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A STUDY ON MARKETING PROBLEMS OF COCONUT WITH SPECIAL REFERENCE TO COIMBATORE DISTRICT

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Introduction:

A proverb in Philippine "If you could count the stars, then you could count all the ways the coconut tree serves us" It is true in India Coconut industry is contributing more than Rs. 8300 million to the Indian GDP and this industry helps to earning foreign exchange to tune of Rs. 13000 million per annum. The major portion of coconut cultivation is from the four south Indian states, namely Kerala, Tamil Nadu, Andhra Pradesh and Karnataka, which comes up to 90 per cent of total coconut production. This crop has a significant impact on social and cultural impact on the coconut cultivators. Marketability and price established of coconut and it by products determine the economic condition of farmers. Tamil Nadu is one of the most important states in country in terms of coconut production after the state of Kerala. Tamil Nadu is one of the leading coconut producing states in India. Tamil Nadu cultivates coconut around 5365 million nuts from 389900 hectares. Tamil Nadu shows highest coconut productivity among other coconut producing states of India. Almost all the districts producing coconut in Tamil Nadu among those top three districts are Coimbatore, Thanjavur and Dindigul.

Agriculture has been playing a predominant role in the economic development of all developed and developing countries. Ever since India's independence agriculture in India has taken strides owing to the varietal and agronomic interventions of agricultural research and the resourcefulness of the farming community. In recent years, agriculture has gone through a lot of changes viz., adoption of new scientific methods of production, new farming practices and new methods of marketing. Now, it is considered as an industry supplying food materials to the millions and basic raw materials such as Cashew nut, Coconut, Coconut and cotton, and the like for industrial development. Coconut is a horticultural commodity. It is grown in tropical and sub-tropical areas of the globe. Coconut is grown in more than 86 countries worldwide, with a total production of 54 billion nuts per annum. India occupies the third position in the world with an annual production of 13 billion nuts, overtaking Indonesia and the Philippines, the other two prominent coconut-growing countries. The coconut palm exerts a profound influence on the rural economy of the many states where it is grown extensively and it provides sustenance to more than 10 million people. The export earnings derived by India from coconut are around Rs.3000 million, mainly through the export trade in coir and coir goods. The processing and related activities centered on the crop generate employment opportunities for over two million people in India. The contribution of coconut oil to the national edible oil pool is 6 per cent. In addition, the crop contributes Rs.7000 crores annually to the Gross Domestic Product (GDP). In productivity too, India ranks number one among other coconut growing countries in the world. The average productivity of coconut in the country is 6898 nuts per ha. Among the four major coconut growing states, Tamil Nadu has the highest productivity (11620 nuts/ha), Andhra Pradesh has a productivity of 8296 nuts/ha, followed by Kerala (5793 nuts/ha) and Karnataka (5204 nuts/ha).

The Coimbatore district is one of the districts which cultivate amount of coconut in Tamilnadu. The farmers who cultivate the coconut in the district have to sell the produces either directly in the market or to the merchant in the locality. Some of the farmers have their own industry where the coconut dried in the field and after that it is sold for coconut oil manufacturers. Few of the farmers have their own industry for making coconut oil. But most of the farmers sell their coconut the merchant in the local area or sell directly in the neibouring market.

The coconut Development board helps to the farmers in cultivating and marketing of coconut. The employees and workers of Coconut Development Board visit the coconut farm and give guidance to control the diseases in the coconut. Further the farmers face number of problems in cultivating and marketing of coconut in the study area. It is reported that the farmers could not able to get adequate price for the coconut in many occasions. It makes the farmers economically weak which leads to increase in the borrowings of the farmers year by year. Many farmers of coconut in the study area face similar issues in marketing the coconut cultivated. Nobody takes care of the framers problem in marketing the coconut in the study area. Hence to know the problems faced by the farmers in the study area a thorough study is to undertaken. By the above views in mind the researcher selected the topic "A Study on Marketing Problems of Coconut with Special Reference to Coimbatore District" for her research work

Statement of the Problem:

Coconut is one of the leading commodities in agricultural exports; the production programme of the crop is of critical importance in improving the efficient use of resources. The cost of production and net return obtained per unit, would determine the profitability of the crop. The constraints in enhancing productivity among the coconut cultivators are lack of awareness on recent development related to crop improvement, lack of quality planting materials to farmers, lack of proper management practices and pest problems are to be tackled consciously to make coconut farming attractive. Though production is the initiation of the developmental process, it could bring less gain to the producers unless there exists an efficient marketing system. The producers depend upon the market conditions to fulfill their hopes and expectations. But forced sales, multiplicity of market charges, malpractices in unregulated markets and superfluous middlemen are the problems faced by the cultivators Though coconut has a pride, not only for its diverse uses but also for its special preference to consumers, both rich and poor, it is subjected to the above stated production and marketing problems. The Coimbatore District of Tamil Nadu is one of the leading coconut producing regions and hence the researcher thought that, it is worth to study and analyze the problems and prospects of coconut cultivation and marketing in the selected district.

Significance of the Study:

People are engaged in various activities to generate income to the family based on the efficiency, knowledge, family occupation or any other activities in which the individual has knowledge. Likewise most of the rural people in our country are involved in agricultural activities for generating income to the family. Cultivation of coconut is one of the most important sources for generating income to the agricultural workers. In all activities people get some short of income based on the work or effort taken by the individuals. Regarding the farmers' income there is no guarantee for getting the expected return from their crop. Various factors like natural calamities, price fluctuation, problems from insects and also rainfall have considerable impact on the

income of a farmer. They could not sometimes get the amount put in to grow or cultivate any types of crop. There is no chance for reimbursement of the amount lost by the farmers due to the crop failures or low yielding from the crops.

The harvesting period for the crops cultivated varies from crop to crop. Most of the crops are harvested within 4 months; few crops take 6 months for yielding. Banana, consume at least 1 year for yielding and harvesting. The farmers who involved in coconut cultivation have to wait more than 5 years to get income from the crops. Up to harvesting of coconut the farmers are in a position to invest huge amount in the crops and also to manage their family. Crop failure and fall in price render more trouble to the farmers. They face difficulties in arranging funds for cultivating inter crop and to meet the family expenses. When the coconuts are sold to the merchant, they make delay in making payment to the farmers. Unnecessary delay in getting amount from the merchant forces the farmers to borrow money from money lenders or from other sources. This is the regular practice and problems faced by the farmers involved in marketing of coconut. The government does not fix the rate per ton for purchasing the coconut from the farmers. But it is reported from farmer's side that the rate given to coconut while buying from the farmer is not adequate. Hence the farmers could not get enough income from their crops. They always lead very normal life with low standard of living when compared with others. This pathetic situation of the farmers in the study area should be changed. The government and the authorities concerned should know the real causes for problems of the farmers in the study area. Hence this research study gets vital importance to know the practical difficulties of the farmers who cultivate coconut and find out the remedial measures to solve the problems of the farmers in marketing of coconut and bring their standard of living to a better position to lead a peaceful life like others.

Objective of the Study:

This study is planned with the following objectives

- ✓ To verify the existing method and technology adopted for cultivation of production of coconut in the study area;
- ✓ To evaluate the method adopted by the farmers to market the produces in the study area
- ✓ To know the support provided by the Coconut Development Board to the farmers in the study area
- ✓ To identify the satisfaction level of respondents regarding the support provided by the Coconut Development Board.
- ✓ To analyze the problems faced by the respondents and causes the problems
- ✓ To find out the remedial measures to solve the problems faced by the respondents and offer recommendations to the needy group.

Research Methodology:

Research Design: Descriptive research was conducted in this study to make the research effective and useful to the needy.

Collection of Data: Both the primary and secondary data were collected in this research work

Primary Data: Primary data was collected from the sample respondents from the population by way preparing a questionnaire. The questionnaire was prepared with the guidance of the experts in the relevant field. Necessary corrections were made in the questionnaire to complete the research work successfully.

Secondary Data: Secondary data was collected from the journals and magazine published in the related topics.

Sample Selection: The population for the study is framers cultivating coconut in the study area. As the population for the study is numerous in the study area, 200 the respondents were selected at random by using convenient sampling method from farmers involved in coconut cultivation.

Study Period: The study period for the research work will cover 3month period starting from January 2016-March-2016

Study Area: Coimbatore district is being one of the districts which are having more acres of cultivable land especially for coconut cultivation. Further the Coimbatore district is very popular for different varieties of coconut cultivation where the Tamilnadu agricultural university is located. Further Pollachi is very popular fro coconut cultivation in Tamilnadu and also has potential market for coconut which is coming under Coimbatore district. Hence the researcher selected Coimbatore district for her research work.

Statistical Tools: The collected data were analyzed and interpreted properly to find the result of the research work. Further to know the association between two variables in deciding the particular issues statistical tools like simple percentage, chi-square, rank correlation, were applied.

Limitation of the Study:

- ✓ The data was collected from respondents of Coimbatore District. So the findings of the study may not be considered for other districts.
- ✓ As the respondents did not co-operate well at the time of questionnaire or interview schedule, the findings were based on the information given by the respondents. There may be possibility for bias in the information provided by the respondents.
- ✓ The researcher collected data only from the farmers who involved in cultivation of coconut. Hence the findings of the research may not be considered for framing policy decisions for the farmers involved in cultivation of other crops.

Review of Literature:

The review of the earlier studies and the experience of the researchers help one in evaluating the strength and weakness of the concepts used earlier. An attempt is made here to review several such studies and specify appropriate concepts as applicable to the present study.

S. Rajkumar and R. Thamil Selvan [1]in their study entitled "Importance of Coconut Cultivation" pointed out the significance of coconut as a source of edible oil and as an agro-based raw material for many industries such as manufacture of shell powder, and handicrafts. Fermented coconut toddy is an intoxicant used widely in the west coast of India. Vinegar and jaggery are important by – products of coconut toddy. The tree trunk is used as a building material and for making furniture. Fifty percent of the total coconut production is converted into copra. Coconut crop is raised in India under varying soil and climatic conditions in 17 states and 3 Union Territories. As the coconut tree is versatile in its adaptability to wide range of soil conditions, coconut cultivation has begun to spread from the west coast of India to interior regions of Tamil Nadu especially to Erode District and Thanjavur District. In an indepth study of coconut development in India, Sugata Ghose traces the different stages of coconut development. Expansion of European soap and edible oil companies offered great opportunity to India

[1] Raj Kumar S. and Thamilselvan, R. "Importance of Coconut Cultivation", Kisan World, Vol. 32, No. 5, May 2005, p. 58.

to export copra in the latter half of the 19th century. Steady increase in export trade enhanced the pace of coconut development. On the eve of the First World War, India was one of the leading exporters of copra, the annual quantum of export being 30 tonnes of copra and 10,000 tonnes of coconut oil.

S.S. Nagarajan[2] has found from a study of coconut productivity in the Rangasamudram Village of the Coimbatore District of Tamil nadu, that 75 West- Coast Tall variety palms per bacre receiving regularly both organic and inorganic manures at the rate of 30 kgs of farm yard manure, 1 Kg of urea, 2 Kgs each of super phosphate and muriate of potash, 1 kg of micro-nutrient mixture and 2kgs of powdered neem cake per palm per year has resulted in a yield of 100 nuts per tree per year. The nuts are sold locally at an average price of Rs. 4/- per nut. The annual cultivation cost per acre is Rs. 12,000/- Gross revenue is around Rs. 30,000/- and the net income is Rs. 18,000/-. But after application of silt over the entire extent of the garden prior to the nonset of the monsoon every year, productivity per tree increased to 120 nuts/ yr., raising the total revenue per acre to Rs. 36,000/- at an additional cost of Rs. 3,000/-. Net income per acre rose from Rs. 18,000/- to Rs. 21,000/-. Nagarajan concludes that regular application of silt containing organic matter stimulates soil life, helps multiplication of earth-worms and improvement of physical properties of soil. Ultimately use of synthetic fertilizers can be minimized or even dispensed with as this system depends on the primary production capacity of the soil and positive biotic interactions. It is also suggested that raising intercrops like banana and turmeric will fetch more income for the coconut farmer.

Sugata Ghose[3] gives a brief sketch of the different stages in the progress of coconut production in India since independence and points out the encouraging trend after the formation of the Coconut Development Board in 1981. The efforts of the Board resulted in increase in production and productivity and by 1996 total production was 13.9 billion nuts with the index reaching the all time high of 425.6 points. Productivity increased to 7779 nuts per hectare. Even though a slight decrease occurred during 1996 to 98 total production was maintained at the level of 13 billion nuts and India became the highest producer of coconut in the world.

Jose Mathew[4] advocates the advantages of Drip Fertigation as a successful technology for integrating irrigation and fertilization. According to him irrigation and fertilization are the two most critical management factors that influence growth, yield and quality of agricultural crops. The use efficiency of these inputs is very low in India i.e 30 to 40 percent. This leads to low crop productivity, degradation of soil health, and increased environmental pollution apart from the wastage of substantial quantity of these costly and scarce inputs. Adoption of Drip Fertigation technology has opened up new possibilities to optimize and integrate the use of water and fertilizer enabling to harness high crop yield and ensuring a healthy soil environment. R. Veeraputhiran[5] suggests the following strategies to implement drip irrigation which will improve

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[2] Nagarajan S. S. "Improving Coconut Farm Productivity with Silt", Kisan World, Vol.25, No.5, May 1998, pp.19-20

[3] Sugata Ghose, "Coconut – India's Pride", Kisan world, Vol. 25, No. 8, August 1998, pp. 27-31

[4] Jose Mathew, "Drip Irrigation – A Successful Technology with Multiple Benefits", Kisan World, Vol. 30, No. 1, January, 2003, p. 50.

[5] Veeraputhiran R. "Drip Irrigation for Sustainable Water Management", Kisan World, Vol. 32, No. 1, January 2005, pp. 49-51.

irrigation efficiency to 80 to 90 percent (1) Allocation of government subsidy for drip irrigation (2) simplified procedure for the disbursement of subsidy (3) reduction of gestation period to avail subsidy. Veeraputhiran recommends fertilization for applying fertilizers under drip irrigation and herbigation as a new method of weed management. He concludes that drip irrigation system is highly suitable for adoption in growing trees and fruit trees, wide-spaced and commercial crops and that there is great prospect for rapid expansion of area under drip irrigation in the 21st century. Outlining the water saving irrigation methods followed to supplement the age old surface irrigation method such as Sprinkler/Overhead Irrigation Method and Micro or Drip Irrigation,

R.K. Sivanappan[6] concludes that in view of the scarcity of water, it is essential to manage water efficiently for all crops and he recommends the use of drip irrigation for all crops in all soils, particularly for wide spaced high value commercial crops like coconut, grapes, vegetables and fruit crops.

V. Rajagopal[7] et al., of the Central Plantation Crops Research Institute, Kasargod, Kerala dealt at length with the distinctive features of coconut, its strength and weaknesses as a perennial crop. According to him in coconut largest number of germ plasm is available for effective utilization to increase productivity and for breeding disease resistant varieties. Moreoveer, there is greater scope for the adoption of new technologies and community level approach for augmenting farm income. Coconut development is a potential source for women empowerment through self-help groups. According to these researchers the availability of time-tested and proven technologies for adoption at the farmers level provides scope for inter/multi/mixed crops in coconut farms. Coconut products and by products of high economic value are potentials for export and earnings in international markets. But decline in farm income imposed by factors such as fluctuating market price, pests and diseases, adverse climatic conditions, non-competitiveness at the global level and decline in general price level of coconut products at the international level are some of the threats faced by coconut industry.

Table 1: Association between Age of the Respondents and Their Opinion about the Experience in Coconut Cultivation

Serial No	**Age in years**	**Experience in Coconut**			**Total**	**% of the respondents**
		Less than 5 years	5-10 years	10-15 years		
1	20-30	10 (9.4)	6(5.9)	0(0.6)	16	8.00
2	31-40	49(47.2)	29(29.6)	2(3.2)	80	40.00
3	41-50	34(35.4)	22(22.2)	4(2.4)	60	30.00
4	Above 50 years	25(26)	17(16.3)	2(1.8)	44	22.00
	Total	**118**	**74**	**8**	**200**	**100**

The Figures in the Parenthesis are Expected Frequencies

Null Hypothesis:

There is no association between age of the respondents and their opinion regarding the experience in cultivating coconut.

Alternative Hypothesis: There is an association between age of the respondents and their opinion regarding the experience in cultivating coconut

[6] Sivanappan R. K. "An Overview of Irrigation Methods", Kisan World, Vol. 32, No. 7, July 2005, pp. 46-47

[7] Rajagopal V., Arul Raj S., Sairam C. V. "Coconut Industry –Improving Genetic Produce" The Hindu Survey of Indian Agriculture, 2004, pp. 67-69.

Table 2

Factor	Calculated value χ^2	Table Value	DF	Remarks
Age	2.429	12.592	6	Insignificant

As the calculated value of chi-square χ^2 (2.429) is less than table value(12.592) for 6 degrees of freedom at 5% level of significance, There is no association between the age of the respondents and their opinion about the experience in cultivating coconut. Hence the null hypothesis is accepted and it is inferred that there is no significant relationship between the age of the respondents and their opinion about the experience in cultivating the coconut. The experience in cultivating the coconut may be depending on some other factors like family occupation, availability of land for cultivating coconut, etc.

Table 3: Association between Income of the Respondents and the Type of Coconut Cultivated

Serial No	**Income**	**Type of coconut cultivated**			**Total**	**% of the respondents**
		Traditional Seed	Hybrid Seed	Both		
1	Up to E60000	5(10.3)	5(7.4)	17(9.3)	27	13.5
2	E60001-100000	25(17.1)	9(12.4)	11(15.5)	45	22.5
3	E 100001-200000	28(30.4)	29(22.0)	23(27.6)	80	40.0
4	Above E200000	18(18.2)	12(13.2)	18(16.6)	48	24.0
	Total	**76**	**55**	**69**	**200**	**100**

The figures in the parenthesis are expected frequencies

Null Hypothesis:

There is no association between income of the respondents and the type of coconut cultivated

Alternative Hypothesis:

There is an association between income of the respondents and the type of coconut cultivated

Table 4

Factor	Calculated value χ^2	Table Value	DF	Remarks
Income	19.139	12.592	6	Significant

As the calculated value of chi-square χ^2 (19.139) is greater than table value(12.592) for 6 degrees of freedom at 5% level of significance, There is an association between the income of the respondents the type of coconut cultivated. Hence the null hypothesis is rejected and it is inferred that there is a significant relationship between the income of the respondents and the type of coconut cultivated.

Table 5: Association between Educational Qualification of the Respondents and the Type of Irrigation

Serial No	**Educational qualification**	**Type of irrigation**			**Total**	**% of the respondents**
		Well water	Canal water	Drip Irrigation		
1	Up to 12th standard	29(33.9)	4(8.3)	95(85.8)	128	64
2	Degree	20(13.8)	7(3.4)	25(34.8)	52	26
3	Diploma	4(4.2)	2(1)	10(10.7)	16	8
4	others	0(1.1)	0(0.3)	4(2.7)	4	2
	Total	**53**	**13**	**134**	**200**	**100**

The figures in the parenthesis are expected frequencies

Null Hypothesis:

There is no association between Educational qualifications of the respondents and the type of irrigation followed by the respondents

Alternative Hypothesis:

There is an association between Educational qualifications of the respondents and the type of irrigation followed by the respondents

Table 6

Factor	Calculated value χ^2	Table Value	DF	Remarks
Educational Qualification	16.334	12.592	6	Significant

As the calculated value of chi-square χ^2 (16.334) is greater than table value(12.592) for 6 degrees of freedom at 5% level of significance, There is an association between the income of the respondents the type of irrigation followed. Hence the null hypothesis is rejected and it is inferred that there is a significant relationship between the education of the respondents and the type of irrigation followed by the respondents.

Table 7: Association between Experience of the Respondents in Cultivating Coconut and the Basis of Selling Coconut

Serial No	**Experience in cultivating coconut**	**Basis of selling coconut**			**Total**	**% of the respondents**
		For Cash	For Credit	Both cash and Credit		
1	Less than 5 years	66(64.9)	29(20.1)	23(33.0)	118	59
2	5-10 years	39(40.7)	5(12.6)	30(20.7)	74	37
3	10-15 years	5(4.4)	0(1.4)	3(2.2)	8	4
	Total	110	34	56	200	**100**

The figures in the parenthesis are expected frequencies

Null Hypothesis:

There is no association between experience of the respondents in cultivating coconut and the basis of selling the coconut

Alternative Hypothesis:

There is an association between experience of the respondents in cultivating coconut and the basis of selling the coconut

Table 8

Factor	Calculated Value χ^2	Table Value	DF	Remarks
Educational Qualification	17.548		4	Significant

As the calculated value of chi-square χ^2 (17.548) is greater than table value( ) for 4 degrees of freedom at 5% level of significance, There is an association between the experience of the respondents in cultivating the coconut and basis of selling the coconut. Hence the null hypothesis is rejected and it is inferred that there is a significant relationship between the experience of the respondents in cultivating the coconut and the basis adopted by the respondents for selling coconut.

Hendry Garrett Ranking:

The general problems faced by the farmers while cultivating and marketing of coconut was studied by collecting the responses from the respondents by choosing eleven major problems in cultivating and marketing the sugarcane. They are 'more labour cost, 'Shortage of water due to rainfall failure, 'More fluctuation in the price of the coconut, 'No subsidy from the government, 'Power cut, no storage facility 'Inadequate price for the coconut ', 'Delay in collecting the amount from the merchants , 'Lack of knowledge about diseases and pesticides, 'Transportation, 'Shortage of Labour,

''The respondents were asked to rank the problems according to their perception and the order of merit given by the respondents was converted into ranks using Garrett ranking method. An attempt has been made to analyze the various problems faced by the respondents while cultivating and marketing of the Coconut to the market.

$$\text{Percent Position} = \frac{100\,(Rij-0.5)}{Nj}$$

Rij = Rank given for ith variable by the jth respondents

Nj = Number of variables ranked by jth respondents

Table 9: Table Showing the Problems Faced By the Respondents

S.No	Problems	Ranks											Total
		S11	S10	S9	S8	S7	S6	S5	S4	S3	S2	S1	
1	P1	16	31	37	17	11	24	26	22	08	04	04	200
2	P2	42	47	34	14	05	30	13	02	07	03	03	200
3	P3	37	31	32	13	38	14	08	11	06	05	05	200
4	P4	32	17	18	34	39	17	10	17	05	07	04	200
5	P5	22	15	23	27	23	17	17	10	14	12	20	200
6	P6	16	17	13	29	18	33	19	14	14	14	13	200
7	P7	02	08	14	36	40	25	26	19	08	11	11	200
8	P8	09	09	05	05	11	13	23	30	57	16	22	200
9	P9	10	14	09	07	19	14	41	36	25	19	06	200
10	P10	08	10	04	06	09	11	16	28	27	25	56	200
11	P11	06	14	20	26	22	16	22	16	21	25	12	200
	Total	**200**	**213**	**209**	**214**	**235**	**214**	**221**	**205**	**192**	**141**	**156**	**2200**

Table 9: Table Showing Hendry Garrett Ranking

S.No	Problem	Ranks											Total score	Mean score	Rank
		S11	S10	S9	S8	S7	S6	S5	S4	S3	S2	S1			
1	P1	1328	2232	2405	1020	605	1200	1274	902	280	112	68	11426	57.13	IV
2	P2	3486	3384	2210	840	275	1500	637	82	245	84	51	12794	63.97	I
3	P3	3071	2232	2080	780	2090	700	392	451	210	140	85	12231	61.155	II
4	P4	2656	1224	1170	2040	2145	850	490	697	175	196	68	11711	58.555	III
5	P5	1826	1080	1495	1620	1265	850	833	410	490	336	340	10545	52.725	V
6	P6	1328	1224	845	1740	990	1650	931	574	490	392	221	10385	51.925	VI
7	P7	166	576	910	2160	2200	1250	1274	779	280	308	187	10090	50.45	VII
8	P8	747	648	325	300	605	650	1127	1230	1995	448	374	8449	42.245	X
9	P9	830	1008	585	420	1045	700	2009	1476	875	532	102	9582	47.91	IX
10	P10	664	720	260	360	495	550	784	1148	945	700	952	7578	37.89	XI
11	P11	498	1008	1300	1560	1210	800	1078	656	735	700	204	9749	48.745	VIII

From the above table it is inferred that among the problems based by the respondents Shortage of water due to rainfall failure 'is given first rank with a Garrett score of 12794 and an average of 63.97 followed by the problem "More fluctuation in the price of the coconut gets second rank with a Garrett point 12231 and with an average of 61.15, third rank given to the problem "No subsidy from the government" with a Garrett point 11711 and an average of 58.55. The fourth rank given to the problem 'more labour cost' with a Garrett point 11426 with an average of 57.13 and the fifth rank goes to the problem 'Power cut' with a Garrett point of 10545 and an average of 52.72 and the sixth rank given to the problem "no storage facility" with a Garrett score of 10385 and average of 51.92, the seventh rank goes to 'Inadequate price for the coconut' with a Garrett score of 10090 with an average of 50.45, the problem 'Shortage of Labour' gets eighth place with Garrett point 9749 with an average of 48.74 and the ninth rank goes to the problem 'Lack of knowledge about diseases and pesticides ' with a Garrett point of 9582 with an average of 47.91, the tenth rank goes to the problem 'Delay in collecting the amount from the merchants' with a Garrett point 8449 with an

average of 42.24 and finally the problem 'Transportation' gets eleventh place with a Garrett point 7578 with an average of 37.89.

Findings:

- ✓ Majority (58.33 percent) of the respondents have studied up to 12th standard
- ✓ Most (40 percent) of the respondents are in the age group 41-50 years
- ✓ Major portion (43.33 percent) of the respondents gets an annual income between E 100001 toE200000
- ✓ Most (82.5 percent) of the respondents are married
- ✓ Majority (.33 percent) of the respondents are living in rural area
- ✓ Most (77.50 percent) of the respondents have 3 to 5 dependents in their family
- ✓ Majority (58.33 percent) of the respondents informed that there are 2 earning members in their family
- ✓ Most (54.17 percent) of the respondents informed that they follow traditional method of farming
- ✓ Most (45.83 percent) of the respondents conveyed that they have 10-15 years experience in farming
- ✓ Majority (88.33 percent) of the respondents informed that they have own land for cultivation
- ✓ Most (47.50 percent) of the respondents informed that they use 10—15 acres of land for cultivating coconut,
- ✓ Majority (37.50 percent) of the respondents informed that they cultivate tradition type coconut in their land
- ✓ Most (64.17 percent) of the respondents informed that they are irrigating with the help of Drip irrigation system in their land;
- ✓ Majority (45 percent) of the respondents informed that they both organic and inorganic manures in their land

Chi-Square-Test:

- ✓ There is a significant relationship between the experience of the respondents in cultivating the coconut and the basis adopted by the respondents for selling coconut.
- ✓ There is a significant relationship between the education of the respondents and the type of irrigation followed by the respondents.
- ✓ There is a significant relationship between the income of the respondents and the type of coconut cultivated
- ✓ There is no significant relationship between the age of the respondents and their opinion about the experience in cultivating the coconut

Correlation Test:

The opinion of the respondents are positively correlated in expressing their view regarding the experience in cultivation, type of manure used, type of irrigation followed by the respondents and Mode of selling the coconut cultivated by the respondents.

Suggestions:

- ✓ Some of the respondents informed that there is a great fluctuation in the price of the coconut. In many occasion the farmers could not able get normal price to match the expenses of the coconut land like erection of trip irrigation, deepening the well for water resources etc. Hence the authorities concerned should try to fix a fixed price for purchasing the coconut from the farmers
- ✓ Few respondents informed that they are facing problems due to power cut. The coconut irrigation is highly affected which reduces the yielding capacity of the

coconut tree. Hence the government should ensure the power supply without any power cut to the farmers.

- ✓ Some of the farmers informed that they do not have adequate knowledge about the diseases and the pesticides for controlling the diseases. Hence the government if possible should arrange for an awareness programme to the farmers regarding the diseases and also the pesticides to control the diseases in the coconut tree.
- ✓ Few respondents informed that they face problems due to lack of adequate storage facility to keep the coconut after harvesting. Hence the government may try to provide storage facility to the farmers cultivating the coconut at a reasonable hire charges.

Conclusion:

Coconut play a vital role in offering more employment opportunities to the rural people and it is a profitable venture for all categories of farmers in spite of their high initial investment and the fluctuating nature of nut price. Hence, it deserves a planned and continuous attention from the various stakeholders. The present study has brought out the profitability involved in the cultivation and economic aspects of coconut. The suggestions made in the study are of immense use for the policy makers to make appropriate decision for mitigating the problems faced by the coconut growers.

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