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Necessitates of Marketing Research on Coconut Copra Processing Industries in India: A Bird Eye View

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Abstract

In the present scenario the trend in processing of coconut products is slowly setting in the country, but the domestic market is not ready to lift the coconut in product form. Indian food processing has the potential to be a driving force in India's economic development and a catalyst of the inclusive growth. It can increase farmers' incomes by 20-40 percent, create between 50-100 million jobs and dramatically improve nutrition levels. Success in the food processing industry require entrepreneurs careful focus, strong commitment, tight execution and the willingness to make bold moves. Hence the study highlights the four main themes. These are focusing on the Key growth opportunities – perishables, tertiary processing and fortification. Streamlining the supply chain – farm level productivity and pricing, simpler supply chain, adequate storage and transport infrastructure.Driving competitiveness – through technology, skill development and driving scale and plant productivity. Policy priorities – reducing inconsistencies between the centre and the state laws and regulations building the right fiscal environment and focus on execution. Awareness among the copra processing entrepreneurs on the above themes paves the way for the development of entrepreneurship in Indian scenario.

Keywords: Streamlining, Driving competitiveness, Policy priorities, entrepreneurs

1. Overview of Cocnut Industry in Indian Scenario

The coconut is a benevolent tree, a nature's gift to mankind, as it is a source of food, beverage, and oilseed, fibers, timber, and health products and also associated with mystery and omen in the life of people. The coconut tree provides clothing utensils and dwellings, therefore, is an important source of earning livelihood to the people of coconut growing states, especially in the coastal areas. The coconut tree therefore, is eulogized, reverently as ***"Kalpavruksha"*** or tree of life by the people.

The coconut crop is grown in 12.5 million hectares of land which constituted about 0.7 per cent of net crop area of the world. The crop is grown in the coastal lowlands of continental South Asia and spread along the Indian and Pacific Ocean, the cultivation is mostly done by small and marginal farmers. According to FAO statistics 2007, about 57.9 billion nuts were produced, which was equivalent to 7.3 metric tonnes of oil. The coconut oil ranks sixth among the eight major vegetable oils

of the world. India contributes about 15.46 per cent in area and 21 per cent in terms of production of coconut in the world. The coconut crop is grown in eighteen States and three Union Territories covering an area of 1.935 million hectares of land, with a production of 12,833 million nuts in the country.

The major coconut crop acreage is concentrated on the West Coast region of the country comprising the states of Kerala, Karnataka and Maharashtra, followed by East Coast of Tamil Nadu, Andhra Pradesh, Orissa and Pondicherry. The coconut cultivation areas also traditionally located in the coastal region of Gujarat, Goa, West Bengal, Islands of Andaman & Nicobar and Lakshadweep. About 90 per cent of the area of coconut cultivation and equally the same per cent of production of coconut are from the four Southern states, viz. Kerala, Karnataka, Tamil Nadu and Andhra Pradesh. Kerala is considered as the land of coconut and holds the key for the development of coconut production and marketing in the country.

2. Need for the Study

In the present scenario the trend in processing of coconut products is slowly setting in the country, but the domestic market is not ready to lift the coconut in product form. Moreover, the coconut processing industries have to compete with the international market players in the world market. Consequent to the globalization of Indian economy, the domestic coconut market economy has also been pushed towards a situation of competition, where coconut oil had to compete with the other low price vegetable oil and fats in the international market.

Since, the production and marketing scenario of coconut in the country has witnessed a phenomenal development, particularly in the field of production such as development of improved high yielding dwarf varieties of crossbred coconut palm, traditional, non-traditional, commercial and industrial coconut product, it was decided to study the current status of developments that have taken place on production and marketing front of coconut and its products in the country. Therefore, a fresh survey on production and marketing of coconut and coconut product in India was undertaken.

3. Statement of Problem

The food processing industry is set to triple to reach $900 billion by 2020, provided the key issues are addressed, and says a FCCI-BCG (Boston Consulting Group) study. Accounting for 16 percent of the world population and 12 percent of the world food production, today India is one of the largest producers and consumers of food in the world.

The food processing levels are substantially lower than most emerging and developed economies. Only 6 percent of the agricultural produce in India is properly processed which is much lower than 40 percent in China and 80 percent in Malaysia. The sector today is held back by several constraints – an inconsistent and restrictive regulatory environment, lack of scale throughout the value chain, poor post harvest infrastructure leading to high levels of wastage and insufficient soft infrastructure such as R&D capabilities and skilled manpower.

Coconut shares a major slice in GDP, its contribution accounting for Rs 8000 crore and Rs 650 crore to the export earnings of the country. Indian food processing has the potential to be a driving force in India's economic development and a catalyst of the inclusive growth. It can increase farmers' incomes by 20-40 percent, create between 50-100 million jobs and dramatically improve nutrition levels.

Success in the food processing industry require entrepreneurs careful focus, strong commitment, tight execution and the willingness to make bold moves. Hence the study highlights four main themes. These are focusing on the key growth opportunities, Streamlining the supply chain, Driving competitiveness and policy priorities.

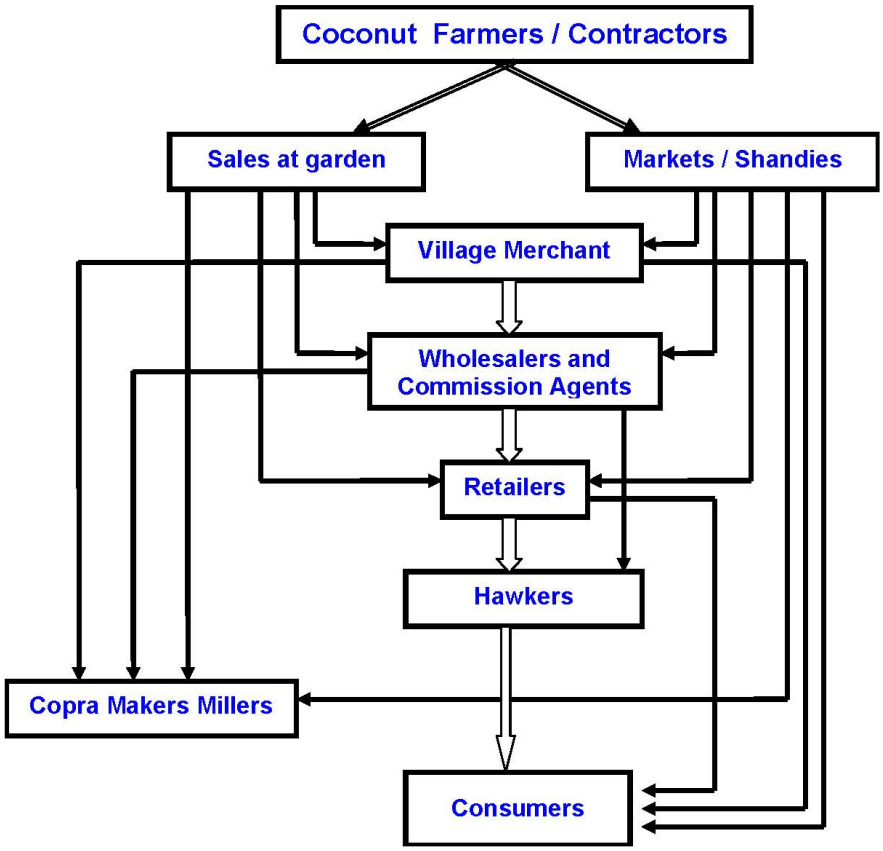
4. All India Final Estimates of Area and Production of Coconut

States /Union Territories	2007-2008 (Revised)			2008-2009 (Final)		
	AREA ('000 Hectares)	Production (Million nuts)	Productivity (Nuts/ha)	AREA ('000 Hectares)	Production (Million nuts)	Productivity (Nuts/ha)
Andhra Pradesh	101.32	1119.26	11047	104.00	970.00	9327
Assam	19.00	136.00	7158	18.80	147.10	7824
Goa	25.50	127.60	5004	25.61	128.18	5005
Gujarat	16.40	138.30	8433	15.98	157.42	9851
Karnataka	405.00	1635.00	4037	419.00	2176.00	5193
Kerala	818.80	5641.00	6889	787.77	5802.00	7365
Maharashtra	21.00	175.10	8338	21.00	175.10	8338
Nagaland	0.90	0.20	222	0.92	0.55	598
Orissa	51.00	275.80	5408	51.00	275.80	5408
Tamil Nadu	383.37	4968.20	12959	389.60	5365.00	13771
Tripura	5.80	11.40	1966	5.80	11.40	1966
West Bengal	28.60	355.50	12430	28.60	355.50	12430
A & N Islands	21.60	80.60	3731	21.69	82.00	3781
Lakshadweep	2.70	53.00	19630	2.70	53.00	19630
Pondicherry	2.20	26.60	12091	2.10)	30.70	14619
All India	1903.19	14743.56	7747	1894.57	15729.75	8303

Source: Directorate of Economics & Statistics, Ministry of Agriculture, Govt. of India.

The above table shows that in India, Kerala state stands first (41.5%), Karnataka stands second (22.12%) and Tamilnadu stands third (20.5%) in the total coconut cultivation in Indian scenario.

5. Assembling and Distribution of Matured Coconuts in India



6. Objectives of the Study

1. To sketch the general profile of coconut copra processing entrepreneurs in Tirupur district.
2. To analyze the operational efficiency of coconut copra processing and marketing.
3. To identify the common problems faced by the coconut copra processing at different phases.
4. To highlight the different issues for fundamental and applied research.

7. Hypothesis Formulated

1. "Age of the respondents and their size of business are not associated"
2. "Educational qualification and size of business in a year are not associated"
3. "Experience and size of business in a year are not associated"

8. Research Methodology

The validity of any research mainly depends on the proper method of data collection and suitable technologies of analysis. Any estimate in the study generalized only when the design of the study is properly executed. In this chapter method of data collection and tools of analysis used in the present study are described.

a) Sources of Data

The study consists of both primary and secondary data. The primary data were collected from the coconut entrepreneurs in Tirupur District. There are around 1200 coconut industries in and around Tirupur District doing the various processes like copra preparation, oil extraction and both in certain cases through out the year. Out of the 1200 entrepreneurs, 360 of them were chosen randomly by adopting stratified random sampling method.

The secondary data were collected from the records maintained by the association of coconut entrepreneurs, coconut development board and earlier literary work published from the same field. Certain relevant information was collected from the government reports, magazines and leading journals. A number of standard text books were also gone through to obtain pertinent literature.

b) Frame Work of Analysis

For analyzing the data, the researcher has used simple statistical tools like percentage, range, Standard Deviation, two-way tables and chi-square test. In addition to these tools, Henry Garrett ranking method and Factor analysis also employed to rank the issues of coconut entrepreneurs in the study area.

9. Data Analysis and Interpretation

General Profile of the Respondents

PARTICULARS	CLASSIFICATION	NUMBER OF RESPONDENTS	PERCENTAGE
AGE GROUP	Less than 30 years	106	29.4
	30 – 40 years	150	41.7
	Above 40 years	104	28.9
EDUCATIONAL QUALIFICATION	Illiterate	4	1.1
	School level	216	60.0
	Collegiate	140	38.9
MARITAL STATUS	Married	80	22.2
	Unmarried	280	77.8

EXPERIENCE	Less than 10 years	152	42.2
	10 – 15 years	80	22.2
	Above 15 years	128	35.6
TYPE OF OWNERSHIP	Sole proprietorship	194	53.9
	Partnership firm town	166	46.1
TYPE OF BUSINESS	Manufacturing copra & Oil	138	38.3
	Manufacturing copra	222	61.7

Chi – Square Analysis

Table 9.1 (a): Age and Volume of Business in a Year (Two-Way Table)

S.No.	Age	Volume of business in a year			Total
		Low	Medium	High	
1	Less than 30 years	50 (47.2)	32 (30.2)	24 (22.6)	106
2	30 – 40 years	40 (26.7)	28 (18.7)	82 (54.7)	150
3	Above 40 years	10 (9.6)	8 (7.7)	86 (82.7)	104
	Total	**100**	**68**	**192**	**360**

It could be observed from the above table that the percentage of high volume of business was highest (82.7%) among above 40 years age group in coconut entrepreneurs and lowest (22.6%) among the below 30 years entrepreneurs. The percentage of medium volume of business is highest (30.2) among less than 30 years age group entrepreneur and lowest (7.7%) among the above 40 years age group entrepreneurs. On the other hand the low volume of business was highest (47.2%) among the less than 30 years age group entrepreneurs and the lowest (9.6%) among the above 40 years age group of coconut entrepreneurs.

In order to find the relationship between age of the respondents and their volume of business a chi-square analysis was prepared and is shown in following table.

Table 9.1 (b): Age and Volume of Business in a Year (Chi-Square Test)

Factor	Calculated χ^2 Value	Table Value	D.F	Remarks
Age	38.209	9.488	4	Significant at 5% Level

The chi-square test reveals that the calculated value is more than the table value and the result is significant at 5% level. Hence the hypothesis, "Age of the respondents and their volume of business are associated" holds good. From the analysis it can be inferred that there is a close relationship between age of the coconut entrepreneurs and their volume of business.

Table 9.2 (a): Educational Qualification and Volume of Business in a Year (Two-Way Table)

S.No.	Educational Qualification	Volume of business in a year			Total
		Low	Medium	High	
1	Illiterate	0	0	4 (100.0)	4
2	School level	54 (25.0)	24 (11.1)	138 (63.9)	216
3	Collegiate	46 (32.9)	44 (31.4)	50 (35.7)	140
	Total	**100**	**68**	**192**	**360**

It could be observed from the above table that the percentage of high volume of business in coconut industries was highest of (63.9%) among school level and as the lowest of (35.7%) among the collegiate. The percentage of medium volume of business in coconut industries was highest (31.4%) among collegiate and the lowest (11.1%) is among the persons with school level education. The percentage of low volume of business was highest of (32.9%) among respondents with collegiate qualification and the lowest (25%) among respondents with school level qualification.

In order to find the relationship between educational qualification of coconut entrepreneur and level of satisfaction perceived by them, a chi-square test was used and the result in shown in the following table.

Table 9.2 (b): Educational Qualification and Volume of Business in a Year (Chi-Qquare Test)

Factor	**Calculated χ^2 Value**	**Table Value**	**D.F**	**Remarks**
Educational Qualification	18.317	9.488	4	Significant at 5% Level

It could be seen from the above table that calculated chi-square value is greater them the table value and the result in significant. Hence, "Educational qualification and volume of business in a year are associated" holds good. From this it is concluded that there is a close significant relationship between educational qualification and volume of business made in the year.

Table 9.3 (a): Experience and Volume of Business in a Year (Two-Way Table)

S.No.	**Experience**	**Volume of business in a year**			**Total**
		Low	**Medium**	**High**	
1	Less than 10 years	54 (35.5)	58 (38.2)	40 (26.3)	142
2	10 – 15 years	34 (42.5)	0	46 (57.5)	80
3	Above 15 years	12 (9.4)	10 (7.8)	106 (82.8)	128
	Total	**100**	**68**	**192**	**360**

It could be observed from the above table that the percentage of high volume of business achieved is highest (82.8%) among the respondents having above 15 years of experience and the lowest (26.3%) among the respondents with less than 10 years experience. In medium volume of business the percentage is highest of (38.2%) among the persons with less than 19 years experience and the lowest of (7.8%) among the respondents with above 15 years of experience. On the other hand, in lowest volume of business turnover, the percent was highest (42.5%) among the respondents with 10-15 years of experience and lowest (9.4%) among the persons with above 15 years of experience.

In order to find the relationship between entrepreneurs experience and volume of business in a year, chi-square test was used. The result is shown in the following table

Table 9.3 (b): Experience and Volume of Business in a Year (Chi-Square Test)

Factor	**Calculated χ^2 Value**	**Table Value**	**D.F**	**Remarks**
Experience	60.178	9.488	4	Significant at 5% Level

It could be seen from the above table that the calculated chi-square value is higher than the table value and the result is significant at 5% level. Hence the hypothesis "Experience and volume of business in a year are associated" holds good.From this, it is concluded that there is a close relationship

between the experience of the Coconut entrepreneur and volume of the business in a year, achieved by them.

10. Ranking Method

Problems Faced by the Coconut Entrepreneurs

Though most of the sample respondents operate the coconut business very successfully, they met with lot of problems in their day to day business operations. The different problem faced by the entrepreneurs while running their industry was carefully studied. For this purpose, the respondents were asked to mention the problems faced by them according to their priority. Ranks were made based on the score to present the magnitude of the problem. In order to identify the problems of coconut business entrepreneurs clearly, the researcher divided the areas into six heading viz., labor, finance, competition, technology, politicians, and tax problem.

Table 7.4: General Problem Faced by the Coconut Entrepreneurs

S. No.	Problems	Total score	Mean score	Rank
1.	Labour	26396	73.3	I
2.	Finance	17212	47.8	IV
3.	Competition	22400	62.2	II
4.	Technology	14174	39.4	V
5.	Politicians	8944	24.8	VI
6.	Tax problem	18794	52.2	III

The above table shows that the most important problems faced by coconut entrepreneurs recently was labor occupied first rank with a score of 26396 points. Second and third ranks were given to business competition and taxation of various goods with a score of 22400 and 18794 points. Shortage of finance (17212), lack of technology up gradation (14174) and political problems (8944) scored fourth, fifth and sixth rank respectively.

11. Issues that are Further Addressable through the Fundamental Research and Applied Research

Issues for Fundamental Market Research : Database on production and marketing system of coconut and its products and the factors affecting the system, identification and understanding of key players / Key Result Areas(KRA) including development indicators of marketing performance, optimization models and such other basic issues revolving around the system design. The researcher therefore further interested to maintain a valid structure of the data on the following issues. They are

Marketing of coconut and its products: marketable surplus marketed and market surplus – processing and value addition – marketing practices – choice and selection of marketing technology – independent variables affecting the adoption behavior of producers.

Markets for coconut and its products : strength and weakness, opportunities and threats of the market- market potential and estimation of demand and supply – market segmentation –target markets, their characteristics and environments – market behavior – factors influencing market behavior –consumer segments, their perception and attitude – buying behavior and post purchase behavior.

Issues for Applied Market Research: Since most of the operational problems are market / business centered, specific answers to a few of the following questions are required from the copra processing entrepreneurs to promote the business success. The questions are:

About the Sourcing of Raw Coconuts:

- What are the problems towards the sourcing of the raw coconuts?

- What are the problems towards the coconut kernel processing with respect to market situations?
- What is the role of the governmental organizations and the legal procedures towards the coconut kernel processing industries?

About the Processing of Raw Coconuts:

- What is the type of worker preferred in your company?
- What is the mode of recruitment of worker is preferred in your company?
- What is the state of domicile of the workers in your company?
- Is there any influence among the workforce due to the entry of other state workers?
- What is the normal age group of workers preferred for recruitment in your company?
- Which type of technology is most utilized in your company?
- What is the frequency of adoption of new technology in your company?
- Do the quality standard organization is necessary for business success?
- Which the source of power supply is most preferred?
- What is the impact of power cut on the productivity?
- What is the minimum space required for business operation?
- What is the importance of R& D in coconut processing business?

About the marketing of coconut products:

- What is the target market for coconut products?
- What is the geography of coconut product market?
- What are frequent changes in the target market behavior?
- How does the target market react to the existing offer?
- What is the method of pricing policy?
- What distribution channel preferred to supply the product for the target market?
- What are all the distribution problems?
- What promotional would produce a favorable effect on the target market?

About the marketing of coconut products:

- What is the market potential for coconut product?
- What sources of information regarding the market potential is trust worthy?
- What is the opinion regarding the market information published by the magazine and journals?
- Do the commodity market fluctuations influence spot market?
- What type of competition prevails in coconut processing business?

12. Conclusion and Remarks

Indian coconut sector has inherent strengths of varied agro climatic conditions, huge domestic demand and highest productivity. The present era of globalization and trade liberalization warrants a sustainable growth in the entire industry to sustain the economic prospects of the Indian farmers. In case of marketing and processing sectors, on farm processing needs to be encouraged and joint efforts of research, extension, co-operative and developmental agencies need to test the technical feasibility and economic viability of coconut based agro – processing complex in all the coconut producing states. The activities of Coconut Development Board need to be revitalized and its network needs to be expanded in all the states of India. The board may further aggravate market promotion schemes for popularizing value added coconut products.

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