A Study on Marketing of Paddy With Reference to Thiruvarur District, Tamil Nadu

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ABSTRACT *This study aims to understand the marketing systems of paddy available for farmers in Thiruvarur district in terms of marketing channels, marketing cost, marketing margin, price spread and marketing efficiency. The Sample consists of 600 farmers who have been classified as small and large farmers according to their land holdings. Proportionate random sampling technique was adopted. In order to analyze the marketing costs, marketing margins and price spread, 30 intermediaries, 10 in each category namely village traders, commission agents, wholesalers and retailers were randomly selected. The selected respondents were contacted individually and required information was collected from them. In order to identify the key factors of marketing paddy in the study area, a Multiple Linear Regression Model, Garrett's Ranking Technique, Shepherd's Formula, Acharya and Agarwal's Formula and Composite Index Methods were used. The structural differences between small and large farmers were tested by using Chow's F-test. The results revealed the importance of middle man in the chain of marketing that starts with the producer and ends with the consumer. The study has also elucidated fruitful suggestions for the betterment of the farmers, to encourage Government machinery and to avoid exploitations of middle man of Thiruvarur District, TamilNadu.*

PRELUDE

Agriculture is very important among all economic activities in countries like India. Of the many kinds of food grain available, paddy (rice) is the most important one, especially in countries like India. Hence, a place of supreme importance has been given to the acceleration and growth and marketing of paddy cultivation during the plan periods. This is precisely the reason why the production and marketing of paddy has turned out to be a veritable avenue of research for both explorative and innovative thinkers in recent years.

STATEMENT OF THE PROBLEM

Paddy is an important food crop and it has greater economic importance among the food crops, since it is one of the leading commodities in agricultural exports. Hence, the production performance of the crop is of critical importance in improving the efficient use of resources.

The market imperfection and the consequent loss in marketing efficiency are more pronounced in markets for perishable commodities which require quick transportation and better storage facilities, involving large number of intermediaries who take away high margins from the price paid by consumers. Paddy has a pride not only for its diverse uses but also for its special preference by consumers - rich and poor, while it is also subjected to the above stated production and marketing problems. Hence, the present study is an attempt to analyse the above said issues in marketing of paddy in Thiruvarur district.

OBJECTIVES OF THE STUDY

- To study the characteristics of the sample farmers in the study area namely Thiruvarur district;
- To identify the determinants of marketable surplus in paddy;
- To discuss the existing marketing channels for paddy and to evaluate the marketing cost, marketing margin, price spread and marketing efficiency of different channels; and
- To analyse the problems faced by the paddy cultivators in the production and marketing of paddy.

RESEARCH METHODOLOGY
Study Area

The area chosen for the present study is Thiruvarur district, situated at the southernmost tip of Tamil Nadu. Eighty three per cent of its population is residing in villages and 58.8 per cent of its working population is anchored in agriculture and its allied activities. This district stands first in area under cultivation and third in production of paddy among the districts in Tamil Nadu.

Sampling Procedure

Multistage Stratified Random Sampling Technique has been adopted for the study, taking Thiruvarur district as the universe, the block as the stratum, the village as the primary unit and paddy cultivators as the ultimate unit.

Among 10 blocks of Thiruvarur three blocks were selected (Thiruvarur, Thiruthuraipoondi and Needamangalam) and five villages in each block were selected, which account for the highest area under paddy cultivation as the study unit for primary data collection.

In order to analyze the marketing costs, marketing margins and price spread, 30 intermediaries, 10 in each category namely village traders, commission agents, wholesalers and retailers were randomly selected. The selected respondents were contacted individually and required information was collected from them. The Sample consists of 600 farmers who have been classified as small and large farmers according to their land holdings. Proportionate random sampling technique was adopted.

COLLECTION OF DATA
Primary Data

Three separate interview schedules were prepared to collect the required information from the market intermediaries namely the village traders, commission agents and the wholesalers/retailers of paddy. Particulars regarding the method of purchase, cost of marketing, expenditure incurred on establishment charges, commission, prices paid and received and the like were collected.

Secondary Data

Secondary data were collected from:
- Directorate of Economics and Statistics, Government of Tamil Nadu, Chennai.
- Office of Assistant Director of Economics and Statistics, Thiruvarur District.
- Office of the Thiruvarur District Market Committee, Thiruvarur.
- Office of the Joint Director of Agriculture, Thiruvarur.

In addition to that, books, journals and magazines were referred.

TOOLS USED

In order to identify the key factors of marketing paddy in the study area, a Multiple Linear Regression Model, Garrett's Ranking Technique, Shepherd's Formula, Acharya and Agarwal's Formula and Composite Index Methods were used.

RESULTS AND ANALYSIS

Market structure includes the various marketing channels,

agents intermediaries and traders involved in moving the produce from the producers to the consumers or users. In the present study, market structure includes different market channels, intermediaries such as village traders, wholesalers, retailers, millers and consumers. The most common marketing channels identified in paddy marketing in the Thiruvarur district are:

Marketing Channels

MARKETING CHANNELS
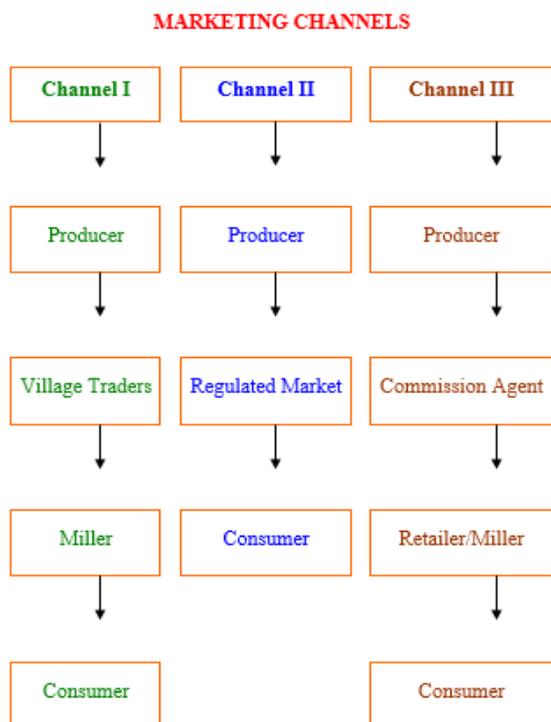
The results on the percentage of retention and marketable surplus of the selected farmers producing paddy given in the following table, reveal that the variation in the percentage of marketable surplus to production among the group was found to be minimum.

MARKETABLE SURPLUS OF PADDY
(Quintal per acre)

Size of Farmers	Total Production	Total Retention	Total Marketable Surplus	Percentage of total production
Small	24.15	1.98	22.17	91.80
Large	22.61	2.61	20.00	88.46
Overall	46.76	4.59	42.17	90.18

Source: Survey Data.

Also it is understood from the table the percentage of quantity stored to the marketable surplus of paddy stored is marginal with 29.05 per cent in the case of small farmers while it is 27.60 per cent in the case of larger farmers.

MARKETABLE SURPLUS AND STORAGE OF PADDY
(Quintal per acre)

	Small Farmers	Large Farmers
Marketable Surplus	22.17	20.00
Quantity Stored	6.88	7.60
Percentage of Quantity Stored to Marketable Surplus	29.05	27.60

Source: Computed Data.

Choice of the Intermediaries
The net price realized by the farmers as shown in the table is ultimately the result of factors like the duration of storage and the role of the agent or the merchant middlemen through or to whom the produce is sold.

MIDDLEMEN CHOSEN BY THE SAMPLE FARMERS

Middlemen	Small Farmers	Large Farmers	Total
Village Traders	78 (18.75)	63 (32.61)	138 (23.0)
Regulated Markets	66 (15.87)	23 (14.13)	92 (15.33)
Commission Agents	272 (65.38)	98 (53.26)	370 (61.67)
Total	416 (100)	184 (100)	600 (100)

Source: Survey Data. Figures in brackets are the percentage of the total.

From the Table it is clear that the commission agents are the most preferred middlemen by the small farmers compared to the large farmers because of the facilities offered by them.

Sale to Regulated Markets
The direct channel which has no middleman is the regulated markets. But this channel is not very popular among the farmers because of various reasons. The number of farmers and quantity of paddy sold to the regulated markets are presented in Table

NUMBER OF FARMERS AND QUANTITY OF PADDY SOLD THROUGH REGULATED MARKETS
(Quintal per acre)

Size of Farmers	Number of Farmers	Percentage of group concerned	Average quantity of paddy sold (in quintals per acre)	Percentage of marketed surplus of the group concerned
Small	66	15.86	3.25	15.27
Large	26	14.13	2.49	13.16
Overall	92	15.33	5.74	14.29

Source: Computed Data.

The average quantity of paddy sold per acre by small and large farmers is 3.25 and 2.49 quintals respectively. The percentage to the marketed surplus of the group concerned namely small and large farmers is 15.27 and 13.16 per cent respectively.

Sale to Commission Agents
The most popular and dominant channel in the district is the commission agent. The commission agent advances loans with or without interest to the farmers, whenever they need money for their cultivation. The number of farmers and quantity of paddy sold through commission agents are presented in the following table

NUMBER OF FARMERS AND QUANTITY OF PADDY SOLD THROUGH COMMISSION AGENT
(Quintal per acre)

Size of Farmers	Number of Farmers	Percentage of group concerned	Average quantity of paddy sold (in quintals per acre)	Percentage of marketed surplus of the group concerned
Small	272	65.38	14.13	66.37
Large	98	53.26	10.56	55.84
Total	370	61.67	24.69	61.42

Source: Computed Data.

The percentage of quantity sold to marketed surplus is 66.37 and 55.84 per cent of their respective total in the case of the small and the large farmers respectively.

Analysis of Price Spread of Small Farmers

Price spread analysis shows details about the producer's price, marketing margin, marketing cost and consumer price in three marketing channels. The analysis of price spread in the three marketing channels for small farmers is given in table

PRICE SPREAD OF SMALL FARMERS UNDER DIFFERENT CHANNELS
(Rupees per quintal)

Particulars	Channels		
	I	II	III
Producers price	559.11	579.14	586.16
Marketing Margin	92.37	68.53	119.67
Marketing cost	202.54	206.35	148.19
Consumer's price	854.02	854.02	854.02
Price spread	294.22	274.88	267.86

Source: Computed Data.

It is seen from Table that the price spread is at a minimum of Rs.267.86 per quintal in channel III and a maximum of Rs.294.22 in channel I.

PRICE SPREAD OF LARGE FARMERS UNDER DIFFERENT CHANNELS
(Rupees per quintal)

Particulars	Channels		
	I	II	III
Producers price	642.25	598.89	642.87
Marketing Margin	65.55	66.12	85.39
Marketing cost	146.22	189.01	125.76
Consumer's price	854.02	854.02	854.02
Price spread	211.77	255.13	201.15

Source: Computed Data.

It is seen from the Table that the price spread is at a minimum of Rs.201.15 per quintal in channel III and a maximum of Rs.255.13 in channel II.

The results of price spread analysis show the similarities in the case of small as well as large farmers in channel II. But the large farmers have a lesser price spread than the small farmers in marketing channels I and III because of their financial strength, large scale production and lesser average fixed overheads.

Composite Index Method

The marketing efficiency was also analysed by using composite Index Method. The percentage of producer's price, marketing cost and marketing margin to consumer's price per quintal were calculated and these were assigned ranks. Total scores were found by adding the respective ranks in each channel. The mean score was calculated for each channel. Where the mean score is less, it showed the real marketing efficiency of the channel. The computed results are given in table

MARKETING EFFICIENCY ANALYSIS USING COMPOSITE INDEX METHOD
(Rupees per quintal)

Particulars	Channels					
	I		II		III	
	Small farmers	Large farmers	Small farmers	Large farmers	Small farmers	Large farmers
Producer's share Rank	65.47 3	75.20 2	67.81 2	70.13 3	68.64 1	74.10 1
Marketing cost Rank	202.54 2	146.22 2	206.35 3	189.01 3	140.19 1	125.76 1
Marketing Margin Rank	92.37 2	65.55 2	68.53 1	66.12 1	119.67 3	85.37 3
Total Score	7	6	6	7	5	5
Mean score	2.33	2	2	2.33	1.67	1.67

Source: Computed Data.

It is observed from the Table that of the three channels, channel III has more marketing efficiency than channel I and II. Even though the producers' share in channel II is greater than that in channel I, the marketing cost is higher in channel II than channel I. There is no variation in the results of marketing efficiency of large and small farmers.

MAJOR FINDINGS
The major findings of the study are:

The size of operational holdings ranged from 0.5 acres to 4.6 acres with a mean 2.43 acres per farm in the case of small farmers, whereas in the case of large farmers it ranged from 5.20 to 9.78 acres with a mean of 6.72 acres.

Regarding the cropping pattern, food crops like paddy, tapioca, oil seeds such as groundnut and coconut and commercial crops like cashew, rubber, fruits and spices are raised. Paddy is the most predominately cultivated food crop in the district.

The farmers, with an experience of more than 5 years in the cultivation of paddy were found to be 68 per cent. Hence, this long term association of farmers with the cultivation of paddy led to better productivity and maximum profit in paddy cultivation.

The results of marketing efficiency computed by the Shepherd's formula, Acharya and Agarwal's formula and the Composite Index Method showed that Channel III - Producer-commission agent - Retailer/Miller-consumer, was the most efficient channel in paddy marketing in Thiruvarur district.

FEW SUGGESTIONS AND CONCLUSION

In the present study, the marginal value product is greater than the respective factor cost in the cultivation of paddy. There is existence of unexploited economic surplus and there is scope for effective utilisation of resources in the cultivation of paddy for both groups of farmers to maximise the yield of paddy. Hence, it is suggested that the Government of Tamil Nadu should direct the co-operation and support of the Tamil Nadu Agriculture University for creating awareness for the efficient use of resources in paddy cultivation. The government may arrange periodical seminars and training programmes in which farmers should be imparted adequate and improved training in paddy cultivation practices at regular intervals of time. Lack of awareness of such practices ultimately resulted in a low level of production and unjustified profit margins with respect to paddy.

The Government of Tamil Nadu should arrange more storage fa-

cilities accessible to farmers so as to encourage the farmers to store and sell their produce and use the pledge loan system at their convenience. Such measures and precautions would enable the farmers to obtain a fair price for their produce.

The marketing cost constitutes a major portion of the consumer price. Hence, the Government should encourage the farmers to actively participate in the existing Primary Co-operative Societies in the study area in order to develop a direct link between the wholesalers/retailers, processors and exporters to cut down the marketing cost incurred for lengthy channel. It shall be highly desirable to make the co-operative societies more formal functional oriented.

Majority of the farmers prefer middlemen to sell their produce because of the credit facilities extended by them. The long chain of channels affects the procurement price of paddy. Therefore, the Government should direct the Co-operative and Commercial Banks in the study area to provide adequate loan facilities at reasonable rate of interest to the farmers without any rigid formalities.

Agricultural Research with advanced tech support should be directed at evolving high yielding varieties of paddy by using new techniques such as genetic transformation, marker assisted selection, forecasting of pest epidemics, and promotion of hybrid and disease resistant varieties to meet the challenges under the new agricultural trading environment.

Improved crop management techniques may be imparted to the farmers by the extension agencies for effective cultivation. Essentially, it would be better if the paddy cultivators and dealers of Thiruvarur district are provided with better and more purposeful exposure to innovations.

A few short tours to popular agricultural pockets to nearby districts could be arranged by the agriculture department officers at regular intervals. Mutual interviews and interactions between Thiruvarur district farmers and other district farmers will enable them exchange ideas and clarify doubts to learn better methods of production and marketing.

To sum up, a long term arrangement should be worked out by the Government of Tamil Nadu, to protect the interests of both producers and consumers and also to improve the production and marketing of paddy in the study area. The Government should initiate action to improve market information system and market intelligence. Existing techniques disseminating marketing information should be reviewed. Visual, Audio and Print media could be used at repeated intervals for providing market information to farmers of rural areas. Modern devices such as computers may be employed wherever necessary to make a meaningful estimate of marketable surplus and daily average price.

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