

## **Agriculture Marketing In Thanjavur District – A Study With Reference To Regulated Markets**

---

**\*DR. K. Balasaravanan**

\*Assistant Professor, Department of Management , Rajagiri Dawood Batcha College of Arts and Science, Papanasam – 614205, Thanjavur dt.

### **Introduction**

Agriculture constitutes the core of the economy of most of the developing countries in the world. Constructive progress in their agricultural sector is an indispensable prerequisite for the rapid economic growth and rural development of these countries in general and poverty reduction both within and outside the agricultural sector in particular. So as to achieve this, developing countries now aim at restructuring their agricultural sector along a successful line. India being a developing country is no exception to this phenomenon. Agriculture being the primary sector is the mainstay of the Indian economy and is central to all strategies of its planned economic development. It contributes around 25 per cent to the GDP and employs 65 per cent of the workforce of the country.

### **Importance of the Study**

The entire production of different agricultural produce does not find its way to the market. The produce actually sold depends upon the marketable surplus. The increased marketable surplus necessitates the demand for market infrastructural facilities. The marketing system is now required to handle large volumes of agricultural products on account both of increase in output and increase in marketed-surplus to output ratios. As agriculture gets more and more commercialized, marketing improvements assume a more significant role. Hence, policies formulated by the Government aimed at improving the efficiency of agricultural marketing would have a favourable impact on productivity.

### **Statement of the Problem**

A sound marketing system should ensure reasonable benefits to the producers and consumers. Its principal goals, among others, are to consolidate the gains in the field of production by minimizing the costs of distribution, reducing the seasonal price differences and by handling efficiently the increased marketable surplus.

### **Need For the Study**

The importance of Regulated Markets in ensuring the welfare of farmers and traders cannot be underestimated but there has been a wide gap between the net income of the Regulated Market and the increasing growth in market arrivals.

### **Objectives of the Study**

The present study has the following objectives:

- i) To exhibit the profile of the farmers in the Regulated Market. To identify the farmers' attitude to the working of the Regulated Market.
- ii) To examine the problems encountered by the farmers in the Regulated Market.

### **Methodology**

#### **Research Design of the Study**

In the present study, the applied research design is descriptive. A descriptive research design is concerned with describing the characteristics of a particular individual or a group. The present study satisfies all aspects related to the characteristics of a descriptive research design.

**Area of Study**

There are many Regulated Markets in Thanjavur district. Athiramapattinam, Ammapettai, Budalur, Kumbakonam, Madukkur, Orathanadu, Pathukottai, Papanasam, Peravoorani, Thanjavur and Vallam markets are considered for the study.

**Profile of the Study Area**

**Thanjavur**, formerly **Tanjore**, is a town and the headquarters of the Thanjavur District in the Indian state of Tamil Nadu. Scholars believe the name Thanjavur to have been derived from "Tanjan", a legendary asura in Hindu mythology.

**Sampling Design**

The present study includes farmers, traders and officials in Regulated Markets as the samples. For the determination of the sample size, 20 per cent of the farmers and traders involved in marketing at these Regulated Markets during 2013-2016 are taken. The sampling procedure applied to distribute sample size in the case of farmers and traders is shown below:

**TABLE 1.1**

**Population of Farmers and Traders during 2013 - 2016**

Sl. No.	Regulated Markets	No. of Farmers registered in Regulated Market		No. of licensed Traders	
		Population	Sample	Population	Sample
1	Athiramapattinam	278	56	86	17
2	Ammapettai	126	25	92	18
3	Budalur	197	39	107	21
4	Kumbakonam	553	111	106	21
5	Madukkur	354	71	58	12
6	Orathanadu	258	52	62	12

**T-test**

The 't' test in the present study is conducted to find out the significant difference among the two group means. Before that the homogeneity test has been conducted to test whether the groups are homogenous or not (Balazas, 1995)<sup>1</sup>.

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{(n_1 - 1) \sigma_1^2 + (n_2 - 1) \sigma_2^2}{n_1 + n_2 - 2} + \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}} \quad \text{with degree of freedom} = (n_1 + n_2 - 2)$$

Whereas

t – t-statistics

$\bar{X}_1$  – Mean of the first sample

$\bar{X}_2$  – Mean of the second sample

$\sigma_1^2$  – Variance in the first sample

$\sigma_2^2$  – Variance in the second sample

$n_1$  – Number of samples in first groups

$n_2$  – Number of samples in second groups

**Multiple Regression Analysis**

The general form of the multiple regression model is as follows:

$$Y = a + b_1x_1+b_2x_2+-----+b_nx_n+e$$

Where y – dependent variable

$x_1 x_2 …x_n$  independent variables

$b_1, b_2 …b_n$  regression coefficients of independent variables

a – intercept and

e – error term

The regression analysis was used <sup>2</sup> to find the impact of the independent variable in the present study.

Table 2.1

**Growth of Regulated Markets in India**

<b>Period</b>	<b>No. of Regulated Markets</b>
Prior to 1939	57*
March, 1956	470*
March,1974	1,777*
March,1985	5,695
March,2001	7,161
March,2005	7,557
March,2016	7,157

\* Represents only principal markets

Sources: 1. Directorate of Marketing and Inspection (1997),

2. <http://agmarknet.nic.in>

**Number of Regulated Markets in India as on 31<sup>st</sup> March 2016**

Sr. No.	STATE/U.TS	REGULATED MARKETS		
		Principal	Submarket Yards	Total
1	Andhra Pradesh	323	578	901
2	Assam	20	206	226
3	Gujarat	196	218	414
4	Jammu & Kashmir	APMR Act not yet implemented		
5	Kerala	APMR Act not enacted		
6	Meghalaya	2	-	2
8	Punjab	139	349	488
9	Rajasthan	127	303	430
10	Sikkim	1		
11	Tamil Nadu	277	15	292
13	Uttar Pradesh	249	356	605
16	A & N Island	APMR Act not enacted		
17	D & N Haveli	APMR Act not enacted		
19	Puducherry	4	5	9

Source: <http://agmarknet.nic.in/agmastat.htm#st4>

**Organization of Regulated Markets in Tamil Nadu**

The primary object of regulating the markets is to safeguard the interest of the farmers and to raise the standard of local markets where the first exchange takes place. With a view to achieving this object, the Market Committees were established in Tamil Nadu under the provisions of the Madras Commercial Crops Markets Act, 1933. This Act was amended in 1959 and renamed in 1987 as the Tamil Nadu Agricultural Produce Marketing Act, 1987. Before 1970, these Market Committees were under the control of the Department of Agriculture of the Government of Tamil Nadu. For the purpose of effective control over the Market Committees, the Tamil Nadu State Agricultural Marketing Board was constituted in the year 1970 by an order of the Government.

**District-Wise Area and Rural Population Covered by Regulated Markets of Tamil Nadu  
(As on 31.3.2005)**

Sl. No	Name of the Market Committee/ districts	No. of Regulated Markets	Area (Sq. kms.)	Rural population (in lakhs)	Geographical coverage Per Market (Sq. Km.)	Rural Population Per Market (in lakhs)
1.	<b>Kancheepuram</b>					
	Kancheepuram	6	4,433	13.425	738.83	2.24
	Thiruvallur	8	3,424	12.447	428.00	1.56
2.	<b>Vellore</b>	12	6,077	21.693	506.42	1.81
3.	<b>Thiruvannamalai</b>	16	6,191	17.854	386.94	1.12
4.	<b>Cuddalore</b>	10	3,678	15.310	367.80	1.53
5.	<b>Villupuram</b>	18	7,217	25.335	400.94	1.41
6.	<b>Dharmapuri</b>	16	9,622	24.004	601.38	1.50
	<b>Tiruchirappalli</b>					
	Tiruchirappalli	10	4,404	12.792	440.40	1.28
7.	Karur	4	2,896	6.244	724.00	1.56
8.	Perambalur	5	3,691	4.144	738.20	0.83
9.	<b>Thanjavur</b>	13	3,397	14.676	261.31	1.13
10.	<b>Nagapattinam</b>	8	2,716	11.586	339.50	1.45
	<b>Thiruvarur</b>	8	2,161	9.322	270.13	1.17

Source: 1. Season and Crop Reports of Tamil Nadu, 2005

2. Directorate of Agricultural Marketing and Agri Business, Chennai

**Review of Literature**

K. Manoharan (1980) in his study titled “A Critical Analysis of the Factors Influencing Non-Participation of Farmers in the Regulated Market” analysed the factors influencing the non-participants for non-utilization of regulated markets and observed that the main reason expressed by them was that of the non-availability of credit facilities viz., crop loans and pledge loans from regulated markets.

Tarit Kumar Datta (1991) in his study “Some Issues Concerning the Functioning of Some of the Regulated Markets in West Bengal” analysed the reasons for the ineffective functioning of the Regulated Markets in the state. He pointed out that the Regulated Market Committee meetings were not held regularly. There was a wide gap between the annual number of meetings actually held and the number stipulated by statutory provisions. The inability of the Regulated Market Committee vacate the injunctions and dispose of the suits filed by the traders pending at the Calcutta High Court for a long time was cited by him as one of the most important reasons for the unsatisfactory performance of the Regulated Markets in the State.

C. Fred White (1992) made an attempt to determine whether dynamic relationships between agribusiness, sales and research existed. Statistically significant dynamic relationships were identified.

**Socio – Economic Profile of Farmers**

The Regulated Market aims at improving the welfare of the farmers by reducing the number of intermediaries in the marketing of agricultural produce. The functioning of Regulated Markets has to be designed according to the expectations of the farmers. But their expectations frequently change. Unless their expectations are correctly predicted, the officials are unable to fulfil their requirements. Hence farmers’ expectations and perceptions on various aspects of the Regulated Market are analysed in this chapter.

**Table 3.1: Gender and Age of the farmers**

Gender	Type of Farmer			Total
	Marginal	Small	Big	
Male	357	155	117	629
Female	14	60	14	88
Total	371	215	131	717
Age (Years)	Type of Farmer			Total
	Marginal	Small	Big	
Less than 30	30	37	7	74
31 – 40	34	111	5	150
41 – 50	236	33	18	287
51 – 60	62	18	80	160
Above 60	9	16	21	46
Total	371	215	131	717

Source: Primary Data

**Table 3.2: Education levels of the farmers**

Level of education	Type of Farmer			Total
	Marginal	Small	Big	
Illiterate	11	3	3	17
Elementary school level	73	32	29	134
Secondary school level	93	72	39	204
Higher secondary school level	119	72	27	218
Under-graduation	48	7	21	76
Post-graduation	23	4	3	30
Professional	3	16	5	24
Others	1	9	4	14
Total	371	215	131	717

Source: Primary Data

The important levels of education among the farmers in the present study are higher secondary school level, secondary school level and elementary school level, which constitute 30, 28 and 19 per cent to the total respectively. The farmers with under-graduation and post-graduation constitute 11 and 4 per cent to the total respectively. The most important level of education among the marginal farmers is the higher secondary level, which alone constitutes 33 per cent to the total whereas among the small farmers it is the higher secondary level and secondary school level, which constitutes 34 per cent to the total. Among the big farmers, it is the secondary school level, which constitutes 30 per cent to the total.

**Table 3.4: Land Ownership among the Farmers, Experience in Farming and Sources of Irrigation**

Land ownership	Type of Farmer			Total
	Marginal	Small	Big	
Owner + cultivator	67	86	16	169
Tenant + cultivator	146	72	36	254
Both	158	57	79	294
Total	371	215	131	717
Experience (years)	Type of Farmer			Total
	Marginal	Small	Big	
Less than 10	70	51	22	143
11 - 20	107	24	49	180
21 - 30	105	74	50	229
Above 30	89	66	10	165
Total	371	215	131	717
Sources of Irrigation	Type of Farmer			Total
	Marginal	Small	Big	
River	141	93	24	258
Canal	27	10	10	47
Bore-well	106	61	72	239
Rain	97	51	25	173
Total	371	215	131	717

Source: Primary Data

Government encouragement				0.796		
Updating market rates				0.781		
Excellent facilities at Regulated Markets					- 0.766	
Improving storage and processing facility				0.577	0.643	
Communication facilities at Regulated Markets						0.791
Simplified lending procedure						0.562
Eigen value	6.249	5.401	2.640	2.042	1.538	1.361
% of variance	26.036	22.504	11.000	8.507	6.406	5.670

By using exploratory factor analysis seven components has been extracted from perception about regulated markets. First components consist of three factors. The Eigen value is 6.249 and about 25 per cent of variation is explained by this component. Second components consist of six factors. The Eigen value is 5.401 and about 23 per cent of variation is explained by this component. Third components consist of five factors. The Eigen value is 2.640 and about 11 per cent of variation is explained by this component. Fourth components consist of two factors. The Eigen value is 2.042 and about 9 per cent of variation is explained by this component. Fifth components consist of two factors. The Eigen value is 1.538 and about 6 per cent of variation is explained by this component. Sixth components consist of two factors. The Eigen value is 1.361 and about 6 per cent of variation is explained by this component. Seventh components consist of two factors. Totally about 80 per cent of variation is explained by six extracted components.

**Table 4.1: Experience of Traders**

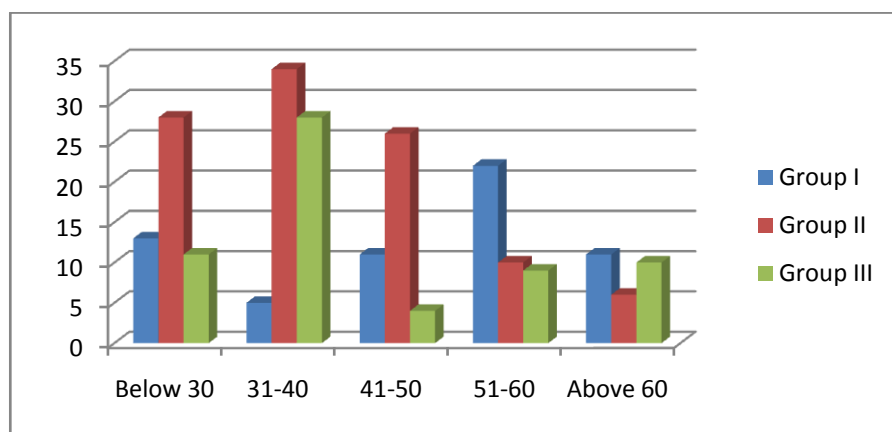
<b>Experience in Trading in Years</b>	<b>Frequency</b>	<b>Percentage</b>
Less than 10 years (Group I)	62	27.2
10 – 20 years (Group –II)	104	45.6
Above 20 years (Group-III)	62	27.2
Total	228	100.0

Table 4.2: Age of the Traders

<b>Age(In years)</b>	<b>Number of Traders</b>			<b>Total</b>
	<b>Group I</b>	<b>Group II</b>	<b>Group III</b>	
Below 30	13	28	11	52
31-40	5	34	28	67
41-50	11	26	4	41
51-60	22	10	9	41
Above 60	11	6	10	27
Total	62	104	62	228



**Chart 4.2: Age of the Traders**



**Table 4.14.2: Difference between experience with regulatory market and factors leading to price determination**

Null hypothesis: There is no difference between experiences with regulatory market with regards to factors leading to price determination.

Factors leading to price determination	F	Sig.
Interaction with farmers	4.823	0.009**
Mediation of officials	14.081	0.000**
Market demand	16.532	0.000**
Price fixed unilaterally	15.727	0.000**
Market arrivals	7.573	0.001**
Price in open market	18.920	0.000**
Demand and supply	23.590	0.000**

\*\* Significant at 0.05 levels.

Since significant value is less than 0.05 for all factor leading to price determination, hence null hypothesis is rejected. It concludes that there is a difference between experiences with regulatory market with regards to factors leading to price determination at significant at 0.05 levels.

**Table 4.15.1: Mean values of buyers in the regulatory market**

Buyers in the regulatory market	Mean	SD
Middleman	3.71	1.01
Wholesaler	3.70	0.96
End user	3.63	1.04
Exporter	3.62	1.06
Institutional buyer	3.61	1.08
Retailer	3.54	1.10

Above table shows the mean values of buyers of the regulatory market, in that “Middleman” is the top ranked buyer with mean values of 3.71, “Wholesaler” is the second ranked buyer with mean values of 3.70, “End user” is the third ranked buyer with mean values of 3.63, “Exporter” is the fourth ranked buyer with mean values of 3.62, “Institutional buyer” is the

fifth ranked buyer with mean values of 3.61 and “Retailer” is the last ranked buyer with mean values of 3.54.

**Table 4.15.2: Difference between experience with regulatory market and Buyers in the regulatory market**

Null hypothesis: There is no difference between experiences with regulatory market with regards to Buyers in the regulatory market.

Buyers in the regulatory market	F	Sig.
Wholesaler	16.556	0.000**
Retailer	9.235	0.000**
End user	6.954	0.001**
Institutional buyer	4.982	0.008**
Exporter	9.595	0.000**
Middleman	7.293	0.001**

\*\* Significant at 0.05 levels.

Since significant value is less than 0.05 for all buyers, hence null hypothesis is rejected. It concludes that there is a difference between experiences with regulatory market with regards to Buyers in the regulatory market at significant at 0.05 levels.

### Findings, Suggestions and Conclusion

#### 1. Innovativeness of The Farmers

Mean values of different innovativeness factors, in that “Easy to accommodate any change” is the top ranked innovativeness factor with the mean value of 2.63, “Innovation required for survival” is the second ranked innovativeness factor with the mean value of 2.61, “Innovation needed for marketing and Innovation makes for more profit” are the third ranked innovativeness factor with the mean value of 2.60, “Innovation is essential for ever” is the last innovativeness ranked factors with the mean value of 2.59.

Null hypothesis is rejected. It concludes that there is no difference between types of farmers with regards to innovativeness of the farmers at significant at the five per cent level.

#### 2. Decision Making Of The Farmers

Mean values of decision making factors. “Awareness of solutions” is the top ranked decision making factor with mean value of 2.62, “Participatory decision is required” is the second ranked decision making factor with mean value of 2.61, “Awareness of implementation procedures” is the third ranked decision making factor with mean value of 2.60, “Awareness of problem and Own decision for anything” are the fourth ranked decision making factor with mean value of 2.59.

Null hypothesis is rejected. It concludes that there is a difference between types of farmers with regards to decision making of the farmers at significant at the five per cent level.

#### 3. Economic Motivation Of The Farmers

Mean values of economic motivational factors. “Money is a motivating element” is the top ranked economic motivational with mean value of 2.63, “Always expecting more benefit” is the second ranked economic motivational with mean value of 2.61, “Looking for better future” is the third ranked economic motivational with mean value of 2.60 and “Earning is higher in Agricultural Marketing” is the last ranked economic motivational with mean value of 2.58.

Null hypothesis is rejected. It concludes that there is a difference between types of farmers with regards to economical motivational of the farmers at significant at the five per cent level.

#### **4. Risk Orientation Of The Farmers**

“Interest in facing risks” is the top ranked Risk Orientation of the farmers with the mean value of 2.63, “Risk yields return” is the second ranked Risk Orientation of the farmers with the mean value of 2.61, “Risk is everywhere and Risk bearing is a challenge in life” is the third ranked Risk Orientation of the farmers with the mean value of 2.60 and “Risk is a part of life” is the last ranked Risk Orientation of the farmers with the mean value of 2.58.

Null hypothesis is rejected. It concludes that there is a difference between types of farmers with regards to Risk Orientation of the farmers at significant at the five per cent level.

#### **5. Overall Attitude towards the Regulated Markets**

In total 32.46 per cent of the traders are dissatisfied with the functioning of the Regulated Markets. 20.18 per cent of the traders are satisfied with the functioning of the Regulated Markets and only 9.65 per cent of traders highly satisfied with the functioning of the Regulated Markets. Among the group I traders, the number of traders with dissatisfaction and higher dissatisfaction constitute 32.3 per cent and 25.8 per cent to the total. Among the group II, satisfied group constitutes 28.8 and group III, dissatisfied group constitutes 45.2 per cent to its respective totals.

#### **Suggestions**

Since the facilities offered at the Regulated Markets are not up to the expectation of both farmers and traders, the authorities have to analyse the expectations consistently. On that basis, they have to expand the facilities at the Regulated Markets.

The important facilities which need a higher focus are storage and grading facilities. If these facilities are properly given, there will be a consistent flow of market arrivals. It will justify the existence of the Regulated Markets.

Regarding transport facilities, the authorities of the Regulated Markets may provide such facilities even if the market arrivals are minimal. The authorities have to cover even small villages to improve the market arrivals. Transport service may be provided at a reasonable rate to the farmers.

The Regulated Market may create an advisory board which consists of various farmers and traders. The board may consult both parties on grievances and formulate suitable steps to remedy them.

#### **Conclusion**

The study concludes that the farmers’ perception of various aspects of the Regulated Markets was that they were not upto their expectation. The important discriminant factors among the satisfied and the dissatisfied farmers were facilities and services available at the Regulated Markets. The important problems perceived by farmers in the Regulated Markets were connected with their mechanism, finance, service quality, officials’ behaviour, and personal and quantity factors. The farmers suggested improvements in the strategy, information facilities, system, orientation, knowledge and accessibility to increase the efficiency of the Regulated Markets.

**Reference:**

Acharya, S.S. and Agarwal, N.L., **Agricultural Marketing in India**, Oxford IBH and Publishing co. Private Limited, New Delhi, 2001.

Acharya, S.S., **Agricultural Marketing**, Academic Foundation, New Delhi, 2004.

Acharya.S.S., and N.L. Agarwal, **Agricultural Marketing in India**, Oxford and IBH Publishing Company Private Limited, New Delhi, 1998.

Jain, S.C., **Principles and Practices of Agricultural Marketing and Price Policies**, Vora and Company Publishers Private Limited, Bombay, 1971.

Khols, R.L., **Marketing of Agricultural Products**, Macmillan Company, New York, 1967.

Ramakishen, Y., **New Perspectives on Rural Marketing Includes Agricultural Marketing**, Jaico Publishing House, Mumbai, 2002.