potentially marketable by-products, as well as the distribution of products and pricing.

Tomatoes exported to Djibouti come from as far away as markets located along highways in Africa. Due to the disorganization of markets in Ghana and a failure to use market linkage strategies, smallholder tomato producers' income is said to be low (Crawford, 2019). eMkambo (2016) asserts that Sub-Saharan Africa is characterized by a string of challenges in the marketing and distribution of tomatoes, which are hugely exacerbated by unusable and very unreliable information, causing most producers to lose out on the lucrative crop. Shoko (2019) attributes this kind of scenario to the failure of smallholder tomato producers to understand lucrative markets and how they can improve their income. Likewise, smallholder tomato producers in Southern Africa have familiar challenges that stem from the temporary tenure of the land they currently occupy and their failure to establish markets that link producers and consumers. In a nutshell, farmers lack marketing know-how, a scenario prevalent in Zimbabwe.

Middlemen in Zimbabwe profit greatly more from the produce they get than the small-holder tomato producers themselves due to the absence of marketing linkages, which in most cases leaves small-holder farmers stranded and without any profits. Smallholder tomato producers are then forced to

dispose of their produce at very low and unprofitable prices as they fear huge losses due to the perishability of their commodity. eMkambo (2016) suggests poor packaging as one of the major reasons why tomatoes produced by smallholder farmers in Zimbabwe are not easily exported, which leads to the downgrading of the quality of the produce. Meniga (2014) insists that the packaging of the tomatoes and their storage before distribution to the retailer may be a gap that exists in creating a better-quality tomato for the market. Tanyanyiwa and Bakasa (2018), in a case study on tomato production in Chihota District in Zimbabwe, concluded that there is a lot of pressure between the production of tomatoes on the field and the marketing. In most cases, the smallholder tomato producer would have exhausted all the resources at their disposal, and the only meaningful solution would be to sell to the next bidder. The idea of exporting these tomatoes for a higher and better profit margin would fade, making it extremely difficult for smallholder tomato producers to establish export marketing links.

Most smallholder tomato producers' failure to export is attributed to their lack of market linkage utilization strategies, relegating the smallholder tomato producer to the status of an ordinary player in Zimbabwe's fruit and vegetable industry. Prior researchers (Birthal et al., 2017; Mmbengwa, 2020; Shoko, 2019; Zivenge & Karavinga, 2017; Nandi & Bokelmann, 2019; Shepherd, 2020), among others, have focused on strategies to improve the sustainability of smallholder farmers. None of these studies addressed the market linkage strategy gap that exists among smallholder tomato producers, allowing the players to attract larger buyers and markets and determine the price by negotiating for higher prices, inevitably increasing their profit margins. Thus, the current study sought to close this gap by establishing supply chain market linkage strategies for smallholder tomato producers in Zimbabwe. Specifically,

researchers sort to establish the status of market linkages within the smallholder tomato sector; analyse their market linkage strategies and then come up with market linkage strategies for smallholder tomato producers.

2. LITERATURE REVIEW

Review of literature focused on theories that underpinned our study, namely, the Value Chain Theory, Market Orientation Theory, Collective Action Theory and the Cooperative Theory (Model); concept of market linkage strategy and supply chain,

2.1. Value Chain Theory

In this context, the word "value chain" was initially proposed in the 1980s by Michael Porter, who described it in detail in his work entitled "Competitive Advantage" (Porter, 1985). According to Lowitt et al. (2015), the value chain theory has been consistently used in international agriculture and food systems research to understand how actors fit into economic activities and to investigate the contribution of smallholder farmers, particularly in rural development. Most importantly, "a value chain is the range of activities required to bring a product or service from production through to final consumption" (Graef, 2014; Margiadi & Wibowo, 2020).

2.2 Market Orientation Theory

Market-oriented theories of economic development assume that individuals will achieve the best possible economic outcomes if they are free to make their own economic decisions (Al Amiri et al., 2020), uninhibited by any constraints. Deloitte (2021) defines market orientation as the consolidation of the organization-wide generation of market intelligence concerning the prevailing as well as tomorrow's client needs, the broadcasting of the intelligence across

departments, and organization-wide alertness towards it. Olutosin et al. (2019) discuss the application of the market orientation concept in the manufacturing sector, particularly the food industry, in which producers use market information, specifically clients and charges, as an excuse to make information-based decisions on three general economic questions: what to produce, how to produce, and how to market. In a way, such knowledge is crucial for market participation, which is necessary for linking smallholder farmers to markets for expanding demand for goods grown and creating avenues for revenue streams (Kemisola, Olorunsomo, & Ezealaji, 2020).

2.3 The Collective Action Theory

The logic of collective action theory was proclaimed by Mancur Olson, an economist, in 1965, who consequently developed the collective action model. According to collective action theory, rational social actors regularly assess the actions of others in order to inform their own decisions to cooperate. The model proposed by Olson is anchored on illustrating collective action challenges with the aid of the rational option, self-interest, and a free-rider challenge (Olson, 1989). Olson's work contradicted the conventional narrative that collective interest drives collective action. Olson (1989), cited in Cele (2020), convincingly argued that "collective action might be challenged by the free rider, especially in larger groups." Graef (2014) insists that the collective action group must have a coherent collection of rules designed to enable the group to attain a unified goal. Carletto, Corral, and Guelfi (2017) likewise agree with the view of an endless incremental proof suggesting that farmer organizations or groups provide one way for smallholder farmers to take part in the market in a more effective manner. In cases where they act collectively,

communal farmers are better positioned to minimize transaction costs of getting inputs and output, acquire market data, obtain access to modern technologies, and venture into value markets, allowing them to compete with well-established farmers and businesses in the agricultural industry (Radchenko & Corral, 2018).

2..4 Cooperative Theory or Model

The cooperative model, which works in tandem with collective action theory, benefits smallholder farmers directly by sharing critical market information. Consequently, smallholder farmers (Deloitte, 2021), who form part of a group, tend to benefit from the value-added returns such as better access to credit, informal and formal markets, equipment, training, and technical advice. Deloitte (2021) insists that smallholder farmers directly benefit from cooperative marketing that comes from being associated with that particular group, which individual farmers lack. Ideally, Delforce and Gill (2018) stress that the group (farmers) should have a clearly identified marketing objective. Ferris et al. (2014) advise that experience in negotiating skills with traders, understanding the difference between grades of produce, and knowledge of improving products are skills that every employee within the group should possess.

2.2 Market linkage strategy

Wilson et al. (2019) describe market linkage strategies as a plan for linking smallholder producers to mainstream commercial markets. Chikazhe and Nyakunuwa (2021) add that market linkage is the process of connecting customers with markets more directly. It is also about connecting aggregators more directly to upstream markets (Handika & Wibowo, 2018). Iyer et al. (2019) opined that it is about connecting the end user all the way to the point of

origin. According to Deloitte (2021), "market linkage" is a marketing and distribution process for producers and retailers that provides consumers with access to a diverse range of products and services. This study understands market linkage strategy as an approach that promotes trade relationships between the target population, also known as "customers," small producers, local firms, and cooperatives, and the external market.

Market linkage strategies provide smallholder producers with information that enables them to choose commodities for production, the type of technologies to use in production activities, the period of production, the target market for which the production is intended, the time and selling price (Gilliland, 2021; Phiri, 2020).Likewise, Amani (2014) describes market linkage strategies as a plan for linking smallholder producers to mainstream commercial markets. Kemisola et al. (2020) propose that market linkage strategies capacitate smallholder producers to effectively and meaningfully participate in market-oriented production. Market linkages, as an important component in developing sustainable trading links, attempt to help farmers link to markets that significantly reduce the challenges that most smallholder farmers face due to a lack of connectivity as well as connections between demand and supply (Zemanek et al., 2021). Market linkage strategies capacitate smallholder producers to effectively and meaningfully participate in market-oriented production (Kemisola et al., 2020; Wu & Cui, 2021).

2.3 Supply Chain

Mollenkopf et al. (2020) describe the supply chain as the entire system of producing and delivering a product or service, beginning with the sourcing of raw materials and ending with the delivery of the product or service to end users. Fatorachian and Kazemi (2021) say that the supply chain describes all

aspects of the manufacturing process, such as the activities involved at each stage, the information that is communicated, the natural resources that are converted into useful materials, the human resources, and other components that go into the finished product or service. Guan et al. (2020) define the supply chain as a network that connects all of the people, organizations, resources, activities, and technology involved in the manufacture and sale of a product.

A good supply chain includes everything from the delivery of raw materials from a supplier to a manufacturer to the final delivery to the end user (Sodhi & Tang, 2021). A supply chain's links have only two physical connections: one on the input and one on the output, which is hardly representative of how our supply systems work today. When the chain is in operation, its links may rub together as they pull against each other (Sodhi & Tang, 2021). Planning is one of the most crucial steps in the supply chain (Calatayud et al., 2018). It is critical to finalize and implement the strategies prior to the start of the entire supply chain, examining the products' or services' demand, viability, cost, profit, and manpower.

3. RESEARCH METHODOLOGY

The research adopted a qualitative approach informed by the interpretivist paradigm. This allows the researcher to gather and generate data to account for and explain the phenomenon (Creswell & Creswell, 2018). Primary data were collected to meet the study objectives by distributing a semi-structured interview guide to participants in Mashonaland West Province of Zimbabwe, where most of the agricultural activities take place. Most tomato producers in Zimbabwe are situated in this province since the area receives good annual rainfall that supports the farming of tomatoes. The population of the study

comprised smallholder tomato producers, Zimbabwe Farmers Union district managers, and Market Linkage Association of Zimbabwe representatives.

The sample size for the study involved seven (7) smallholder tomato producers representing the seven districts of Mashonaland West Province, seven (7) Zimbabwe Farmers Union district managers from each district, and ten (10) Market Linkage Association representatives. A purposive sampling technique was used to obtain information from respondents who were deemed to be well informed on some aspects of the production, distribution, and marketing of agricultural products in Mashonaland West.The collected data was then analysed using systematic grounded theory principles. The entire process of the qualitative data analysis produced themes that illuminated the phenomenon of market linkage strategies.

4. RESULTS

This section presents findings on the main thrust of the study which was to establish the supply chain market linkage strategies for small holder tomato producers in Mashonaland West Province of Zimbabwe. To start with we present the schedule of the in-depth interviews held with respondents involved in study of smallholder tomato producers.

Table 1: Interview Schedule for Smallholder Tomato Producers

Code name	Position	Location	Number of participants
Participant 1	Smallholder Tomato Producer	Hurungwe District	1
Participant 2	Smallholder Tomato Producer	Chegutu District	1
Participant 3	Smallholder Tomato Producer	Kariba District	1
Participant 4	Smallholder Tomato Producer	Zvimba District	1
Participant 5	Saturation reached	Makonde District	1

Table 1 depicts code names, identified as Participant 1 to Participant 5. The second column identifies the respondents in the research, who in this case were smallholder tomato producers in different districts of Mashonaland West Province in Zimbabwe. The digitally recorded responses from the in-depth interviews were done with the consent of the participants, transcribed into a written format, and coded using grounded theory principles called a systematic procedure (Strauss & Corbin, 2007). Despite the fact that the population consisted of seven intended participants, the saturation point was reached at five smallholder tomato producers, resulting in participant number of five. Table 2 below presents the schedule of the in-depth interviews held with Zimbabwe Farmers Union managers.

Table 2: Interview Schedule for Zimbabwe Farmers Union Managers

Code name	Position	Organisation	Number of participants
Participant A	Manager	Zimbabwe Farmers Union Hurungwe District	1
Participant B	Manager	Zimbabwe Farmers Union Chegutu District	1
Participant C	Manager	Zimbabwe Farmers Union Kariba District	1
Participant D	Manager	Zimbabwe Farmers Union Zvimba District	1
Participant E	Saturation reached	Zimbabwe Farmers Union Makonde District	1

Table 2 depicts the code names, identified as Participant A to Participant E, which were for interview guide questions 1–5. The second column identifies the respondents in the research, who were Zimbabwe Farmers Union Managers in the seven districts of Mashonaland West province. The responses

from the in-depth interviews were also digitally recorded, transcribed into a written format, and coded using grounded theory principles again. Although the sample had seven intended participants, the saturation point was also reached at fiveZimbabwe Farmers Union ManagersTable 3 below presents the schedule of the in-depth interviews for Market Linkage Association of Zimbabwe representatives.

Table 3: Interview Schedule for Representatives of the Market Linkage Association of Zimbabwe

Code name	Position	Organisation	Number of participants
Participant 1	Representatives	Market Linkage Association of Zimbabwe.	1
Participant 2	Representatives	Market Linkage Association of Zimbabwe.	1
Participant 3	Representatives	Market Linkage Association of Zimbabwe.	1
Participant 4	Representatives	Market Linkage Association of Zimbabwe.	1
Participant 5	Saturation reached	Market Linkage Association of Zimbabwe.	1

Table 3 depicts code names, identified as Participant 1 to Participant 5, which are reflective of respondents to interview guide questions 1–5. The second column identifies the respondents within the research, who in this case are representatives of the Market Linkage Association of Zimbabwe. Data obtained was analysed in the same manner as in other interview cases above. Table 4 below shows the themes that emerged from the interviews that were conducted.

Table 4: Market Linkage Strategies for Smallholder Farmers

Theme	Major finding	Participants interviewed
1. Assistance of smallholder tomato producers.	Reduction of transactional costs.	1, 2, 3, 4 & 5.
2. Training programmes to increase market access.	Increasing market accessibility using ICT.	1, 2, 3, 4 & 5.
3. Education of smallholder tomato producers in market access.	Education programmes for value chains market accessibility.	1, 2, 3, 4 & 5.
4. Effective marketing training strategies.	Collective Marketing training.	1, 2, 3, 4 & 5.

Deloitte (2021) observes that the exchange of goods and services for small holder farmers operating in rural areas is faced with transactional costs, whether fixed or variable, due to poor road networks and poor communication infrastructure. The reduction of these costs increases the participation of farmers in any activity on the market.

Communication

A respondent from the Market Linkage Association of Zimbabwe (MLAZ) highlighted the issue of communication:

> *We are in the process of making them understand that communication costs are high where one has to travel searching for trading partners (Participant 5).*

Another participant from MLAZ again spoke on how search costs need to be controlled and cheaper applications used.

> *Farmers should reduce the waiting time on the market before selling the produce. They should come to the market when it is the right time to sell and to the right market. (Participant 3)*

Smallholder producers have to sell products at a market that has been accessed before instead of just going there without planning and waiting for a few customers to trickle in (Chikulo, Hebinck & Kinsey, 2020). They spend a lot of days selling at the market, where there are few takers because of little research. It affects sales; moreover, tomatoes are perishable goods that must be purchased while they are fresh.

Transport

Participant 1 from MLAZ red-flagged the issue of transport as key to the small holder producer:

> *Transport costs are exceedingly high as most smallholder farmers come from remote places, a distance away from the market. Transport cost reduction leads to increased farm profitability. Markets should be created for smallholder farmers with sufficient transport to ferry the produce. (Participant 1)*

Smallholder farmers who sell their produce by the farm gate or who use local markets within their own districts incur reasonable transport costs but face challenges like a scarcity of customers and consumers. To reduce transport costs, smallholder farmers can use local markets or form groups so that they share transport costs.

Technology

Another participant number 5 from MLAZ zeroed in on the issue of technology:

> *The use of technology and the latest equipment can reduce labor costs as sorting out and grading the produce can be done by machines. (Participant 2)*

This view finds anchor in Blaser (2014) who observes that smallholder farmers who use modern agricultural technologies increase the productivity of

their horticultural crops per unit area, which alternatively increases output and market participation.

Being linked to the value chain

Participant number 4 from MLAZ raised the issue of costs at the market and observed that:

> *Smallholder farmers can avoid payment of rentals by not using municipal markets, where rentals are required monthly and can be linked to wholesalers, retailers, or schools. (Participant 4)*

Respondents also picked on contract farming as a way of having ready markets available and reduce the risk of time-wasting and losing perishable products. The smallholder farmers could be linked with traders, wholesalers, end consumers, spot markets, large-scale farmers, to do forward contracting, and do contract farming. .

Use of ICT

Increasing market accessibility using ICT can help the . smallholder farmers to increase market accessibility using ICT solutions. The use of ICT helps smallholder farmers network with consumers and other producers.

> *We have been encouraging farmers to use cellphones to call and use SMS services to access new markets. (Participant 3)*

The farmers can afford to buy cheap cellphones, which can be used to call and send messages, as echoed by participant 3. The smallholder farmers should embrace this and use the phones to advertise tomatoes to existing and potential customers so as to gain new markets.

> *The use of mobile platforms was encouraged, but program organizers did not work with system developers to produce platforms to enable smallholder farmers to use their cellphones to market the tomatoes.*

(Zimbabwe Farmers Union, Participant 4).

Software designers can create software used by Zimbabwe Farmers Union smallholder producers to increase value chains.

> *Though most people are encouraged to use social networks to market their products, this requires gadgets like smartphones or computers, but the majority of farmers operate from very remote parts of the country, which makes it difficult for them to access any electrical gadget. (Zimbabwe Farmers Union, Participant 5)*

Participant 5 from MLAZ supports the use of social networks like WhatsApp, Facebook, LinkedIn, and Twitter by people conducting farming activities. A lot of people use social media, and customers can be reached using these platforms.

> *The use of ICT has been focusing on the use of mobile phones, tablets, and computers while ignoring the use of radio and television to increase market accessibility and product awareness by smallholder farmers. (Participant 1)*

When referring to the use of ICT tools, most farmers focus on phones, tablets, and computers. Radio and television can be used to market tomatoes throughout the country. Smallholder tomato producers could also take advantage of the use of virtual markets to market their products.

Education Programs

Education programs can be used effectively for value chains' market accessibility. Smallholder farmers need to continue accessing knowledge for market accessibility through education programs, which can be formal or informal. Having knowledge gives you the confidence to look for better markets. According to one of the respondents from MLAZ:

> *In Zimbabwe, tomatoes are sold as raw products with no value addition. People have a wide range of places to buy tomatoes, and this affects the smallholder farmer by not getting the much-needed sales. (Participant 4)*

Participant 4 also highlighted a problem that affects a lot of smallholder producers of selling tomatoes without any value addition. Value-added products create more revenue. Educating farmers on value addition means that the market will be easy to access since the products come in different forms other than the raw ones, and this enables the smallholder farmer to penetrate a niche market.

The environment in which smallholder producers are working experiences a lot of climatic changes, and it is even difficult for the farmer to understand the dynamics of the seasons. Thus, training farmers equips them with ways of handling tomatoes in the value chain without any losses.

> *Workshops have been done without paying any particular attention to educating smallholder tomato producers to increase market accessibility in value chains. Commercial farmers have been given room to talk about the export. (Commercial Farmers Union, Participant 3).*

According to Participant 3 workshops were done periodically but without focusing on smallholder tomato producers. Brewster (2018) advocates that business meetings could be done with experienced farmers so that they could create opportunities for smallholder tomato farmers.

Marketing training

The smallholder farmers engage in marketing the tomatoes before they understand the market. According to Amani (2014), in order for a product to stand out among competitors, differentiation strategies must be developed.

> *In my view, marketing training has been done verbally, where people*

> *have been encouraged to use cellphones for marketing purposes, especially the use of text messages. (MLAZ, Participant 1)*

Participant 1 shows that marketing training for tomato producers has not received much attention. Marketing through the use of cellphones was easier since it did not require internet use to the extent that every farmer would be able to use that. Smallholder tomato producers couldbe trained in this area and use it effectively to market their products.

> *Training courses are needed for smallholder tomato producers so as to effectively market their produce and increase market accessibility. Post-harvest losses are experienced as farmers fail to sell the tomatoes while they are fresh. (MLAZ, Participant 2)*

There wasa need to train producers, as they were not well-versed in the use of social media platforms for business purposes. New markets could be established without even traveling physical distances. The use of social media sites like Twitter, Facebook, and Instagram can assist the farmers in marketing their produce.

> *I do advocate that training of smallholder tomato producers in marketing will improve market accessibility, especially if farmers implement market penetration as a strategy (Zimbabwe Farmers Union, Participant 5)*

This strategy could be implemented because the farmers were selling an existing product in a market with which they were familiar. Munyimi and Chari (2018) observed that relationships wereformed and customers would continue buying from the same market because quality was not compromised.

We have done a lot of seminars, but no training of smallholder tomato producers in effective marketing. They need to be trained that customers are the ones who help increase market share if they speak well about your product. (MLAZ, Participant 4)

Respondents observed that smallholder farmers had to be trained to treat their customers like kings all the time. According to them, existing customers could be offered discounts if they introduced a new customer. This referral program could work best if social media was used to create product awareness. That way a broad customer base could be established.

5. CONCLUSION

An investigation into the supply chain market linkage strategies for small holder tomato producers in Zimbabwe resulted in emergence of a number of factors regarded as critical for achieving market linkages. These were reduction in communication and transport costs, adopting technology to reduce pre-marketing processing costs, linking farmers to the value chain, take advantage of ICT to market produce, launching educational programs for farmers on the value chain system and finally training farmers in marketing function. Once these elements are attended to, most smallholder tomato farmers from Mashonaland West Province would be able to find anchor in the market and derive optimum value from it.

6.3 Implications for further studies

In light of the findings and the limitations of the research, directions for future research are suggested. Firstly, more provinces and countries (other than Zimbabwe) could be involved to contribute information on market linkage strategies for tomato producers. For example, samples from a number of countries or economic development levels could be compared. Secondly, continuous academic research is critical to the generation of theory on on smallholder farmers market linkages, especially for developing countries.

REFERENCES

Agriculture Forestry and Fisheries. (2012). A Frame Work for the Development of Smallholder Farmers Through Cooperatives Development. *Directorate Co-operative and Enterprise Development,* pp.1 - 16.

Al Amiri, N., Rahima, R. E. A., & Ahmed, G. (2020). Leadership styles and organizational knowledge management activities: A systematic review. *Gadjah Mada International Journal of Business*, *22*(3), pp.250-275.

Amani, S. (2014). *Smallholder Farmers' Marketing Choices*". P4P Global Learning Series New York: Management Systems International. 4, pp.1-98.

Birthal, P., Awadhesh, K., and Singh, H. (2017). Linking Farmers to Markets for High-value Agricultural Commodities, Agricultural Economics Research Review, 20 (Conference Issue) 2007 pp.425-439.

Blaser, M. (2014). Can the Making Markets Work for the Poor (M4P) approach reach the poorest and are there measures to improve its inclusiveness?', *Swiss Federal Institute of Technology Journal*, pp.24-35.

Brewster, J. (2018). Improving Small Producers Access to Profitable Markets. People in Need. CZECH Republic.

Calatayud, A., Mangan, J., & Christopher, M. (2018). The self-thinking supply chain. *Supply Chain Management: An International Journal*. 24(1), pp.22-38. https://doi.org/10.1108/SCM-03-2018-0136

Carletto, C., Corral, P., and Guelfi, A. (2017). Agricultural commercialization and nutrition revisited: Empirical evidence from three African countries. *Food Policy Journal*, 67, pp.106-118. https://doi.org/10.1016/j.foodpol.2016.09.020

Cele, T. (2020). Effects of Collective Action on Market Participation and Food

Security among Smallholder Farmers in Msinga Local Municipality. *Journal of International Studies*, 34-56. https://researchspace.ukzn.ac.za/handle/10413/19476

Chikazhe, L., & Nyakunuwa, E. (2022). Promotion of perceived service quality through employee training and empowerment: the mediating role of employee motivation and internal communication. *Services Marketing Quarterly*, *43*(3), pp.294-311. https://doi.org/10.1080/15332969.2021.1992560

Chikulo, S., Hebinck, P. & Kinsey, B. (2020). 'Mbare Musika Is Ours': An Analysis of a Fresh Produce Market in Zimbabwe. Journal of African Affairs, 119(476), pp.311–337. https://edepot.wur.nl/519719

Crawford, J. (2019). More Market Linkages for South African Smallholders. Solidaridad, pp. 6-7. https://www.solidaridadnetwork.org/news/more-market-linkages-for-south-african-smallholders/

Creswell, J. & Creswell, J. (2018). *Research Design: Qualitative Quantitative and Mixed Methods Approaches.* 5th ed. London: Sage. 3. Pp.1-270. https://www.ucg.ac.me/skladiste/blog_609332/objava_105202/fajlovi/Creswell.pdf

Delforce, J. & Gill, T. (2018). Beyond value chains: emerging lessons from Market Systems Development approaches in Australia's aid program. Adelaide: AARES Pvt Ltd.

Deloitte. (2021). 2021 Global Marketing Trends. London: Deloitte CMO Publishing.

eMkambo (2016). How agriculture markets are more than just memorizing facts and figures, available at: http://www.emkambo.co.zw/?p=716 (accessed 01 August 2016).

Fatorachian, H. & Kazemi, H. (2021). Impact of Industry 4.0 on supply chain performance. *Production Planning & Control*, *32*(1), pp.63-81.

Ferris, S., Robbins, P., Best, P., Seville, D., Buxton, A., Shriver, J. & Wei, J. (2014). Linking Smallholder Farmers to Markets and the Implications for Extension and Advisory Services. London: International Institute for Environment and Development.

Gilliland, D. (2021). Transitioning to the Journal of Inter-Organizational Relationships. *Journal of Inter-Organizational Relationships, 27*(1-2), pp.1-11. https://doi.org/10.1080/26943980.2021.1992244

Graef, F. (2014). Framework for participatory food security research in rural food value chains. Global Food Security Journal, 3, pp.8–15.

Guan, D., Wang, D., Hallegatte, S., Davis, S. J., Huo, J., Li, S., ... & Gong, P. (2020). Global supply-chain effects of COVID-19 control measures. *Nature human behaviour*, *4*(6), pp.577-587.

Hagos, A., Dibaba, R., Bekele, A. & Alemu, D. (2020). Determinants of market participation among smallholder mango producers in Assosa Zone of Benishangul Gumuz Region in Ethiopia. *International Journal of Fruit Science*, *20*(3), pp.323-349.

Handika, R. F., & Wibowo, A. (2018). Top management team diversity, the strategic isomorphism and firms' performance: a study in the Indonesian banking industry. *Academy of Strategic Management Journal*, *17*(3), pp.1-14.

International Labour Organization, (2017). Global Employment Trends for Youth 2017. Paths to Better Working Future. International Labour Organization, Geneva.

Iyer, P., Davari, A., Zolfagharian, M. & Paswan, A. (2019). Market orientation,

positioning strategy and brand performance. Industrial Marketing Management, 81, pp.16-29.

Kemisola, K., Olorunsomo, S. & Ezealaji, N. (2020). Determinants of Market Orientation among Smallholders in Nigeria. Global Journal of Management and Business Research, pp.1-12.

Lowitt, K., Hickey, G., Ganpat, W. & Phillip, L. (2015). Linking Communities of Practice with Value Chain Development in Smallholder Farming Systems. World Development Journal, Vol 15 pp.363- 373.

Margiadi, B., & Wibowo, A. (2020). Authentic leadership: A bibliometric analysis. In *Advanced Issues in the Economics of Emerging Markets*. Emerald Publishing Limited.

Meniga, M. (2014). The Major Problems and Prospects of Tomato Marketing: An Empirical Analysis. International Journal of Management Research and Business Strategy, 1 19.

Mmbengwa, V. (2020). Small Holder Market Access Research Unit. Cape Town: Marketing and Economic Research Centre (MERC).

Mollenkopf, D. A., Ozanne, L. K. & Stolze, H. J. (2020). A transformative supply chain response to COVID-19. Journal of Service Management. 32(2), pp.190-202. https://doi.org/10.1108/JOSM-05-2020-0143

Munyimi. T., F. & Chari. F. (2018). The role of buyer–supplier relationships in achieving economic sustainability in the private telecommunication sector in Zimbabwe. Cogent Business and Management, 5(1), pp.154-167, http://dx.doi.org/1080/23311975.2018.1540917

Nithya, V. G. R. N. & Wolfgang B. (2019). Determinants of Social Capital Formation among organic and conventional smallholder producers in Karnataka, *India. Agriculture Economics Research Review,* 32(1), pp.81-

89. http://dx.doi.org/10.22004/ag.econ.292205

Olson, T. (1989). *Theory of Collective Action*. New York: Palgrave MacMillan.

Olutosin, A., Otekunrin, S., Siaka, M. & Ayide, E. (2019). Smallholder Farmers Market Participation: Concepts and Methodological Approaches for Sub Saharan Africa. *Current Agriculture Research Journal,* 4(6), pp.139-157. http://dx.doi.org/10.12944/CARJ.7.2.02

Phiri, M. (2020). Impact of digital marketing capabilities on market performance of small to medium enterprise agro-processors in Harare, Zimbabwe. *Verslas: Teorija ir praktika/Business: Theory and Practice*, *21*(2), pp.746-757. http://hdl.handle.net/10419/248073

Radchenko, N., & Corral, P. (2018). Agricultural commercialisation and food security in rural economies: Malawian experience. *The Journal of Development Studies*, 54(2) pp.256-270. https://doi.org/10.1080/00220388.2017.1283014

Rana, S., Prashar, S., Barai, M. K., & Hamid, A. B. A. (2020). Determinants of international marketing strategy for emerging market multinationals. *International Journal of Emerging Markets*, *16*(2), pp.154-178. https://doi.org/10.1108/IJOEM-09-2019-0742

Shepherd, A. (2020). Including Small-Scale Farmers in Profitable Value Chains. Netherlands: Technical Centre for Agricultural and Rural Cooperation ACP-EU (CTA). https://hdl.handle.net/10568/77059

Shoko, C., (2019). Improving the viability of Smallholder Market Gardening in Zimbabwe: The case of Mutoko smallholder Farmers. 5(1), pp.1-16. https://www.semanticscholar.org/4ff0a

Sodhi, M. S., & Tang, C. S. (2021). Supply chain management for extreme conditions: research opportunities. *Journal of Supply Chain Management*,

57(1), pp.7-16. https://doi.org/10.1111/jscm.12255

Strauss, A., & Corbin, J. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Thousand Oaks, CA: Sage Publications, Inc.

Tanyanyiwa, V., & Bakasa, G. (2018). Market gardening as livelihood option in Zimbabwe's rural areas: Glimpses from ward 17, Chihota. *International Journal of Development and Sustainability, 7*(2), pp.848-862. https://www.researchgate.net

Wilson, N., Keni, K., & Tan, P. H. P. (2019). The effect of website design quality and service quality on repurchase intention in the e-commerce industry: A cross-continental analysis. *Gadjah Mada International Journal of Business*, *21*(2), pp.187-222.

Wu, J. P., & Cui, Q. (2021). The evolution of retail channels in China since 2000. *Journal of Inter-Organizational Relationships*, *27*(1-2), pp.38-52. https://doi.org/10.1080/1046669X.2021.1885243

Zemanek Jr, J. E., & Tran, T. P. (2021). Two decades of the Journal of Marketing Channels' research: Providing direction for the future of inter-organizational research. *Journal of Inter-Organizational Relationships*, *27*(1-2), pp.2-14. https://doi.org/10.1080/26943980.2021.1973850

Zivenge, E., & Karavina, C. (2017). Analysis of factors influencing market channel access by communal horticulture farmers in Chinamora District, Zimbabwe. *Journal of Development and Agricultural Economic* https://doi.org/10.5897/JDAE10.070