

AN ECONOMIC ANALYSIS ON DESICCATED COCONUT PRODUCTION IN TAMILNADU

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ABSTRACT : Coconut meat which is shredded and dried to remove moisture is called as Desiccated Coconut. The Desiccated Coconut industries faces problem when there occurs shortage of raw coconut, and non-existing of skilled labour. But value addition of coconut like Desiccated Coconut production is inevitable to stabilize income of the coconut farmers in the regions. At this junction, this study was undertaken with following specific objectives:(i)to estimate the cost and returns in desiccated coconut production and(ii)to offer policy suggestions based on the study. Coimbatore district of Tamil Nadu was purposively selected for this study and all the 19 Desiccated Coconut units in Coimbatore district which are currently operating were selected for study. From this study it was suggested that modernize the processing units to increase the production efficiency and improve the economies of scale to make Desiccated Coconut price competitive both in domestic and international market.

Keywords: Desiccated Coconut, Production Efficiency, Costs and Returns

INTRODUCTION

Coconut meat which is shredded and dried to remove moisture is called as Desiccated Coconut(DC). One of the most common forms of DC is an unsweetened, powdery product which is produced by drying shredded coconut and then grinding the shreds. Production of DC started in the country way back in 1952. DC can be stored at room temperature and is used in preparation of chocolates, dusting for the outer layer of sweets, cakes, muffins etc., and in the preparation of puddings and ice cream. About 4000 tonnes of DC is manufactured annually in India. Also, the DC is an important source of foreign exchange. The export revenue over the decade has increased by 55.43 per cent. European and American countries are the major market for DC and constitute over 72 per cent of the international market.

In India, the product is manufactured by units mainly scattered in Karnataka, Tamil Nadu, Kerala and Andhra Pradesh. A study conducted by the Coconut Development Board has revealed that a growing customer demand for DC and its powder could be developed in the country by resorting to organized market promotion activities for popularization of the product in consumer packs for household uses. The survey has also shown that DC and its powder in packs is acceptable not only in non-coconut producing states but also in traditional coconut growing state which is known as Tamil Nadu with special reference to Coimbatore district. From the survey it was revealed that a sizeable section of the middle class and upper class families residing in cities and towns in Coimbatore would prefer DC and its powder, if readily available, to raw nuts.

Problem Focus on the Study

In recent years, the price hike in raw coconut severely affecting the Desiccated Coconut units in Tamil Nadu. The Desiccated Coconut industries faces problem when there occurs shortage of raw coconut, and non-existing of skilled labour. But value addition of coconut like Desiccated Coconut production is inevitable to stabilize income of the coconut farmers in the regions. At this junction, the study of production of Desiccated Coconut in Coimbatore district of Tamil Nadu can provide integrated, efficient and functional entrepreneur-industry-trading-policy interface.

Objectives

The present study was undertaken with following specific objectives:

1. To estimate the cost and returns in desiccated coconut production and
2. To offer policy suggestions based on the study

RESEARCH METHODOLOGY

Coimbatore district of Tamil Nadu was purposively selected for this study as because Coimbatore district is the leading producer in coconut and its by-products production among all the districts of Tamil Nadu. All the 19 Desiccated Coconut units in Coimbatore district which are currently operating were selected for study.

The technique of tabular presentation was done for estimating the cost and returns of Desiccated Coconut production. Averages, percentages and ratios were worked out using the data collected and are presented in tabular form to facilitate easy comparison. The meaningful conclusions were drawn from the analysis.

RESULTS AND DISCUSSION**Total Cost of Desiccated Coconut Production in Desiccated Coconut Units of Different Sizes**

The cost incurred for processing one tonne of coconut by different sizes of Desiccated Coconut units is presented in table.1

Table .1. Total cost for production of desiccated coconut in of different groups (Rs. /tonne/year)

S.No	Particulars	Small	Medium	Large	Pooled	%
A	Fixed Costs					
1	Rental value of land	50,000	1,39,692.9	1,33,333.3	1,07,675.4	0.45
2	Building	1,20,000	3,94,592.9	1,45,458.3	2,20,017.07	0.89
3	Equipment costs	3,41,666.7	5,20,000	5,35,000	4,65,555.57	1.89
4	Salary	6,54,800	7,50,857.1	8,24,800	7,43,485.7	3.02
5	Insurance	8,950	10,357.14	10,500	9,935.71	0.04
6	Interest on fixed cost @ 12%	6,98,000	9,94,200	9,11,500	8,67,900	3.35
	Total fixed cost	18,73,416.7	23,42,060.04	25,60,591.6	24,14,569.45	9.82
B	Variable Costs					
1	Operational Costs					
A	Cost of raw material	8,71,398	8,70,756	8,58,600	8,66,918	4.00
B	Electricity and maintenance	2,40,000	2,93,142.84	3,81,999.96	3,05,047.6	1.00
C	Office maintenance	2,04,000	1,96,285.68	2,58,999.96	2,19,761.88	10.00
D	Labour	39,98,125.4	58,36,706.28	60,96,507.12	53,10,446.27	24.00
	Total operational costs	53,13,523.4	71,96,890.8	75,96,107.04	67,02,173.75	39.00
2	Marketing costs					
A	Marketing cost	2,09,599.92	277714.32	3,00,000	2,62,438.08	0.09
B	Sales tax (%)	97,92,000	1,14,21,000	1,67,54,400	1,26,55,800	48.16
	Total marketing cost	1,00,01,599.92	1,16,98,714.32	1,70,54,400	1,29,18,238.08	49.15

3	Total working cost	1,53,15,123.32	1,88,95,605.12	2,46,50,507.04	1,96,20,411.83	88.00
4	Interest on working capital @ 13%	19,90,966.03	24,56,428.67	32,04,565.91	25,50,653.54	2.80
	Total variable costs (3+4)	1,73,06,089.35	2,13,52,033.79	2,78,55,072.95	2,21,71,065.37	90.18
C	Total cost (A+B)	1,91,79,506.05	2,36,94,093.83	3,04,15,664.55	2,45,85,634.82	100

Note: One tonne of coconut comprises of 2000 to 2500 number of coconut (i.e., one kg coconut comprises of 2 to 2.5 number of coconut weighing 400 gm to 420 gm/ coconut)

In case of pooled Desiccated Coconut units, the total cost incurred in processing of one year of desiccated coconut was worked out to be Rs.2,45,85,634.82 ton/year. However, the total cost per year of desiccated coconut processed in case of small sized Desiccated Coconut units (Rs.1,91,79,506.05) was marginally higher than medium sized (Rs.2,36,94,093.83) and large sized (Rs.3,04,15,664.55) Desiccated Coconut units. It is worth noting that at aggregate level of pooled the total variable cost is (Rs.2,21,71,065.37 per year), formed a phenomenal share (90.18%) of the total cost in production of Desiccated Coconut while the total fixed cost was Rs.24,14,569.45 account for only 9.82 per cent of the total cost. Similar trends of fixed and variable costs were observed in all small, medium and large sized Desiccated Coconut units.

At the aggregate level, of the total cost, the cost of coconut as raw material (Rs.8,71,398/year) accounted for 4 per cent followed by interest on working capital (2.8%), labour charges (24%), interest on fixed capital (3.58%), the sales tax (57%), salaries to permanent labours (3.02%), insurance premium (0.04%), office maintenance (10%) and opportunity cost of land (0.45%). A similar proportion of components of the total cost were observed in all small, medium and large sized Desiccated Coconut units.

Returns from Desiccated Coconut Units of Different Sizes

Table.2. describes the clear cut pattern of quantity processed and returns obtained under different sizes of Desiccated Coconut production units as given below

Table.2. Returns from Desiccated Coconut units of different sizes

S.No	Particulars	Small	Medium	Large	Pooled
1	Quantity of coconut processed (t) for one tonne of DC/day	4.89	4.87	4.77	4.84
2	Quantity of coconut (t) processed in one year	1,718.4	2,496	3,292.8	2,502.4
3	Quantity of DC obtained (tonnes/year)	358	250	686	521.33
4	Quantity of by-product obtained (tonnes/year)				
A	Shell	309.31	449.28	592.70	450.43
B	Chips	223.39	324.48	428.06	325.31
	Total (tonnes)	532.70	773.76	1020.76	775.74
5	Value of DC/year (Rs.)	4,86,28,332.14	7,06,33,331.6	9,31,81,664.38	7,08,14,442.71
6	Value of by-product(Rs.)				
A	Shell	2,01,05,150	2,92,03,200	3,85,25,500	2,92,77,950
B	Chips	2,31,98,250	3,36,96,000	4,44,52,500	3,37,82,250

	Total value (Rs.)	4,33,03,400	6,28,99,200	8,29,78,000	6,30,60,200
7	Gross Return (4+5)	919,31,732.14	13,35,32,531.6	17,61,59,664.4	13,38,74,642.7
8	Total Cost	1,91,79,506.05	2,36,94,093.83	3,04,15,664.55	2,45,85,634.82
9	Net Return	7,27,52,226.09	10,98,38,437.8	14,57,43,999.9	10,92,89,007.9

Note: 1) Chips is nothing but outer brown portions (testa) of coconut kernel. Shell is a hard portion covering the kernel. Chips are mainly used to extract oil and shells are used to handicraft purposes which were obtained as by-product during Desiccated Coconut production.

2) On average one tonne coconut yields 200-220 kg of Desiccated Coconut, 120-190 kg of shell and 100-150 kg of chips.

3) One tonne of coconut comprises of 2,000-2,500 number of coconut (i.e., one kg coconut comprises of 2 to 2.5 number of coconut weighing 400 gm to 420 g/ coconut)

Total quantity of coconut processed in case of small sized Desiccated Coconut units was 1718.4 tonnes per year of coconut with an output of 358 tonnes and total quantity of by-products obtained was 532 tonnes. The medium sized Desiccated Coconut units processing 2,496 tonnes of coconut and realized an output of 520 tonnes and total quantity of by-products obtained was 773.76 tonnes, whereas in large sized Desiccated Coconut units processing 3,298.8 tonnes of coconut with an output of 686 tonnes of Desiccated Coconut and 1,020.76 tonnes of by-products were obtained. On an average all the units together as pooled units processing 2,502.4 tonnes of coconut producing 521.33 tonnes of Desiccated Coconut and 775.74 tonnes of by-products.

The gross return per tonne of coconut processed was Rs.9,19,31,732.14 in small sized Desiccated Coconut units, Rs.13,35,32,531.6 in medium sized Desiccated Coconut units and Rs.17,61,59,664.4 in large sized Desiccated Coconut and Rs.13,38,74,642.7 in case of pooled units. However, the net return per tonne of coconut processed was Rs.7,27,52,226.09 in small units, Rs.10,98,38,437.8 in medium sized units and Rs.14,57,43,999.9 in large sized units. Small, medium and large sized units together constituted as pooled net returns of Rs.10,92,89,007.9 per tonne.

CONCLUSION

An in-depth economic analysis of all value added coconut products will go a long way in identifying the potentials, analysing the problems and applying suitable policy measures to achieve overall development of the coconut processing in the country. The policy implications that are emerged from this study are : (i) Credit facility on easy terms has to be ensured to establish large sized Desiccated Coconut units, (ii) Creating awareness about availability and advantages of Desiccated Coconut has to be taken up to widen the domestic market for Desiccated Coconut and (iii) Modernize the processing units will increase the production efficiency and improve the economies of scale to make Desiccated Coconut price competitive both in domestic and international market.

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