

IMPACT OF FARMER PRODUCER ORGANIZATION ON MARKET LINKAGE AND PRICE FLUCTUATIONS: A STUDY ON TOMATO MARKET IN KOLAR DISTRICT

Authors

1) **Dr. Rangappa Yaraddi,**

Faculty of MBA Department, KSRDPR University, Gadag

2) **Prof. Jyothis Satyapalan,**

Head of the CPGS and DE of NIRDPR, Hyderabad

3) **Ms. Veena Lamani,**

MBA 2nd Year Student, KSRDPR University, Gadag

Abstract

Farmer Producer Organizations (FPOs) play a crucial role in the Indian agriculture sector by facilitating the collective engagement of small and marginalized farmers in various agricultural activities. These organizations are vital in enabling farmers to access resources more effectively, enhancing their bargaining power, and elevating their overall living standards. The success of FPOs hinges on efficient market linkages, allowing them to establish connections with both local and global markets.

75 FPO members and 75 non-members made up the study's sample. Primary data for the study collected from well-established tested questionnaire farmers who were FPO members and non-members of tomato, while secondary data collected from research papers, agriculture marketing, newspapers, EWRF and India statistics. Tomato farmers served as the study's sampling point. The SPSS software's t-test was used to analyse the data for this study.

Farmers express dissatisfaction due to the lack of pricing control and insufficient marketing connections within the Farmer Producer Organizations (FPOs). The study suggests that FPOs should take steps to build cold storage facilities for agricultural produce and establish additional market linkages to address these concerns and enhance farmer satisfaction.

Keywords: FPO, Tomato growers, Market linkage, Value chain, Price fluctuation, Price stability, Production cost, Transportation, Storage, Consumer behaviour, Weather condition.

Introduction

FPO plays major role in India. FPO's are the co-operative body of farmers for the self-help, self-responsible with transparent and democratic farmer group. The individual farmer cannot acquire all facilities from government and difficult to sustain in the individual mode of processing, marketing and other agricultural activities as the aim of FPO is to strengthen the individual farmer by providing the facilities by the power of organization. Farmer collectives (Farmer Producer Organizations and Farmer Producer Companies) have recently received a lot of attention in terms of transforming India's Agri sector. Market linkage is one of the key factors for the success of a farmer collective. Supply chains can transform into efficient, demand-driven, and market-oriented value chains only by enabling the market to connect and eliminating inefficient processes and intermediaries. While FPOs can encourage their member farmers to adopt productivity-boosting technologies, with effective market linkages, they can leverage economies of scale by building necessary infrastructure and can partner with markets physically as well as via e-commerce (B2B2C, B2B, and B2C) platforms at the front end. Market linkage refers to FPOs ability to connect farmers with market both local and global. Effective market linkage can have several positive impacts on FPOs. It can provide access to a large customer's base, increase the demand for their produce and lead to higher revenue for the members. Price fluctuations are a significant concern for FPOs and the farmers they represent. Agriculture market the often subject to price volatility due to factors such as weather condition, supply and demand imbalance and economic trends. When prices are fluctuated, FPOs and their members directly affected. Besides, rain fury has worsened the supply, causing further price increases. The reason for the current high prices can be traced back to their sudden fall in April-May, which led many growers to abandon their crops. The unusual heat of March and April also saw pest attacks that took a toll on production. The surge in tomato prices can be attributed to a combination of factors, including delayed monsoon, inadequate production and extreme heat. The sudden rise in temperatures during March and April has also been identified as a significant cause, as it led to pest attacks on tomato crops, resulting in lower yields and higher market rates.

REVIEW OF LITERATURE

Shivani Dechamma. This study shows the impact of FPOs on its members. The FPOs providing the better services in terms of credit facilities, availability of inputs at very reasonable prices, and marketing of commodities grown by them to realize better prices. The researcher says the impact of FPOs on annual income, crop yield and social status was considered.

Sneha Kumari et.al. In this paper several factors are contributing the low profitability in Indian agriculture like less value addition, weak value chain system and weak market linkage are most important factors. The Farmer Producer Organization have is facilitated the connection between agriculture commodities and market it's increased the revenue of the farmers. Producer companies and FPOs are enabling small farmers to enter the market collectively. Data was collected through telephonic interview with board members, chairpersons and FPOs members.

Dilip Rasiklal Vahoniya et. al. The concept of a Producer Company (PC) was introduced in 2002 to benefit farmers and agriculturalists, to improve their living standards, income, and profitability. It combines features of both a cooperative society and a private limited company. Farmer Producer Companies draft their objectives, activities, benefits, and registration processes.

Nalini Bikkina et.al. The emergence of organizational prototypes like Farmer Producer Organizations (FPOs) the aims to integrate small and marginal farmers into the agricultural value chain. The potential to enhance incomes and reduce transaction costs through collective action. The author suggests that FPOs have the potential to provide benefits through effective collective action.

Mohd. Ameer Khan et.al. The contribution of agriculture to GDP has declined from 50% in 1950 to 16.5% in 2019-20. During the Covid-19 pandemic, agriculture contribute a positive growth of 3.4% in the first quarter of 2020-21. Farmers face challenges like land and water scarcity, inadequate infrastructure, and financial services. The government aims to double farmers' income by 2022-23 by addressing these issues. Farmer Producer Organizations (FPOs) are seen as a way to enhance farmers' collective strength.

OBJECTIVES OF THE STUDY:

1. To study the role of FPOs in market linkage of tomato
2. To study the role of FPOs in stabilizing the price of tomato

HYPOTHESIS:

1) To study the role of FPOs in market linkage of tomato

H1 (Alternative Hypothesis): FPOs plays significant role in market linkage of tomato

H0 (Null Hypothesis): There is no significant relationship between FPOs and market linkage of tomato

2) To study the role of FPOs in stabilizing the price of tomato

H2 (Alternative Hypothesis): There is no relationship between FPOs and stabilizing the price of Tomato.

H0 (Null Hypothesis): FPOs play a crucial role in stabilizing the price of Tomato.

METHODOLOGY

Primary data: In this study Primary data for the study collected from well-established tested questionnaire farmers who were FPO members and non-members of tomato in Kolar district.

Secondary Data: Research papers, newspaper, India stat, agriculture marketing, shodhaganga, government websites and EWRFSources were the sources from which the secondary data were gathered.

Sampling design: In this study, Kolar district was selected for the data collection. Data collection was conducted using Google forms, as online survey tool to gather responses from participant.

Sampling Method: During the study, the researcher has adopted simple random sampling method to collect the data from sample point.

Sample Point: During the study the data was collected from the tomato growers in Kolar district.

Sample Description: Kolar is having the greater number of growers of tomato in Karnataka. The survey conducted for this study was aimed at assessing the impact of FPO on market linkage and price fluctuation on tomato farmers in Kolar district.

Sample Size: During the study data was collected from sample of 75 are non-members and 75 are FPO members a total of 150 respondents through Google form questionnaire.

Data Collection Tool: the study utilized questionnaire to gather data from respondents. The first part focused on collecting demographic information, while the second part includes 16 objective related questions.

Statistical Test Applied: the data for this study underwent analysis using both MS Excel and SPSS. T-test was employed at a confidence level of 95% for the data analysis.

DATA ANALYSIS RESULT

Testing of Hypothesis 01:

H0 (Alternative Hypothesis): FPOs plays significant role in market linkage of tomato

H1 (Null Hypothesis): There is no significant relationship between FPOs and market linkage of tomato

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Market Linkage 01	75	4.09	.975	.113
Market Linkage 02	75	1.29	.673	.078
Market Linkage 03	75	1.21	.444	.051
Market Linkage 04	75	2.84	1.748	.202
Market Linkage 05	75	1.25	.438	.051
Market Linkage 06	75	1.73	1.308	.151
Market Linkage 07	75	3.96	1.071	.124
Market Linkage 08	75	2.03	.697	.080
Market Linkage 09	75	4.20	.493	.057

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Market Linkage 01	9.711	74	.000	1.093	.87	1.32
Market Linkage 02	-21.952	74	.000	-1.707	-1.86	-1.55
Market Linkage 03	-34.851	74	.000	-1.787	-1.89	-1.68
Market Linkage 04	-.793	74	.430	-.160	-.56	.24
Market Linkage 05	-34.547	74	.000	-1.747	-1.85	-1.65
Market Linkage 06	-8.385	74	.000	-1.267	-1.57	-.97
Market Linkage 07	7.763	74	.000	.960	.71	1.21
Market Linkage 08	-12.094	74	.000	-.973	-1.13	-.81
Market Linkage 09	21.071	74	.000	1.200	1.09	1.31

From the above table for 74 degree of freedom the critical value of t is 1.990 for 0.05 level of significance. In the above table variable 04 is more than 5% significance level. Except 04th variable other t-values are more than critical value of t 1.990. Hence Alternative Hypothesis H1: “There is no significant relationship between FPOs and market linkage of tomato is accepted” and Null Hypothesis H0: “FPOs play a major role in market linkage of tomato is rejected”.

Testing of Hypothesis 02

H2 (Alternative Hypothesis): There is no relationship between FPOs and stabilizing the price of Tomato.

H0 (Null Hypothesis): FPOs play a crucial role in stabilizing the price of tomato.

**T-Test
One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
Price Fluctuation 01	75	1.48	.601	.069
Price Fluctuation 02	75	4.81	.392	.045
Price Fluctuation 03	75	4.17	.476	.055
Price Fluctuation 04	75	1.63	.632	.073
Price Fluctuation 05	75	4.05	.715	.083
Price Fluctuation 06	75	3.27	.577	.067
Price Fluctuation 07	75	1.83	.778	.090

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	(2-Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Price Fluctuation 01	-21.906	74	.000	-1.520	-1.66	-1.38
Price Fluctuation 02	40.034	74	.000	1.813	1.72	1.90
Price Fluctuation 03	21.360	74	.000	1.173	1.06	1.28
Price Fluctuation 04	-18.822	74	.000	-1.373	-1.52	-1.23
Price Fluctuation 05	12.766	74	.000	1.053	.89	1.22
Price Fluctuation 06	4.000	74	.000	.267	.13	.40
Price Fluctuation 07	-13.067	74	.000	-1.173	-1.35	-.99

From the above table for 74 degree of freedom the critical value of t is 1.990 for 0.05 level of significance. Further the t-values are more than critical value of t 1.990 and significance level of all variables are less than 0.05. Hence Alternative hypothesis H2: “There is no relationship between FPOs and stabilizing the price of Tomato” is accepted and Null Hypothesis H0: “FPOs play a crucial role in stabilizing the price of tomato” is rejected.

Findings:

- The results shown in the table that the FPO is not playing any role in the price and market linkage.
- A few farmers steer clear of FPOs due to the fact that they only accept "A" grade produce.
- Farmers express dissatisfaction due to the lack of pricing control and insufficient marketing connections within the Farmer Producer Organizations (FPOs).

Limitations of the study

- The study was conducted in Kolar district of Karnataka State and the findings are drawn based on the Kolar district of Karnataka State which is not applicable for whole state.
- The study was carried out only on the tomato crop which doesn't applicable for other crops

Suggestions

- The FPOs need to reach out to the farmers to facilitate the marketing of their produce through the FPO extension functions.
- The FPO has to engage with farmers and assist them in promoting and selling their agriculture products effectively by utilizing the services provided by concerned Govt. Departments or APMCs.
- FPOs should take steps to build cold storage facilities for agricultural produce and establish additional market linkages to address these concerns and enhance farmer satisfaction.

CONCLUSION

Kolar district in Karnataka stands out as a prominent region with a high concentration of tomato growers. The FPO in the area faces a notable challenge as they often do not play a significant role in influencing prices. The absence of robust marketing connection poses a considerable hurdle for FPOs, hindering farmers from accessing markets and negotiating favorable prices. Both FPO and non-FPO farmers in Kolar district resort to common channel such as APMC, reliance, and big Basket to sell their produce. To address this issue, there is need of providing improved marketing opportunities. Dissatisfaction among farmers is perceivable due to perceived lack of pricing control and inadequate marketing connection within the FPOs. The study recommends strategic measures for FPOs, emphasizing of cold storage facilities for agriculture produce and the creation of additional market linkage. These initiatives are crucial not only to address existing concerns but also to elevate farmer's satisfaction in the long run.

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