

A Study on Contribution of Fruit Processing Industry to the Development of the Rural Population in Krishnagiri District

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Abstract

India is known as an agricultural and rural based economy. However, the rural society is traditional, conservative and separated from the sources of innovation. Industrial development has the potential to expand economic activity, which will ultimately lead to the development of rural assets as well as income generation, infrastructure development, improved living standards and the per capita income of rural people. Similarly Krishnagiri district is highly specialized in agriculture and fruit processing industries are mostly located in Krishnagiri district which plays an important role in promoting the development of the rural population. This article is an attempt to analyze its Contribution of Fruit Processing Industry to the Development of the Rural Population in Krishnagiri District.

Keywords:

Agriculture, Contribution, Employment, Fruit Processing Industries, Infrastructure, Rural Development.

1. Introduction

India is classified as a developing economy, yet 70% of the country's populations live in rural areas. Industrialization plays an important role in the economic development of underdeveloped countries. The gap in personal income between developed and underdeveloped countries is often reflected in the imbalance in the structure of their economies: The growth of the agricultural sector can be explored from key factors such as land use pattern, functional reserve distribution, acreage of crops and yield growth of primary crops. Krishnagiri district is also associated with agriculture and has agro-related industries. So these industries will be beneficial for the development of rural people. This article is related to the development of fruit processing industries and rural population.

2. Review of literature

Bung, Purushottam (2012) this article describes the import and export analysis of the fruit processing industry in India. The researcher has used secondary data. These data are analyzed to know the percentage contribution of

each fruit and the total import and export of each processed fruit product and the CGR of imports and exports. This effort was made to find out the reasons for specific imports and exports, along with the policy front recommendations to elevate the Indian fruit processing industry to international standards.

Paul Hebink (2015) this book focuses on market experiences related to market development and new markets with structurally different characteristics than key markets. Rural Development and Construction of New Markets analyzes newly constructed markets as local markets. Although they are specific market segments nestled in a wide range of food commodity markets, they have different nature, different dynamics, different value-added redistribution, different prices and different relationships between manufacturers and consumers. These markets emerge as the steadily growing areas of the farming population who devote their time, energy and resources to the design and production of new products and services that differ from conventional agricultural products.

Bo Yuan Lim (2015) The harvested *Jatropha* fruits need to be cleaned, defueled and stored properly as part of the production of *Jatropha* biodiesel. During processing, the oil yield and quality of the extracted crude oil can be further improved by removing the husks (outer coating) of the seeds before any necessary seed treatment. This report attempts to provide an insight into the major issues of the process from harvesting the *Jatropha* fruits to the final storage of the seeds and pre-treatment of the *Jatropha* seeds prior to the oil extraction process in production.

Abreu F et al., (2020) This article presents a set of demographic, economic, environmental and social welfare indicators that should be taken into account in evaluating rural development and related policies. Using the standard Delphi method, the panel of experts analyzed 88 proposed indicators, after which 25 sets were selected based on their importance and the consensus of the group. The panel also assessed the weight of the four dimensions (population, social welfare, economy and environment) considered within an index to measure rural growth. Thus, in addition to economics, social welfare is an area that contributes the most to rural development, as opposed to “traditional” codes based solely on economic and statistical indicators.

3. Scope of the research

Rural development is a dynamic process that is mainly concerned with rural areas. These include agricultural development, economic and social infrastructure, fair wages and housing for the landless, village planning, public health, education and operational literacy, and communication. This study covers contributions of the fruit processing sector to the social and economic development of rural people. The livelihood of the rural people depends on their environment and opportunities. This article explains the opportunities offered by the fruit processing industry.

4. Statement of the problem

Agriculture and related industries is the main occupation of rural area. Rural development refers to growth, evolution, stage of inducement or progress. This progression or development is gradual and consists of continuous phases. Rural development is a process aimed at improving the well-being and self-sufficiency of people living outside urbanized areas through a joint process.

‘Rural Development’ refers to the overall development of rural areas with a view to improving the living standards of the rural population. Fruit processing factories play an important role in this regard. They provide employment to rural people and help improve their quality of life. So this article analyzes how the fruit processing sector contributes to the rural population.

5. Objectives of the research

- To explore the contributions of the fruit processing sector to the socio and economic development of rural population
- To study the growth and development of rural population through the fruit processing industry.

6. Research methodology

An effective research design usually creates minimum dependencies on the data and increases confidence in the accuracy of the collected data. The study follows descriptive design. Purposive (Deliberate) sampling technology has been included in this study. There are 33 private companies and 1 public limited company in Krishnagiri district with a total 34 fruit processing industries. The researcher has deliberately selected only the private limited industries for this research. The fruit processing industry has been analyzed using primary data which was collected through interview from the managing directors. Secondary data were collected from books, journals, fruit processing industries and Ministry of rural development. The data was analyzed by using percentage, average and T-test.

7. Limitation of the study

- ✚ The information collected was only from the fruit processing industry.
- ✚ The respondents were less interested in a anxiety the interview schedule, as they felt that it was an interruption to their work.
- ✚ Limited fruit processing industries.

8. Hypotheses of the study

- Reason for starting business does not influence the role of fruit processing industry.
- Role of fruit processing industries between seasonal basis and regular basis are same.

9. Analysis and interpretation

9.1. Analysis on Personal Characteristics of fruit processing industry.

Table 1 describes on the personal characteristics of fruit processing industry.

Table 1

Personal Characteristics of Fruit Processing Industry

Sl.No	Personal details of Fruit Processing Industry		No. of Fruit Processing Industry	Percentage	Total	SD
1.	Reason for choosing the area	Good infrastructure	10	30.3	33	0.74
		Availability of raw materials	15	45.5		
		Availability of labours	8	24.2		
2.	Special characteristics about this rural area	Natural environment	9	27.3	33	1.02
		Good water facilities	8	24.2		

		Large place	12	36.4		
		Good transport	4	12.1		
3.	Functioning of the industry	Seasonal basis	18	54.5	33	0.50
		Regular basis	15	45.5		
4.	Products	Pulp	28	84.8	33	0.36
		Juice	5	15.2		
5.	Rural area attractive for entrepreneurs	Yes	31	93.9	33	0.24
		No	2	6.1		
6.	Promote and develop fruit growers	Provide economic support	29	87.9	33	0.53
		Supporting to harvesting	2	6.1		
		Providing materials required for yield.	2	6.1		
7.	Climate change	Low yield	22	66.7	33	0.75
		Poor quality of fruits	6	18.2		
		Rot and black of fruit	5	15.2		
8.	Government support	Yes	26	78.8	33	0.42
		No	7	21.2		

The Above table 1 reveals that 46% of the fruit processing industries have been started due to the availability of raw materials. Mostly (36%) say that the industries are located with large place of area. Majority (55%) of the industries run on seasonal basis. Maximum (85%) of industries produce fruits pulp. (94%) of the industries say rural area are attractive to the entrepreneurs. 88% of the industries promote the fruit grower which proves to be a great economic support. Majority of the industries (67%) are low yielding due to climate change. Majority (79%) of the industries have government support.

9.2. Personal characteristics of the fruit processing industry based on the reason for starting the business.

Table 2 Analysis of personal characteristics based on the reason for starting a business in the fruit processing industry.

Hypothesis: Reasons for starting business is not dependent on personal variables of the fruit processing industry.

Table: 2
Chi Square values – Personal variables on the perception on Reason for starting business

S.No	Personal variables	Chi-square Value	P values	Significant/ Not Significant
1	Special characteristics about this rural area	44.321	0.00	S
2	Functioning of the industry	17.942	0.00	S
3	Products	18.415	0.00	S
4	Rural area attractive for entrepreneurs	6.653	0.05	NS
5	Promote and develop fruit growers	14.224	0.00	S
6	Climate change	26.513	0.00	S
7	Government support	27.764	0.00	S

S – Significant at 5% level (p value $\leq$ 0.05); NS – Not Significant at 5% level (p value $>$ 0.05)

Pearson chi – square value of the above table is 5% level of significance. P value is less than 0.05, hence null hypothesis is rejected, expect for rural area attractive for entrepreneurs. It concludes that reasons for starting business is dependent on special characteristics about this rural area, functioning of the industry, Products, Promote and develop fruit growers, Climate change and Government support of the fruit processing industry expect rural area attractive for entrepreneurs.

9.3. Relationship between factors inducing role of fruit processing industries and basis of run of the industry.

Table 3 gives the results of t test for basis of run of the industry on role of the fruit processing industry.

Hypotheses: Role of fruit processing industries between seasonal basis and regular basis are same.

Table: 3
Relationship between factors inducing role of fruit processing industries and basis of run of the industry.

Sl.No	Role of fruit processing industry.	Basis	Mean	t-test	Sig (2tailed)	Relationship
1.	It supports the small local market	Seasonal basis	-0.46	-3.50	0.00	S
		Regular basis				
2.	Top priority given to rural fruit growers	Seasonal basis	-0.86	-4.02	0.00	S
		Regular basis				
3.	More employment opportunity have been offered	Seasonal basis	-0.26	-1.74	0.10	NS
		Regular basis				
4.	Provide good quality	Seasonal basis	-1.06	-5.87	0.00	S

	seeds	Regular basis				
5.	Advance payment to employees	Seasonal basis	-0.33	-2.09	0.05	NS
		Regular basis				
6.	Reasonable market price	Seasonal basis	-0.46	-2.82	0.01	S
		Regular basis				
7.	Creating standard life	Seasonal basis	-0.80	-4.58	0.00	S
		Regular basis				
8.	Support to transport sector	Seasonal basis	-0.13	-1.47	0.16	NS
		Regular basis				
9.	Train fruit growers for good yields.	Seasonal basis	-1.38	-7.57	0.00	S
		Regular basis				

S – Significant at 5% level (p value $\leq$ 0.05); NS – Not Significant at 5% level (p value $>$ 0.05)

The above table reveals that p values of the variables namely support the small local market, top priority given to rural fruit growers, good quality seeds, reasonable market price, and Creating standard life and train fruit growers for good yields are found to be highly significant at 1% level of significance. Hence the null hypotheses is rejected and inferred that there is highly significant difference between the mean scores of these six factors of role of fruit processing industry.

The p value of the variable of employment opportunity, Advance payment to employees and support to transport sector are more than 0.05 at 5% level of significance. Hence the null hypotheses is accepted and inferred that there is no significant difference between the mean scores of these three factors of role of fruit processing industry.

10. Findings of the study

1. About (46%) of the fruit processing industry in this region starts with the availability of raw materials.
2. Mostly (36%) say it is located with large place of area.
3. Majority (55%) of the industries run on seasonal basis.
4. Maximum (85%) of industries produce fruit pulp.
5. 94% of the industries say rural areas are attractive in entrepreneurs.
6. 88% of the industries promote fruit grower and provide them great economic support.
7. The vast majority of industries (67%) are low yielding due to climate change.
8. Majority (79%) of the industries have government support.
9. Reason for starting business is dependent on Special characteristics about this rural area, Basis of run of the industry, Products, Promote and develops fruit growers, Climate change, and Government support of the fruit processing industry except rural area attractive for entrepreneurs.
10. Support the small local market, Top priority given to rural fruit growers, good quality seeds, reasonable market price, and Creating standard life and train fruit growers for good yields are found to be relating to the role of fruit processing.

11. Recommendations

1. Addressing basic needs and enhancing provision of and access to services as a precursor to improve livelihoods and as an enabling factor of people engagement in productive activities must be provided.
2. Adequate support and promote efforts to harmonize modern technologies with traditional and indigenous knowledge for sustainable rural development must be provided.
3. Support training and capacity-building of rural communities to effectively implement adaptation programmes to climate change at the local level will enhance their standard of living.
4. Provide access to credit and other mechanisms as well as resources for farm-based activities.
5. More awareness must be created towards the various schemes given by the government to the rural areas for establishing various industries.

12. Conclusion

The healthy and vibrant agricultural sector and related industries are an important foundation for rural development, which creates strong ties with other economic sectors. Rural livelihoods are improved by the effective participation of rural people and rural communities in their own social, economic and environmental management. The fruit processing industries offer more opportunities to the rural people. One-third of India's population lives in rural areas. Nearly half of the country's national income comes from agriculture. About seventy percent of the Indian population is employed in agriculture and related industries. Most of the raw materials for the fruit industry come from rural sector. Although the Government of India has initiated concerted efforts to alleviate poverty in rural India through a number of programs and measures, much remains to be done to bring prosperity to the lives of people in rural areas. Currently, the spread of technology in rural areas is uneven and slow. The good efforts of companies developing technologies, devices and products for rural areas have not been able to achieve much success. Therefore, not only can the fruit processing industries have a better approach to help reduce this imbalance, but also to have a multiplicative effect on the overall economy.

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