

Agri enterprise opportunities in potato value chain

A case of CMS Agroprises, Egerton University

Redempter Mbula Mutinda and John Atsu Agbolosoo

Graduates in Kenya move from one office to another and send several job applications after graduation. This was not different for Redempter Mbula and Gad Sambrumo after their graduation from Jomo Kenyatta University of Science and Technology (JKUAT) and Jaramogi Oginga Odinga University of Science and Technology (JOOUST) respectively. Having graduated with Bachelor of Science degrees in Agribusiness Management in 2016, they had expectations that they would be absorbed in the job market. This did not happen.

There is a disparity between the number of graduates from Kenya's higher learning institutions and those being absorbed in the job market. Institutions are producing graduates who are not ready for the job market in terms of skills. To reduce the unemployment gap, Egerton University in collaboration with Regional Universities Forum for capacity building in agriculture (RUFORUM), introduced a Masters in Agri Enterprise Development. The course emphasizes on experiential learning and equips the graduates with entrepreneurial skills. The course has four main components; coursework, farm visits, agri enterprise businesses and research.

As part of the requirement for the award of the degree, Chima, Mbula and Sambrumo (CMS) Agroprises was formed by three students; John Chima, Redempter Mbula, and Gad Sambrumo. The enterprise processes potato crisps, trains farmers on value addition opportunities and provides direct market to the potato farmers as well as linking them with other buyers.

During Seed Potato Community Action Research Project Plus (CARP+) baseline survey in Nakuru, the students interacted directly with potato farmers. CARP+ is a project at Egerton University funded by MasterCard Foundation through RUFORUM. One of its objectives is to enhance students agribusiness skills.

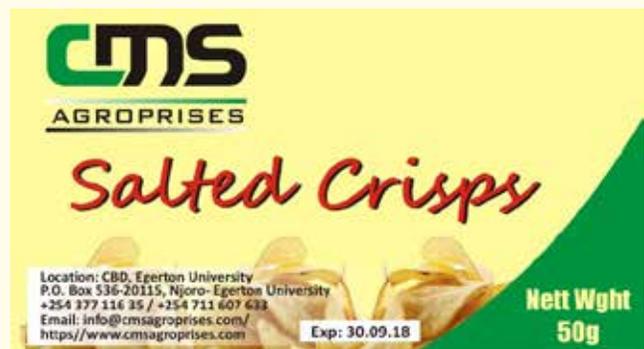


The baseline report identified challenges in the potato value chain namely; shortage of clean seed potato, market access, price fluctuations, inadequate production skills and storage facilities.

Under market access, farmers lamented how glut seasons affect potato prices. They sell as low as 800 KES for a 110kg bag, mainly to intermediaries. Farmers do not sort and grade their potatoes after harvesting, which leads to high losses. The baseline survey was an eye opener for CMS to create an enterprise that would address the market access problem for farmers in Elburgon and Njoro.

Process

Through Transforming African Agriculture Universities to meaningfully contribute to Africa's Growth (TAGDev) program, the owners of CMS Agroprises were trained on core business subjects including entrepreneurship skills, business plan writing, financial and marketing management. The team prepared a potato value addition business plan to produce potato crisps. The plan was presented and defended before a panel of experts. The group received a loan of 400,000 KES at 5% interest rate and payback period of one year to start and manage the enterprise. Part of the loan was used to purchase an electric fryer, drying mats, potato slicers, hire business premise, chairs, cooking cutlery, printing of fliers and labels, raw potatoes, oil and spices. The partners also underwent a medical test to be certified as food handlers.



The business was launched on 15 June 2018 at Egerton University Central Business District (CBD). Crisps samples were given to potential customers who liked the unique taste. They said that the crisps were different from those stocked in supermarkets and other outlets. The customers, who are mainly students, preferred the smaller packets that were being retailed for 20 KES. The positive feedback gave CMS the motivation to engage in the agri enterprise.

The production takes place in Department of Food Science, Egerton University. CMS Agroprises produces three times in a week, an average of 73kg per production. Processing include peeling, washing, slicing, spicing, frying, cooling, packaging, labeling and storing. We use either knives or a potato peeler to peel the potatoes. After peeling, the potatoes are washed thrice to ensure they are clean. They are then sliced into crisps size using a small slicer that is available in supermarkets. We blanch the sliced potatoes using warm water to fix its colour then add lemon, ginger, garlic and salt. To make them crispy, they we put directly into hot cooking oil. When ready they are cooled, packaged, weighed, labeled and sealed. We use airtight polythene bags of different sizes to package 30g, 50g and 100 g packets. For sealing, we use an electric sealer that can seal two packets at a time. We have a shop outlet provided by the university where we sell the products to the students.



CARP+ intervention in marketing and potato stakeholders' linkage

The CARP+ helped us to gain more agribusiness skills and linkages by exposing us to interact with different potato value actors in Kenya. The actors include ADC-Molo, MOALF, NPCK, ECLof, Agri Wallet, CIP, Syngenta and AgriCo East Africa among others. The key events where we marketed our products included the following; Potato Field Day at Egerton University, South Rift Potato Fair at Baraka agricultural College, Sixth RUFORUM Biennial Conference at Kenyatta International Conference Center (KICC) and Agritech Talks and Exhibitions, Nakuru.

The Egerton potato field day was the first display and selling of potato products to many stakeholders. We got feedback from customers and experts in potato value chain. International

Potato Centre (CIP) representative gave insights on how to select potatoes to improve crisps quality. CMS Agroprises also got links with farmers willing to produce Unica and Markies variety specific to processing. CMS Agroprises offered training services to Tumaini Women Group (11 members), which located in Njokerio. We trained them the importance as well as how to sort and grade since buyers require different sizes. We also made them to understand different varieties are for different uses. Farmers should not be fixed only to Shangi, which is a table variety. The business owners networked with Agricultural Technology and Development Centre (ATDC) for crisps and potato flour processing machines. Apart from networking and exchanging ideas with different people, we would sell our products.

Results

CMS Agroprises process an average of 220kgs of potatoes weekly. They package crisps in 30g, 50g, and 100g packets selling at KES 20, 30 and 50 respectively. This earns the business an average net profit of 16, 000 KES every week amounting to 64,000 KES per month. Through this business, CMS Agroprises provide direct market to the farmers who supply the potatoes. The enterprise also provides casual employment to two youths in the university. The employment enables the casuals to pay fees and upkeep. In 2018, CMS Agroprises exhibited in different conferences, trade fairs and field days including Potato field day at Egerton University, Agricultural show of Kenya, Nakuru, South Rift potato fair at Baraka Agricultural College, 6th RUFORUM Biennial conference at KICC, Nairobi and Agritech Talks and Exhibitions, Nakuru. Through the exposure, the young entrepreneurs from CMS We networked with different stakeholders from different parts of Africa. The exhibitions were also an avenue for selling the crisps, interact with like minded youth who were interested in potato value addition as business opportunity

After six months of operation, we introduced new marketing outlets in the "Central Business District" of Egerton University and Njokerio trading center. To date, we have been able to repay 120,000 KES which is 30 percent of the loan obtained. Currently, we have physical assets worth 100,000 KES and some cash at the bank.

Analysis

Selling one kilogram of raw potatoes earns the farmers on average 15-40 KES depending on supply and demand. One kilogram of potatoes can produce crisps that can earn marginal income of 70 KES. This justifies why potato value addition can significantly increase farmers' income.

Challenges

Despite all the successes, CMS Agroprises business journey has not been smooth. Some of the challenges include;

- Crisping varieties such as Unica, Markies and Dutch Robijn are not available in the market. Although some farmers have shown interest in growing the varieties, the adoption rate is very low.
- Potato price fluctuation affects production cost for instance in November, 2018, potato price increased from 2,000 to 7, 000 KES per 110kg bag. In addition, shortage of potatoes during off-season period has been a major setback. During December 2018, CMS only got small sized potatoes from farmers that

CMS
AGROPRISES

*Commercial Processing and Marketing of
Potato Crisps and Flour*



Our Products

- ❖ Krunch
- ❖ PotafLOUR

Our Services

- ❖ Agri-enterprise development training on entrepreneurship skills and business plan development.
- ❖ Agri- Enterprise mentorship training who are willing to venture into business.
- ❖ Agribusiness clinics.

Core values

- ❖ Teamwork
- ❖ Customer commitment
- ❖ Integrity
- ❖ Accountability

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were not suitable for processing. The CMS partners planted potatoes (Markies variety) on a quarter acre under irrigation to test performance. They also wanted to learn the agronomic practice of producing quality potatoes as well as to understand the cost of production.

- Balancing academic activities and business priorities was difficult but CMS partners all passed their course work successfully.
- John Agbolosoo will return to Ghana on completion of his course in June 2019. Therefore, the enterprise owners are considering various options to ensure business continuity and sustainability. The other two partners have offered to buy out his shares. The other option is to sell the business as a going concern to interested investors. They are in the process of evaluating the business value to assess the best way forward.

Lessons

- There are many agri enterprise opportunities in potato value chain from input and agri enterprise provision, production, transporting, processing and marketing. Unfortunately, most agripreneurs tend to ignore such opportunities. They focus on production aspects of the value chain forgetting other aspects.
- It is possible to start and manage an enterprise.
- One needs to be equipped with financial and marketing skills before entering into any business ventures. Business faces risk, entrepreneurs need to have mitigation measures, for example, insurance policies.
- There should be written contracts between the enterprise and farmers to ensure continuous supply of potatoes,

CMS Agroprises has not been able to get Kenya Bureau of standards (KEBS) certificate. This limited us from selling outside the university. The business was still in its early growth stage but we have applied to get the products certified.

Recommendations

The Agri enterprise model has been useful in transforming the business mindset of CMS partners. Other institutions of higher learning in Africa should adopt the model. This is because the model enables students to have an entrepreneurial mindset. Apart from the project's enterprise, students are able to set up other personal businesses and expanding them. This is a solution to the unemployment crisis among graduates. The students are also recommending that the coursework should be reduced from three to two semesters so that the students can balance course work, business and research.

More youth should invest in the potato value chain to harness the untapped opportunities. This will reduce the high unemployment rate in Kenya. They can purchase inputs and resell to potato farmers, train them about basic production and marketing skills or add value to potatoes.

For more information

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