A STUDY ON ENHANCING THE PARTICIPATION OF FARMERS IN REGIONAL COMMODITY EXCHANGES IN INDIA

Dr. K. Nirmala*
Munilakshmi R**

Abstract:

The participation of farmers in Regional Commodity Exchanges is extremely limited. According to market estimates, not even 2000 farmers in India are directly participating in the futures markets (Kavaljit Singh, July 2014). Lack of education, awareness and trust are among the most prominent reasons. As well some of the hurdles that the farmers face even though they aware are high membership fees, high margin deposits and so on are preventing the farmers to participate in the market. Therefore it becomes necessary for the Regional Commodity exchanges to take certain steps to improve the awareness level among farmers and providing necessary infrastructure facilities to trade in Regional commodity exchanges in India. It is in this context the present study is undertaken to study the variables supporting to enhance farmers participation to trade in Regional Commodity exchanges and suggest suitable measures to the exchanges to enhance the participation of farmers.For the purpose of study, survey questionnaire has been used to collect the data from farmers to study their difficulties in participating in Regional Commodity exchanges. The collected data was analyzed with the help of Chi square test. The findings of the study suggested that Infrastructure, Trading system, Grading system and Storage and warehousing system has a significant relationship in improving farmer's participation to trade in Regional Commodity Exchanges.

Key words: *Regional commodity exchange, Farmers participation, Infrastructure, Trading system, Grading system, Storage and warehousing system.*

1. Introduction

Agricultural sector need efficient functioning of its markets to stimulate economic growth and incomes of the large rural population dependent on agriculture. But Agriculture in India is a High risk activity where the farmer prominently faces Yield Risk and Price risk. Yield risk is due to environmental factors like excess/deficient rainfall, temperature fluctuation and crop disease and the latter is due to market factors i.e. demand and supply. Crop insurance, weather insurance, proper irrigational facilities, pest management are available to overcome yield risk. Price risk however is important to be met by the farmer as the variations in prices decide the profits and losses of the farmers. If not the farmer, someone else has to bear the cost of this risk. Minimum support price and procurement programs are prevalent means by

***Dr. K. Nirmala,** Faculty, Dept. of Commerce, Bangalore University, e-mail- knirmalareddy@rediffmail.com
****Munilakshmi R,** Research Scholar, Dept. of Commerce, Bangalore University,
e-mail- mlakshmi15@gmail.com

which the government bears this cost to protect the farmers' interest. However, such interventions are often economically inefficient and lead to distorted resource allocation (Siddharth Surana, CFA).In order to ensure efficient system of trading agricultural markets in almost all the States APMC's were established and regulated under the Agriculture Produce Marketing Development & Regulation Act. Although the APMCs were set up to protect farmers from exploitation of intermediaries and traders and to ensure better prices and timely payment for their produce, but these markets have become inefficient over a period of time. Therefore, it made necessary for the existence of commodity exchanges which can lead to development of structured mechanism of agricultural produce through which non-transparency in price setting can be overcome and could help in making available up-to-date market information through various means including internet at the exchange.

A commodity exchange is essentially a market in which multiple buyers and sellers trade commodity-linked contracts (goods) on the basis of rules and procedures laid down by the exchange. They are centers of information, quality and market discovery and broadcast local and world prices, supply and demand data, weather, and relevant government actions. The price and product discovery function of the commodity exchange also help farmers in developing countries have better product information and a better sense of market capacity when making production decisions. They also play an important role in connecting rural areas to the urban centers as well as linking small farmers to major buyers. Over time they also serve to create jobs for rural non-skilled and labour. A Regional Commodity Exchange can also add liquidity to the market by virtue of the larger number of sellers and buyers of commodities which it pulls together. In other words, a regional commodity market can help solve the problem of thin markets by creating much needed mass and concentrating supply and demand in a specific location. Such an exchange could help address issues of price manipulation which is often a problem in developing countries as well as help in the development of other innovative financing tools for agriculture in particular and infrastructure in general.

In India, the participation of farmers in commodity futures markets is extremely limited. According to market estimates, not even 2000 farmers in India are directly participating in the futures markets (Kavaljit Singh, July 2014). Farmers can benefit directly from futures market by entering into futures contracts to sell their produce at a pre-decided price at a future date or indirectly by growing crops based on the expected future price disseminated through the exchange. However, both these benefits have not been passed on to Indian farmers till date. Lack of education, awareness and trust are among the most prominent reasons. As well some of the hurdles that the farmers face even though they aware are high membership fees, high margin deposits and so on are preventing the farmers to participate in the market. Therefore it becomes necessary for the Regional Commodity exchanges to take certain steps to improve the awareness level and take certain steps in encouraging participation among farmers to trade in Regional commodity exchanges in India. It is in this context the present study is undertaken to study the variables supporting to enhance farmers participation to trade in Regional Commodity

exchangesand suggest suitable measures to the exchanges to enhance the participation of farmers.

2. Review of Literature:

K.N.Ninan in his paper tells that the participation of farmers is very limited in India. According to market estimates, not even 2000 farmers are directly participating in commodity futures in India (**Kavaljit Singh, July 2014**).**Tsega Tadesse (Aug 2010)**, "Ethiopian Commodity Exchange (ECX)-Connecting farmers to the market" describe the Ethiopian Commodity Exchange (ECX) particularly the effectiveness of the system in connecting the farmers to the market. The study indicated that compared to the pre-system situation ECX provides complete, accurate, relevant, and timely information that increase the decision making capability and bargaining power of the farmers. The finding also illustrates that radio played a key role in disseminating market information nationwide to get remunerative prices which encourages them to participate in the commodity futures. The reason that farmers do not use other dissemination tools involves financial problems, unavailability of electric power, language, illiteracy and cost of modern ICT tools.Whereas **Siddharth Surana** highlights some of the prominent constraints limiting farmers participation like procedural requirements, standardized specifications relating to grading and warehousing facilities.It is in this context the present study is undertaken to study the variables supporting to enhance farmers participation to trade in Regional Commodity exchangesand suggest suitable measures to the exchanges to enhance the participation of farmers.

3. Objectives:

1. To study the variables supporting to enhance farmers participation, to trade in Regional Commodity exchanges.
2. To suggest suitable measures to the exchanges in order to improve the participation of farmers to trade in Regional Commodity exchanges.

4. Methodology:

The primary as well as secondary data was collected from books, journals, and websites. Primary data was collected from 50 farmers. The respondents are the farmers who trade in Regional Commodity Exchanges namely India Pepper and Spice Trade association and First Commodities exchange limited, Kochi. Chi-square test is used to test the hypotheses.The variables chosen for the study to know the awareness level of farmers towards commodity market are Infrastructure, Trading System, Grading system and Storage & Warehousing. Data collected has been analyzed with the help of chi-square test.

5. Hypotheses:

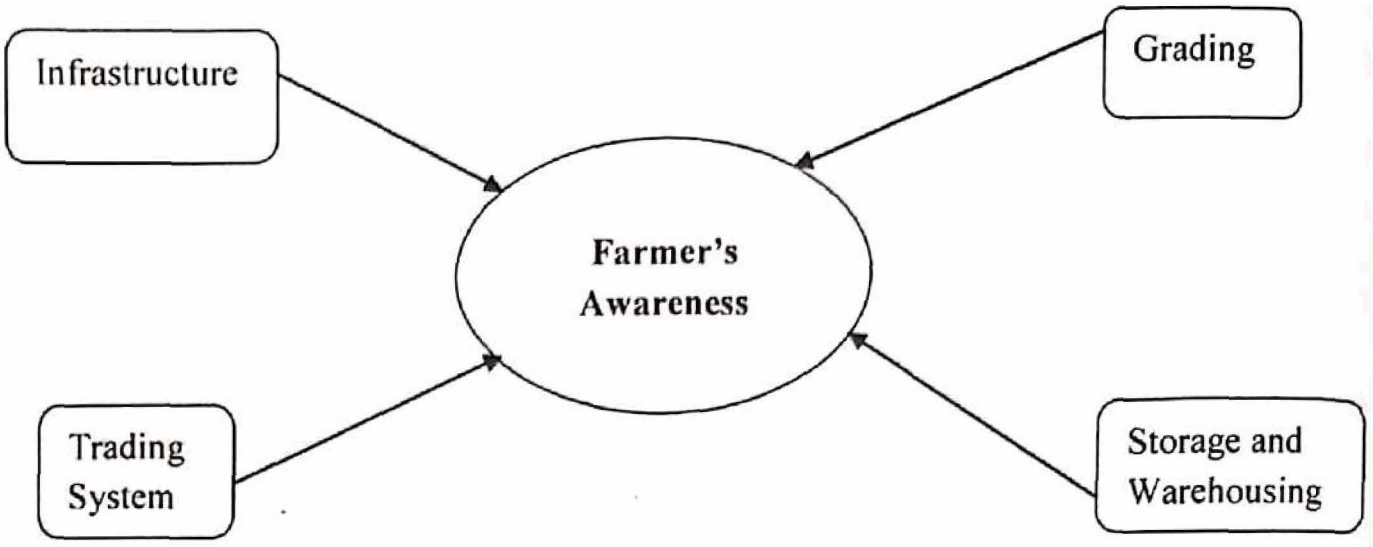
H_1: Infrastructure has a significant relationship in improving the farmers'participation to trade in Regional Commodity exchanges.

H_2: Trading system has a significant relationship in improving the farmers'participation level to trade in Regional Commodity exchanges.

H_3: Grading system has a significant relationship in improving the farmers'participationto trade in Regional Commodity exchanges.

H_4: Storage & Warehousing system has a significant relationship in improving the farmers' participationto trade in Regional Commodity exchanges.

6. Hypothetical Model showing the Significance of Variables in Improving the Participationamong farmers to trade in Regional Commodity Exchanges:



7. Results and Discussions:

The Analysis of Socio-economic variables is shown below

Table 1: Classification of Respondents by Age, Gender, Educational Qualification

Characteristics	Category	Respondents	
		N	%
Age (Years)	26 – 35	13	26
	36 – 45	21	42
	46 – 65	16	32
Gender	Male	37	74
	Female	13	26
Educational Qualification	Degree	09	18
	School	23	46
	Nil	18	36
Total	**50**	**50**	**100**

The data in Table 1 highlights the profile of respondents based on age group, Gender and the Educational Qualification. The table reveals that the highest percentage of respondents (42%) is between the age group of 36-45, followed by the age group of 46-65 which is (32%). The lowest percentage (26%) of respondents is between the age group (26-35). Hence it is understood that the youngsters have moved to urban areas and the farmers are

between age group 36-45 years. The male respondents are higher (74%) than female respondents.The table reveals that 46% of respondents are school educated followed by 18% of respondents who are degree holders and 36% have no education background.

Table 2: Aspect wise Mean Scores of Farmers on their Perception towards Regional Commodity Exchange:

Variables	Mean scores	Chi square value
Infrastructure	2.46	30.4*
Trading system	2.60	8.6*
Grading system	1.70	63.4*
Storage and Warehousing system	2.80	15.6*

*** Significant at 5% Level**

From the above table it is clear that, Storage and Warehousing system scores a high of 2.80 followed by trading system with 2.60. The mean score of grading system (1.70) is comparatively less. This shows that Farmers participation in Regional commodity exchange can be improved through proper Storage and warehousing system and trading system to a greater extent followed by Infrastructure and Grading system.

Testing of Hypotheses

The impact of Infrastructure, Trading System, Grading system and Storage and Warehousing system is tested and proved with chi square test. The test result shows that all the variables have high significant impact on farmers' perception to trade in Regional commodity exchange. Therefore the Research Hypothesis is accepted.

H_1: Infrastructure has a significant relationship in improving the farmers' participation to trade in Regional Commodity exchanges.

The Chi-square value shows a considerable significance at 30.4* indicating that Infrastructure plays a very important role in improving farmers participation towards regional commodity exchange. Infrastructure can contribute towards theimprovement of trading in regional commodity exchange platforms.

H_2: Trading system has a significant relationship in improving the farmers' participation to trade in Regional Commodity exchanges.

The Chi-square value shows a considerable significance at 8.6* indicating that Trading system plays a very important role in improving farmers participation towards regional commodity exchange. As Electronic trading would improve the quality and dissemination of information (Joseph M.Burns,2014)

H_3: Grading system has a significant relationship in improving the farmers'participation to trade in Regional Commodity exchanges.

The Chi-square value shows a considerable significance at 63.4* indicating that Grading system plays a highly significant role in improving farmers participation towards regional commodity exchange. As grading ensures the farmers in remunerative prices for their commodities so that farmers participation level can be improved.

H_4: Storage & Warehousing system has a significant relationship in improving the farmers'participation to trade in Regional Commodity exchanges.

The Chi-square value shows a considerable significance at 15.6* indicating that Storage and warehousing system has a major role in improving farmers participation to trade in regional commodity exchange. AsWarehousing facility allows farmers to store their commodities for extended periods and to benefit from off-season price fluctuations.

Table 3: Summary of Results of Hypotheses (H_1-H_4)

Hypotheses	Significance
H_1– Infrastructure has a significant relationship in improving the farmers' participation to trade in Regional Commodity exchanges.	Significant
H_2– Trading system has a significant relationship in improving the farmers' participation to trade in Regional Commodity exchanges.	Significant
H_3- Grading system has a significant relationship in improving the farmers' participation to trade in Regional Commodity exchanges.	Significant
H_4- Storage & Warehousing system has a significant relationship in improving the farmers' participation to trade in Regional Commodity exchanges.	Significant

8. Conclusion:

The impact of Infrastructure, Trading System, Grading system and Storage and Warehousing system is tested and proved with chi square test. The test result shows that all the variables have high significant impact on farmers' perception to trade in Regional commodity exchange. Forward market commission (Regulator of Commodity futures market) has to take certain steps to enhance the participation of farmers like it should launch micro and mini contracts (with small trading lots and tick size) across all agricultural commodities to encourage the direct participation of farmers and small traders, government should allow farmer cooperatives and agricultural marketing federations (such as IFFCO and NAFED) to act as aggregators and hedge positions in futures exchanges on the behalf of their farmers.

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