CHAPTER 11:
PROSPECTS OF THE SMALL SCALE
AGRO-PROCESSING INDUSTRY
IN THE AHMEDNAGAR DISTRICT
11. PROSPECTS OF THE SMALL SCALE AGRO-PROCESSING INDUSTRY IN THE AHMEDNAGAR DISTRICT

11.1. Growth Drivers for the Agro-Processing Industry in India

11.1.1. Rising Income
11.1.2. Large Share of Expenditure
11.1.3. Rapid Urbanization
11.1.4. Nuclear Families and Working Women
11.1.5. Changing Lifestyle
11.1.6. Growth in Organized Retail
11.1.7. Huge Supply Advantage
11.1.8. Government Initiatives

11.2. Prospects of the Small Scale Agro-Processing Industry in the Ahmednagar District

11.2.1. Prospects of the Industry
11.2.2. Prospects of the Business Sectors
11.2.3. Prospects of the Product Categories

11.3. Future of the Small Scale Agro-Processing Industry in the Ahmednagar District

11.4. SWOT Analysis of the Small Scale Agro-Processing Industry in the Ahmednagar District

11.4.1. Strengths
11.4.2. Weakness
11.4.3. Opportunity
11.4.4. Threats

References
Agro-processing industry transforms the products originating from agriculture, livestock, forestry and fisheries. It has strong backward and forward linkages and has multidimensional effect on upliftment of agricultural and rural sector. Agro-processing is now regarded as the sunrise sector of the Indian economy. The prospects of the small scale agro-processing industry are discussed on following lines.

11.1. Growth Drivers for the Agro-Processing Industry
11.2. Prospects of the Small Scale Agro-Processing Industry in Ahmednagar District
11.3. Future of the Small Scale Agro-Processing Industry in the Ahmednagar District
11.4. SWOT Analysis of the Small Scale Agro-Processing Industry in the Ahmednagar District

11.1. GROWTH DRIVERS FOR THE AGRO-PROCESSING INDUSTRY:
The growth drivers for the agro-processing industry are discussed below.

11.1.9. Rising Income:
The rising income level is one of the major growth factors for the agro-processing industry. India had started its journey on the path of globalization in 1991 and since then the Indian economy has shifted its gears. The study period of this research from financial year 2003-04 to 2007-08 is considered as growth period of the Indian economy. The GDP growth rate during this period is around 8%. There are 350 million strong middle income class consumers and the number is growing at fast speed. The income level has increased considerably resulting in higher disposable income. The increase in disposable income has lead to increased demand for the products of the agro-processing industry.

11.1.10. Large Share of Expenditure:
Food forms the largest component of the total consumption expenditure in India accounting for as much as 35%. This is highest compared to 9.7% for an average American person and 15% for both Japanese and British. Though with rising income, the share would go down, but would increase in absolute terms. It is evident from the
increase in consumption of food in India. Further with changing lifestyle this demand is shifting towards the processed food.

**Chart 11.1: Household Consumer Spending in India** (Total Rs. 20721 Billion)

(Source: CSO)

**Chart 11.2: Food Consumption in India**

(Source: CSO)

The food market in India is estimated at over Rs. 9,100 billion and accounts for about two third of the total Indian retail market. The current food consumption in India and future estimation is shown in Chart 2 (figures are in $ US). Further the Size of semi-processed and ready to eat packaged food industry is over Rs. 4000 Crores (US $ 1 Billion) and is growing over 20%.2
11.1.11. **Rapid Urbanization:**
The people are shifting from rural areas to urban areas for the purpose of employment or business. The rate of urbanization has increased in the recent past. With urbanization and changing lifestyle people are demanding more of ready-to-eat, processed food products.

11.1.12. **Nuclear Families and Working Women:**
There is a change in the demographics and culture. The joint families are transforming into nuclear families. The role, position of the women in the society is changing. More and more women are becoming educated and are joining the workforce. Even though the percentage of working women is less at the moment but it is growing and in absolute terms it is high. This has resulted in dual income families and the increase in the disposable income of the family. Further due to pressure of time and changing lifestyle there is growth in the demand of the ready-to-eat food products. Thus the demand for the processed food products is increasing.

11.1.13. **Changing Lifestyle:**
With the changing demographics there is also a change in lifestyle of Indian population. There is a shift from joint families to nuclear families along with urbanization. The increase in level of education the percentage of working women also has increased. Further there is also westernization of Indian culture. All these changes have resulted in changing lifestyle if Indian consumer. With urban incomes increasing and urban consumers squeezed for time, they are slowly demanding more of the ready-to-eat food products. Also, the hygiene factor is facilitating growth of processed and packaged food products as the health consciousness of Indian consumers have increased. With rising income many people are expected to shift to processed and packaged food, which will result in enormous opportunity for agro-processing industry.

11.1.14. **Growth in Organized Retail:**
The Indian retail industry is huge in size and growing at a phenomenal rate. Although organized retail is around 5 % of the total market, it is expected to be seen 35-40% in next 10 years. The annual growth of the retail market in India is expected to be around 8%. Indian market has become the most lucrative market for retail investment in the world. The great Indian consumer market is still going strong. Existing middle class with increasing share of wallet, rapid urbanization, increase in the number of working
women, large number of working young population, changing attitudes, tastes and lifestyle, globalization, indulgence and convenience aspects are triggering the retail food industry which in turn will a great boost to the food processing industry. This also attracts global retail giants like Wal-Mart, Tesco, Carrefour SA, Metro AG etc. to enter the Indian markets. With increasing number of shelf space more and more branded and processed food is finding its way in retail stores. The retailers are planning to increase their penetration into the Tier II and III markets, which have lower operating and rental costs, and are relatively untapped

Food retail has surpassed the dominating apparel and accessories sector. Contrary to the belief that fashion is the largest segment of organized retail in India, food & beverages is the major segment, worth Rs 8,97,000 crores. Growing at the rate of 30%, the Indian food retail is going to be and no doubt is the major driving force for the retail industry. The percentage of income spent in households will drive growth in the food market. Food accounts for the largest share of consumer spending. Currently, the retail food sector is Rs. 3500 billion and is expected to rise to Rs. 7500 billion by 2025. Food has the largest consumption in the Indian economy and will remain the single largest category. This offers great opportunity for the agro-processing industry

11.1.15. Huge Supply Advantage:
The agro-processing industry transforms the products originating from agriculture, livestock, forestry and fisheries. The growth of the agro-processing industry is driven by the huge supply advantage of the raw material because of the diverse agro-climatic conditions and favourable factor condition in India. (Discussed in section 1.5.2.).

11.1.16. Government Initiatives:
The government has taken number of steps to provide assistance for setting up and modernizing agro processing units (Discussed in section 5.2). This has resulted in growth of the industry.
The Future:

It is estimated\(^4\) that, by 2012, India’s processed food output is likely to grow by 44.2 per cent to touch Rs. 4,505 billion, while packaged food sales will increase by 67.5 per cent to reach Rs. 1,085 billion. On a per capita basis, per capita packaged food spending is expected to grow by 56.5 per cent to Rs. 903 by 2012.

The government has set a vision\(^5\) 2015:

- Promoting a dynamic food processing industry
- Enhancing competitiveness in domestic and international market
- Making sector attractive for both domestic and foreign market
- Achieving integration of food processing infrastructure from farm to market

It also has following specific targets:

- Level of processing of perishables from 6% to 20%
- Value addition from 20% to 35%
- Share in global food trade from 1.5% to 3% by 2015

11.2. PROSPECTS OF THE SMALL SCALE AGRO-PROCESSING INDUSTRY IN AHMEDNAGAR DISTRICT:

The analysis is based on the opinion of the management of the enterprises of the small scale agro-processing industry in Ahmednagar district. The level of prospects is measured using the 3-point continuum rating scale – high, medium and low. Thereafter, weights of 3, 2 and 1 are assigned to these three levels of prospects respectively. Based on the responses obtained from entrepreneurs weighted mean score is calculated for industry, business sectors and product categories.

11.2.1. Prospects of the Industry:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Prospects</th>
<th>Frequency (fi)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Low (Wt. =1)</td>
<td>33</td>
<td>21.71</td>
</tr>
<tr>
<td>2</td>
<td>Medium (Wt. =2)</td>
<td>43</td>
<td>28.29</td>
</tr>
<tr>
<td>3</td>
<td>High (Wt. =3)</td>
<td>76</td>
<td>50.00</td>
</tr>
<tr>
<td></td>
<td><strong>Total Working Enterprises</strong></td>
<td><strong>Σfi = 152</strong></td>
<td><strong>100.00</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Weighted Mean Σfi*wi/fi</strong></td>
<td><strong>2.28</strong></td>
<td></td>
</tr>
</tbody>
</table>
Interpretation:

- It is found that the management of the 50.00% enterprises opined that the prospects of the small scale agro-processing industry in the Ahmednagar district are high.
- The management of 28.29% enterprises opined that the prospects are medium and 21.71% opined that the prospects of the industry are low.
- Further, the weighted mean of the prospects is 2.28, which is higher than medium weight. This fact indicates that the prospects of the small scale agro-processing industry are good.

11.2.2. Prospects of the Business Sectors:

Table 11.2: Prospects of the Business Sectors of the Small Scale Agro-Processing Industry

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Business Sectors</th>
<th>Low (Wt. 1)</th>
<th>Medium (Wt. 2)</th>
<th>High (Wt.3)</th>
<th>Weighted Mean of Prospects ((\sum f_i w_i / f_i))</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Food Sector</td>
<td>9</td>
<td>23</td>
<td>59</td>
<td>2.55</td>
</tr>
<tr>
<td>2</td>
<td>Non-Food Sector</td>
<td>24</td>
<td>20</td>
<td>17</td>
<td>1.89</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>33</td>
<td>43</td>
<td>76</td>
<td>2.28</td>
</tr>
</tbody>
</table>

Chart 11.4: Prospects of the Business Sectors of the Small Scale Agro-Processing Industry
Interpretation:
• It is found that the management of the enterprises opined that the prospects of the food sector (Weighted Mean of Prospects 2.55, is close to 3.00) of the small scale agro-processing industry in the Ahmednagar district are high and that of the non food sector (Weighted Mean of Prospects 1.89, is close to 2.00) are medium.
• It means the prospects of the food sector are better than that of the non food sector.

11.2.3. Prospects of the Product Categories:

Table 11.3: Weighted Mean of the Prospects of the Product Categories of the Small Scale Agro-Processing Industry

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Prospects</th>
<th>Low (wt.1)</th>
<th>Medium (wt.2)</th>
<th>High (wt.3)</th>
<th>Weighted Mean (Xi) of Prospects (∑fi*wi/∑fi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Processing of Fruits &amp; Veg.</td>
<td>1</td>
<td>0</td>
<td>9</td>
<td>2.80</td>
</tr>
<tr>
<td>2</td>
<td>Vegetable Oil</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>2.11</td>
</tr>
<tr>
<td>3</td>
<td>Milk &amp; Milk Products</td>
<td>0</td>
<td>4</td>
<td>26</td>
<td>2.87</td>
</tr>
<tr>
<td>4</td>
<td>Grain Mill Products</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2.00</td>
</tr>
<tr>
<td>5</td>
<td>Animal Feed</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2.14</td>
</tr>
<tr>
<td>6</td>
<td>Bakery Products</td>
<td>0</td>
<td>2</td>
<td>11</td>
<td>2.85</td>
</tr>
<tr>
<td>7</td>
<td>Confectionary</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1.33</td>
</tr>
<tr>
<td>8</td>
<td>Spices</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2.14</td>
</tr>
<tr>
<td>9</td>
<td>Tobacco related Products</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2.00</td>
</tr>
<tr>
<td>10</td>
<td>Other Food Products</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>2.80</td>
</tr>
<tr>
<td>11</td>
<td>Textiles</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>2.88</td>
</tr>
<tr>
<td>12</td>
<td>Wood &amp; Wood Products</td>
<td>20</td>
<td>11</td>
<td>3</td>
<td>1.50</td>
</tr>
<tr>
<td>13</td>
<td>Paper &amp; Paper Products</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>2.27</td>
</tr>
<tr>
<td>14</td>
<td>Ayurvedic Products</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2.17</td>
</tr>
<tr>
<td>15</td>
<td>Essency Stick</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1.50</td>
</tr>
</tbody>
</table>

Weighted Mean of all the Problems $X = \frac{\sum Xi}{k}$ 2.28

Standard Deviation $\sigma = \sqrt{\frac{\sum (Xi - X)^2}{k}}$ 0.5108

Finally, 'Z' score was worked out to assess level of prospects of these product categories and rank orders are given based on the 'Z' values. The product categories are considered as high in terms of prospects with 'Z' score values of more than 1, medium in terms of prospects with 'Z' score values 1 to -1 and low in terms of prospects with 'Z' score values less than -1. The ‘Z’ values are calculated using following formula.
\[ Z = \frac{X_i - \bar{X}}{\sigma} \] ……. (1)

Where,  
\( Z \) = Standard Variate for a normal distribution,
\( X_i \) = Weighted Mean of each product categories, where \( i = 1 \) to \( k \),
\( k = 15 \) product categories
\( \bar{X} \) = Weighted Mean of all the product categories
\( \sigma \) = Standard Deviation

For example, for Processing of Fruits and Vegetables category
\[ Z = \frac{2.80 - 2.28}{0.5108} = 1.01 \]

The ‘Z’ score calculated for the prospects of the product categories in the small scale agro-processing industry is shown in the Table 11.4.

**Table 11.4: Level of Prospects of the Product Categories of the Small Scale Agro-Processing Industry**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Product Category</th>
<th>Z Score</th>
<th>Level of Prospects</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Processing of Fruits &amp; Veg.</td>
<td>1.01</td>
<td>High</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Vegetable Oil</td>
<td>-0.34</td>
<td>Medium</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Milk &amp; Milk Products</td>
<td>1.14</td>
<td>High</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Grain Mill Products</td>
<td>-0.55</td>
<td>Medium</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>Animal Feed</td>
<td>-0.27</td>
<td>Medium</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>Bakery Products</td>
<td>1.10</td>
<td>High</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Confectionary</td>
<td>-1.86</td>
<td>Low</td>
<td>11</td>
</tr>
<tr>
<td>8</td>
<td>Spices</td>
<td>-0.27</td>
<td>Medium</td>
<td>7</td>
</tr>
<tr>
<td>9</td>
<td>Tobacco related Products</td>
<td>-0.55</td>
<td>Medium</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>Other Food Products</td>
<td>1.01</td>
<td>High</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>Textiles</td>
<td>1.16</td>
<td>High</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Wood &amp; Wood Products</td>
<td>-1.53</td>
<td>Low</td>
<td>10</td>
</tr>
<tr>
<td>13</td>
<td>Paper &amp; Paper Products</td>
<td>-0.02</td>
<td>Medium</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>Ayurvedic Products</td>
<td>-0.23</td>
<td>Medium</td>
<td>6</td>
</tr>
<tr>
<td>15</td>
<td>Essence Stick</td>
<td>-1.53</td>
<td>Low</td>
<td>10</td>
</tr>
</tbody>
</table>
Chart 11.5: Level of Prospects of the Product Categories of the Small Scale Agro-Processing Industry

Interpretation:

- It is found that the ‘Textiles’ (1.16), ‘Milk and Milk Products’ (1.14), ‘Bakery Products’ (1.10), ‘Processing of Fruits and Vegetables’ (1.01) and ‘Other Food Products’ (1.01) are considered as the product categories with ‘High Prospects’ as their Z-Score is more than 1.00. That is the reason these five product categories are ranked in order of prospects as 1 to 4 (Since there is tie between two categories).

- The ‘Paper and Paper Products’ (-0.02), ‘Ayurvedic Products’ (-0.23), ‘Animal Feed’ (-0.27), ‘Spices’ (-0.27), ‘Vegetable Oil’ (-0.34), ‘Grain Mill Products’ (-0.55) and ‘Tobacco related Products’ (-0.55) are considered as the product categories with ‘Medium Prospects’ as their Z-Score lies in between -1.00 to 1.00. That is the reason these seven product categories are ranked in order of prospects as 5 to 9 (Since there is tie between some categories).

- The ‘Wood and Wood Products’ (-1.53), ‘Essence Stick’ (-1.53) and ‘Confectionary’ (-1.86) are considered as the product categories with ‘Low Prospects’ as their Z-Score is less than -1.00. That is the reason these three product categories are ranked in order of prospects as 10 to 11 (Since there is tie between two categories).
11.3. THE FUTURE OF THE SMALL SCALE AGRO-PROCESSING INDUSTRY IN THE AHMEDNAGAR DISTRICT:

The prospects of the small scale agro-processing industry in the Ahmednagar district are good and following things are likely to happen in near future.

- The industry is likely to grow at a higher growth rate as the farmers are becoming aware about the benefits of agro-processing.
- The food sector is likely to grow at a faster rate than that of the non food sector.
- The five product categories namely ‘Milk and Milk Products’, ‘Bakery Products’, ‘Processing of Fruits and Vegetables’, ‘Other Food Products’ and ‘Textiles’ are likely to grow at a faster rate than that of the other categories.
- The two product categories namely ‘Wood and Wood Products’ and ‘Confectionary’ are likely to be stagnant regarding growth.
- The industry will grow at a faster rate in the tehsils like Ahmednagar, Sangamner, Shriampur, Kopargaon, Rahuri, Rahata, Newasa, Parner, Shrigonda and Shevgaon.
- More number of enterprises are likely to apply for the Government assistance especially related to training, industrial plot, marketing and financial assistance as the awareness amongst the entrepreneurs is growing.
- More number of enterprises are likely to go for quality certifications in near future.
- The industry is likely to witness proliferation of products and brands in the food sector.
- More number of enterprises are likely to go for better quality and attractive packaging for the product.
- More number of enterprises are likely to use internet for promoting the products.
- The industry is likely to expand its market coverage and more number of enterprises would sell products outside district or state.
- The industry is likely to explore export opportunities and expand its reach in diversified markets with improved products.
- The Government will continue to give thrust on the industry and will strengthen the support system etc.
11.4. SWOT ANALYSIS OF THE SMALL SCALE AGRO-PROCESSING INDUSTRY IN THE AHMEDNAGAR DISTRICT:

The Strength (S), Weakness (W), Opportunity (O) and Threat (T) analysis of the agro-processing industry in Ahmednagar district is given below.

11.4.1. Strengths (S):
- Availability of all the major raw materials.
- Social acceptability as important area and support from the Government.
- Glorious tradition and experience of agro-processing.
- Availability of the factors of production and facilities like industrial plots, finance and insurance, manpower, transportation, communication etc.

11.4.2. Weaknesses (W):
- Lack of focus on product development.
- Low level of quality consciousness.
- Moderate branding and packaging of products.
- Low usage of promotional tools.
- High requirement of working capital.
- Medium level of technology.
- Weak forward and backward linkages.
- Seasonality of raw materials.

11.4.3. Opportunities (O):
- Spatial nearness to all the major markets like Pune, Mumbai, Aurangabad, Nasik.
- Rising demand in the domestic market.
- Tremendous export opportunities.

11.4.4. Threats (T):
- Competition from global players.
- Loss of trained manpower to other industries and other professions due to better working conditions prevailing there may lead to shortage of manpower.
- Fluctuations and the rising cost of raw materials may affect the profitability.
- Competition from medium and large scale enterprises.
REFERENCES: