

Finding the right product-market fit for avocados from the Nandi cooperative

Part of the FORQLAB project

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Project introduction

Kenya positioned itself as one of the prominent global producers and exporters of avocados. Despite this, the avocado industry struggles with significant supply chain losses, estimated at approximately 35%. This FORQLAB project is initiated with the primary aim of reduce post-harvest losses within Kenya's avocado supply chain, ultimately contributing to the overall efficiency of food systems. This research focusses on identifying the right product-market fit for avocados from the Nandi cooperative, with the objective of minimizing post-harvest losses throughout the supply chain. The report first shares background information about the FORQLAB initiative, Kenya's food sector, Nandi County and the global avocado production seasons. Once the reader has a better understanding about the project, the supply chain of Nandi is analysed.

Data collection

Desk research

The secondary data for this study is gathered through desk research, specifically by conducting a comprehensive review of existing scientific reports, studies, and articles. It is important to note that the majority of the scientific reports utilized in this study are peer-reviewed, meaning that they have undergone a rigorous evaluation process by experts in the field who possess in-depth knowledge of the subject matter. This ensures that the information derived from these reports is of high quality and is researched for scientific validity, methodology, and analysis. Incorporating peer-reviewed reports enhances the credibility and reliability of the research findings.

Interviews

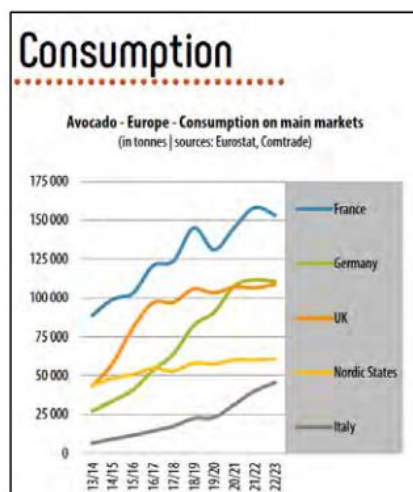
The interviews yielded information about internal factors of the cooperative, the supply chain, price margins, the competitive landscape, avocado varieties and annual production. Three interviews with importing companies are utilized. These interviews offer insights about price margins, market requirements in Europe, product specifications per industry and external factors of the industry. The interviews per industry are used to gain information about price margins, market requirements in Europe, product specifications per industry, external factors of the industry and potential markets. The insights gathered from interviews are converted into a summary available in the appendices of the main report.

Results

The supply chain analysis entails the structure of the supply chain, the price margins of each stakeholder in the supply chain and the competitive landscape of the supply chain. From the analysis of the supply chain, it can be concluded that the cooperative's payment system encounters

significant delays, primarily due to the current involvement of the bank in the payment process, taking up a few days. This results in farmers choosing not to sell their produce via the cooperative due to the delayed payment process for avocados, choosing instead to sell directly to exporters in cash. The bargaining power between farmers and exporters is unbalanced, with exporters holding a dominant position in the supply chain. The exporter's strong influence is primarily attributed to their control over farmer education regarding avocado cultivation practices. Additionally, the exporter serves as the decision-maker for quality standards, deciding which avocados are export-worthy and imposing costs on farmers for rejected fruits.

To match the product with the right market, an analysis of the avocado specifications from Nandi is needed. The avocado specifications include details on quality classifications, varieties and volumes. There are two different classes in Nandi which are first-class and second-class. First-class meets the extra class criteria from European standards and is therefore suitable to be exported to the EU. Second-class does not meet the requirements of the EU standards and is therefore not exported to the EU but to other continents or the oil industry. Additionally, the volumes of the Nandi cooperative are too low to meet export volume demands.



The European markets are explored through market segmentation analysis. The market segmentation centres on the European avocado market, with a specific focus on organic avocado

markets in Europe. The European market segmentation shows that France has the biggest market for avocados followed by the UK and Germany. Analysing the European market for fresh avocados reveals notable insights. There is potential for organic avocados in the German market, driven by consumers' aversion to artificial fertilizers and pesticides. The German market is open to fruits and vegetables with skin abnormalities, providing an opportunity

for avocados from Nandi. Additionally, the German government's agricultural policy stands out, showing a commitment to sustainability and prioritizing organic farming. Notably, Germany aims to allocate 30% of its agricultural land to organic farming by 2030, showcasing a significant opportunity for organic market growth.

Research is being conducted on the market requirements for exporting to Europe. This involves identifying the minimal market requirements for exporting to Europe, followed by a more in-depth sector specific analysis of market requirements in Europe. The minimum quality requirements that must be met are the UNECE standards, this includes all quality details. The UNECE standards handle three different quality classes. The best quality class is the extra class, the second best is the class I, and the third best is the class II. During the research of the three industries, there are significant results discovered concerning quality specifications. The retail and food service industry only handle the extra class avocado, the market for the class I avocado within these industries

exists, but its share is very little. However, The organic industry handles product specifications with less high standards. The class I avocados are the norm within this industry, which means that there is room for some abnormalities on the fruit. The extra class does not exist within this industry, which means that the best quality class available in this industry are the class I avocados. The class II avocados are also sold in the organic industry, but these quantities are smaller.

The future position of the Nandi cooperative is analysed by using several different tools including the SWOT analysis, Blue Ocean Strategy, Porter 5 forces and scenarios. Improvements in certain areas are essential for the cooperative's future growth and development. The absence of a sorting facility is the root cause of the low quality and lack of uniformity for avocados from Nandi. An investment in a sorting facility creates the opportunity to deliver a uniform product in the future. Currently, the Nandi cooperative's aspiration to source directly in the future faces challenges as the volumes are insufficient to fill a container. Furthermore, improving the organizational structure is essential for establishing partnerships with international companies. Finally, the Nandi cooperative is applied within four different business scenarios in which they could potentially find themselves in the future.

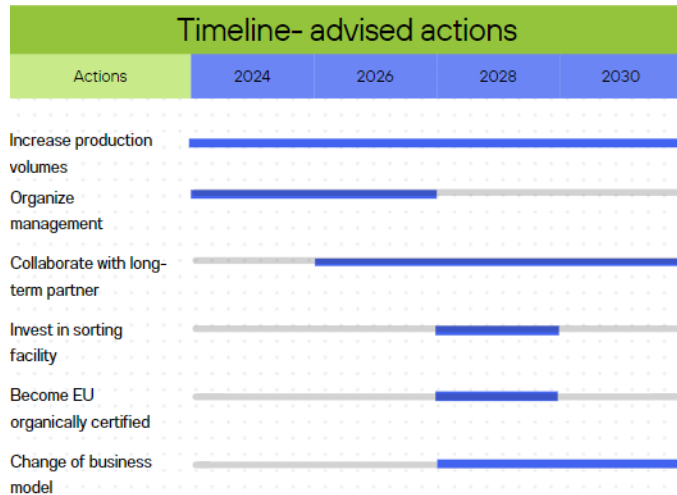
Conclusion

The most important outcomes of the research are listed below.

- The cooperative's payment system encounters significant delays, primarily due to the current involvement of the bank in the payment process. Payments that are handled via the bank take up several days. This results in farmers choosing not to sell their produce via the cooperative due to the delayed payment process for avocados.
- There is big potential for organic avocados in the German market. The German market presents an opportunity for avocados from Nandi due to the preference of German customers for organic produce and their aversion to the use of artificial fertilizers and pesticides. Additionally, Germans are known to be more accepting towards fruits and vegetables that have lower overall quality.
- In order to export to the European market, avocados must meet the minimum quality requirements set by the UNECE standards. These standards, established by the United Nations, outline specific criteria for quality, including acceptable levels of skin and pulp abnormalities when exporting to Europe.
- The research conducted on three distinct European industries revealed significant findings regarding product specifications. The retail and foodservice handle avocados with the highest quality standards. These industries primarily deal with avocados classified as extra class, with only a minimal market share for avocados categorized as 'class I'.
- The organic industry has relatively lower product specification standards, which could potentially facilitate entry into this market. Within this industry, 'class I' avocados are generally accepted, allowing for some abnormalities on the fruit. Unlike other industries, the 'extra class' avocados are not recognized in the organic sector.

- The absence of a sorting facility is the root cause of the low quality and lack of uniformity for avocados from Nandi. A sorting facility creates the opportunity to deliver a uniform product to the exporter.

Recommendation



Based on the conducted research, several pieces of advice are provided to the Nandi cooperative. On the short term, the Nandi cooperative needs to improve its organizational structure by providing clear descriptions of roles and responsibilities. Improved communication, documentation, and payment systems are also essential to ensure execution of business activities. Additionally, the production volumes need to be increased in order to meet specified requirements for container shipments. On the longer term, the Nandi cooperative should actively seek a long-term collaboration with a partner willing to invest in its supply chain. Such a collaboration has the potential to bring valuable expertise and resources to the cooperative. Additionally, it is recommended that the Nandi cooperative invest in a sorting facility. The implementation of such a facility will improve the overall quality and uniformity of avocados. Furthermore, it is suggested that the Nandi cooperative becomes EU organically certified in the future. The move towards organic certification holds numerous advantages for the cooperative. Finally, it is recommended for the Nandi cooperative to change its business model towards organic production and serving niche markets. The scenario in this research showed that this business model aligns well with the current cooperative's production capabilities.