A Study on the Current Scenario of Different Segments of Food Processing Units in Kerala
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ARTICLE INFO

ABSTRACT

Received: September 18, 2019
Accepted: October 17, 2019
Published: November 30, 2019
Volume: 1
Issue: 6

The food processing industry has vital role in the economic development and can trigger improvement in productivity, agriculture and improve the income of farmers. They can also provide a boost to many small scale industries, but does the food processing sector have any influence in the growth of the economy, do they face problems in the current scenario, what factors are responsible for the constraints that they face, do they have a bright future even after the adverse climatic condition that are prevailing in Kerala. The study focuses its attention on issues that affect the various segments of food processing units and also tries to identify the difficulties faced by the various units. The research design is based on sample survey. The population is 366 units in Trivandrum and for the study, 60 food processing units were selected. It was found that the future prospects of food processing units were to improve market share of their products through cost efficiency and high quality products. For overcoming the marketing problems, the units should adopt some good marketing strategies and make some innovations in marketing methods and government departments have to give awareness and should provide proper guidance about the different schemes of MSMEs.

KEYWORDS

Keywords: constraints; food processing; Kerala; MSMEs; problems; segments

1. INTRODUCTION

Even after many decades agriculture still continues to provide direct employment for majority population in India. The ever increasing migration of people to urban centers in search of improved economic conditions and the socio economic development of rural areas have contributed in providing a better living condition for the rural people and also have provided opportunities for rural people to get higher incomes. For providing stability within the countries food processing and other agro based industries have played a very critical role. It has helped in adding value to raw materials which has helped to create employment in manufacturing and services sectors. (Prakash & Ramesh 2005) the growth potential of this sector is enormous and it is expected that the food production will double in the next 10 years and the consumption of value added food products will grow at a faster pace, which will bring immense benefits to the economy by inducing agricultural outputs, generating employment and raising the standard of very large number of people across the country, especially in rural and semi-urban areas.

The term food processing is mainly defined by (MOFPI), “as a process of value addition to the agricultural or horticulture produce by various methods like grading, sorting and packing. In other words, it is a technique of manufacturing and preserving food substances in an effective manner with a view to enhance their shelf life; improve quality as well as make them functionally more useful. It covers a wide spectrum of products from sub-sectors comprising of agriculture, horticulture, plantation, animal husbandry and fisheries. The food processing industry in India is made up of three groups they are Primary food processors, Informal or Cottage scale industries and Formal or Large scale processing food industries. Industry can also be cross categorized into a number of sectors such as fruits and vegetables processing, grain processing, meat and poultry processing, Milk and milk products, fish processing, consumer food industries and bakery products.

The food processing sector has also played an important role in terms of output and employment. India's export of processed food was valued at 26067.64 crores in 2015-16, it is ranked 12th in the world in export of food and food products in 2015 and has also emerged as a high growth and high profit sector. The share of food processing sector
in GVA by India's manufacturing sector was 8.6% in 2014-15 (Source: Agriculture and Processed Food Products Export Development Authority APEDA, Ministry of Commerce and industry, Government of India) and it has also contributed in providing employment of 7.69% in registered factory sector in 2013-14 (Source: Make In India).

**Food Processing in Kerala**

Kerala is blessed with abundant natural resources that provide many useful raw materials required for food processing sector. It is one of the industries which can contribute to the high growth potential and rapid economic development of the state. National Mission on Food Processing (NMFP) is a centrally sponsored scheme introduced by ministry of Food Processing Industries (MoFPI), Government of India in the 12th Five-year plan. The funding pattern is 75 per cent contribution from the state. The implementation of the scheme of entrusted to the states through the state Food Processing Missions. KINFRA is the Nodal Agency for State Food Processing Mission in Kerala. As on March 31, 2015 an amount of Rs. 9.67 crores have been received and an amount of Rs.9.66 crores had been utilized for implementation of schemes under NMFP. However, the Government has now de-linked National mission on Food Processing (NMFP) in the states from Central Government support with effect from April 1, 2015. Food processing sector in Kerala has always made significant contribution to food exports. Kerala has been a major exporter of spices, marine products, cashew, coffee, tea and pickles. Out of the total exports from Kerala, two third of its export income are from processed food. In Kerala, the number of food processed units registered during 2015-16 is 879. Thiruvanathapuram district which has registered 366 units is at the top position. The share of food processing units in the registered sector is only 19 per cent.

**Challenges faced by the industry**

The main challenge faced by this sector is intense competition and a firm can be successful only if it is able to focus its efficiency on fast processing and distribution. The global economic recession has less effect on the food processing industry mainly due to rising demand for pre-packed food items. High level of wastage of agricultural produces is also on account of the inherent disadvantages faced by the sector. Another major challenge is the predominance of small scale and tiny processors and outdated technology and poor infrastructure. The sustainability of this sector in future will depend on the support given in terms of creation and strengthening of infrastructure of individual farmers and small processors along with more importance to be given for research and developmental activities in the food processing sector for the innovation of technology so as to meet the local needs of the farmers, popularize the appropriate technology, increase the skill development and create an institutional framework for supporting this industry.

Source: MOFPI

**2. LITERATURE REVIEW**

Poonam (2017), has looked into the current status of Food Processing Industry in India, the problems faced by the industry and the govt initiatives taken to improve the food processing sector in India. The industry has helped in
increasing the per capita income of the people and created entrepreneurs which have indirectly contributed in eliminating the problem of unemployment. It has reduced the wastage of perishable agricultural products and has encouraged labour movement from agriculture to manufacturing sector. Some of the problems faced by the food processing are low availability of manpower, low access to credit, lack of infrastructural facilities, taxation policies etc.

Mike Battcock (2014), this book shows how to provide effective training in food processing, which can open up opportunities for individuals who lack business experience. It explains the importance of needs assessment, course preparation, monitoring and follow-up, and the value of practical work and opportunities for trainers to discuss their ideas and discoveries. With examples of forms and lesson plans, photographs of appropriate training environments, practical case studies and details of institutions that support food processing training, there is a wealth of information for trainers and organizers of training courses throughout the world.

Kakali Majumdar (2013), Indian food processing industry is primarily export oriented. With the export growth rate of around 15 per cent, its share in the international market is only 1.7 per cent. Again, only 2 per cent of the total food produced in India is processed for further consumption. This is a matter of concern that despite massive potential, this sector remains grossly underutilized. The paper has tried to study the export prospects of the Indian Food Processing Industry and has laid focus on its trends and also the problems it faces and possible remedial measures to achieve its high potential. Growth rates have been calculated following the best fitted trend.

Singh P Surendra (2012), India’s agriculture base is quite strong but wastage is very high and processing of food products is very low. The country’s processing sector is small and processing of food to consumable standards in India has reached only 10 per cent recently. India’s share in exports of processed food in World trade has remained at about 1.5 per cent or $3.2 billion. This study examines trends and status of the food processing industry, identifies and discusses constraints/problems slowing down its growth.

Satish Y Deodhar (2010), in paper Motivation for Cost of HACCP in Indian Food Processing Industry is view that to remain quality competitive in the post-WTO regime, He has opined that, Indian food processing firms would have to adopt a food safety management system – Hazard Analysis and Critical Control Points (HACCP). The paper has looked into the way the system benefits firms, and what are the costs of HACCP implementation. It was concluded that the in future the help from Government and trade associations may facilitate sector specific concessional loans for HACCP implementation and initiate training programmes.

Anjaiah (2008) has written an article as “Inter regional and interstate disparities in cultivation, production and productivity in food processing agricultural commodities in Andhra Pradesh”. He states that among agro industries majority of the units are food processing oriented. Important problems are related to quantity and quality of raw material. The study is focused on mainly on supply of raw material and aims at highlighting inter regional variations of cultivation. The study revealed the reasons for low productivity of groundnut are introduction of oil palm during the nineties, ban on government import of seeds material from other countries and due to preference for low fat refined oil on health grounds as ground nut oil as more fat content.

3. METHODOLOGY

3.1 DATA SOURCES
The source of data includes primary and secondary sources. The present study is mainly based on the primary data collected from documents through field study. We have chosen the following sources of data. Primary data are collected from a certain number of Food Processing Units Owners through direct personal interview and by questionnaire. Secondary data are those which are already collected by some other persons for their purpose and published. It is collected from published and unpublished sources such as internet, journals, magazines, etc.

3.2 TOOLS FOR DATA ANALYSIS
After data collation from respondents, the questions were tabulated and subject to analysis using weighted average, percentage method and chi-square analysis.
3.3 RESEARCH DESIGN
The research is based on sample survey. All the food processing units in Trivandrum Corporation constitute the population of the study. Random sampling was done from 366 units in Trivandrum and 60 food processing units were selected for my study on the basis of convenience of data collection.

4. RESULTS AND DISCUSSION

HYPOTHESIS I
Ho: There is no significant relationship between Gender and Ability to be Self Employed

Table No: 1: Shows the Ability to be self employed on Gender classification

<table>
<thead>
<tr>
<th>Gender</th>
<th>Ability to be self employed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly agree</td>
<td>Agree</td>
</tr>
<tr>
<td>Male</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>28</td>
</tr>
</tbody>
</table>

Source: Primary Data

Table no: 2
Chi square result for the relationship between the Gender and Ability to be self employed

<table>
<thead>
<tr>
<th>Test statistics</th>
<th>value</th>
<th>df</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phi chi square</td>
<td>.304</td>
<td>4</td>
<td>.236</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>.304</td>
<td></td>
<td>.236</td>
</tr>
</tbody>
</table>

Number of valid cases 60

Source: Primary Data

Chi square test was carried out to examine the relationship between Gender and Ability to be self employed. Here the P value (.236) is more than .05. So the null hypothesis is accepted and concluded that there is no significant relationship between gender and ability to be self employed.

HYPOTHESIS II
Ho: There is no significant relationship between Educational Qualification and Strategies adopted to face the competition

Table No: 3: Shows the Educational qualification which influence the Strategies adopted to face competition

<table>
<thead>
<tr>
<th>Education</th>
<th>Strategies adopted to face competition</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost Leadership</td>
<td>Product Differentiation</td>
</tr>
<tr>
<td>Illiterate</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Below SSLC</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>SSLC</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>PDC</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Graduate</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Professional</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>21</td>
</tr>
</tbody>
</table>

Source: Primary Data
Chi square was carried out to examine the significant relationship between the Educational qualification and Strategies adopted to face the competition of the respondents. Here the P value (.139) is more than .05. So the null hypothesis is accepted and concludes that there is no significant relationship between educational qualification and strategies adopted to face competition.

**HYPOTHESIS III**

Ho: There is no significant difference between Form of business and opinion regarding Future prospects.

Table No: 5: Shows the Form of business and their Opinion regarding Future prospects in Food processing units in Kerala

<table>
<thead>
<tr>
<th>Form of business</th>
<th>Opinion regarding future Prospects</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Scope</td>
<td>High Scope</td>
</tr>
<tr>
<td>Sole trading</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Partnership</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Private ltd</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Public ltd</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Co-operative</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: Primary Data

Table No: 6

Chi square test was carried out to examine the significant differences between Form of Business and opinion regarding Future prospects of FPU’s in Kerala.

<table>
<thead>
<tr>
<th></th>
<th>Test statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>value df P value</td>
</tr>
<tr>
<td>Phi chi square</td>
<td>.330 8 .589</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>.233</td>
</tr>
<tr>
<td>Number of valid cases</td>
<td>60</td>
</tr>
</tbody>
</table>

Source: Primary Data

Chi square test was carried out to examine the significant differences between Form of business and opinion regarding Future prospects of Food Processing Units in Kerala. Here the P value (.589) is more than .05. So the null hypothesis is accepted and concluded that there are no significant differences between Form of business and opinion regarding Future prospects.

**HYPOTHESIS IV**

Ho: There is no significance difference between Place of Domicile and Problems

Table: No: 7: Shows that Place of Domicile and Problems faced by FPU
<table>
<thead>
<tr>
<th>Place</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>11</td>
<td>15</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>27</td>
</tr>
<tr>
<td>Semi urban</td>
<td>9</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Urban</td>
<td>8</td>
<td>10</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>30</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>60</td>
</tr>
</tbody>
</table>

Source: Primary Data

Table No: 8 Chi square result for the significant difference between Place of domicile and Problem of Food processing units

<table>
<thead>
<tr>
<th>Test statistics</th>
<th>value</th>
<th>df</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phi chi square</td>
<td>.299</td>
<td>6</td>
<td>.498</td>
</tr>
<tr>
<td>Cramer’s V</td>
<td>.211</td>
<td></td>
<td>.498</td>
</tr>
<tr>
<td>Number of valid cases</td>
<td>60</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Data

Chi square test carried out to examine the significant difference between Place of domicile and Problems of Food processing units. In the above test conducted it concluded that the most problem faced by FPU was Marketing Problem (There is increasing competition in the market). Here the P value from the test conducted is (.498) is more than .05. So the null hypothesis is accepted and concluded that there is no significant differences between Place of domicile and Problems of Food processing units.

**FINDINGS FROM HYPOTHESIS FRAMED:**

1. Majority of the respondents are male
2. Most of the respondents like to be self-employed and that influenced them to start Food processing units
3. Majority respondents are graduate and have professional training in the field of Food processing sector
4. The most strategy adopted for facing competition by FPU were Product Differentiation
5. Almost 58% of the respondents of Food processing units are Partnership form of Business.
6. Majority of respondents’ opinion regarding Future prospects of food processing units in Kerala are High scope if corrective measures are taken.

**OTHER MAJOR FINDINGS**

7. Almost 55% of the respondents were used owned buildings for their FPU
8. Almost 68% of the respondents of FPU were having experience in above 5 years
9. Majority respondents have been used ordinary storage for their processing
10. Most of the 80% respondents have been applied Waste management in FP sector
11. Almost above 70% respondents having High Competition in FPU
12. Above 60% of the FPU were recruit their employees through Direct method
13. Majority of the respondents of FPU’s pricing method is Cost plus pricing and Demand based pricing
14. Majority of the respondents of FPU marketing their products through Direct to consumers and Agents to retailers
15. Most of the respondents Future prospects of FPU were to improve market share of their products through cost efficiency and high quality.

**SUGGESTIONS**

1. To overcome with the problem of shortage of raw materials in off season FPUs may collect the raw material from nearest states.
2. FPUs should increase the number of suppliers as the inconsistency and unavailability at required time of raw materials may be reduced.
3. If FPUs want to grow in competitive environment, they should adopt the modern and advanced production technology for the production.
4. FPUs should prepare the definite plan about the finance as long term as well as short term financial needs should be fulfill.
5. Entrepreneurs of FPUs should have some basic knowledge about their financial management and they should update this knowledge.
6. FPUs should provide adequate training facilities at regular interval as the manpower become well known with modern technology.
7. FPUs should provide an opportunity to workers to participate in the management process.
8. To overcome with the marketing problems the FPUs should adopt some good marketing strategies and make some innovations in marketing methods.
9. Government should generate more energy as it becomes possible to provide the electricity to the rural based small scale FPUs.
10. Government departments have to make awareness and should provide proper guidance about the schemes of MSMEs.

5. CONCLUSION
Based on the analysis, it can be concluded that at present different sectors of food processing units in Trivandrum as well as in Kerala and India are facing major problem in different areas like raw material, production, labour, finance and marketing. From the data analyzed it was found that in the present scenario, the most problems faced by food processing units are in the area of marketing due to a huge rise in competition, technology up gradation from the domestic as well as the international entry of food products. The factors that help in reaping the true potential of this sector include productivity, value enhancement, waste minimization, effective marketing, use of updated technology, product and price innovation etc. There is a need to put immediate focus on the effective implementation on the said areas.

It is indeed the time for India and other countries to overcome the constraints in food processing sector. In this ever changing and globalized era, units must sooner or later adopt latest technologies and overcome the constraints. Food processing industry in India is increasingly seen as a potential source for driving the national economy as it brings about synergy between the consumer, industry and agriculture. A well-developed food processing industry is expected to increase farm gate prices, reduces wastages, ensure value addition, promote crop diversification, generate employment opportunities as well as export earnings.

REFERENCES
