Cashew Factory in Bakale Village - Case Study

Introduction:
In line with the objectives and methodology mentioned in the proposal for case studies titled ‘Avenues for New Enterprises in Rural Areas’, (Ref. https://drive.google.com/file/d/1PHpNK-Zg9KxygnpUbiTLH9vNw0UbOCbj/view?usp=sharing), this is an attempt to do a similar kind of case study of a cashew factory at Bakale village in Ratnagiri district of Maharashtra (India). Bakale is a small village in Konkan region of Maharashtra where mango and cashew are the main cash crops. Cashew processing has emerged as a gainful business for many households in villages. This case study helps understand the opportunities and challenges in this business.

Objectives:
● Value creation using local resources (material and human resources) to create employment/self employment.
● Understanding potential for self employments avenues in rural area
● Re-establishment of the lost linkage between education and employment.

Methodology:
● Direct interview and field visit
● Collection of the supportive secondary data
● Pictures, photographs, maps and videos.
● Compilation and analysis of data
About Cashew Production:
Cashew (Anacardium occidentale) is a widely grown cash-crop across India. It covers a total area of 0.70 million hectares of land, producing over 0.40 million M.T. of raw cashew nuts annually. (Ref. http://cashewindia.org/introduction).

Konkan is the main cashew - cultivation region of Maharashtra. Due to suitable climate, cashew has become the second important cash-crop next to mango. In Ratnagiri District alone, 1,02,400 ha of area is under cashew cultivation. (Ref. https://midh.gov.in/VCS%20Reports/Value%20Chain%20Study%20on%20Cashew%20in%20Maharashtra.pdf).

There are two main varieties of cashews in Konkan - a local variety (Gavathi kaju) and Vengura cashew (Vengurla Kaju). Vengurla is a high-yielding improved variety which is recently grown by the farmers. The cashew nut harvesting season is from January to May. (Ref. http://krishi.maharashtra.gov.in/Site/Home/CategoryContent.aspx?ID=046ebc7c-9489-4cf9-b1df-add1e834dcaf).

Cashew is not a water-intensive crop. Yield starts within 3-5 years from plantation. The average yield per acre is around 300 kg. (Source: Local farmers)

Various value-added products are made from cashew out of which, cashew kernels is the most important product. There are various traditional as well as modern methods of removing cashew kernels from the cashew nuts such as direct burning in a fireplace, drying in the hot sun, roasting in drums, steam boiling, etc. (Ref. http://cashewindia.org/introduction). Steam boiled cashew kernels are popular because of its market convenience but in recent times, manually baked cashews, drum-roasted cashews and raw cashews are also becoming popular due to their fantastic taste. (Source: interaction with local farmers.)

About the Businessman:
- **Name** - Suresh Jayawant Cheulkar
- **Running Age** - 53
- **Education** - 12th pass
- **No. of persons in the family** - 6
- **Address** - At - Bakale, Post - Niveli, Taluka - Rajapur, Dist - Ratnagiri, PIN - 416702
Name of the Enterprise: Sanika Cashews

Location of the factory:
The factory is located on Madban road in Bakale village in Ratnagiri district of Maharashtra.
GPS location -

Contact No. 94211 39653
Background:
Mr. Suresh Cheulkar is native to Bakale village. His father was doing a job in Mumbai. After taking education up to std. 12th, Mr. Suresh started a household cashew processing business in 1995 with a basic investment of Rs. 60,000. He made this investment partially from his personal savings and partially by taking a loan from a nearby bank. He started this business in his own house located at Bakale. Initially, Mr. Suresh was processing around 3 to 5 tonnes of cashews in a season. As of today, he has upscaled his business to around 40 tonnes/year.

**Nature of Business:**
This business is **seasonal** in nature. Cashew harvesting starts around the month of March and processing is carried on till November.

**Production Process:**

1) **Collection of cashew nuts (Raw material)** - Cashew nuts are purchased from local farmers. Farmers from within the area of 40-50 kms directly sell the cashew nuts to the factory. Cashew nuts are also purchased from the nearby wholesalers. There are two varieties of cashew nuts - **Gavathi Kaju** (local variety) and **Vengurla Kaju**. **Vengurla Kaju** is comparatively higher in supply and easier to process.

2) **Drying of Cashew Nuts** - Collected cashew nuts are dried in the hot sun for 4 - 5 days to remove wetness. (As shown in the following image)
3) **Boiling** - Dried cashew nuts are boiled in a steam boiler for approx. 1 hour to soften the shells. (As shown in the following image.)
4) **Cutting** - Boiled cashew nuts are cut and shells are removed. Cashew kernel, locally known as ‘Kajugar’ is separated from the shells. Earlier this process was done manually with a hand-operated cutter but now is done with an automatic machine.
5) **Drying** - cashew kernels are kept in an electronic drier for approx. 8 - 9 hours.
6) **Peeling** - Peeling is done in a machine to remove the husk. This process is outsourced to a nearby person who has the machinery for the same. He gets it done at the rate of Rs. 11/kg.

7) **Drying** - Peeled cashews are again kept in an electric dryer for approx. 2 hours.

8) **Grading** - According to size, shape, and structure of cashew kernels, they are manually segregated into 10 to 12 different grades. Price varies with the grade.
9) **Drying** - Graded cashews are again kept in an eclectic dryer for approx. 2 hours.

10) **Packing** - Ready cashew kernels of various grades are packed in a plastic bag usually in a quarter kg and a one kg of weight. Packed cashews are durable for 6 months.
Cashew Kernels - ready to sell

Output, Cost, Revenue and Profit:
1) **Output** - Final output is 25% of the raw material. 4 kg of cashew nuts yield 1 kg of cashew kernels. Shells are purchased by the traders as a raw material for oil. Currently, Mr. Suresh processes around 40 tonnes of cashew nuts and the final output of kernels is around 10 tonnes.

2) **Cost** -
   A) **Fixed Cost** - The details of the fixed cost incurred by Mr. Suresh recently are as follows.

<table>
<thead>
<tr>
<th>No.</th>
<th>Particulars</th>
<th>Cost (Rs.)</th>
<th>Life Expectancy</th>
<th>Fixed Cost per year (fig. Rounded off) (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Automatic Cutter (2)</td>
<td>1.15 lakh each</td>
<td>4 years</td>
<td>75000</td>
</tr>
<tr>
<td>2)</td>
<td>Dryer (4)</td>
<td>30kg 55k</td>
<td>20-25 years</td>
<td>13000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>60kg 65k</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>70kg 80k</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>150kg 1.30 lakh</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td>Boiler - 160 kg</td>
<td>1.20 lakh</td>
<td>10 years</td>
<td>12000</td>
</tr>
<tr>
<td>4)</td>
<td>New factory building (Constructed in 2020)</td>
<td>15 lakh</td>
<td>50 years</td>
<td>30000</td>
</tr>
</tbody>
</table>

Total Fixed Cost Calculated on Yearly Basis                              130000

Fixed Cost per unit of output (kg)                                        13

B) **Recurring Cost:**
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Cost Details</th>
<th>Recurring Cost (Rounded off)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Raw material</td>
<td>$120 - 130 per kg. (As per the market rates in 2022)</td>
<td>$50,00,000</td>
</tr>
<tr>
<td>2)</td>
<td>Labour</td>
<td>160 to 170 per person per day (As per the prevailing wage rates in 2022)</td>
<td>$4,00,000</td>
</tr>
<tr>
<td>3)</td>
<td>Electricity</td>
<td>8000 per month</td>
<td>$1,00,000</td>
</tr>
<tr>
<td>4)</td>
<td>Annual maintenance of machinery</td>
<td>6000 to 8000</td>
<td>$1,00,000</td>
</tr>
<tr>
<td>5)</td>
<td>Transport</td>
<td></td>
<td>$5,00,000</td>
</tr>
<tr>
<td>6)</td>
<td>Packaging</td>
<td></td>
<td>$50,000</td>
</tr>
<tr>
<td>7)</td>
<td>Miscellaneous</td>
<td></td>
<td>$50,000</td>
</tr>
<tr>
<td><strong>Total Recurring Cost per year</strong></td>
<td></td>
<td></td>
<td>$6200,000</td>
</tr>
<tr>
<td><strong>Yearly recurring cost per unit of output (kg)</strong></td>
<td></td>
<td></td>
<td>$620</td>
</tr>
</tbody>
</table>

3) **Revenue and profit:**
Price depends on grades. The current price for different grades is shown in the following table. The average rate per kg. that Mr. Suresh gets is Rs. 700.
Calculation of Revenue and profit is as under:

<table>
<thead>
<tr>
<th>Cost per kg (including FC and RC as calculated earlier)</th>
<th>Average Price per kg</th>
<th>Profit Per kg</th>
<th>Total Profit (Profit per kg x Final Output) (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>633</td>
<td>700</td>
<td>67</td>
<td>6,70,000</td>
</tr>
<tr>
<td>+ Revenue from the sale of the shells @Rs. 5 x 30,000kg</td>
<td></td>
<td></td>
<td>1,50,000</td>
</tr>
<tr>
<td>Total Yearly Profit from the Business</td>
<td></td>
<td></td>
<td>8,20,000</td>
</tr>
</tbody>
</table>

Marketing:
Around 400-500 kg of cashews are sold in the local market. The remaining stock is supplied to the wholesalers, retailers and end customers in Rajapur, Mumbai and other nearby cities.

**Problems and Challenges:**
- High investment due to the high cost of machinery
- Storage - storage of cashew nuts requires separate godown. It increases the requirement for additional land and building. Cashew nuts need to be protected from moisture. Bank doesn't provide any loan for creating a storage system.
- There are barriers in introducing advanced machinery because of irregular and insufficient electricity supply.
- Competition has increased due to automation and differentiated products such as roasted cashews, etc.
- Cost of raw material is increasing due to the growing market for raw cashews, locally known as *Ole Kajugar.*
- Import of cashew kernels is restricting increase in the market value.
- Impact of climate change on cashew crop.

**Lockdown effect:**
Mr. Suresh informed that lockdown didn't have any considerable impact on his business as markets were open for food products.

**Future Plans:**
Mr. Suresh wishes to carry on and expand the business to his best capacity. No specific future planning has been made yet. He wishes his future generation to carry on the same business but leaves the decision to them.

**Conclusion:**
- Cashew processing is a profitable business in Konkan region. Above information shows that there is around 12% profit in this business.
- This business has the employment potential in rural area for up to 200 days a year. 40 tonnes of cashew processing has provided employment to minimum 10 women for at least 200 days at the wage rate of Rs. 160-170 per day. Thus, a woman employed in this business can earn up to Rs. 35000-40000 in a year.
- Easy availability of raw material, uncomplicated process, non-requirement of skilled labour, durability of final product, relatively inelastic demand are the advantages of this business.
• High cost of machinery, increasing cost of raw material, storage of cashew nuts, high-load electricity supply, competition with imported cashew and other types of kernels are some major challenges in this business.

• Other value added products such as cashew-shell oil, beverages and animal food from cashew apple, etc. can be made under the same establishment but no such enterprise exists in the nearby area.

Case Study Done By:
Harshad Tulpule
At-Post Ansure, Taluka - Rajapur, Dist - Ratnagiri - 416702
Mob. No. 9405955608
Email id - harshadtulpule@gmail.com