



SUPPLY CHAIN MANAGEMENT OF PADDY DISTRIBUTION IN TIRUNELVELI DISTRICT

N.KRISHNA PERUMAL

Ph.D, Research scholar, Register No: 19121071011009

The M.D.T Hindu College, Pettai, Tirunelveli - 627 010

Affiliated to Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu

E-mail: nkperumal92@gmail.com

Dr. M.MUTHULAKSHMI

Assistant Professor, Department of Commerce,

Manonmaniam Sundaranar University College, Sankarankovil – 627 862

Affiliated to Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu.

E-mail:sanjaykkm2013@gmail.com

Dr. K.MANONMANI

Assistant Professor. Department of Commerce,

The M.D.T Hindu College, Pettai, Tirunelveli – 627 010

Affiliated to Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu.

E-mail:kmanonmani77@gmail.com

ABSTRACT

Paddy items need to go through a progression of cycles like gathering, sifting, bundling, sacking, transportation, capacity, treatment and trade before their appearance available, and as various examinations the nation over have shown, there are huge misfortunes of rice creation at that large number of stages Tamilnadu, a state in southern India, delivers something like five lakh lots of paddy out of a complete yearly need of around 25 lakh tons that is deficient to take care of the populace.. These issues have influenced ranchers and purchasers. The store network in Tamilnadu is divided and includes numerous mediators, for example, merchants and vendors who gain most extreme advantages. There are a ton of expenses on the between state store network. To work well, the production network needs experts, yet we don't have a talented labor force in this field. Preparing and schooling in dealing with the store network is accordingly vital. This paper concentrate about the store network the executives of paddy in Tamilnadu assists with understanding the various directs in SCM, the obstructions in SCM, the issues and the spread of SCM costs.

Keywords: Paddy, Challenges, Employment, GDP, Shortage, Cold storage, Skilled workforce

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INTRODUCTION

Farming is a significant area of the Indian economy, representing around 17% of all out Gross domestic product and utilizing more than 60% of the populace. Farming is a significant piece of the worldwide economy. However, the result of most farming items is affected by many

elements, for example, environmental change, seed quality, development rehearses, market accessibility, government arrangements, innovation, coordination and the pretended by individuals from the inventory network. The genuine proportion of inventory network achievement is how much exercises are all



around facilitated all through the store network to make an incentive for purchasers, and working on the expense adequacy of all pieces of the store network. Inventory network the executives (SCM) is 'the administration of the whole arrangement of creation, dissemination, and showcasing processes by which a buyer is provided with an ideal item'. Store network the board is the incorporated worth creation process for the end-client or end-customer. Store network the board is a way of thinking of incorporation of movements of every sort inside the existence of an item or a help from the primary wellspring of unrefined substances to the end client, and past to disposal.

In Tamilnadu, most farming items come from adjoining states like Tamil Nadu and Karnataka. There is an absence of proper framework, for example, good owning, cold distribution centers, new chains, maturing chambers and so on likewise there is no suitable connection between creation, research framework and purchasers. That is the reason more than 30% of farming produce is squandered consistently. More than 20% of government produce is lost because of unfortunate post-gather offices and absence of cold chain framework.

REVIEW OF LITERATURE

Sandesh Gupta, Sajal Jain (2022) "Predictive Analytics for Real-Time Agriculture Supply Chain Management: A Novel Pilot Study" Predictive analytics is an interesting field of research aimed at discovering future trends/patterns from the past data. With proliferation of big data over the past decade, analytics has been gaining more significance in almost all domains with tremendous contribution to the insightful knowledge. In this paper, we present the initial walkthrough for novel predictive analytics in the field of agriculture, aimed at enhancing and strengthening the current feeble agriculture ecosystem.

A Vincent and Saravanan Raj (2022)"Agricultural extension system: what works and what does not? Implications for Tamilnadu "The study has assessed the present programmes and schemes that existed for extension services along with

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emerging extension models for individual, group and cyber extension services in catering to the growing information needs of farmers. Further, the study analyzed the specific extension approach followed by TNAU, TANUVAS, and line departments, KVKs, FPOs and NGOs.

SIGNIFICANCE OF THE STUDY

Agriculture plays an important role in the Indian economy. Above 70 percent of the rural households depends on agriculture. Supply chain management plays an important role in the development of agricultural distribution. Promotion of supply chain management in agricultural distribution will leads to development of economy. I therefore believe that this study on the supply chain management paddy distribution is important.

STATEMENTS OF THE PROBLEM

Paddy distribution is the backbone of our economy. But after 20th century, the growth of paddy sector is declining tremendously. Heavy rainfall, unbalanced climatic condition, flood, lack of skilled labors, inadequate capitals etc. are major constraints faced by paddy sector. The major problem of paddy distribution is proper supply chain management. Supply chain management plays an important role in the growth of paddy distribution .This paper concentrates about the problems in supply chain management of paddy distribution.

OBJECTIVES OF THE STUDY

- ❖ To study the supply chain management practices of farmers in tirunelveli.
- ❖ To analyze the difficulties faced by the farmers regarding their supply chain of paddy.
- ❖ To make suggestions based on the findings of the study.

RESEARCH METHODOLOGY

The study was based on both primary and secondary data. Primary data were collected by using structured questionnaire. The sample comprises of 110 respondents. Convenience sampling method was used for selecting respondents from the population

LIMITATION OF THE STUDY



- Tirunelveli is a highly populated district, can't generalize the results based on 110 respondents.
- Only covered the tirunelveli district not other district.
- There is a very little time available for the study that has too affected the outcome.

goods to commission agents on the neighboring state market, from there; the intermediaries will buy and sell the products to the unorganized retailers. Retailers not organized in types I and II sell agricultural products to local retailers and then it reaches the customers. Now a days the system getting popular in Tamilnadu is that the organized retailers have middlemen who buy vegetables on behalf of organized retailers and they in turn give to retailers and ultimately it reaches consumers. In sthe districts like Tirunelveli, Thoothukudi, Tenkasi etc., the intermediary retailers buy rice and sell directly to consumers.

SUPPLY CHAIN MANAGEMENT OF PADDY SECTOR

Tamilnadu obtains the majority of rice from the neighboring state particularly AndhraPradesh. The main situation in Tamilnadu is that farmers sell agricultural

ANALYSIS:

1. PERCENTAGE ANALYSIS FOR AGE VARIABLE

PARTICULAR	FREQUENCY	PERCENTAGE
18-21	13	11.81%
22-26	21	19.09%
27-34	32	29.10%
35&above	44	40.00%
TOTAL	110	100.00%

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INFERENCE

From the above result it is observed that out of 100 respondents, 11.81 % are 18-21 age group, 19.09 % are 22-26 age group, 29.10 % are 27-34 age group, and 40 % are above 35 age group.

2. PERCENTAGE ANALYSIS FOR GENDER VARIABLE

TABLE 2

INFERENCE

PARTICULARS	FREQUENCY	PERCENTAGE
MALE	67	61%
FEMALE	43	39 %
TOTAL	110	100%

From the above detail is found that out of 100 respondents 61 % are male and 39 % are females.



3. PERCENTAGE ANALYSIS FOR INCOME VARIABLE

PARTICULARS	FREQUENCY	PERCENTAGE
BELOW 15000	76	69 %
16000-20000	19	17 %
21000-25000	9	8 %
26000-30000	2	2 %
ABOVE 31000	4	4 %
TOTAL	110	100%

INFERENCE

From the above result it is found that out of 100 respondents 69 % earn below 15000, 17% earn 16000-20000, 8 % earn 21000-25000, 2% earn 26000-30000 and 4% earn above 31000.

Analysis No 1 – χ^2 test

NULL HYPOTHESIS: There is no significant difference of opinion between small, medium and large scale farmer towards their difficulties faced with regard to the supply chain management of their paddy.

TABLE NO 4 CLASSIFICATION OF FARMERS

TYPES OF FARMERS	NUMBER OF FARMERS	PERCENTAGE
Small	30	27 %
Medium	57	52 %
Large	23	21 %
TOTAL	110	100

Source: Primary Data

TABLE NO 5: CALCULATION OF χ^2 TEST

O	E	O-E	(O-E) ²	(O-E) ² /E
6	13.5	7.5	56.25	4.17
12	9.9	2.1	4.41	0.45
12	6.6	5.4	29.16	4.42
32	22.5	9.5	90.25	4.01
11	16.5	-5.5	30.25	1.83
7	11	-4	16	1.45
7	9	-2	4	0.44
10	6.6	3.4	11.56	1.75
3	4.4	1.4	1.96	0.44
$\chi^2 = \sum (O-E)^2 / E$				18.96

γ = degrees of freedom

$$r = (r-1)(c-1) = (3-1)(3-1) = 4 \text{ for } \gamma = 4 \chi^2_{0.05} = 9.49$$

INFERENCE: The calculated value of χ^2 (18.96) is much higher than the table value (9.49). So the null



hypothesis is rejected at 5% level of significance. Hence it is concluded that there is significant difference of opinion between small, medium and large scale farmers towards their difficulties faced with regard to the supply chain management of their paddy.

WEIGHTED AVERAGE ANALYSIS:

Weighted average analysis involves calculating a mean by assigning different weights to various elements based on their significance or importance, providing a more accurate representation of the overall data set. This method accounts for variations in impact and emphasizes the influence of specific factors within the data.

NULL HYPOTHESIS:

H0: There is no significant difference between the paddy distribution & reason you consider for not purchase of the paddy (majority. of. people)

H0: There is a significant difference between the paddy distribution & reason you consider form purchase of paddy (majority. of. people)

TABLE 6

	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta	Std. Error		
(Constant)	1.913	0.265			7.223	0
Reason you consider for not purchase of organic products by Majority of the people	0.019	0.124	0.015	0.1	0.149	0.882

INFERENCE

From the test it is found that the significance value is 0.882 which is greater than that table value 0.5. therefore, null hypothesis is accepted.

There is no significant difference between the paddy distribution & reason you consider front purchase of the paddy (majority of the people)

FINDINGS

- According to the study respondents 56% are 18-21 age group, 31% are 22-26 age group, 12% are 27-34 age group, and 4% are above 35 age group
- According to the study 56% are male and 41% are females
- According to the study respondents 51% earn below 15000, 12% earn 16000-20000, 15% earn 21000-25000, 1% earn 26000-30000 and 4% earn above 31000
- By applying χ^2 test there is significant difference of opinion between small, medium and large scale farmers towards their difficulties faced with regard to the supply chain management of their paddy.
- Frequent change in fuel price adversely affects the supply chain management of

rice products.

- Lack of adequate road infrastructure in rural areas has a negative impact on the supply chain for paddy sector.
- The intermediaries make the high commission responsible for the distribution of rice products.
- In rural areas, farmers should not have sufficient financial support to conduct their farming operations.
- The lack of support from local authorities negatively impacts the agricultural commodity supply chain.

SUGGESTIONS

- ✓ Government should take action to address agricultural issues such as lack of storage facilities, lack of financial



support, etc.

- ✓ Local authorities should take the necessary steps to provide farmers with the necessary infrastructure for the distribution of their agricultural produce.
- ✓ The central government should take the necessary steps to reduce the fair toll for the supply chain management of agricultural commodities.
- ✓ The government should provide consumer awareness programmers on the use of chemicals and their impacts.
- ✓ The central and the state government should take the necessary measures to remove the obstacle to the export of rice products.
- ✓ Farmers should find their markets and reduce the dependency of intermediaries.
- ✓ Bank should provide less interest loans to farmers and also gave those in valuable help.
- ✓ Farmers should collectively distribute their agricultural commodities, which will reduce the cost of managing the supply chain.
- ✓ The government should take the necessary steps to launch agricultural universities and help solve problems in the agricultural sector.

CONCLUSION

Based on this study, we would like to conclude that the existing supply chain is not efficient. This does not serve to improve the economic and societal position of farmers, but also ease the consumers to bring quality produce at economic rates. In our study, we found out that the marketing efficiency was high in the system where intermediaries cum retailers sell their produce directly to the consumers compared to the other channel primarily because of the elimination of the marketing margin of the retailers involved in the marketing. Besides, the farmers get more prices per kg of the produce in this groove. Hence, farmers produce more benefit if they trade their merchandise straight to the consumers without affecting any of the commission agents with less intervention of

the mediators.

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