

**PERFORMANCE ANALYSIS OF FARMERS' PRODUCER
ORGANIZATIONS (FPOs) IN CHAMARAJANAGAR
DISTRICT OF KARNATAKA STATE**

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**DEPARTMENT OF AGRICULTURAL MARKETING,
CO-OPERATION AND BUSINESS MANAGEMENT**

**UNIVERSITY OF AGRICULTURAL SCIENCES
BENGALURU-560 065**

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DISTRICT OF KARNATAKA STATE**

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Thesis submitted to the

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In partial fulfillment of the requirements for the award of the Degree of

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In

AGRICULTURAL MARKETING AND CO-OPERATION

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AUGUST, 2018




*Affectionately
Dedicated to
My Venerated
Parents and Sisters*

**DEPARTMENT OF AGRICULTURAL MARKETING,
CO-OPERATION AND BUSINESS MANAGEMENT
UNIVERSITY OF AGRICULTURAL SCIENCES, GKVK,
BENGALURU-560 065**

CERTIFICATE

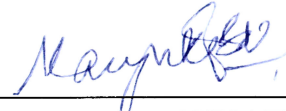
This is to certify that the thesis entitled “Performance Analysis of Farmers’ Producer Organizations (FPOs) in Chamarajanagar District of Karnataka State” submitted by Ms. T. H. Bhuvaneshwari, ID No. PALB 6152 in partial fulfilment of the requirement for the degree of Master of Science (Agriculture) in Agricultural Marketing and Co-operation to the University of Agricultural Sciences, Bengaluru, is a record of bona-fide research work done by her during the period of study in this university under my guidance and supervision and no part of the thesis has been submitted for the award of any other degree, diploma, associateship, fellowship or any other similar titles.

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**BENGALURU
AUGUST, 2018**

(T. H. BHUVANESHWARI)

**PERFORMANCE ANALYSIS OF FARMERS' PRODUCER ORGANIZATIONS
(FPOs) IN CHAMARAJANAGAR DISTRICT OF KARNATAKA STATE**

ABSTRACT

The present study was undertaken in Kollegala, Chamarajanagar and Gundlupete taluks of Chamarajanagar district in Karnataka State during 2017-18 to evaluate the performance of FPOs. Three FPOs were selected for the study, ninety members were selected from six villages and the collected data was analyzed by appropriate statistical tools. More than one third (37%) of the respondents had a medium level of participation. About 41.11 per cent of the members opinioned that they had a medium level of satisfaction with respect to the services provided by the FPO. Education and landholding were having a positive and significant relationship with the participation of members in various activities of FPO, whereas, experience in farming, land holding and education were having a positive and significant relationship with the services provided by the FPOs. Performances of FPOs assessed through the liquidity ratio current, quick and liquid assets to total ratio were observed to be satisfactory. Solvency ratios were satisfactory, the debt-equity ratio was not desirable because of the FPOs were dependent on Government funds. Profitability and efficiency ratios of FPOs were found to be bit non-satisfactory. Nearly half of members (42.22%) of the respondents had a medium level of satisfaction towards working of FPO. The study concluded that the FPOs have not been able to make significant growth in terms of expansion of services to meet the diversified needs of members.

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**ಕರ್ನಾಟಕ ರಾಜ್ಯದ ಚಾಮರಾಜನಗರ ಜಿಲ್ಲೆಯ ರೈತರ ಉತ್ಪಾದಕರ ಸಂಸ್ಥೆಗಳ (ಎಫ್‌ಪಿಒ)
ಕಾರ್ಯಕ್ಷಮತೆಯ ವಿಶ್ಲೇಷಣೆ**

ಸಾರಾಂಶ

ಕರ್ನಾಟಕ ರಾಜ್ಯದ ಚಾಮರಾಜನಗರ ಜಿಲ್ಲೆಯ ಕೊಳ್ಳೇಗಾಲ, ಚಾಮರಾಜನಗರ ಮತ್ತು ಗುಂಡ್ಲುಪೇಟೆ ತಾಲೂಕುಗಳಲ್ಲಿ ರೈತರ ಉತ್ಪಾದಕರ ಸಂಸ್ಥೆಗಳ ಕಾರ್ಯಕ್ಷಮತೆಯ ಮೌಲ್ಯಮಾಪನ ಮಾಡಲು ಪ್ರಸ್ತುತ ಅಧ್ಯಯನವನ್ನು ೨೦೧೭-೧೮ ರಲ್ಲಿ ಕೈಗೊಳ್ಳಲಾಯಿತು. ಅಧ್ಯಯನಕ್ಕಾಗಿ ಮೂರು ಎಫ್‌ಪಿಒಗಳನ್ನು ಆಯ್ಕೆಮಾಡಿ ತೊಂಬತ್ತು ಸದಸ್ಯರನ್ನು ಆರು ಗ್ರಾಮಗಳಿಂದ ಆರಿಸಲಾಯಿತು ಹಾಗೂ ಸಂಗ್ರಹಿಸಿದ ಮಾಹಿತಿಯನ್ನು ಸೂಕ್ತ ಸಂಖ್ಯಾಶಾಸ್ತ್ರೀಯ ಪರಿಕರಗಳಿಂದ ವಿಶ್ಲೇಷಿಸಲಾಯಿತು. ಈ ಅಧ್ಯಯನದ ಫಲಿತಾಂಶದಿಂದ ತಿಳಿಯುವುದೇನೆಂದರೆ ಶೇಕಡಾ ಮೂರನೇ ಒಂದು ಭಾಗದಷ್ಟು (೩೭%) ಸದಸ್ಯರು ಚಟುವಟಿಕೆಗಳಲ್ಲಿ ಮಧ್ಯಮ ಮಟ್ಟದ ಪಾಲ್ಗೊಳ್ಳುವಿಕೆಯನ್ನು ಹೊಂದಿದ್ದಾರೆ. ಸುಮಾರು ಶೇಕಡಾ ೪೧ ರಷ್ಟು ಸದಸ್ಯರು ಎಫ್‌ಪಿಒ ಒದಗಿಸುವ ಸೇವೆಗಳಿಂದ ಮಧ್ಯಮ ಮಟ್ಟದ ತೃಪ್ತಿಯನ್ನು ಹೊಂದಿದ್ದಾರೆ. ಶಿಕ್ಷಣ ಮತ್ತು ಭೂ ಹಿಡುವಳಿಯು ಎಫ್‌ಪಿಒನ ವಿವಿಧ ಚಟುವಟಿಕೆಗಳಲ್ಲಿ ಸದಸ್ಯರ ಭಾಗವಹಿಸುವಿಕೆಯೊಂದಿಗೆ ಧನಾತ್ಮಕ ಹಾಗೂ ಮಹತ್ವದ ಸಂಬಂಧವನ್ನು ಹೊಂದಿದ್ದಾರೆ ಆದರೆ ವ್ಯವಸಾಯದ ಅನುಭವ, ಶಿಕ್ಷಣ ಮತ್ತು ಭೂ ಹಿಡುವಳಿಯು ಎಫ್‌ಪಿಒಗಳಿಂದ ಪಡೆದುಕೊಳ್ಳುವ ಸೇವೆಗಳ ಮೇಲೆ ಸದಸ್ಯರು ಧನಾತ್ಮಕ ಹಾಗೂ ಮಹತ್ವದ ಸಂಬಂಧವನ್ನು ಹೊಂದಿದ್ದಾರೆ. ದ್ರವ್ಯತೆ, ಪ್ರಸ್ತುತ, ತ್ವರಿತ ಮತ್ತು ದ್ರವ ಆಸಿಯು-ಸಂಪೂರ್ಣ ಆಸಿಯ ಅನುಪಾತಗಳ ಮೂಲಕ ಎಫ್‌ಪಿಒಗಳ ಕಾರ್ಯನಿರ್ವಹಣೆಯ ಮೌಲ್ಯಮಾಪನ ವಿಶ್ಲೇಷಣೆಯನ್ನು ಕೈಗೊಂಡಿದ್ದು ತೃಪ್ತಿಕರವೆಂದು ಕಂಡುಬಂದಿದೆ. ಸಾಲಪಾವತಿ ಅನುಪಾತವು ತೃಪ್ತಿಕರವಾಗಿದೆ ಆದರೆ ಎಫ್‌ಪಿಒಗಳು ಸರ್ಕಾರಿ ಬಂಡವಾಳಗಳ ಮೇಲೆ ಅವಲಂಬಿತವಾಗಿದ್ದ ಕಾರಣದಿಂದ ಸಾಲ-ಸಾಮ್ಯ ಅನುಪಾತವು ಅಪೇಕ್ಷಣೀಯವಲ್ಲ, ಆದಾಗ್ಯೂ ಹೆಚ್ಚಿನ ಬಾಹ್ಯ ನಿಧಿ ಮತ್ತು ಕಾರ್ಯವಾಹಿ ಬಂಡವಾಳದ ಕೊರತೆಯಿಂದಾಗಿ ಲಾಭ ಕಡಿಮೆಯಾಗಿದೆ. ಇದರ ಪರಿಣಾಮವಾಗಿ ಎಫ್‌ಪಿಒಗಳ ಲಾಭದಾಯಕ ಮತ್ತು ದಕ್ಷತೆ ಅನುಪಾತಗಳು ಕಿಂಚಿತ್ತು ತೃಪ್ತಿಕರವಾಗಿ ಕಂಡುಬಂದಿಲ್ಲ. ಸುಮಾರು ಅರ್ಧದಷ್ಟು (೪೨.೨೨%) ಸದಸ್ಯರು ಎಫ್‌ಪಿಒನ ಕಾರ್ಯವೈಖರಿಗೆ ಮಧ್ಯಮ ಮಟ್ಟದ ತೃಪ್ತಿ ಹೊಂದಿದ್ದಾರೆ. ಆದಾಗ್ಯೂ, ಎಫ್‌ಪಿಒಗಳ ಪರಿಣಾಮಕಾರಿ ಕಾರ್ಯನಿರ್ವಹಣೆಗಾಗಿ ಸಾಕಷ್ಟು ಬೆಂಬಲದ ಅವಶ್ಯಕತೆಯಿದೆ ಮತ್ತು ಎಫ್‌ಪಿಒಗಳು ಅಸಮರ್ಪಕತೆಗಳನ್ನು ಎದುರಿಸುತ್ತಿವೆ. ಎಫ್‌ಪಿಒಗಳು ಸದಸ್ಯರ ವೈವಿಧ್ಯಮಯ ಅಗತ್ಯಗಳನ್ನು ಪೂರೈಸಲು ಸೇವೆಗಳ ವಿಸ್ತರಣೆಯ ದೃಷ್ಟಿಯಿಂದ ಮಹತ್ತರವಾದ ಬೆಳವಣಿಗೆಯನ್ನು ಸಾಧಿಸಲು ಸಾಧ್ಯವಾಗಲಿಲ್ಲ ಎಂದು ಅಧ್ಯಯನವು ಪ್ರಸ್ತುತಪಡಿಸುತ್ತಿದೆ.

(ಟಿ. ಹೆಚ್. ಭುವನೇಶ್ವರಿ)
ವಿದ್ಯಾರ್ಥಿ

(ಬಿ. ಎನ್. ಮಂಜುನಾಥ)

ಪ್ರಧಾನ ಮಾರ್ಗದರ್ಶಕರು

ಪ್ರಾಧ್ಯಾಪಕರು (ಕೃಷಿ ವಿಸ್ತರಣೆ) ಮತ್ತು ಮುಖ್ಯಸ್ಥರು

ಕೃಷಿ ತಂತ್ರಜ್ಞಾನ ಮಾಹಿತಿ ಕೇಂದ್ರ,

ಕೃಷಿ ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಜಿ.ಕೆ.ವಿ.ಕೆ, ಬೆಂಗಳೂರು-೫೬೦ ೦೬೫

Participation of Members in FPO Activities: A Study in Chamarajanagar District of Karnataka



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INTRODUCTION

The agrarian structure in India is dominated by small and marginal farmers (85 %). Therefore, the future of sustainable agriculture growth and food security in India depends on the performance of small and marginal farmers. They are facing many challenges such as production, processing and marketing problems. Farmer Producer Organization (FPO) facilitates holistic development of the small and marginal farmers and long term sustainability of the rural agricultural eco-system.

Farmer Producer Organization (FPO) is a rural business, owned and controlled by producers and engaged in collective marketing activities (Penrose-Buckley, 2007).

Members Participation is very significant in contribution towards the upliftment of economic and social status of the FPOs.

In India, Small Farmers Agri-business Consortium (SFAC) supported FPOs are 739, out of which Madhya Pradesh (135), Karnataka (116) and Maharashtra (85) are having highest number of FPOs, whereas, NABARD supported FPOs are 2154, out of which Karnataka (186), Tamil Nadu (170) and Madhya Pradesh (160) are having highest number of FPOs as on 2018. (<http://sfacindia.com/List-of-FPO-Statewise.aspx>)

OBJECTIVE

- To assess the participation of members in various activities of FPO

METHODOLOGY

Study area: The study was conducted in Chamarajanagar district of Karnataka covering three taluks viz., Chamarajanagar, Kollegal and Gundlupete. From each taluk one FPO was selected, from each FPO 30 samples were selected randomly which accounts to the total sample size of 90.

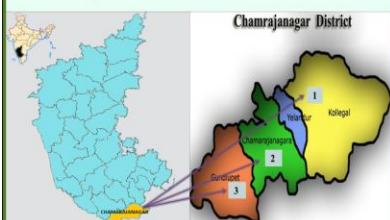


plate 1: Map depicting the study area of Chamarajanagar District

Collection of data: Interview schedule was used for collection of information from participants in FPO activities.

Tools and techniques

Participation of members in FPO activities were analysed using a two continuum scale namely "not participated" and "participated" based on mean (Procedure suggested by Dhaliwal, 1963).

RESULTS

The details of the results are presented in the following tables

Table 1: Participation of members in FPO activities (n=90)

Sl. No.	Activities	FPO members			
		Not participated		Participated	
		No.	%	No.	%
1.	Extension activities	8	8.88	82	91.12
2.	Meetings	9	10	81	90.00
3.	Marketing to institutional buyers	29	32.22	61	67.78
4.	Output business	7	7.77	83	92.23
5.	Services	5	5.55	85	94.45
6.	Quality control	11	12.22	79	87.78
7.	Aggregation and storage of produce	24	26.66	66	73.34
8.	Drying, cleaning, grading	6	6.66	84	93.34
9.	Custom hiring center	14	15.55	76	84.45
10.	Collective production	15	16.66	75	83.34

Table 2: Overall participation of members in FPO activities (n=90)

Sl. No.	Participation level	Scores	FPO members	
			Frequency	%
1.	Low	<8.095	3	3.34
2.	Medium	8.095 - 9.185	72	80.00
3.	High	>9.185	15	16.66
Total			90	100.00

Mean= 8.64

SD=1.09

DISCUSSION

The findings from the empirical results revealed that, majority of the members showed highest participation in all activities except few. Out of ten activities, services was most effective with 94.45 per cent and marketing to institutional buyers was least effective (67.78 %). From the results it is clearly indicated that members participated in services to get highest benefits from the FPO. It is concluded that, participation has significant impact on members (Table 1).

Further, it was found that 80 per cent of the members had medium participation followed by 16.66 per cent and 3.34 percent of the participants had high and low participation respectively (Table 2).

Majority of the members comes under medium level of participation (80 %), it might be due to lack of awareness regarding benefits of activities and some of them participated in other subsidiary activities which are more remunerative than these activities.

GRAPHS AND PHOTOGRAPHS

Participation Level

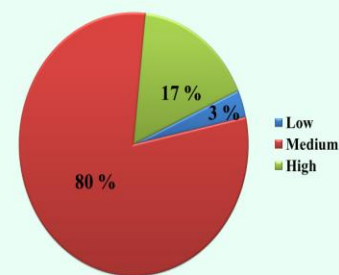


Fig. 1: Overall participation of members in FPO activities



Plate 2: Members participation in different activities

SUMMARY

- The FPO is considered as formal rural organization whose members organized themselves with the objective of improving farm income through improved production, marketing and local processing activities.
- The empirical results from this analysis suggest that members perceive FPO as a positive means for improving their economic welfare. In general, members participate in FPOs because they view it as an institution that can help them to reduce production and marketing risks and ultimately it enhances their business operations and ultimately boost their income level.
- To enhance participation, the Government should increase its efforts in promoting and publicizing member participation in FPOs.

ADVISORY COMMITTEE

Chairman: Dr. B. N. Manjunatha

Members: Dr. G. N. Nagaraja
Dr. M. S. Ganapathy
Dr. K. N. Krishnamurthy

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I INTRODUCTION

Agriculture has been remaining an important sector of Indian economy, which bears the responsibility to meet the food and nutrition needs of the country's large population. It also interacts with the natural resource base, while being the source of livelihood for more than half the country's population. This is complemented by the following facts:

- Projections of India's population reaching 1.6 billion by 2050 shall entail a rapid increase in food requirements.
- Agriculture accounts for 70 per cent of total global freshwater withdrawals, making it the largest user of water. At the same time, the food production and supply chain consume about 30 per cent of total energy consumed globally.
- 58 per cent of India's population is dependent on agriculture, however, the growth rate of agriculture in India over the last decade has been stagnating and has gone down to 1.8 per cent in 2006, whereas industrial growth has been buoyant at more than nine per cent. Such skewed growth rates are a matter of serious concern for planners and policymakers of the country at the highest level (Mondal, 2010). The share of agriculture in Indian GDP has reduced from 29.2 per cent in 1989 to 17.8 per cent in 2009.
- 85 per cent i.e. 138 million farmers in India were small farmers having 45 per cent of the total land under agriculture (Ministry of Agriculture, 2013). A study in 2012 estimates 51.2 per cent of the total food production as being produced by small farmers (Bhamra, 2017).

Farmers and Agriculture in India have been going through a very dynamic process during the last few decades. More than 90 per cent of the small and marginal farmers (SMF) are dependent on rain for their crops. In absolute numbers, there are about 90-100 million SMF in India who depend on agriculture for income and employment. Due to the continued phenomenon of land fragmentation, the number of SMF is ever increasing.

Only minority of Indian farmers served by the formal agriculture extension system due to various limitations including the structural problems. Only nine per cent of

farmers receive extension services from government extension staff, while 19 per cent of farmers depend on private input dealers for advice (Anon., 2016). This implies that poor extension systems led to a situation where farmers do not have any problem-solving mechanism for improving their productivity. This has created a widening gap between the agriculture research results and their adoption on the ground.

A large chunk of SMF seeks farm credit from moneylenders while only a limited number from banks. In the XI and XII plan, there has been a significant jump in supply of agriculture credit; however, in Reserve Bank of India (RBI) own admission the SMF share in institutional credit is less than 10 per cent.

Agriculture Produce Marketing Committee (APMC) to some extent has provided needed safeguard to the farmers against exploitation by the market intermediaries. However, it has restricted competitiveness in the market. Also, it could not expand its reach to the remote areas. There is one regulated market per 450 sq. km. Perhaps, not even one-third of Indian farmers, especially the SMF, have access to the formal agriculture marketing system, leaving the rest dependent on the informal service providers which are exploitative and non-remunerative. The Model APMC Act., which advocates open trade between buyers and sellers outside the market yard, has not been adopted by many state governments. And where adopted it has been either adopted partially or the rules make the changes ineffective. The role of the organized private sector in the primary agriculture market is thus very limited. Corporate and other bulk buyers of agriculture commodities find the transaction costs of dealing with a large number of small producers prohibitively high and prefer dealing with bigger farmers and Mandi aggregators. The middlemen fill the gap by making a huge margin. Although the share of cooperatives in fertilizer distribution is 36 per cent, yet there are huge uncertainties in input supplies mainly due to malpractices in the distribution system. Things are likely to improve with the Government's recent move to digitize fertilizer distribution system and direct subsidy transfer to the farmer's bank account (Anon., 2016).

The recent Government policy, including the reform of Agricultural Produce Marketing Commission (APMC) Act, is largely aimed to open the way to contract

farming and agricultural production at industrial scale. The Government of India's National Agriculture Policy envisages that private sector participation will be promoted through contract farming and land leasing arrangements to allow accelerated technology transfer, capital inflow and assured a market for crop production, especially of oilseeds, cotton, and horticultural crops. Such vertical integration of agricultural producers and potential take-over of agriculture chains by large industrial players raise concerns that small and marginal farmers may be squeezed out from agricultural production, with gloomy chances to find occupation or employment in another sector or elsewhere. Out of India's huge labour force, over 390 million strong, only seven per cent are in the organized sector. India also has the largest number of illiterates in the world; of the 1 billion illiterates in the world (a sixth of the total world population), about 300 million are in India larger than the population of the US, and twice the population of Brazil or Russia. With this in mind, 400 million people are expected to be taking now and in the near future the distress migration route, migrating from rural areas in search of menial jobs in the sprawling urban conglomerates.

Competitiveness of small farms on virtually all parameters of resource and input use but concludes that this is in itself not sufficient to pull smallholders out of the grip of poverty. The missing elements of support, information asymmetry and the most critical issue of finance are among the key factors that seem to determine the terms on which small producers relate to the market (Chand *et al.*, 2011).

Globalization, an expanding domestic middle class, and diversification of the food basket are driving growing corporate interest in agriculture as a source for the raw material for agriculture value chain. There are numerous examples of backward linkages between the corporate sector and farmers in various parts of the country. However, the majority of existing examples of linkages between farmers and processors/ retailers involve Large and Medium Farmers (LMF), with very few instances of SMF successfully linking up with processors/ retailers. The highly fragmented nature of production and low per capita surplus of SMF make it unviable to directly link with the organized markets and leverage better returns for their produce.

Emerging organized retail sector is a significant force that can contribute to the transformation of agriculture chain in India. However, there are no systematically collected data on the large-scale retail impact on small and marginal farmers, particularly for fresh fruits and vegetables. Currently, foreign direct investment (FDI) in multi-brand retail is forbidden. FDI is allowed up to 51 per cent in single-brand retail and up to 100 per cent in cash-and-carry hypermarkets that can sell exclusively to businesses. There is a number of domestic multi-brand retail chains that slowly but steadily establish themselves in metropolitan cities and currently dominate the domestic organized retail market. With the expected removal of the restriction on FDI in retail, supermarket chains will develop at a much faster pace. The average size of land holdings is around 1.6 hectares in South Asia and Southeast Asia. Farms of less than 2 hectares in size account for 88 per cent of the operated area in Indonesia and 81 per cent in India.

International Food Policy Research Institute (2005) conducted a study on implications of contract farming for small farmers. The results show that net profits for contract farmers were more than double those of non-contract farmers in the case of dairy, 78 per cent higher for vegetable (spinach) growing farmers, and 13 per cent higher for poultry farmers. Cost of production for contract farmers were lower by approximately 21 per cent for milk and 21 per cent for vegetables compared with non-contract farmers. The share of transaction and marketing costs in total costs was markedly lower for contract growers (Gulati *et al.* 2006). However, some experts raise the issue of inclusion of small and marginal farmers in contract farming schemes. Kirsten and Sartorius (2002) summarized the problems and disadvantages that can contribute to exclusion of smallholders from contractual relationships as follows:

- a) Enforcement of contracts
- b) High transaction costs of dealing with many smallholders
- c) Strict demands for consistency (no variation), quality, food safety, due diligence, etc.
- d) Business attitudes and ethics referring to non-payment delayed payments or even reduced payments
- e) The high rate of product rejection by agribusiness firms and traders, and

f) Weak bargaining position of farmer's vis-a-vis a limited number of traders.

Small and Marginal Farmers: their Challenges

The agrarian structure in India is dominated by small and marginal farmers (85 %). Therefore, the future of sustainable agriculture growth and food security in India depends on the performance of small and marginal farmers. Agricultural Census data shows that there were about 101 million agricultural holdings in India in 2005-06 of which about 83 million were small and marginal farmers. The data for 2005-06 shows that the share of small and marginal farmers in land holdings was 83 per cent (Chand *et al.*, 2011). Thus, the small holding character of Indian agriculture is much more prominent today than ever before. Smallholder farmers in India seem to be at high risk in the recent years.

In addition to traditional monsters of agriculture *viz.*, monsoon and markets; newer monsters *viz.*, increasing cost of agricultural inputs, the high cost of labor and high health costs have been making farmers and agriculture vulnerable by every season. Sample studies show that the average net income of farmers in irrigated clusters is more negative than that of farmers in rainfed clusters. However, the composite risk of farmers in rainfed clusters is higher than that of farmers in irrigated clusters. The relative risks at different stages of the agricultural value chain, however, are different for farmers in irrigated clusters and rainfed clusters.

With the increase in the overall risk among farmers; risk of bankers and credit lending agencies has been rising across India. We also find that all the formal banks *viz.*, cooperative banks, RRB, and commercial banks are at risk. Among the several informal sources *viz.*, local sahukaars relatives/friends, local traders, SHGs, and money lenders; local sahukaars seem to have the highest risk as well as the highest share of lending in rural/ agricultural credit. Village sahukaars who provide multiple services *viz.*, credit (agricultural production, consumption & emergency credit), supplies agricultural inputs including agricultural machinery, and who procures all marginal surplus produce from farmers are indeed the core competitors to formal banking system today. Despite the much higher rate of interest charged by informal sources than the banks, cross-country

empirical data also show a rise in the share of credit lending from the informal sources; exposing the stark weakness of banks to compete with local sahukaars.

- a) Shrinking land asset, rising per unit cost of cultivation and shrinking profit margins.
- b) Difficulties in accessing critical inputs like credit, water, power as well as quality seeds, fertilizers, pesticides and appropriate and timely technical assistance.
- c) The fragmented value chain in agriculture marketing, monopoly and monopsony conditions, few opportunities for value addition at the bottom of the chain.
- d) Weak bargaining with market agents and low returns on investment.
- e) Present arrangements for risk mitigation, especially crop insurance instruments, are highly unsatisfactory and do not adequately cover the risks faced by the SMF, leaving them vulnerable to the vagaries of weather.
- f) Finally, there is no special targeting or earmarking of resources for SMF in Centrally sponsored Agriculture Development Programmes.

Small farmers face several challenges in the access to inputs, credits, and marketing. National Centre for Enterprises in Unorganized Sector (2008) has clearly indicated consumption expenditure of marginal and small farmers exceeds their estimated income by a substantial margin and presumably the deficits have to be plugged by borrowing or other means. So, small farmers are in direct need of credit for both consumption and investment purposes. The fluctuation in output prices further aggravates the problem of small farmers. Small holdings also face new challenges on the integration of value chains, liberalization and globalization, market volatility and other risks and vulnerability, adaptation to climate change etc. (Thapa and Gaiha, 2011). Hence, support is needed for small holdings in the context of these world-wide processes of farm change to make farming viable and sustainable. They need a level playing field with large farms in terms of accessing land, water, inputs, credit, technology, and markets.

Hence, there is an urgent need for solutions that mark a break from the past and significantly improve the terms of smallholder access to the market. To deal with the numerous uncertainties in agriculture among smallholder farmers, organizing farmers to form producer cooperatives, collectives, and producer organizations have been well

understood globally and in India for a long time. Producer organizations in the form of producer cooperatives exist for over a hundred years in India. The Primary Agricultural Cooperative Society (PACS) is one of the oldest forms of producer organizations in India. In addition to the cooperatives, there have been many other forms of producer organizations catering to specific or multiple functions such as self-help groups (SHGs), Federation of SHGs, Common Interest Groups (CIGs), Joint Liability Groups (JLGs), Farmers Club, Producer Organizations, and Producer Companies.

The Government of India, the National Bank for Agriculture and Rural Development (NABARD), Ministry of Rural Development, Ministry of Agriculture, Small Farmer Agribusiness Consortium (SFAC), and state governments have been investing largely on these organizations in the recent decades. One of the earliest large-scale efforts to form producer companies was undertaken by the District Poverty Initiative Project, Madhya Pradesh partly supported by the World Bank. It organized farmers on single commodities to bargain better in markets, local seed production and serve as an external agricultural input delivery entity of the government. The Farmer Producer Organization (FPO) is a necessity in Indian scenario if one has to effectively address the issues mentioned above. Member-based FPOs offer a proven pathway to successfully deal with a range of challenges that confront small producers, empowering their members in a variety of ways. Several national experiences in the performance of FPOs suggests that FPOs are able to leverage their collective strength and bargaining power to access financial and non-financial inputs and services, technologies, reduce transaction costs, tap high-value markets and enter into partnerships with private and public entities on more equitable terms. Several institutional models of farmers have been tried or being tried in India to integrate farmers with the value chain. The most common model is the producers' cooperatives, which enable farmers to organize themselves as collectives. The cooperatives are registered with the Registrar of Cooperative Societies. India has a large number of cooperative institutions in a vast range of enterprise sectors. Baring few, the cooperative experience in India has not been a very pleasant one, as cooperatives have largely been State promoted, with a focus on welfare rather than to do business on commercial lines.

In 2002, through an amendment in the Indian Companies Act 1956, the Government of India enacted the Producer Companies Act by incorporating a new section IX A in the Indian Companies Act 1956 based on the recommendations of the Y.K. Alagh Committee set up for this purpose. The producer companies are incorporated with the Registrar of Company. The objective of the Government of India for such an initiative was to formulate a legislation that would enable incorporation of cooperatives as companies and conversion of existing cooperatives into companies while ensuring that the unique elements of the cooperative business remain intact in the new legislation. In an attempt to upscale cooperatives, the Companies (Amendment) Act, 2002, introduced a new legal and organizational format for producer groups in India. The attempt was to draft the chapter to enable farmers and other primary producers to set up companies, which resembled cooperatives as closely as possible. Where profits in companies are normally shared on the basis of shareholding, producer companies can distribute profits based on patronage of services. Where other companies with several shareholders have to list their shares in the stock market, producer companies do not. Voting rights in producer companies where individuals are members are on the basis of one member, one vote. However, where institutions are members, voting right is based on patronage of business transacted with the federation. While it is possible for a producer company to wind up its affairs, the registrar of Companies has the right to “strike off” the name of the company, if he/she does not believe it to be based on mutual assistance among members.

According to Dr. Y. K. Alagh, Companies (Amendment) Act 2002, the producer company law provides for an effective alternate organizational form for rural producers offering an opportunity for competing on an even footing with other business organizations. It also provides a professional management and flexibility in organizational operations, including entering into collaborations/ joint ventures – that would become necessary in a changing economic environment in order to optimize the benefits to their producer members. It combines the institutional strengths of mutual assistance and the Cooperative Principles within the liberal regulatory framework; as well as strict disclosure norms that the Company law offers. Thus, the Producer Company legislation is carefully thought out and provides for a new concept that enables new

generation cooperatives to be set up to compete with the private sector in the present liberalized environment.

There are different models for collective agribusiness which can be adopted by the small and marginal farmers. These are the co-operative model, contract farming, small producer associations, self-help groups and the newly introduced model; Farmers' Producer Organization (Garg, 2012).

Co-operatives

Co-operatives are one form of organization that enables farmers to organize themselves as collectives and move up the value chain by ownership and operation of their own processing units and sometimes extends the chain up to the retail level. India has a large number of cooperative institutions in a vast range of enterprise sectors, but there have been few successes that can be talked about. Thus, cooperatives have hardly emerged as successful business enterprises but only as extended arms of the State. The reasons for these are many and have been analyzed at length by several expert committees from time to time. The Mutually Aided Co-operative Societies (MACS) Act to a certain extent has been an attempt to remedy the malady, but it has been accepted and implemented only in few states, and even there, not many commodity cooperatives have migrated to the purview of MACS Act (Garg, 2012).

Contract farming

Contract farming has a potential to help the small and marginal farmers to overcome constraints in accessing inputs, credit, extension, and marketing. In the small producer contexts, contract farming is recommended as the only way to make small-scale farming competitive as the services provided by contracting agencies cannot be provided effectively by any other agencies. Contract farming also lowers transaction costs for the farmers as many of the transactions are internalized by the contracting agency/ firm (Anon., 2005; Garg, 2012).

Producer Co-operatives and Associations

Producers' co-operatives can amplify the political voice of smallholder producers, reduce the costs of marketing of inputs and outputs, and provide a forum for members to share information, coordinate activities and make collective decisions. Producers' organizations create opportunities for producers to get more involved in value adding activities such as input supply, credit, processing, marketing, and distribution. On the other hand, they also lower the transaction costs for the processing/marketing agencies working with growers under contracts. Collective action through cooperatives or associations is important because with this farmers not only to be able to buy and sell at a better price but also it helps small farmers to adapt to new patterns and much greater levels of competition (Farina, 2002; Garg, 2012).

Farmers' Producer Organization

Farmers' Producer Organization is primarily seen as an institution that aims to ensure better income for the producers through an organization of their own. The principle behind Farmer Producer Organization is that through aggregation, the primary producers can avail the benefit of economies of scale. Traditionally, FPOs were organized mostly under the cooperative structure. However, due to various legal obstacles and low efficiency, the government support to the cooperatives has declined over the years and gave birth to producer companies with a regulatory framework similar to that of companies while retaining the unique elements of cooperative businesses.

Farmer Producer Organizations are of instrumental value for achieving Government's target of doubling the income of farmers by 2022. Various initiatives of the Indian Government have focused on Farmer Producer Companies as a means of addressing concerns of small farmers. The Approach Paper to the XII Five Year Plan reiterates its focus on aggregating the produce of the small and marginal farmers through FPOs, enabling them to reach large and high-value markets to realize better price for their produce.

National Bank for Agriculture and Rural Development has also taken an initiative for supporting producer organizations, for which "Producers Organization Development and Upliftment Corpus (PRODUCE) Fund" has been set up since April 2011. NABARD

had supported by extending credit facility of INR 205 crore and INR 6.30 crore towards complementary measures for capacity and market interventions till 2014. Furthermore, many donor organizations are focusing on formation and strengthening of FPOs. The Ford Foundation has placed a grant of USD 690,000 with the Client Fund of Rabobank Foundation to provide a guarantee to the Indian Financial Institutions who would lend to FPOs.

Several initiatives have been taken by the Government, the Apex financial institutions such as NABARD, private donor organizations, financial institutions and many other institutions to support the growth of the FPOs and facilitate their emergence as successful business enterprises. SFAC particularly was mandated by the Government to support the formation of FPOs. SFAC (A society promoted by Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India) and NABARD have emerged as a driving force in supporting and formation of FPOs.

- SFAC's initiative, started in 2011-12 under two Central Government Schemes - the National Vegetable Initiative for Urban Clusters (NVIUC) and the Integrated Development of 600,000 pulse. Villages in rain-fed areas have since expanded its scope, and include special FPO projects being taken up by some State Governments under the Rashtriya Krishi Vikas Yojana (RKVY) funds and the National Demonstration Projects under the National Food Security Mission (NFSM). SFAC has been designated as a central procurement agency to undertake price support operations under the Minimum Support Price (MSP) Programmes for pulses and oilseeds and it will operate only through FPOs at the farm gate.
- The Government has issued the National Policy and Process Guidelines for Farmer Producer Organizations in March 2013, laying the framework for mobilization of FPOs with a dedicated source of funding from the RKVY Programmes.
- It also launched the "Equity Grant and Credit Guarantee Fund Scheme" for FPOs in January 2014, enabling the FPOs to access a grant up to INR 10.00 lakh to

double members' equity and seek collateral-free loan up to INR 1.00 crore from banks, which in turn can seek 85 percent cover from the Credit Guarantee Fund.

- All major centrally sponsored schemes of the Department of Agriculture and Cooperation (DAC) have incorporated special provisions for promotion and development.
- The Union Budget, 2014-15 proposed to supplement NABARD's Producers Organization Development Fund with a sum of INR 200 crore which will be utilized for building 2,000 FPOs across the country over the next two years.
- Accordingly, NABARD launched its INR 2,000 crore Food Processing Fund in November 2014 where FPOs will be one of the recipients. In line with these initiatives, the Department of Agriculture and Cooperation announced 2014 as the "Year of the Farmer Producer Organizations".

As on April 30th 2018 7.33 lakh small and marginal farmers have been identified and formed into 39,853 Farmer Interest Groups (FIGs). These FIGs further have been federated into FPOs and so far 740 FPOs have been registered in India and 107 are under the process of registration (<http://sfacindia.com>). Whereas, NABARD supported FPOs are 2080, out of which Karnataka (186), Tamil Nadu (170) and Madhya Pradesh (160) are having the highest number of FPOs (<http://fpoexwebdata.assetview.in>). 5, 99, 338 shareholders are mobilized through NABARD.

Farmer Producer Organizations in Karnataka

Karnataka state is predominantly an agricultural state. About 28 per cent of the total gross domestic product is derived from agriculture and 66 per cent of the workforce is dependent on agriculture. Further, 70 per cent of the state population is still living in rural areas and are completely depending on agriculture for their livelihood. As such if the state has to prosper and progress economically, it is possible only through the development of the agriculture sector. Karnataka occupies a unique position with its natural resources and could contribute significantly to the development of the state and the nation.

Department of Horticulture, Government of Karnataka has started this pilot programme for promoting member-based Farmers' Producer Organizations (FPOs)

during 2014-15, in association with Small Farmers' Agri-business Consortium (SFAC), New Delhi a nodal agency for FPO identified by Ministry of Agriculture Co-operative and Farmer Welfare, Govt. of India. The project was implemented through Resource Institutes *viz.*, VRUTTI, ICCOA, ISAP, MYRADA and IGS nominated by SFAC, New Delhi. The programme involved the mobilization of small and marginal farmers into FPOs across the state, under the schemes of the RKVY (CHD, VIUC & Apiculture), NHM and SUJALA III. The purpose of the project is to collectivize farmers, especially small producers, at various levels across several districts, so as to faster technology penetration, improve productivity and enable improved access to inputs & services and increase farmer incomes, thereby strengthening their sustainable horticulture based livelihoods. Department of Horticulture in association with SFAC is supporting these FPOs through impanelled Resource Institutions (RIs), which provide various inputs of training and capacity-building, linking these bodies to input suppliers, technology providers, and market players.

Farmers' Producer Organization concentrates mainly on small and marginal farmers, who are not frequently access to input and output market. FPO as a company purchase bulk quantities of inputs like seeds, fertilizers, pesticides etc., directly from the input companies and sell to their farmer members at a cheaper rate after obtaining the licenses from the concerned authorities. This helps in timely availability of inputs at village level and reduction in the cost of production which in turn helps in increasing the profit to farmers. Further to this, the FPOs are expected to reduce the role of middlemen in the marketing of produce as FPO itself can procure the produces from their members and sell to consumers.

Presently Department of Horticulture has formed 92 FPOs across the State; out of which 90 FPOs were registered under Companies Act 2013 and remaining two are in the registration process. Department of Horticulture has provisioned working capital assistance of Rs.25 lakhs per FPO in the form of revolving fund and 90 percent subsidy for infrastructure up to Rs.100 lakhs per FPO which also includes the establishment of Custom Hiring Centre (CHC) for farm machinery.

Factors Influencing Participation in FPOs

The following factors will influence the extent of participation:

- The degree of the farmer's dependence on the outputs of the organized activity.
- The degree of certainty of the availability of the outputs.
- The extent to which the outputs will be available only as a result of collective action.
- The extent to which the rewards associated with the collective action will be distributed equitably.
- The extent of availability of rewards within a reasonable time frame.
- The extent to which the rewards are commensurate with the costs associated with continued participation (Shingi and Bluhm, 1987).

Problem Statement

Farmers' Producer Organizations are considered to be institutions that have all the significant features of private enterprise while incorporating principles of mutual assistance in their mandate similar to cooperatives (Nadiia, 2011). Farmers' Producer Organizations, therefore, are supposed to be non-political entities aimed at providing business services to smallholder farmer members, founded on the principal of self-reliance. The basic purpose envisioned for the FPOs is to collectivize small farmers for backward linkage for inputs like seeds, fertilizers, credit, insurance, knowledge and extension services; and forward linkages such as collective marketing, processing, and market-led agriculture production (Mondal, 2010).

The concept of producer companies in India is a very recent development. These are just like cooperatives, but they are registered as companies. They get together; they combine their share capital, register as a company, employ a professional to run the company and do value addition, whatever is possible. In this context, it is felt necessary to probe into the organizational structure, capacity building, internal controls and forward linkages of the Farmers' Producer Organizations, with this concept, the present study undertaken with following specific objectives.

1. To assess the participation of members in various activities of FPO,
2. To evaluate the performance of FPOs,
3. To analyze the role of FPOs in enhancing the performance of farmer collectives,
4. To study the ambit of support required for effective functioning of FPO and
5. To document the constraints faced by members of FPO.

Scope of the Study

The present study on “Performance Analysis of Farmers’ Producer Organizations (FPOs) in Chamarajanagar District of Karnataka State” is first of its kind in the State. The results will provide an opportunity to the administrators, investors, policymakers, planners, agricultural scientists and other related disciplines about a number of factors associated with the adoption of improved farm technologies, new marketing channels, value addition, mobilization of farmers and bottlenecks in the successful implementation of the new concept. The findings of the study are also useful to the institutional financing agencies in estimating the credit requirements of the Farmers’ Producer Organizations.

Limitations of the Study

The result and conclusion drawn are based on three FPO hence, generalizing the results of this study to the FPOs as a whole has to be made with at most care. The ratio analysis of FPO is done only for one year, due to non-availability of data which may not present the clear picture of the performance of the FPO. The data is collected through survey method by personal visits to the members and particulars were obtained based on recall memory of members, which have certain inherent limitations.

Plan of the Report

The study is organized into five chapters *viz.*

- I. Introduction: This chapter provides a brief introduction along with the importance of the study, problem statement and objectives.
- II. Review of literature: some pertinent reviews are presented in consonance with the study objectives.

- III. Methodology: The methodology encompassing sampling procedure, data collection, analytical tools, concepts, and terms are explained.
- IV. Results and Discussion: this chapter encompasses critical analysis of results and discussion.
- V. Summary and Conclusion: Summary and conclusion are presented along with suggestions for improving the linkages and internal controls of FPO in the study area.

II REVIEW OF LITERATURE

Review of the existing related literature forms an integral part of any systematic research. It helps in identifying the conceptual and methodological issues relevant to the study. It contributes to the understanding of issues involved, analytical tools adopted and overall handling of the research work. As little work has been done on FPOs in India, so studies related to new generation cooperatives and producer organization have been reviewed here, as these are closely related and relevant to the present investigation. Reviews have been presented under the following headings:

- 2.1 Participation of Members in Various Activities,
- 2.2 Performance of Organization,
- 2.3 Role of Organizations in Enhancing the Performance of Farmer Collectives,
- 2.4 Ambit of Support Required for Effective Functioning of Organization and
- 2.5 Constraints Faced by Members of Organization.

2.1 Participation of Members in Various Activities

Acharjee *et al.* (2001) reported that the level of participation in agricultural enterprise of rural women significantly influenced by their age. A negative association between age and level of participation indicated that the level of participation of younger rural women was more than other.

Agarwal (2001) found that in order for producer organizations to perform better and equally share the benefits, it is important that both men and women are empowered to participate in meetings, activities, and decision-making. Most importantly, there is evidence that when women are enabled to actively participate in producer organizations and to access income and benefits, it can have positive spillover effects at the household level.

Thejaswini *et al.* (2004) conducted study on “Performance of farm women in agriculture and income generating activities in Mysore district of Karnataka”, and

reported that a greater majority (97.50%) of the farm women participated in harvesting, transplanting of seedlings (90.00%), manuring of fields (87.50%), transportation and storage of the produce and over three-fourths (77.50%) of them participated in field preparation, threshing, winnowing and cleaning.

Suresh (2007) indicated that majority of respondents studied up to primary school, were found medium in profile characteristics like decision making, empowerment, change proneness, communication behavior, value orientation, self-reliance and economic motivation. Majority of the respondents had the medium extent of participation in activities like motivational meetings, planning, implementation, maintenance and evaluation of the watershed project. All the eight independent variables namely education, decision making, empowerment, change proneness, communication behavior, value orientation, self-reliance and economic motivation had shown a highly significant relationship with the extent of participation of farmers in the watershed project. The contribution of independent variable *viz.*, decision making was significant, whereas the contribution of self-reliance and economic motivation were highly significant to the variation in the extent of participation of farmers in the watershed project.

Sunitha (2012) observed that majority of the participants noticed with medium level and non-participants with low levels of socio-psychological characteristics. As regard practices of maize majority of the participants (75%) had high and non-participants (67%) had low adoption level.

Ampaire *et al.* (2013) investigate the factors influencing the effectiveness of second-tier rural producer organizations (RPOs) in linking their members to output markets in Uganda. The percentage of farmers who sold some of their produce through the RPO was used as a proxy for effectiveness. Ordinary least squares (OLS) regression analysis indicated that RPO effectiveness was positively related to the size of an RPO and democratic leadership. On the other hand, the proportion of RPO leaders with leadership training, enforcement of internal control practices, bulking distance and size of the executive committee had a significant negative effect on the effectiveness of such organizations. It was concluded that improving the effectiveness of RPOs required the (i) use of numerous sub-committee instead of many all-member meetings and smaller

executive committees; (ii) dedication, respect and commitment by leaders of RPOs when imparting skills learnt in order to boost members' morale; (iii) devising reward systems for leaders or putting in place stringent rules, such as leadership codes, to guide leader behaviour so as to prevent conflict of interest and possible elite capture; and (iv) policies guiding Savings and Credit Cooperatives (SACCOs) lending conditions be reviewed to match rural producers' economic status and seasonality of enterprises.

Hadagali (2013) in his study on aspirations and participation of rural youth practicing agriculture and allied activities found that majority of rural youth practicing agriculture had 'regularly' participated in marketing (84.16%), inter-cultivation (71.66%), spraying of chemicals (71.66%) and irrigation (71.66%), sowing (70.00%), land preparation (67.50%), manure and fertilizer application (60.83%), transportation (60.00%) and harvesting (50.83%), whereas one-third of the rural youth had participated 'occasionally' in the activities like harvesting (25.00%) and transportation (25.00%). About one-fourth of rural youth never participated in the harvesting of the crop (24.17%).

Issa and Chrysostome (2015) studied that gender, education level, farm size, off-farm income, non-access to credits and non-record keeping were all important factors explaining the decision to participate. On the other hand, off-farm income, non-access to credit, farm size, experience, farm under other crops cultivation and farm contract agreements found to influence the intensity. Further, suggests strategic policy targeting to build stronger farmers' co-operatives.

Liang *et al.* (2015) observed that different dimensions of social capital to participation, i.e., the relational and cognitive dimensions of social capital have a positive impact on members' participation in technical training and general meetings in farmer cooperatives in China, whereas external social capital is not significantly associated with member participation. More specifically, members' trust in managers and their collective orientation increases loyalty and enthusiasm in participating in various technical training sessions and in general meetings organized by managers.

Kaaria *et al.* (2016) found that major barriers that women face in participating in producer organizations and women's enhanced participation in producer organizations can lead to several development outcomes (i.e. improved governance and organizational performance, better management of natural resources, improved household well-being).

2.2 Performance of Organization

Ananth (1984) evaluated the performance of the Grape Growers Marketing and Processing Cooperative Society Ltd., Bangalore by using solvency ratios, liquidity ratios, profitability ratios and turnover ratios. The study revealed that the management efficiency of the society had improved over the years, a large addition to fixed assets to owned funds ratio. The study indicated that the society showed an impressive record of performance during the last four years of study.

Rama (1984) measured the performance of Farmers' Service Society (FSS), Singanayakanahalli, Bangalore in terms of solvency ratio, liquidity ratio, profitability ratio and turnover for the period from 1977-82. It was concluded that the FSS had maintained a sound and stable financial structure during the study period. The financial analysis revealed that FSS managed its financial resources efficiently without much dependence on external sources.

Rayadu (1985) studied the performance of industrial cooperatives covering period 1977-78 to 1981-82 using various financial ratios. It was found that all the industrial cooperatives had more solvency than liability but were less than the established standard of 2:1. It was also revealed that they were not in a position to meet all current obligations immediately since the aggregated acid test ratio worked out 0.46:1.

Thanulingam and Gurumurthy (1987) conducted their study on Handloom Cooperatives for the period 1980-84 by using liquidity, profitability and turnover ratios. The study revealed that financial performance of the societies was poor due to the factors such as like accumulation of heavy stocks, very low gross profit margin and a large number of debtors created high current ratio resulting in the inability of handloom sectors to meet short-term obligations.

Bardhan (2004) evaluated India's trade performance in livestock and livestock products on the basis of time series data pertaining to the period 1980-2004. To examine the changes in exports and imports compound growth rates for two periods i.e. like pre-WTO (1980-94) and post-WTO periods (1995-2000) were separately computed assess the implication of WTO on livestock trade. He noticed that the share of livestock to total agricultural export-although small has shown increasing trend in the recent past, which implied better growth in export earnings from livestock products than those from other agricultural commodities.

Kulandaiswamy and Murugesan (2004) analyzed the performance of Primary Agricultural Cooperative Credit Societies (PACS) in India based on eight variables, namely membership, share capital, working capital, loan disbursement, deposits, borrowings, demand and over dues. Of the 30 PACS studied, 7 units (23.3%) showed good performance; while 12 units (40%) were under moderate category and 11(36.7%) were found to be poor. The empirical evidence calls for appropriate policy interventions to correct the deficiency by such measures as recapitalization, amalgamation, bringing down the over dues and improving the overall efficiency.

Deepa *et al.* (2009) used solvency ratio (0.70) it revealed the significant dynamism of the organization. Liquidity ratio showed that the corporation had maintained a reasonable level of liquidity position as revealed by current ratio (3.21) and acid test ratio (0.70). The profitability ratio showed that the corporation has not maintained a fair level of profit (0.12) because it gave more importance to social obligations than the profit. The operating efficiency of the corporation was high.

Suprabha (2009) analyzed the financial performance of the Karnataka oilseeds federation and found that the federation had the comfortable liquidity to meet the short and long-term financial obligations. The gross profit margin had increased over the years, implying that the operating expenses relative to sales had increased over years.

Srikanth (2010) used ratio analysis to test the performance of HOPCOMS has been continuously making a loss for the last ten years with fluctuating rate. The performance indicators clearly indicated that the HOPCOMS management failed in all

the business fronts to make inroads to encash retail boom and encash the opportunity to take a share of additional income of rural sector.

Verma (2010) analyzed the performance of Primary Agricultural Cooperative Credit Societies (PACS) in Raipur district of Chhattisgarh state based on variables like total beneficiaries, loan advances, over dues, recovery per cent in three PACS namely Arang, Bhilai, Mokhla. Arang PACS showed that membership of the bank increased (1927 to 2485) total loan disbursed was 56.30 lakhs and total recovery of loan also keeps on increasing (69.44%). Bhilai PACS showed fluctuating trend in the recovery of loan, recovery percent was highest i. e., 90.48 and membership and beneficiaries keep on increasing over the time period (2004- 2008). Mokhla PACS recovery percent show quite ups and downs and beneficiary had been increasing over a period.

Garg (2012) discussed a case study of the Rewa Crop Producer Company Private Ltd. (RCPCPL) revealed that the growth in turnover, gross profit, and net profit was positive for the period 2007-09. The analysis of business performance assessed through the liquidity ratios, current and quick ratios were observed to be satisfactory. However, due to high inventory and lack of working capital the profits were low. Consequently, the efficiency and profitability ratio of the company was found to be non-satisfactory.

Krishna and Mokshapathy (2013) stated that the proportion of total produce that HOPCOMS picks up is small compared to the total amount used in Bangalore city, even though it deals with only a small part of the total horticultural produce in the city of Bangalore, HOPCOMS sets the prices in the market.

2.3 Role of Organizations in Enhancing the Performance of Farmer Collectives

Rani (1990) in her study she concluded that the members availed several benefits such as cattle feed, mineral mixture, green fodder and slips, medicines, vaccination and insurance premium benefit after becoming members of the society. Large size group of producers availed more benefits than that of other producers. The results of the investigation revealed that MPWCS made a positive and significant impact on production, consumption and marketed surplus of milk and increased the employment and income of their women members. Employment and income of female members

increased from 428 hours and Rs.2,692.93 to 937 hours and Rs. 6,589.92 respectively between the two periods of study and these also increased with an increase in the size of milk producers.

Dorward (1999) cited farm survey data, and the results from a linear programming farm-household model, provide evidence for a positive relationship between farm size and productivity in both labor-scarce and land scarce smallholder farming in Malawi during the 1980's. The absence of an inverse relationship is explained in terms of failures in the land, capital and produce markets with acute capital constraints, which affect both capital and labor inputs on smaller farms. Implications for rural development policies are also provided.

Kelly *et al.* (2003) contemplated precarious food security situation in many African countries has prompted governments and donors to use Input distribution or credit programs as a means of rapidly increasing food supply for the Poor. These efforts, however, often reduce the ability of input market development programs. To stimulate commercial interest in the input supply. A review of both types of programs describes recent efforts to address constraints to expanded input use and finds that further Expansion is often constrained by inadequate investment in a variety of public goods needed to stimulate the input-led agricultural intensification. Rather than continuing to invest resources In programs to provide inputs or credit directly to farmers, governments (with donor assistance) should consider shifting their focus to the serious deficiencies in the provision of public Goods (roads, irrigation, basic education, market information systems, research and extension) and improved institutions (contract law and enforcement, systems of grades and standards). Improvements in these areas can both lower costs of supply and increase farm-level Demand, creating a situation where the private sector will have greater incentives to expand Input distribution networks to zones and farmers who currently do not have access.

Prasad (2008) remarked that there existed increased changes in living standards, social, home and material possession under socio-economic impact. The respondents felt that gherkin farming provide employment opportunities to a larger extent. A vast majority of the respondents (98.3%) indicated that the gherkin farming was of more

prestigious compared to other types of crop cultivation. About 98.30 per cent of the respondents indicated that the effluents from gherkin farming affect the ecosystem to some extent. 92 per cent of the respondents felt that the Salinization of land affects to some extent due to gherkin contract farming. Majority of the employees (90%) felt that due to gherkin farming, farmers' standard of living was improved. It also provides an assured price for the farmers (77%), eliminates middlemen (53%), provides good guidance (20%). Labor scarcity, lack of insurance cover and the high cost of labor (ranked 1, 2 and 3 respectively) were the major constraints faced by the gherkin growers. Study area expressed that they will continue to grow gherkins with the same company again and again. In order to involve more farmers under contract farming crop insurance is covered for gherkin or Government support is necessary for effective management of contract farming of gherkin.

Cherukuri and Reddy (2014) observed that access to technology and other farm advisory services for producers within a producer organization or partner arrangement is much more effective than for non-partners. Perceptible changes occurred in terms of increase in net incomes for partners compared to non-partners, even though increases in yield were not always observed. Benefits arose mainly because of increase in market access, marketable surplus and bargaining power for producer organizations. Such encouraging findings support arguments for greater policy support to leverage the functioning of producer organizations for their sustenance and replication.

Kandeeban (2015) evaluated the market competitiveness of Karnataka (Gulbarga) and Telangana (Tandoor) FPCs. The prices that are arranged by the FPC (2014-15) for the farmer members when compared against the Minimum Support Price (MSP) and modal prices of a red gram are relatively on the higher side. The study revealed that FPCs selling price in the state of Telangana was higher than that of both MSP and average modal price of Tandoor market taken in the period. Both MSP and average modal price of Gulbarga market was lesser than that of FPC selling price the state of Karnataka in the period.

Sawiram (2015) exhibited possible benefits of FPO's for rural residential districts and its authorization of small and marginal farmers. Farmers' Producer Organizations in

Maharashtra and Producers' Companies can facilitate small and marginal farmers to take part in emerging high-value markets, such as a modern retail sector in India and the export market.

Ashley (2016) revealed that socio-economic characteristics of respondents have an impact on the role agricultural cooperatives play in reducing poverty. The study further showed that agricultural cooperatives play a significant role in reducing poverty and ensuring food security to members' households. The respondents showed a positive response in the effectiveness of cooperatives in poverty reduction. The study also showed that cooperatives have a significant role in creating employment opportunities. Cooperatives were also faced with various challenges which hinder their success in poverty reduction. Some of the challenges include; market access, lack of funding, conflicts within cooperatives and high electricity costs. The study concludes by recommending different strategies which will enhance the success of cooperatives in poverty reduction. Further studies concentrating on poverty reduction, food security, and employment creation need to be carried out which will help cooperatives respondents to eradicate poverty in their households and communities.

Panda and Singh (2016) observed that there is a huge gap in target and achievement in the formation of FPOs. The scholars had unanimously accepted that in the formation and sustainability of FPOs as a producer company, the role of extension is of paramount importance. The extension roles identified information of FPOs are locating farming community, awareness creation, and community mobilization, organizing community meetings through local leaders, social capital formation, facilitating formation of core group, capacity building of farmers, facilitating registration, arranging training for board of directors and chief executive officers, technical support and ensuring market access.

Salokhe (2016) examined the current mode of operation of FPO and effectiveness of the FPO with reference to the small farmers in India. It brings together the small and marginal farmers and other small producers to build their own business enterprise that will be managed by professionals. FPO offer small farmers to participate in the market

more effectively and help to enhance agricultural production, productivity, and profitability.

Ahmed and Mesfin (2017) in their study evaluated the impact of agricultural cooperative membership on the well-being of smallholder farmers using cross-sectional data collected from the eastern part of Ethiopia. Using consumption per adult equivalent as a well-being indicator, we measured the impact of agricultural cooperative membership by implementing propensity score matching and endogenous switching regression estimation techniques. Both estimation methods indicate that joining agricultural cooperatives has a positive impact on the well-being of smallholder farmers. Furthermore, the analysis also indicates that agricultural cooperative membership has a heterogeneous impact on well-being among its members.

2.4 Ambit of Support Required for Effective Functioning of Organization

Stockbridge *et al.* (2003) in their study provide a summary of the main theoretical and empirical literature on farmer organisations, as a base from which to develop research and networking on farmer organisations roles and activities in Malawi then development of research and networking activities to promote more effective, appropriate and wider activity by farmer organisations in promoting farmers' interests in improving market access and in meeting other objectives.

Sulaiman (2003) observed that the role of internal controls was to ensure as to whether appropriate financial, operational and compliance controls were in place. It is the board's responsibility to report on the effectiveness of these controls. Lack of internal controls often caused fraudulent activities to go unchecked and inevitably resulted in the downfall of the organization. The internal control function, which was invariably linked to the risk management function, associated with the internal audit division in most organizations.

Brasilia (2008) has studied the use of good practices of governance which were proved to be fundamental in the success and perennality of organizations, mainly with regards to security and returns to members. In congruence with this line of thought and with the increasing recognition that corporate governance is a critical element for

sustainable economic growth, a working meeting was organized in London on February 8, 2007. The participants met with an agenda; to build consensus on the corporate governance priorities and technical assistance needs of cooperatives in developing countries.

Duncan (2009) indicated that to support oilseed growers SNV Uganda signed a partnership agreement with Mukwano group of companies to implement an all-inclusive business model for enhanced growth, equity, and competitiveness within the oilseed value chain.

The report on Department for International Development (Anon., 2010) indicated that the Government should play three main roles in strengthening co-operatives' contribution to poverty reduction: promoting a more enabling legal and policy environment; strengthening co-operative networks; and helping co-operatives to perform better through greater access to finance, capacity building, and opportunities to scale up and expand market access.

Sara and Moritz (2010) have studied the internal control system (ICS) concept as a proven and a viable certification tool that guaranteed the traceability of the organic products. The challenges underlying the ICS application depended upon the farming system, the situation of the producers, the companies' procurement, and their human resource management. The study has shown different perspectives on risks, risk control, and certification. It has additionally illuminated unnoticed, experiences and interactive innovation management.

Nadiia (2011) found that producer companies are established and working with a supporting organizations at pre- and post-formation stages, considering the low level of capacity and asset base of their membership, and what the objectives and expected outcomes of such cooperation are. The research discussed the lessons and challenges from the dyadic relationship between producer companies and supporting organizations. The discussion is framed according to the World Bank's empowerment framework.

Babalola (2014) investigated the role of corporate governance practices in corporative financing in Nigeria. Three of the most important corporate governance

mechanisms such as transparency, accountability, internal controls, and risk management were examined. And he determined the executives of cooperative societies showed good commitment towards accountability and to assess the significance of members' participation in the democratic process giving room for the emergence of incompetent individuals on the executive and board of cooperatives.

Humphreys *et al.* (2014) pointed out that Substantial improvements in agricultural systems are necessary to meet the future requirements of humanity. However, current agricultural knowledge and information systems are generally not well suited to meet the necessary improvements in productivity and sustainability. For the more effective application of research output, research producers and research consumers should not be considered as separate individuals in the knowledge chain but as collaborating partners creating synergy. The current paper investigates the relationships between scientists and stakeholders and identifies approaches to increase the effectiveness of their communication. On-farm research has proven to be an effective means of improving exploitation of research output at farm level because it connects all relevant partners in the process. Furthermore, pilot farms can act as an effective platform for communication and dissemination. Regional networks of pilot farms should be established and connected across regions.

Erma *et al.* (2015) showed that factor of cooperation with other related institutions and environment played an important for the farmer cooperatives in order to increase commercialization aspect of their products. The effort to create added value, market, and finance information access, and shareholding are among elements that are most prioritized by farmers groups.

2.5 Constraints Faced by Members of Organization

Prita (2001) studied the performance of Self Help Groups in Dharwad district found that the major constraints faced by the members were difficulties in diversification/starting of activities (41.67%), misunderstanding among SHG's members (38.17%), lack of space for storage of materials (28.24%) and inadequate availability of raw material at the right time (16.03%).

Gray and Kraenzle (2002) found that low commodity prices were understood as pervasive both in the past and expected in the future and partly due to excess supply, driven by the expansion of domestic commodities in some regions, as well as an increase in the importation of cheaply produced foreign goods. Poor earnings forced some farmers to discontinue operations. Others quit due to retirement, urbanization, and health problems. Some developed strategies to stay in business.

Sentil and Sekar (2004) stated that political interference in the selection of beneficiaries under peoples plan, lack of timely credit facilities, lack of adequate credit, lack of adequate farm women-oriented schemes and delay in operation of development programmes were the major constraints perceived by the SHG members.

Joseph and Easwaran (2006) identified the perceived constraints in the functioning of SHGs and found that lack of government attention was first and foremost problem i.e. 39 percent. The high rate of interest was felt by 33.43 percent of members, followed by the insufficiency of loan for income generation, inability to repay the loan etc.

Bhuvan (2007) studied constraints faced by micro-finance providers, the acute problem is the lack of time to participate in all the activities of all the SHGs (81.82), followed by timely availability of financial help (74.24), no support for starting a new activity (72.73), problem in marketing the products produced by the SHGs (71.21), political interference (71.21), high rate of interest (65.15), lack of adequate training and skill development facilities (65.15), inadequate information on the present scenario of SHGs (62.12), less number of genuine borrowers (51.52) and non- cooperation from the SHGs (48.48).

Srikanth (2010) observed that the elected representatives are not well versed with the business potentialities to encash the ever-growing demand for fresh fruits and vegetables at Shimoga city which has a population of over five lakhs. The present turnover of HOPCOMS is reported at on an average of one ton per day which is almost negligible per capita share of consumption of fruits and vegetables. It is unfortunate that the management has not taken any initiatives to promote this valuable farmers marketing

society to fulfill the aspirations of the producing members as well as consuming patterns. The dormant attitude of the Shimoga HOPCOMS is an example of strategic management failure. The financial performance clearly shows the scope of adding assets, the right dose of liabilities and the turnovers of the assets. It is a high time that the management should take initiatives to expand the activities of the society and expansion of the retail outlets at the new extensions.

Singh *et al.* (2012) found that the most serious constraints encountered by the members in different areas of breeding, feeding, management, healthcare and fodder production in improved dairy farming practices were high cost in treatment of breeding related problem, high cost of feed ingredients, scientific management of dairy animals, high cost of veterinary medicines, and land for fodder cultivation respectively. It was also found that the farmer's perception towards the overall constraints was highest in the area of healthcare practices.

Dhakal (2013) found that the farmers' organizations were collapsed due to the lack of ownership, group management skill and inability to link with the market. The business skills, technical skills and organizational management skills of ARC (Agricultural Resource centers) members were not promoted parallel. Autonomy and adequacy of time given to select the enterprise for groups have a long-term impact on ownership development. High level of external influence leads ARCs for dependency and lack of problem-solving ability among members.

Singh *et al.* (2017) in their study major constraints recorded were lack of awareness about advantage and facilities provided by the Government and milk unions for rearing animals, lack of knowledge about the women rights for their empowerment, illiteracy, lack of affordability to purchase feed additives and concentrates, high cost of veterinary medicines and inequality in issuing loans. The study also revealed that economic constraints were ranked first with a mean score of 3.06 followed by technological constraints (2.87), infrastructural constraints (2.74), social constraints (2.73), political constraints (2.69), organizational constraints (2.62), psychological constraints (2.56) and personal constraints (2.54).

III METHODOLOGY

The research study on Performance Analysis of Farmers' Producer Organizations (FPOs) was conducted during the year 2017-18 in Chamarajanagar District of Karnataka State. This chapter deals with the methodology followed in conducting the study provided under the following headings.

- 3.1 The concept of performance
- 3.2 Selection of problem
- 3.3 Plan of work
- 3.4 Locale of study
- 3.5 Research design
- 3.6 Selection of the village and respondents
- 3.7 Method of analysis

3.1 The concept of performance

Performance is the completion of the task with the application of knowledge, skills, and abilities. In the workplace, performance means good ranking with the hypothesized conception of requirements of a task role, whereas citizenship performance means a set of individual activity/ contribution that supports the organizational culture.

Performance is measuring the output of a particular business process or procedure, the modifying the process or procedure to increase the output, increase efficiency, or increase the effectiveness of the procedure or procedure.

3.2 Selection of problem

One of the most important factors in social research is the selection and conceptualization of research problem. The generalized concept indicates that proper formulation of a problem is often more essential than its solution. While selecting the research problem, it interested the researcher to undertake a study on "Performance Analysis of Farmers' Producer Organizations (FPOs) in Chamarajanagar District of Karnataka State" the work is first of its kind. The results provide an opportunity for the administrators, investors, policymakers, planners, agricultural scientists and other related

disciplines about a number of factors associated with the adoption of improved farm technologies (seed, fertilizer, machinery *etc.*), new marketing channels, value addition, mobilization of farmers and bottlenecks in the successful implementation of the new concept. During selection of the problem due consideration was given to various points such as the importance of the problem in present context, demanding solution, size of the sample, the definition of the concept and anticipated consequences.

3.3 Plan of work

Considering the wide and varied application of this study, it was felt that detailed survey of all aspects related to the objectives already enumerated in chapter-I should be conducted. But keeping the stipulated academic period in view, the area of investigation, sample size and problem and methods of analysis of data, *etc.* a rough plan was prepared prior to actual investigation.

3.4 Locale of study

This study was conducted in the Chamarajanagar District (Fig. 1). It's the southernmost District in the state of Karnataka, India. It borders Salem and Coimbatore districts of Tamilnadu in the east, Mandya and Bengaluru Districts in the north, parts of Mysore District in the west and Nilgiris District of Tamilnadu in the south. It is the 15th largest District in Karnataka with a total area of 5648 sq. km, constitute 2.96 per cent of the State area with 10,20,962 inhabitants.

3.4.1 Agricultural situation

Chamarajanagar is endowed with a unique agricultural situation with diversified cropping pattern. The rural population constitutes 86 per cent of total population of the District. Agriculture is the main occupation. The major area is under rainfed agriculture which is subjected to vagaries of monsoon. Cereals, oilseeds, pulse crop, vegetables and plantation crops are grown by the farmers. Important commercial crops like cotton sugarcane, turmeric and tobacco are also grown. In addition, farmers practice subsidiary enterprise like sericulture, dairying, poultry farming and fish culture. The District having diversified enterprises is deprived of new technology. The existing developmental departments working in the district are not able to meet the technical demands of the

farmers in respect of these enterprises. Though the improved technologies in the agriculture and allied field are available, farmers are not able to adopt them in their field due to ignorance backwardness and isolation from the research stations situated in Mysore and Mandya Districts. About 82.86 per cent population of Chamarajanagar resides in rural areas. The net sown area in the district is about 1, 53, 438 hectares (32.50%) while the gross cropped area is 1, 91, 028 hectares and the forest area is 2, 655 in sq. km (2015).

3.4.2 Landholding

In Chamarajanagar, the proportion of marginal farmers contributes about 63.26 per cent to the total farming population whereas small farmers constitute 24.95 per cent and others constitute 11.79 per cent. The area under marginal farmers is 59, 542 ha., small farmers 74,113 ha. and others 81486 ha. out of 2, 15, 142 ha.

3.4.3 Irrigation

The main sources of irrigation in Chamarajanagar are bore wells (57%), canals (19.1%), tanks (13.5%), open wells (9.8%) and lift irrigation (0.70%) (<http://chamrajnagar.nic.in>).

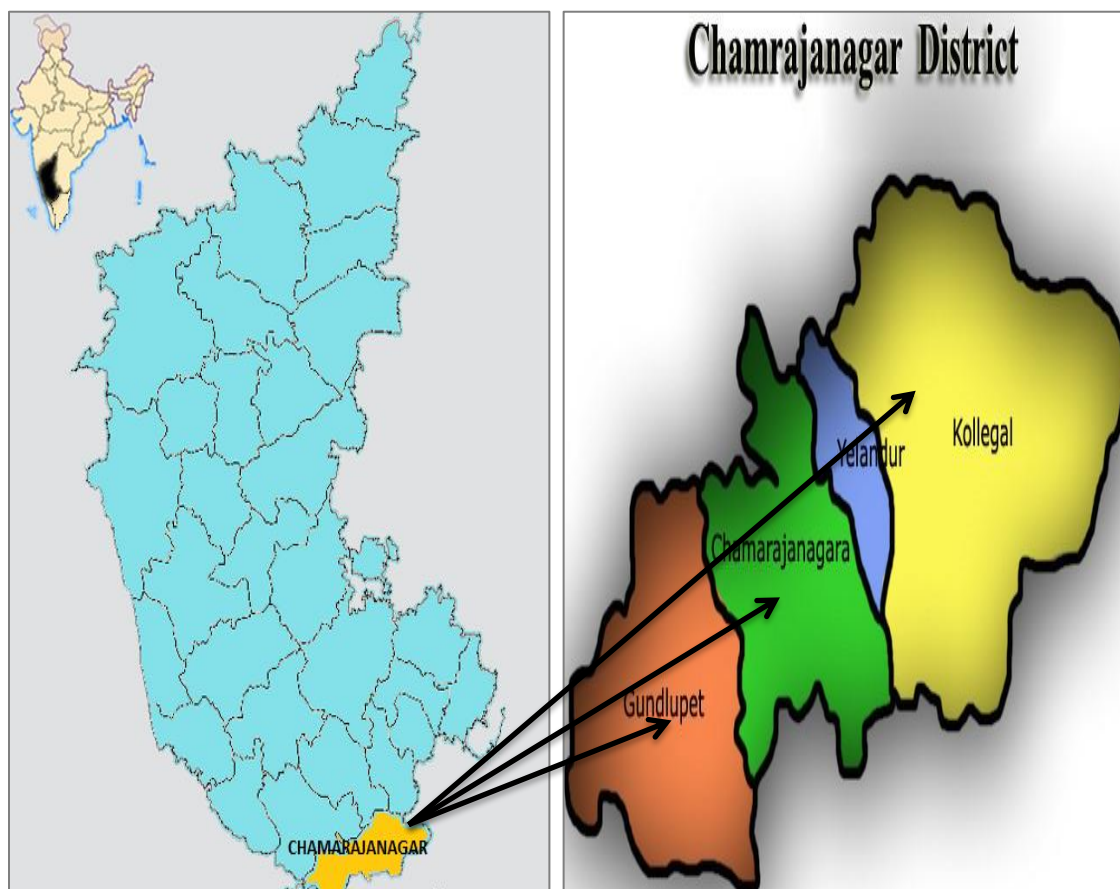


Fig. 1: Map depicting the study area of Chamrajanagar District

3.5 Research design

In the present study, the information on the management of FPOs was obtained by interviewing the Chief Executive Officer (CEO), Chairman and Board of Directors of Organization (Fig. 2).

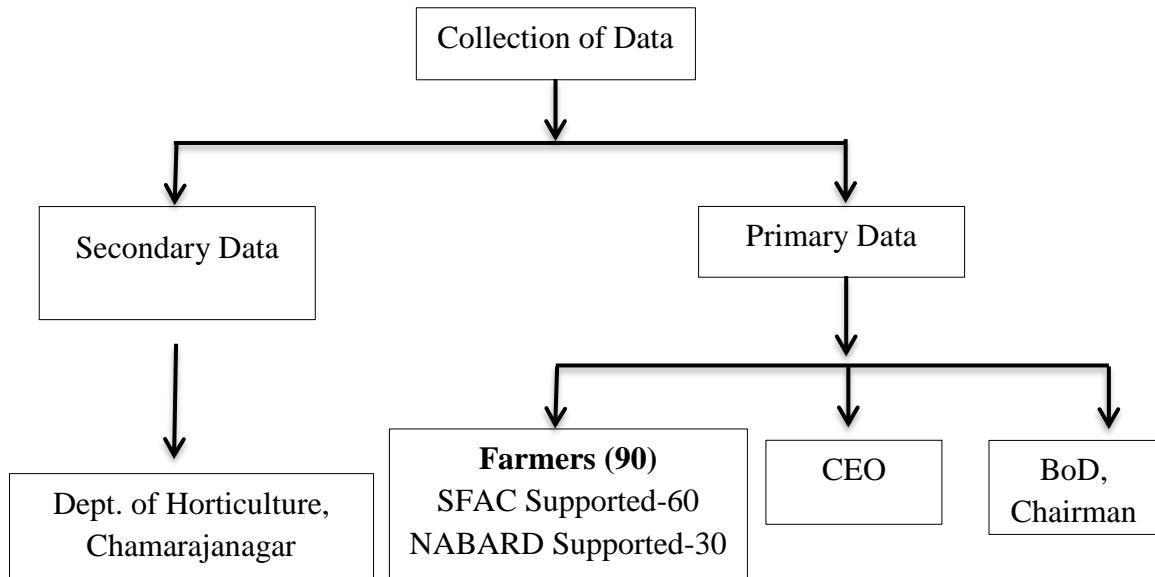


Fig. 2: Sources of Data Collection

Selection of Farmers' Producer Organizations

In the present study, three FPOs were purposively selected covering each taluk. From Chamarajanagar Udigala HFPC Ltd was selected, from Gundlupete- Gundlupete HFPC Ltd was selected and from Kollegala-Shree Mahadeshwara Farmers Producer Company Ltd was selected. Here two SFAC supported FPOs were selected *i.e.* Udigala HFPC Ltd and Gundlupete HFPC Ltd and one NABARD supported FPOs was selected- *i.e.* Shree Mahadeshwara Farmers Producer Company Ltd.

FPOs	Taluk
Udigala HFPC Ltd	Chamarajanagar
Gundlupete HFPC Ltd	Gundlupete
Shree Mahadeshwara Farmers Producer Company Ltd	Kollegala

Selection of the villages and respondents

Six villages were selected from each taluk based on actively participated Farmers' Interest Groups (FIGs), from each FIG five actively participating members and 30 members from each taluk were selected, thus making a total sample of 90 from three FPO to elicit information on member's participation, benefits, and problems.

Taluk	FIGs/ SHGs (5 farmers from each group)	Village
Udigala	Negilayogi	Manjedevanapura
	Madappa FIG	Alathuru
	Guru Malleshwara FIG	Bendgalli
	Avani Horticulture IG	Udigala
	Raithabandu	Malavalli
	Hongirana FIG	Bilur
Kollegala	Hombale SHG	Akkalapura
	Bandavya	Cowdahalli
	Hosachiguru	Channamallipura
	SHG	Agara
	SHG	Asuguli
	SHG	Madalli
Gundlupete	Chaitra Rashi	Katnavadi
	Mangala FIG	Terakanambi
	Nagamale Mahadeshwara FIG	Satundi
	Pitambara Raitara Sanga	Uganedaundi
	Malleamadappa	Nenekatte
	Raitara Adhara	Begur

3.7 Method of analysis

Keeping in view the specific objectives of the study, the data collected were subjected to the following statistical analysis.

- 3.7.1 Descriptive Statistics
- 3.7.2 Continuum scale technique
- 3.7.3 Garrett's ranking technique
- 3.7.4 Ratio analysis
- 3.7.5 Chi-square test

3.7.1 Descriptive Statistics

The data collected from the members were analyzed using averages and percentages.

Similarly, socio-personal profile, the average quantity of produce sold annually, joining of members to the FPOs was analyzed.

3.7.2 Continuum scale technique

In order to assess opinion towards services of FPO, the participation of members in FPO activities the level of satisfaction of the members was analyzed (Procedure suggested by Trivedi, 1963).

3.7.2.1 Participation of members in FPO activities

For measuring participation of members in different activities a total of ten activities were selected after consultation and discussion with the experts of the concerned subject and members of the advisory committee.

The variables were quantified using a five continuum scale namely never, very least, sometimes, often and most often.

List of activities was prepared and the respondents were asked to indicate the extent of their participation in each one of them. The scoring procedure followed as follows (Procedure suggested by Trivedi, 1963).

Sl. No.	Activities	Extent of participation				
		N (1)	VL (2)	S (3)	O (4)	MO (5)
1.	Extension activities					
2.	Meetings					
3.	Marketing to institutional buyers					
4.	Output business					
5.	Services					
6.	Quality control					
7.	Aggregation and storage of produce					
8.	Drying, cleaning, grading					
9.	Custom hiring centre					
10.	Collective production					

N-Never; VL-Very least; S-Sometime; O-Often; MO-Most often

Whereas variables consider for study such as very least, sometimes, often and most often consider for a year.

- Marketing to institutional buyers: means larger buyers (hotels, hospital, hostel, schools) who purchase goods for their own use.
- Output business: the link between farmers and the modern food retail sector.
- Extension activities: field days, demonstrations, training, programmes.
- Meetings: meetings of the members or of the directors or the debenture holder or of the contributories are called meeting of a organization.
- Custom hiring centre: Is basically a unit comprising a set of farm machinery, implements and equipment meant for custom hiring for the members.
- Collective production: member-owners jointly engage in production activities
- Quality control: a system of maintaining standards in products by testing a sample of the output against the specification, it includes standardization and grading.

Responses of members were taken in the order 1, 2, 3, 4 and 5 respectively. The overall participation was grouped into three categories on the basis of minimum of 5 and

maximum of obtainable score 50, based on the mean and SD grouped into three categories as follows.

Categories	Criteria
Low (up to 30.55)	<(Mean -1/2 SD)
Medium (30.55 to 33.95)	(Mean \pm ½ SD)
High (above 33.95)	>(Mean + ½ SD)

Mean= 32.25 SD=3.4

3.7.2.2 Level of satisfaction of the members

The variables were quantified using a five continuum scale namely not satisfied, somewhat satisfied, satisfied, highly satisfied and excellent (Procedure suggested by Trivedi, 1963).

Sl. No.	Particulars	Level of satisfaction				
		NS (1)	SS (2)	S (3)	HS (4)	E (5)
1.	Knowledge gain through awareness programme					
2.	Field visits					
3.	General body meeting					
4.	Management of organization					
5.	Services of organization					

NS-Not Satisfied; SS-Somewhat Satisfied; S-Satisfied; HS-Highly Satisfied; E-Excellent

Responses of members were taken in the order 1, 2, 3, 4 and 5 respectively. The overall satisfaction level was grouped into three categories on the basis of minimum of 5 and maximum of obtainable score 25, based on the mean and SD grouped into three categories as follows.

Categories	Criteria
Low (up to 15.92)	< (Mean -1/2 SD)
Medium (15.92 to 18.34)	(Mean \pm 1/2 SD)
High (above 18.34)	>(Mean + 1/2 SD)
Mean = 17.13	SD = 2.42

3.7.2.3 Opinion towards services of FPO

The variables were quantified using a five continuum scale namely very poor, poor, fair, good and very good (Procedure suggested by Trivedi, 1963).

Sl. No.	Services	VP (1)	P (2)	F (3)	G (4)	VG (5)
1.	Production					
2.	Financial					
3.	Extension					
4.	Marketing					
5.	Education					
6.	Welfare					
7.	Management of resources					

VP-Very poor; P-Poor; F-Fair; G-Good; VG-Very good

- Production services: The FPO will provide low cost and quality inputs to member farmers (supply fertilizers, pesticides, seeds, sprayers, pump sets, accessories, pipelines, and technology).
- Financial services: The FPO will provide loans for crops, purchase of tractors, pump sets, construction of wells, laying of pipelines. Pledge loan for members by the financial institution also helpful in savings.
- Marketing services: input supply, output marketing processing and market information.
- Extension services: field visit and meeting, training.
- Education services: business skills, health.

- Welfare services: health safety nets.
- Management of resources: water, pasture, fisheries, forests.

Responses of members were taken in the order 1, 2, 3, 4 and 5 respectively. The overall opinion towards services was grouped into three categories on minimum of 5 and maximum of obtainable score 35, based on the mean and SD grouped into three categories as follows.

Categories	Criteria
Low (up to 20.55)	<(Mean -1/2 SD)
Medium (20.55 to 23.44)	(Mean ± ½ SD)
High (above 23.44)	>(Mean + ½ SD)

Mean = 22 SD = 2.89

3.7.3 Garrett’s ranking technique

Garrett’s ranking technique was used to analyze the reasons provided by members for joining the FPO, support required for effective functioning of FPO, the role of FPO in enhancing the performance of members and to rank problems faced by members of FPO. The order of merit given by the farmers was changed into ranks by using the formula: the procedure was given by Henry Garrett and Woodworth (1969) (Dhanavandan, 2016).

$$\text{Per cent position} = \frac{100 * (R_{ij} - 0.5)}{N_j}$$

Where R_{ij} = Rank given for i th item by a j th individual

N_j = Number of items ranked by j th individual

The percent position of each rank was converted into scores by referring to Garrett table. Then for each factor, the scores of individual respondents were summed up and divided by the total number of respondents for whom scores were gathered. The mean scores for all the factors were ranked; following the decision criteria that higher the value, more important is the constraint or most important reason for the beneficiaries.

3.7.4 Ratio analysis

In order to know the financial condition and performance of the selected FPOs, the financial analysis needs certain yardsticks. The yardsticks frequently used in a study are ratio (or) index, analysis and interpretation, which provide better insight into the relative financial condition and performance (Barnes, 1987).

The financial ratios employed in this study were classified according to their primary functions. The ratios used were

3.7.4.1 Liquidity ratio,

3.7.4.2 Solvency ratio,

3.7.4.3 Profitability ratio and

3.7.4.4 Efficiency ratio.

The different financial ratios used for the analysis are discussed below.

3.7.4.1 Liquidity Ratio

Liquidity ratios are used to measure the ability of FPO to possess the adequate cash to meet immediate obligations. Some of the indicators of liquidity have been worked out as follows:

3.7.4.1.1 Current Ratio

This ratio measures the degree of short-term liquidity of the company. It indicates whether the current assets are sufficient to meet the current liabilities.

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

The current assets included in this study are cash in hand and at the bank, and bills receivables. The current liabilities included are borrowings and bills payables. It is generally accepted that a good current ratio should be between 1.5 and 2. Generally,

higher the value of this ratio, greater will be the margin and financial solvency of the company.

3.7.4.1.2 Liquid assets to total assets ratio

The degree of liquidity performance adopted by the FPO is depicted by this ratio. It was computed as follows.

$$\text{Liquid assets to total assets ratio} = \frac{\text{Liquid assets}}{\text{Total assets}}$$

The liquid assets included are cash in hand and cash at the bank. Total assets include all cash and bank balances, fixed assets and other assets.

3.7.4.1.3 Acid- Test ratio

This ratio is called quick ratio or near money ratio and represents the ratio between quick assets and current liabilities. It is computed as follows:

$$\text{Acid- Test ratio} = \frac{\text{Quick assets}}{\text{Current liabilities}}$$

Where, Quick assets= Current assets – Inventory

The quick assets include cash in hand, cash at bank and short-term deposits. The current liabilities include bills payable, other provisions and interest paid.

3.7.4.2 Solvency ratio

These ratios indicate PCs own involvement in its total resources and provide the basis for measuring its leverage ratio. The various ratios employed are as follows:

3.7.4.2.1 Total liabilities to the owned funds ratio

This ratio was obtained as given below:

$$\text{Total liabilities to owned funds ratio} = \frac{\text{Total liabilities}}{\text{Owned funds}}$$

This ratio helps to compare the amount institution owes to creditors within the amount of money that is invested in the institution. Total liabilities included are short, medium and long-term loans and borrowed funds from the other institutions. The paid-up share capital, reserve and other funds and net profits were included under-owned fund of the FPO.

3.7.4.2.2 Fixed assets to owned funds ratio

This ratio was computed by dividing fixed assets by the owned funds of the FPO.

$$\text{Fixed assets to owned funds ratio} = \frac{\text{Fixed assets}}{\text{Owned funds}}$$

Fixed assets included building, machinery, furniture, plant protection equipment and implement, etc., on the last day of the financial year.

3.7.4.2.2 Debt- Equity ratio

This ratio is also called 'leverage ratio', which compares the company's stake in the business with outside term liabilities. The lower value of the ratio indicates that the leverage effect will be restricted to the minor role of debt and major capital being equity.

$$\text{Debt - Equity ratio} = \frac{\text{Long term liabilities}}{\text{Net-worth}}$$

In the above ratio, debt represents only long-term liabilities and not current liabilities, while equity refers to net worth after deducting intangible assets.

3.7.4.3 Profitability ratio

These ratios are used to compare the return to the investment. Following were the important ratios computed.

3.7.4.3.1 Net profit to Total Assets Ratio

$$\text{Net profit to total assets ratio} = \frac{\text{Net profit}}{\text{Total assets}}$$

An increasing trend over the years indicates the overall efficiency of the Organisation.

3.7.4.3.2 Net profit to net worth ratio

The ratio of net profit to net worth shows whether profitability is being maintained or not.

$$\text{Net profit to net worth ratio} = \frac{\text{Net profit}}{\text{Net worth}}$$

3.7.4.3.3 Net profit to fixed assets ratio

The ratio indicates whether the fixed assets are being used for profitability. A low value in the ratio shows that either the assets are being kept idle or the business conditions are bad.

$$\text{Net profit to fixed assets ratio} = \frac{\text{Net profit}}{\text{Fixed assets}}$$

3.7.4.4 Efficiency ratio

The following ratios were used to access the efficiency of FPOs.

3.7.4.4.1 Gross ratio

This ratio helps to ascertain how efficiently the gross income of the Company was earned. It is a popular tool to evaluate the operational performance of the business. The ratio was computed as follows.

$$\text{Gross ratio} = \frac{\text{Total expenses}}{\text{Gross income}} * 100$$

3.7.4.4.2 Operating ratio

The operating ratio can be used to determine the efficiency of a company's management by comparing operating expenses to net sales. It is calculated by dividing the operating expenses by the net sales. The smaller the ratio the greater will be the organization's ability to generate profit.

$$\text{Operating ratio} = \frac{\text{Operating expenses}}{\text{Gross income}}$$

3.7.5 Chi-square test

The chi-square test was applied to measure the association between independent (six variables) and dependent variables (Participation level and services).

IV RESULTS AND DISCUSSION

In accordance with the objectives of the study, the data collected from primary and secondary sources were analyzed and interpreted. The findings of the study are presented and discussed in this chapter under the following heads:

- 4.1 Organizational profile and structure,
- 4.2 Socio-economic profile of FPO members,
- 4.3 Participation of members in various activities,
- 4.4 Overall participation of members in FPO activities,
- 4.5 Performance of farmers' producer organization,
- 4.6 Role of organizations in enhancing the performance of farmer collectives,
- 4.7 Ambit of support required for effective functioning of the organization,
- 4.8 Association and extent of the contribution of independent variables with the level participation of members in various activities,
- 4.9 Association and extent of the contribution of independent variables with the services provided by the organization to the members,
- 4.10 Constraints faced by members of the organization.

4.1 Organizational profile and structure

Department of Horticulture, Government of Chamarajanagar has started a pilot programme for promoting member-based Farmers' Producer Organisations (FPOs) during 2016-17, in association with Small Farmers' Agri-business Consortium (SFAC), New Delhi. It is an ambitious project of the Government of Chamarajanagar for the alleviation of poverty in the District.

These FPOs are governed by the board (Fig. 3- organizational structure) those involved in different businesses like seed production, dairy, and poultry. Most of these companies are located in a central and northern part of the state; since this part is more progressive in farming.

4.1.1 Details of three FPOs

4.1.1.1 Udigala Horticulture Farmers Producer Company Ltd. (UHFPC)

Udigala Horticulture Farmers Producer Company Ltd. was located in Udigala Village, Harave Hobli, Chamarajanagar district-571313. The date of registration of UHFSPC was on 9-Mar-16 and the corporate ID of the organization was U01403KA2016PTC086798. The number of BoDs was 12. The organization was having 1000 members which were from 12 villages, respectively. The organization mainly supported by Small Farmers Agri-business Consortium. The paid-up Capital being Rs. 1 Lakh and minimum authorized capital being Rs.5 Lakh, share capital was 800000.

4.1.1.2 Gundlupete Horticulture Farmers Producer Company Ltd. (GHFPC)

Gundlupete Horticulture Farmers Producer Company Ltd. was located in Gundlupete, TAPCMS building. The date of registration of GHFSPC was on 9-Mar-16 and the corporate ID of the organization was U01407PTC086812. The number of BoDs was 12. The organization was having 1100 members which were from 25 villages, respectively. The organization mainly supported by Small Farmers Agri-business Consortium. The paid-up Capital being Rs. 1 Lakh and minimum authorized capital being Rs.5 Lakh, share capital was 1100000.

4.1.1.3 Shree Mahadeshwara Farmers Producer Company Ltd.

Shree Mahadeshwara Farmers Producer Company Ltd. was located in Hondarabalu, Kollegala (T), Chamarajnagar (D), Lingapuram main road, near Lions School-571440. The date of registration of the company was on 11-Aug-16 and the corporate ID of the organization was U01100KA2016PTC095656. The number of BoDs was 10. The organization was having 350 members which were from 10 villages, respectively. Whereas, the share capital of the company was 350000. The organization mainly supported by NABARD.

The organizational structure of the FPOs comprises of an elected Board comprising 13 Directors who in turn elect a chairman. The CEO appointed by the

chairman holds the key position in the company, responsible for taking an important decision in the organization.

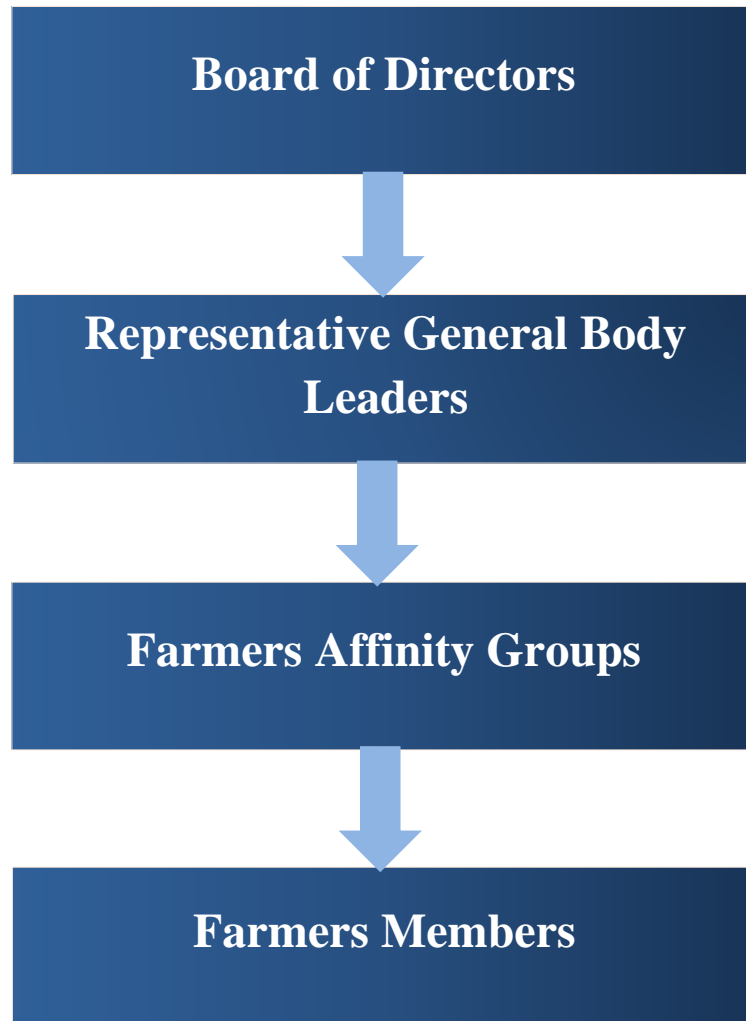


Fig. 3: Organisational Structure of Farmers' Producer Organization
Source: Aditya (2015)

4.2 Socio-economic profile of FPO members

An attempt was made to know the distribution of the members with respect to socio-personal characteristics and the results are presented in Table 1.

4.2.1 Age

It could be observed from the Table 1 that, half (50.00%) of the respondents were belonged to middle age category, followed by old (30.00%) and young age (20.00%).

Age is an important factor as it reveals the maturity of an individual to take decisions for achieving his needs, age is a critical part to be considered when applying for credits and also in taking a risk and also influence the productivity of the organization and the role they play for the performance of the organization. From the Table, we can observe that half of the members (50.00%) found in the middle age group this might be because in general, the members of middle age are enthusiastic and have more work efficiency. Moreover, middle-aged members have more family responsibility, efficiency and sensibility. They also work with a sense of commitment and involvement.

This clearly shows that members of more than 35 years took more interest in joining the FPO as members. The result was reflecting with the findings of Ali (2010), Priya (2010) and Karpagam (2000).

4.2.2 Gender

It is evident from the Table 1 that, the great majority (85.56%) of the respondents were male, whereas, 14.44 percent of the respondents were female.

Gender of members can influence the productivity of the organization and the role they play in the performance of the organization. Gender classification of members shows that male was more than (85.56%) female (14.44%). This might be the because of the reason that women have less access to education, especially in rural areas; tradition, religious, social and cultural obstacles; children, household responsibility and lack of marketing facilities and opportunities. These results are in tune with the objectives of Rani and Yadeta (2016).

4.2.3 Education

The data pertaining to the education in Table 1 found that more than one fourth (28.89%) of the respondents were educated up to higher secondary education level, followed by 22.22 per cent of the respondents educated up to PUC, equal per cent (14.45%) of the respondents had an education up to primary school and middle school, 10.00 per cent respondents were illiterates, 5.55 per cent members educated up to post-graduation and very meager (4.44%) of the respondents had education up to graduation, respectively.

It is universal fact that education plays a key role in moulding and bringing desirable changes among human beings. As the majority of the members were educated, and able to gather knowledge on recent technologies on cultivation and marketing practices. In the present scenario, almost everybody is anticipating to be literate due to the awareness brought by the government on the importance of education and the efforts of the government and non-governmental agencies. The findings are in accordance with the findings of Krishnamurthy (1999), Dhamodaran and Kumar (2001).

4.2.4 Land holding

It could be apparent from the Table 1 that, nearly half (48.89%) of the respondents were marginal farmers (<2.5 acres) followed by 37.77 per cent were small farmers (2.5-5 acres) and 13.34 per cent were big farmers (>5 acres of land), respectively.

Most of the members possessed 2.5-5 acres of land, indicating that small and marginal farmers choose to become the members of the organization. Since, the ancestral property was divided among the inheritors; the land became fragmented into smaller land holdings. Hence, most of the members were small and marginal landholders. The results are in conformity with the findings of Minakshi and Sudarshan (2008), Garg (2012) and Supriya (2016).

4.2.5 Type of family

It was observed from the Table 1 that, slightly above two third (67.77%) of the respondents were belong to a nuclear family, followed by a joint family (32.23%).

The reasons for above tendency may be due to the fact that, the present trend in the village is to have a nuclear family for agricultural operations and decision making for better economic progress and quality life and this might be due to modernization, general awareness about family planning and need for nuclear families. The above findings are in agreement with the findings of Sivanarayana *et al.* (2008) and Supriya (2016).

4.2.6 Farming experience

It is clear from the Table 1 that, that 60.00 per cent of the respondents had 11-20 years of experience, while, 27.77 per cent of them had long farming experience of more than 20 years and remaining 12.23 per cent of the respondents were having less than 10 years of experience.

Nearly two-thirds of the members (60.00%) possessed 11-20 years of farming experience. This might be due to the fact that, experience aids in effective management and helps in making quick decisions to perform farm activities and to adopt the new technology. A similar result was reported by Vidhyanand (2004).

Table 1: Socio-economic profile of FPO members (n=90)

Sl. No.	Particulars	FPO members	
		No.	Percentage to the total
1.	Age (years)		
	Young (<35)	18	20.00
	Middle (35-50)	45	50.00
	Old (>50)	27	30.00
	Total	90	100.00
	Gender		

2.	Male	77	85.56
	Female	13	14.44
	Total	90	100.00
3.	Education		
	Illiterate	9	10.00
	Primary School	13	14.45
	Middle School	13	14.45
	High School	26	28.89
	PUC	20	22.22
	Graduation	4	4.44
	Post-Graduation	5	5.55
	Total	90	100.00
4.	Land holdings (Acres)		
	Marginal farmers (<2.5)	44	48.89
	Small farmers (2.5-5)	34	37.77
	Big farmers (>5)	12	13.34
	Total	90	100.00
5.	Type of family		
	Nuclear	61	67.77
	Joint	29	32.23

	Total	90	100.00
6.	Experience in farming		
	Less than 10 yrs.	11	12.23
	More than 10 to 20 yrs.	54	60.00
	More than 20 yrs.	25	27.77
	Total	90	100.00

4.2.7 Year of joining the FPO

The results in the Table 2 revealed that the majority (75.55%) of the respondents became the members of the organization at the time of its establishment in the year 2016-17, whereas, remaining 24.45 per cent members became the members of the Organisation in the year 2017-18.

Most of the farmers became members of the organization in its establishment year (2016-17) this might be because the organization's promoters and BoDs did many campaigns to promote the organization at different villages. Later introduction of members, as members of the organization, became less as the company found it difficult to meet the need of every member. The results are in conformity with the findings of Garg (2012).

Table 2: Members joining the FPO

(n=90)			
Sl. No.	Year of membership	No.	Percentage to the total
1.	2016-17	68	75.55
2.	2017-18	22	24.45
Total		90	100.00

4.2.8 Reasons for joining the FPO

The reasons for joining the FPO by members have been ranked based on preferences using Garrett score and the results are provided in Table 3. The services offered by organization emerged as the most important reason for becoming the member of the organization with a mean score of 66.77 and secured the first rank. The second rank was given to better price realization (63.94) followed by quick payment settlement (47.94) secured the third rank, storage facility (39.16) secured fourth rank and credit facility from Organisation (32.33) secured the fifth rank, respectively.

The services offered by the FPO were indicated as the most important factor motivating them to become the member of the organization. Because they require agricultural inputs in small quantities, they procure from local traders at a price of 20-30 per cent higher than the market rate. Inferior quality of these inputs and long delays in procurement further complicates the problem. But these services FPOs provide a solution for all problems. The results are in line with the findings of Dev (2005).

Table 3: Reasons provided by members for joining the FPO (n=90)

Sl. No.	Reasons	Garrett's mean score	Rank
1.	Due to services offered by the organization	66.77	I
2.	Better price realization	63.94	II
3.	Quick payment settlement	47.94	III
4.	Storage facility	39.16	IV
5.	Credit facility from the organization	32.33	V

4.2.9 Average quantity of produce members sold annually

The Table 4 revealed that of the members, 47.78 per cent of the respondents sold 76-100 Kg to FPO, followed by 23.33 per cent sold 101- 125 kg and 17.78 per cent sold 51- 75 kg, respectively.

The study depicts that only 47.78 per cent of members sold more quantity of produce to the organization while rest 52.22 per cent sold less quantity for the remaining quantity chose other marketing channels. It is attributed to the very nature of the business undertaken by the organization as it procures only seeds and not the grains produced by the members. So a large proportion of members, in spite of their willingness to do business with FPO, could not sell them all produce. This calls for a change in the business policy of FPO. The above findings are well supported by Garg (2012).

Table 4: Average quantity of produce members sold annually

(n=90)

Sl. No.	Quantity (Kg)	FPO members	
		No.	Percentage to total
1.	25-50	3	3.33
2.	51-75	16	17.78
3.	76-100	43	47.78
4.	101-125	21	23.33
5.	>126	7	7.78
Total		90	100.00

4.3 Participation of members in various activities

It is evident from Table 5 that, nearly one third (32.23%) of the respondents never participated in marketing to institutional buyers, whereas, 26.66 per cent respondents never participated in aggregation, storage of produce and 16.65 per cent of the respondents never participated in the collective production.

It might be due to the reason that one-third of the respondents were illiterate and they did not know the other marketing channels and also misconception regarding institutional buyers in case of the transaction.

Further, it was cited that 57.78 per cent of the respondents participated as very least in quality control followed by 38.89 per cent of the respondents participated as very least in aggregation, storage of produce and 21.11 per cent of the respondents participated as very least in collective production.

The probable reason for this kind of tendency might be due to the fact that, 57.78 per cent of the respondents viewed that the quality control process was expensive and time-consuming.

Table 5 also outlined that 44.44 per cent of the respondents sometimes participated in meetings, followed by 35.56 per cent of the respondents sometimes participated in marketing to institutional buyers and 34.45 per cent of the respondents sometimes participated in the aggregation and storage of produce.

Credible reason for the respondents participated in meetings was that members gain knowledge regarding market information, profit of the organization, management of the organization and the concept of FPO.

It was also pointed out that nearly half (48.89%) of the respondents often participated in custom hiring center, whereas 40.00 per cent of respondents often participated in drying-cleaning-grading activities and 38.88 per cent of respondents often participated in extension activities.

The feasible reason for the respondents often participated in custom hiring center was that due to small holdings they were not producing surplus produce intern they were not getting reasonable price further they were not in the position to own equipment so half of the respondents often participated in custom hiring center.

Table 5 interpreted that more than half (52.23%) of the respondents most often participated in drying-cleaning-grading activities, followed by 30.00 per cent of the

respondents most often participated in services and 27.78 per cent of the respondents most often participated in custom hiring center.

The probable reason for half of the respondents most often participated in drying-cleaning-grading activities was that it fetches higher prices for their produce, intern savings also increases for the members.

Table 5: Participation of members in FPO activities (n=90)

Sl. No.	Activities	FPO members									
		Never		Very least		Sometime		Often		Most often	
		No.	%*	No.	%*	No.	%*	No.	%*	No.	%*
1.	Extension activities	8	8.88	13	14.45	12	13.34	35	38.88	22	24.45
2.	Meetings	9	10.00	13	14.44	40	44.44	16	17.77	12	13.35
3.	Marketing to institutional buyers	29	32.23	7	7.77	32	35.56	16	17.78	6	6.66
4.	Output business	7	7.77	11	12.22	14	15.55	34	37.78	24	26.68
5.	Services	5	5.55	6	6.66	19	21.12	33	36.67	27	30.00
6.	Quality control	11	12.22	52	57.78	24	26.67	2	2.22	1	1.11
7.	Aggregation and Storage of produce	24	26.66	35	38.89	31	34.45	0	0.00	0	0.00
8.	Drying, cleaning, grading	6	6.67	0	0.00	1	1.11	36	40.00	47	52.23
9.	Custom hiring center	14	15.55	1	1.11	6	6.67	44	48.89	25	27.78
10.	Collective production	15	16.65	19	21.11	29	32.23	19	21.12	8	8.89

%*- Percentage; No. -Number

4.4 Overall participation of members in FPO activities

From Table 6 and figure 4 it could be seen that more than one third (36.66%) of the members had a medium level of participation, followed by 34.45 and 28.89 per cent having a high and low level of participation, respectively.

Majority of the members comes under the medium level of participation (36.66%). The probable reason for this kind of tendency might be due to the fact that,

majority of them had medium level of education and frequently participated in the extension activities conducted by the agriculture department and agricultural university, lack of proper guidelines and ineffective implications and lack of awareness regarding benefits of activities and some of them participated in other subsidiary activities which are more remunerative than these activities. From the results, it is clearly indicated that members participated in services to get the highest benefits from the FPO. It is concluded that participation has a significant impact on members. It can work as a platform to facilitate better access to government services, like PDS, MNREGA, Scholarships and Pensions, *etc.* It can liaison with the Government Departments for convergence of programmes, like drinking water, sanitation, health and hygiene. Lack of full participation in markets prevents them from transiting into commercial farming and hence their low contribution to economic growth. These results of the study are in conformity with the findings of Pottappa (2008), Ali (2010) and Priya (2010).

Table 6: Overall participation of members in FPO activities (n=90)

Sl. No.	Participation level	Mean Score	FPO members	
			No.	Percentage to the total
1.	Low	<30.55	26	28.89
2.	Medium	30.55 - 33.95	33	36.66
3.	High	>33.95	31	34.45
Total			90	100.00

Mean=32.25; SD=3.40

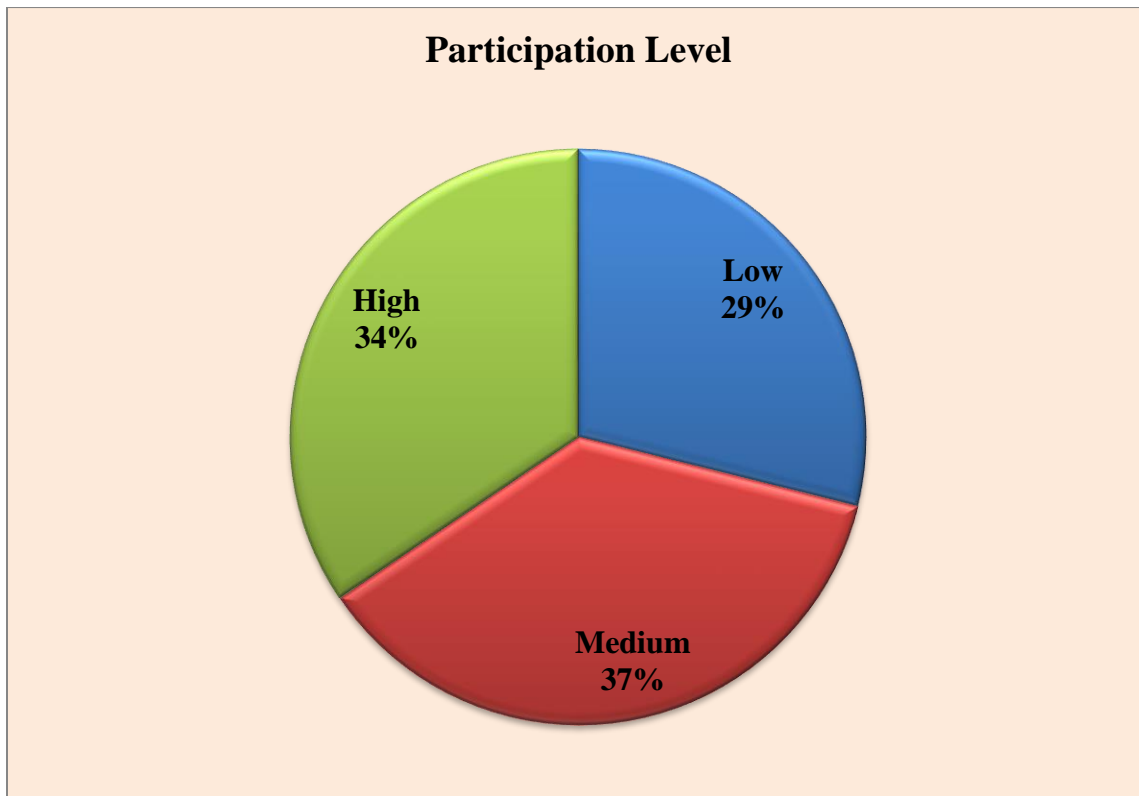


Fig. 4: Overall participation of members in FPO activities

4.5 Performance of Farmers' Producer Organization

The financial ratio analysis of Farmers' Producer Organization, was attempted through financial ratios for one year, 2016-17. The selected financial ratios fall under four groups viz., tests of liquidity, tests of solvency, tests of profitability and efficiency.

4.5.1 Tests of liquidity

The three liquidity ratios were worked out and the results are presented in Table 7.

4.5.1.1 Current ratio

It is evident from the Table 7 that, the current ratio was found to be 1.34 for Udigala HFPC Ltd. followed by 1.66 and 2.55 for Gundlupete HFPC Ltd. and Shree Mahadeshwara Farmers Producer Company Ltd., respectively.

The current ratio was greater than unity in all the FPOs. The value above unity indicates a firm's ability to meet current obligations. Thus, it could be concluded that the organization had maintained a reasonable level of liquidity position. These findings are in conformity with the findings as reported by Natarajan (1980) and Kuchhal (1979).

4.5.1.2 Acid-test ratio

It is apparent from the Table 7 that, the acid ratio was found to be 1.52 for Udigala HFPC Ltd, followed by 1.77 and 3.43 for Gundlupete HFPC Ltd. and Shree Mahadeshwara Farmers Producer Company Ltd., respectively.

Acid test ratio or quick ratio provides a better measure of liquidity than the current ratio, as inventories are deducted from current assets for the calculation of this ratio.

A standard ratio of 1:1 is desirable. The study indicating that the above organizations had maintained adequate cash balances to meet the day-to-day requirements; instead of depending on its inventory for immediate commitments. These results are in agreement with the findings of Thippesha (1997).

4.5.1.3 Liquid assets to total assets ratio

It is apparent from the Table 7 that, the liquid assets to total assets ratio was found to be 0.10 for Udigala HFPC Ltd, followed by 0.35 and 0.42 for Gundlupete HFPC Ltd. and Shree Mahadeshwara Farmers Producer Company Ltd. respectively.

It was indicating that around 35 per cent of the total assets were made up of liquid assets in Gundlupete HFPC Ltd, whereas, for Udigala 10 per cent of the total assets were made up of liquid assets and for Shree Mahadeshwara FPC Ltd 42 per cent of the total assets were made up of liquid assets

This results indicated that a fair amount of working capital was available with the organization. A higher proportion of liquid assets in the total assets are a healthy sign, as an organization should have more working capital to meet the increased volume of production over the years. The above findings are well supported by the findings of Kunal (1994).

Table 7: Liquidity status of sample FPOs in Chamarajanagar district

Sl. No.	FPOs	Ratios		
		Current ratio	Acid-test ratio	Liquid assets to total asset ratio
1.	Udigala HFPC Ltd	1.34	1.52	0.10
2.	Gundlupete HFPC Ltd	1.66	1.77	0.35
3.	Shree Mahadeshwara Farmers Producer Company Ltd	2.55	3.43	0.42

4.5.2 Tests of Solvency

Three different ratios were used to assess the solvency of the FPO. These ratios provide information on the ability of the PC to cover its short and long-term obligations, the margin of safety offered to the creditors and the potential earnings from the use of borrowed funds. The three liquidity ratios were worked out and the results are presented in Table 8.

4.5.2.1 Total liabilities to the owned funds ratio

The results from Table 8 conferred that, the total liabilities to the owned funds ratio was found to be 2.46 for Udigala HFPC Ltd. followed by 5.70 and 9.69 for Gundlupete HFPC Ltd. and Shree Mahadeshwara Farmers Producer Company Ltd., respectively.

Total liabilities to owned funds ratio which indicates the extent of debt on each rupee of the owned funds of FPOs. A value over unity of this ratio for a non-banking institution indicates a poor financial structure. However, the prescribed norm is 3:1. Thus, the ratio was far away from the prescribed norm. Above results revealed the heavy reliance of FPOs on external funds. This drives point that it may not be creditworthy once

the government withdraws support. The results are in line with the findings of Page *et al.* (1970) and Foulke (1974).

4.5.2.2 Fixed assets to owned funds ratio

It is clear from the Table 8 that, the fixed assets to owned funds ratio was found to be 0.05 for Udigala HFPC Ltd. followed by 0.03 and 0.10 for Gundlupete HFPC Ltd. and Shree Mahadeshwara Farmers Producer Company Ltd., respectively.

The ratio of fixed assets to the owned funds ratio explains the extent of owned funds invested in fixed assets. Page *et al.* (1970) indicated that higher ratio is associated with the problem of liquidation because the claims of the owners have to be met by the sale of fixed assets, which are in non-liquid form. On the other hand, Shridharan (1975) observed the rise in the value of this ratio as a clear indication of the manifold expansion of the services provided by the institution. However, for the production, unity is desirable (Thippesha, 1997). In the present study, this ratio was found to be very less in all FPOs, which is desirable as observed by Page *et al.* (1970). The reason might be that these were in the initial stages and services to the members were found to be at medium level.

4.5.2.3 Debt-equity ratio

It is apparent from the Table 8 that, the debt-equity ratio was found to be 13.65 for Udigala HFPC Ltd. followed by 21.82 and 12.78 for Gundlupete HFPC Ltd. and Shree Mahadeshwara Farmers Producer Company Ltd., respectively.

The debt-equity ratio explains the extent of external dependence of the organization in relation to its equity. A ratio less than 3:1 signifies the financial soundness of the organization regarding its debts and equity positions. In the present study, the debt-equity ratio was much higher than the norm of 3:1. This clearly shows the overdependence of FPO on external debt compared to equity.

Table 8: Solvency status of sample FPOs in Chamarajanagar district

Sl. No.	FPOs	Ratios		
		Total liabilities to the owned funds ratio	Fixed assets to the owned funds ratio	Debt-equity ratio
1.	Udigala HFPC Ltd	2.46	0.05	13.65
2.	Gundlupete HFPC Ltd	5.70	0.03	21.82
3.	Shree Mahadeshwara Farmers Producer Company Ltd	9.69	0.10	12.78

4.5.3 Tests of profitability

Profitability ratio can be used to assess the financial status and overall efficiency of the institution. These ratios are presented in Table 9.

4.5.3.1 Net profit to total assets

In the present study from Table 9, it could be vividly observed that the ratio of net profit to total asset was 0.03 for Udigala HFPC Ltd, 0.12 for Gundlupete HFPC Ltd and 0.29 for Shree Mahadeshwara Farmers Producer Company Ltd.

Mohsin (1977) suggested that the net profit to total assets should be more than two per cent for an efficient utilization of total assets. This shows that in the initial years as the organizations made a very low profit during the period because all FPOs incurred huge expenditure. The results indicated that the profit level was low in relation to total assets (Devaraj, 2000). Hence, efforts need to be made to increase profit by decreasing the expenditure.

4.5.3.2 Net profit to net worth

It is witnessed from the Table 9 that net profit to net worth ratio was negative for Udigala HFPC Ltd., *i.e.* -0.35, followed by Gundlupete HFPC Ltd it was 0.39 and for Shree Mahadeshwara Farmers Producer Company Ltd. it was 1.04.

The close observation of the ratio in the light of the service objective of the Gundlupete HFPC Ltd. revealed that it had failed to achieve a fair return on the net worth whereas Shree Mahadeshwara Farmers Producer Company Ltd. achieves a fair return on net worth (Mohsin, 1977 and Walker, 1971). The reason might be due to that Gundlupete HFPC Ltd business expansion was meager and also it was more vulnerable to lack of confidence by the members with functioning.

4.5.3.3 Net profit to fixed assets

It is seen from the Table 9 elucidated that net profit to fixed assets ratio was 0.34 for Udigala HFPC Ltd, followed by Gundlupete HFPC Ltd it was 0.55 and for Shree Mahadeshwara Farmers Producer Company Ltd. it was 1.37.

This ratio specifically measures a company's ability to generate net sales from fixed-asset investments.

A low value in the ratio shows that either the assets are being kept idle or the business conditions are bad. The above figure was not a healthy sign because members not actively participated in business.

Table 9: Profitability status of sample FPOs in Chamarajanagar district

Sl. No.	FPOs	Ratios		
		Net profit to total assets	Net profit to net worth	Net profit to fixed assets
1.	Udigala HFPC Ltd	0.03	-0.35	0.34
2.	Gundlupete HFPC Ltd	0.12	0.39	0.55
3.	Shree Mahadeshwara Farmers Producer Company Ltd	0.29	1.04	1.37

4.5.4 Tests of efficiency

Gross ratio and operating ratio were adapted to assess the efficiency of the institution and they are presented in Table 10.

4.5.4.1 Gross ratio

From the Table 10, it was noticed that the ratio was found to be 0.89 for Udigala HFPC Ltd, followed Gundlupete HFPC Ltd it was found to be 0.73 and for Shree Mahadeshwara Farmers Producer Company Ltd it was found to be 0.98.

Gross ratio measured the total expenses for every Rs.100 gross income. Keeping in view the service objective of the organization, the expenses incurred were less than its income.

4.5.4.1 Operating ratio

It is apparent from the Table 10 that, the operating ratio was found to be 0.61 for Udigala HFPC Ltd, followed by 0.78 and 0.92 for Gundlupete HFPC Ltd. and Shree Mahadeshwara Farmers Producer Company Ltd., respectively.

Operating ratio in all the FPOs was less than one. The ratio within one indicates that the corporation spent less than what it earned in carrying out its operation. This speaks about the high operating efficiency of the organization.

Table 10: Efficiency status of sample FPOs in Chamarajanagar district

Sl. No.	FPOs	Ratios	
		Gross ratio	Operating ratio
1.	Udigala HFPC Ltd	0.89	0.61
2.	Gundlupete HFPC Ltd	0.73	0.78
3.	Shree Mahadeshwara Farmers Producer Company Ltd	0.98	0.92

4.6 Role of organizations in enhancing the performance of farmer collectives

4.6.1 Role of FPO in enhancing the performance of members

Role of FPO in enhancing the performance of members have been ranked based on preferences using Garrett's score and the results are provided in Table 11. Timely availability of inputs emerged as the most important role in enhancing the performance of members with mean score of ranks I, followed by increase in production (II), increase in net return (III), enhanced knowledge of production and marketing (IV), decreased transaction time (V), increase in savings (VI) and reduction in marketing cost (VII) being the other reasons as indicated by the members in that order.

The study results showed that the organization is able to enhance the performance by providing in time services to the members. Responses of the members show that stringent measures have to be taken to increase the effect of FPOs in terms of reduction in marketing cost, increase in savings by providing additional credits, decreased transaction time by connecting nearby markets.

This might be the fact that commercialization by small agricultural producers is often hindered by high transaction costs. Small producers lack appropriate managerial capacity, production technology and infrastructure, which prevent them from commercializing. When marketing transaction costs are high, farming households do not gain from product specialization or trade. Hence the above findings the study helps full for the performance of members.

Table 11: Role of FPO in enhancing the performance of members (n=90)

Sl. No.	Particulars	Garrett's mean score	Rank
1.	Timely availability of inputs (Quality inputs and at a cheaper price)	69.06	I
2.	Increase in production	66.00	II
3.	Increase in net return	60.45	III

4.	Enhanced knowledge of production and marketing	51.30	IV
5.	Decreased transaction time	41.40	V
6.	Increase in savings	35.57	VI
7.	Reduction in marketing cost	27.20	VII

4.6.2 Satisfaction level of members regarding FPO

It could be observed from the Table 12 that, 16.66 per cent of the respondents were not satisfied with the management of the organization, followed by general body meeting (11.11%) and knowledge gain through awareness programme (8.88%).

A valid reason for unsatisfied with the management of the organization was that though FPOs were in initial stages the staffs were not able to catch concept of FPOs, and there is a need of good training facility for staffs.

Further the Table revealed that, more than one fifth (22.22%) of the respondents were somewhat satisfied with the management of the organization, whereas, 15.56 respondents were somewhat satisfied with the knowledge gain through awareness programme and similar (11.11%) of the respondents were somewhat satisfied with the field visits and general body meetings, respectively.

Table 12 also reveals that equal per cent (37.77%) of the respondents were satisfied with the general body meeting and management of organization followed by 33.33 per cent of the respondents were satisfied with the knowledge gain through awareness programme.

A sound reason for members satisfied with the field visits and general body meeting was that it enhances knowledge; awareness regarding new technology, effective ideas for managing FPOs and meetings clarifies the issues raised by the members.

It was also precised that as the majority (71.11%) of the respondents were highly satisfied by services of the organization, whereas 40.00 per cent of respondents were highly satisfied by general body meeting and 34.45per cent of respondents were highly satisfied by knowledge gain through awareness programme.

The credible reason for the majority of the respondents were highly satisfied by the services of the organization was that it reduces time in the availability of inputs, services helpful in increasing production and also build social relationship among members.

Table 12 interpreted that 38.88 per cent of the respondents satisfaction was excellent in field visits, followed by 26.66 per cent of the respondents satisfaction was excellent in services and 7.78 per cent of the respondents satisfaction was excellent in knowledge gain through awareness programme.

4.6.2.1 Overall satisfaction level of members regarding FPO

From Table13 and figure 5, it could be evidenced that 42.22 per cent of the members had a medium level of satisfaction followed by 33.33 per cent and 24.45 per cent having a high and low level of satisfaction respectively.

The overall satisfaction level of members in the organization was assessed in the terms of knowledge gain field visits and management. Majority of the members comes under the medium level of satisfaction (42.22%); it might be due to that satisfaction level of members on knowledge gained indicated that most of them were satisfied as FPOs had conducted various training and awareness programmes for farmers at village level with the help of experts which proved beneficial for the members. Most of the members gave a positive response to the conduct of the AGM of the organization. For attending these meetings company provided transportation facility and during the meetings, members raised the issues regarding their problems. Regarding the management of the company mixed type response was witnessed. The members were critical on the procurement policy of organization in which only seeds were purchased. The members want their grains to be purchased by the organization. The study results show that the organization is able to satisfy their members with these services. Almost equal number of members

expressed services being good. The findings reported by Garg (2012) support the above trend.

Table 12: Satisfaction level of members regarding FPO (n=90)

Sl. No.	Particulars	Responses									
		Not Satisfied		Somewhat Satisfied		Satisfied		Very Satisfied		Excellent	
		No.	%*	No.	%*	No.	%*	No.	%*	No.	%*
1.	Knowledge gain through Awareness Programme	8	8.88	14	15.56	30	33.33	31	34.45	7	7.78
2.	Field visits	0	0.00	10	11.11	17	18.88	28	31.11	35	38.88
3.	General Body meeting	10	11.11	10	11.11	34	37.77	36	40.00	0	0.00
4.	Management of Organization	15	16.66	20	22.22	34	37.77	21	23.33	0	0.00
5.	Services of Organization	0	0.00	0	0.00	2	2.22	64	71.11	24	26.66

%*- Percentage; No.- Number

Table 13: Overall satisfaction level of members regarding FPO (n=90)

Sl. No.	Satisfaction level	Mean Score	Members	
			No.	Percentage to the total
1.	Low	<15.92	22	24.45
2.	Medium	15.92 - 18.34	38	42.22
3.	High	>18.34	30	33.33
Total			90	100.00

Mean = 17.13; SD = 2.42

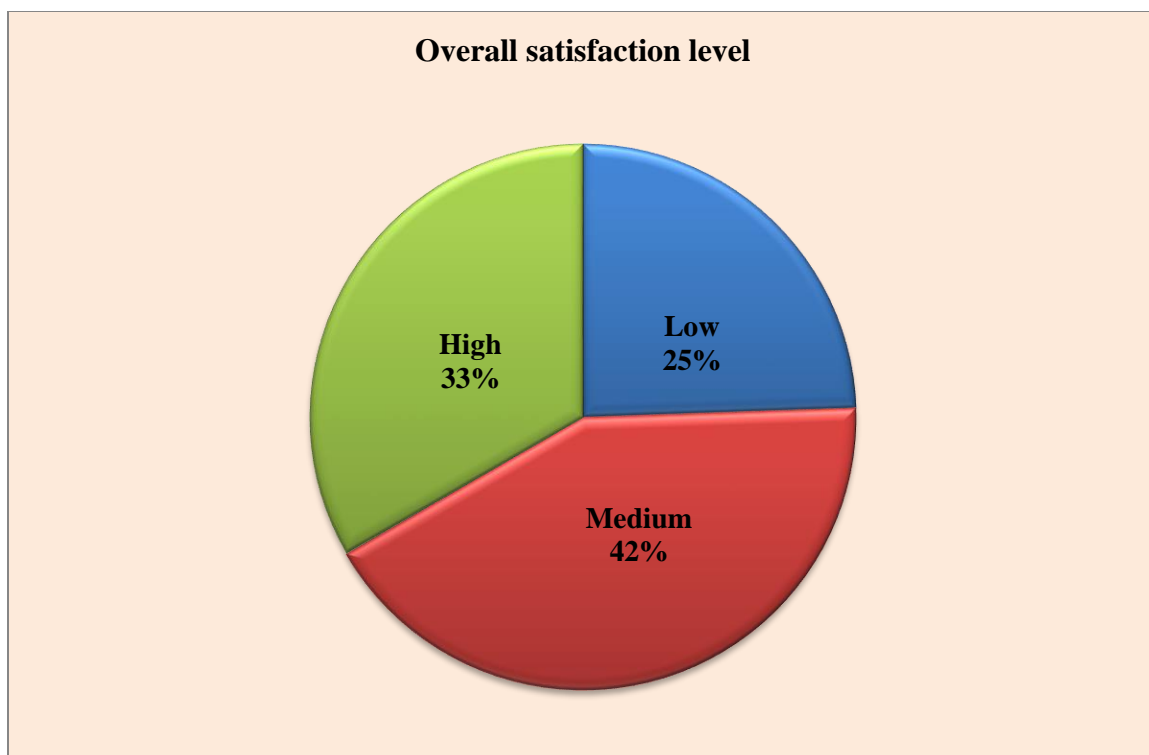


Fig. 5: Overall satisfaction level of members regarding Farmers' Producer Organization

4.6.3 Services provided by the organization to the members

It is evident from Table 14 that, nearly one third (31.11%) of the respondents were opined that education services was very poor, whereas 17.78 per cent respondents were opined that management of resources was very poor and 16.67 per cent of the were opined that welfare services was very poor.

Further, it was cited that 32.22 per cent of the respondents reacted to the welfare services as poor, followed by 24.44 per cent of the respondents reacted to the education services as poor and 14.44 per cent of the respondents reacted to the financial services as poor.

Table 14 also contemplated that more than half (54.44) of the respondents had opined that financial services was fair, followed by 35.56 per cent of the respondents had opined that extension services was fair and 34.44 per cent of the respondents had opined that welfare services was fair.

It was also substantiated that nearly half (48.89%) of the respondents were opined that production services were good, whereas, 46.67 per cent of respondents were opined that marketing services were good and 33.33 per cent of respondents have opined that management of resources was good.

Table 14 validated that more than one third (38.89%) of the respondents were opined that production services were very good, followed by 16.67 per cent of the respondents were opined that management of resources was very good and 12.22 per cent of the respondents have opined that marketing services were very good.

4.6.3.1 Overall services provided by the organization to the members

Further, Table 15 and figure 6 witnessed that nearly two fourth of the members (41.11%) comes under the medium level of overall services provided by the organization to the members followed by 28.89 per cent and 30.00 per cent having a high and low level, respectively. Opinions of the members were elicited on the quality and quantity of the services supplied by the organization.

This might be due to the reason that a large number of members were not satisfied with this service because the organization was not able to provide them with adequate financial assistance. This may be due to the fact that FPO itself finds finance a major constraint in their growth, even the FPO is not able to get additional support from banks. A large number of members were satisfied with the extension services provided. The reason behind medium level was that members don't possess good education to know and judge the benefits of services which are rendered by the FPOs. Another side, FPOs also not comes forward for good dissemination of the utility of services. Working condition of FPOs also not viable because of too much dependency on Government (Garg, 2012).

Table 14: Services provided by the Organisation to the members**(n=90)**

Sl. No.	Services	Members response									
		Very poor		Poor		Fair		Good		Very good	
		No.	%*	No.	%*	No.	%*	No.	%*	No.	%*
1.	Production	0	0.00	3	3.33	8	8.89	44	48.89	35	38.89
2.	Financial	2	2.22	13	14.44	49	54.44	21	23.33	5	5.56
3.	Extension	12	13.33	11	12.22	32	35.56	27	30.00	8	8.89
4.	Marketing	5	5.56	10	11.11	22	24.44	42	46.67	11	12.22
5.	Education	28	31.11	22	24.44	29	32.22	9	10.00	2	2.22
6.	Welfare	15	16.67	29	32.22	31	34.44	10	11.11	5	5.56
7.	Management of resources	16	17.78	11	12.22	18	20.00	30	33.33	15	16.67

*%- Percentage; No- Number

Table15: Overall Services Provided by the Organisation to the Members**(n=90)**

Sl. No.	Services	Mean Score	FPO members	
			No.	Percentage to total
1.	Low	<20.55	27	30.00
2.	Medium	20.55 - 23.44	37	41.11
3.	High	>23.44	26	28.89
Total			90	100.00

Mean = 22.00; SD = 2.89

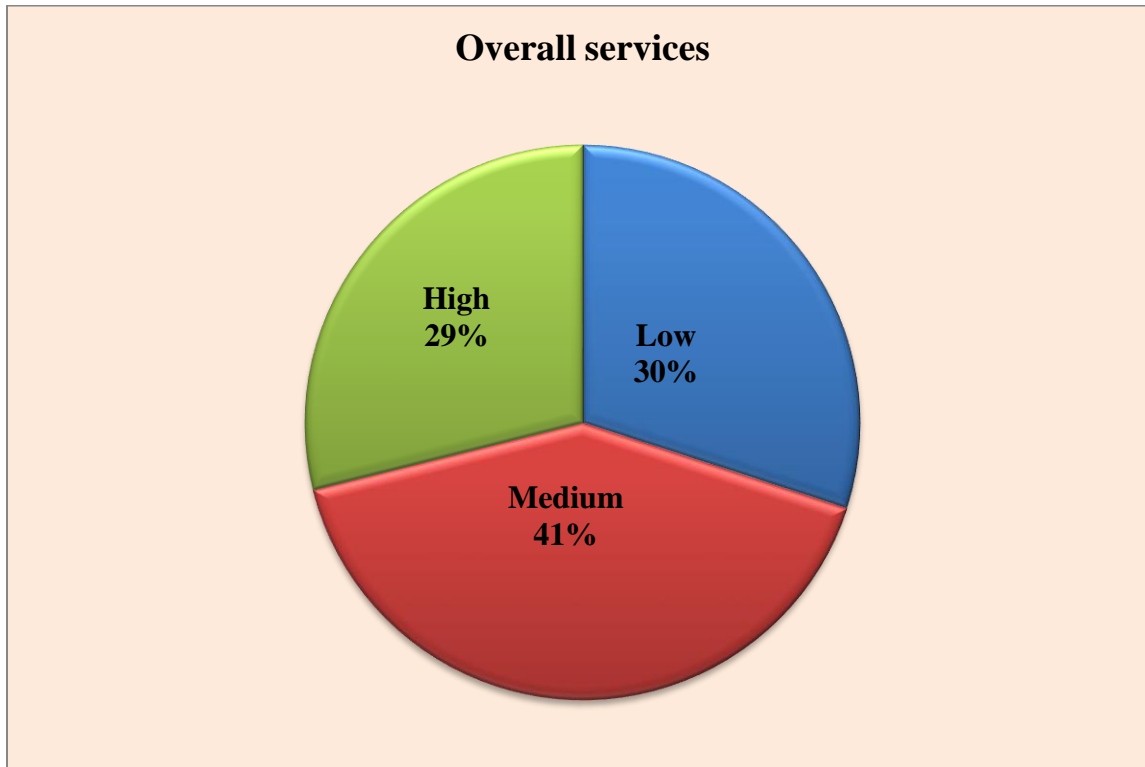


Fig. 6: Overall services provided by the organization to the members

4.7 Support required for effective functioning of the organization

The ambit of support required for effective functioning of the organization has been ranked based on preferences using Garrett's score and the results are provided in Table 16. Transport and other infrastructural requirements emerged as the most important support needed by members for effective functioning of FPO with mean score of 73.64, followed by assistance for business planning (67.43), easy procedure for registration and formation of the FPOs and access to Kisan credit cards (66.86), brand establishment (63.70), research/ extension fund supporting the FPOs (54.32) and group certification for seed production (49.62).

This might be the reason that the Government should not play a role in strengthening any organization's contribution to poverty reduction: promoting a more enabling legal and policy environment; strengthening co-operative networks; and helping co-operatives to perform better through greater access to finance, capacity building and

opportunities to scale up and expand market access. Hence, all the plan and support is with the corporate governance members are still eager to get above said support for the effective functioning of the organization, intern it also positive effect on members.

Table 16: Support required for effective functioning of FPO (n=90)

Sl. No.	Support	Garrett's mean score	Rank
1.	Transport and other infrastructural requirements	73.64	I
2.	Assistance for business planning	67.43	II
3.	Easy procedure for registration and formation of the FPOs and access to Kisan credit cards	66.86	III
4.	Brand establishment	63.70	IV
5.	Research/ extension fund supporting the FPOs	54.32	V
6.	Group certification for seed production	49.62	VI

4.8 Association and extent of the contribution of independent variables with the level of participation of members in various activities

The results in the Table 17 revealed that, the variable *viz.*, education had a significant association with level of participation at five per cent level of probability. Whereas, landholding had a highly significant association with the level of participation at one per cent level of probability. The remaining four variables *viz.* age, gender, experience in farming and type of family were found to be a non-significant association with the level of participation.

The probable reason for the positive relationship between education and level of participation, formal education is important for impacting literacy and numeracy skills

which are necessary for farm planning and budgeting as well as comprehension of good agronomic practices. Educated farmers are usually more progressive and mostly the preferred contacts for most agricultural extension agents. Farmers who are educated mostly engage in agriculture in addition to either a primary or secondary occupation. This result is in line with Etwire *et al.* (2013).

The feasible reason for the positive and highly significant relationship between land holding and level of participation due to the fact that as the farm size increases, the probability of decision for commercialization increases. This could be due to the role of farm size in boosting total production level and thus sales of surplus produce. Moreover, farm households with large farm size could allocate their land partly for food crop production and partly for cash crop production giving them a better position to participate in the output market. Martey *et al.* (2012) had opined that farm size influences the level of agricultural commercialization of farmers. These results are in line with Osmani *et al.* (2014).

Table 17: Association between socio-economic characteristics of members with the participation level (n=90)

Sl. No.	Variables	Contingency co-efficient	Chi-square value
1.	Age	0.205	3.942 ^{NS}
2.	Education	0.333	11.212*
3.	Gender	0.215	4.344 ^{NS}
4.	Experience in farming	0.225	4.819 ^{NS}
5.	Land holdings	0.369	14.199**
6.	Type of family	0.228	4.927 ^{NS}

** Significant at 1 per cent level; * Significant at 5 per cent level; NS-Non significant

4.9 Association and extent of the contribution of independent variables with the services provided by the organization to the members

The results in Table 18 revealed that, the variable namely experience in farming and land holdings had a significant association with services at five per cent level of

probability, whereas, education had a highly significant association with the services at one per cent level of probability. The remaining four variables viz. age, gender and type of family were found to be a non-significant association with the services.

The probable reason for the highly positive relationship between education and services because of the education widens the vision of the individuals and orient them to outside world providing new opportunities of the life might have occurred in change them and also they aware about the importance of education for the standard of living. The findings are similar to Nagananda (2005).

The feasible reason for the positive relationship between land holding and services due to that farm size influences the level of agricultural commercialization of farmers. This result is in line with Osmani *et al.* (2014).

The credible reason for positive relationship between experience in farming and services due to that if the experience was greater they are much aware of practices and indulge in collective production experience aids in effective management and helps in making quick decisions to perform farm activities and to adopt the new technology and are benefited with the services of the organization. The findings are similar with that of findings of Vidhyanand (2004).

Table 18: Association between socio-economic characteristics of members with the services (n=90)

Sl. No.	Variables	Contingency co-efficient	Chi-square value
1.	Age	0.228	4.95 ^{NS}
2.	Education	0.460	24.135**
3.	Gender	0.079	0.566 ^{NS}
4.	Experience in farming	0.323	10.688*
5.	Land holdings	0.309	9.98*
6.	Type of family	0.106	1.028 ^{NS}

** Significant at 1 per cent level; * Significant at 5 per cent level; NS-Non significant

4.10 Constraints faced by members of FPO

Constraints faced by members of FPO have been ranked based on preferences using Garrett's score and the results are provided in Table 19 and figure 7. Poor market linkage emerged as the most constraint faced by members of FPO with mean score of 68.51 followed by transportation facility (67.53), lack of needed infrastructure (65.81), management of organization (56.60), lack of financial assistance (55.31) delay in payment (41.13), lack of extension facility (37.47), lack of market information (29.55) and lack of value addition(28.06).

This might be due to FPO is not able to satisfy the requirement of its members because these organizations are in the initial stages and have to evolve into independent self-sustainable business entities. FPO has adopted a policy that they will buyback only seeds and not a grain and it has affected a majority of members. This procurement policy has caused dissatisfaction among members and hence to be revisited.

Table 19: Constraints faced by members of FPO (n=90)

Sl. No.	Problems	Garrett's mean score	Rank
1.	Poor market linkage	68.51	I
2.	Transportation facility	67.53	II
3.	Lack of needed infrastructure	65.81	III
4.	Management of organization	56.60	IV
5.	Lack of financial assistance	55.31	V
6.	Delay in payment	41.13	VI
7.	Lack of extension facility	37.47	VII

8.	Lack of market information	29.55	VIII
9.	Lack of value addition	28.06	IX

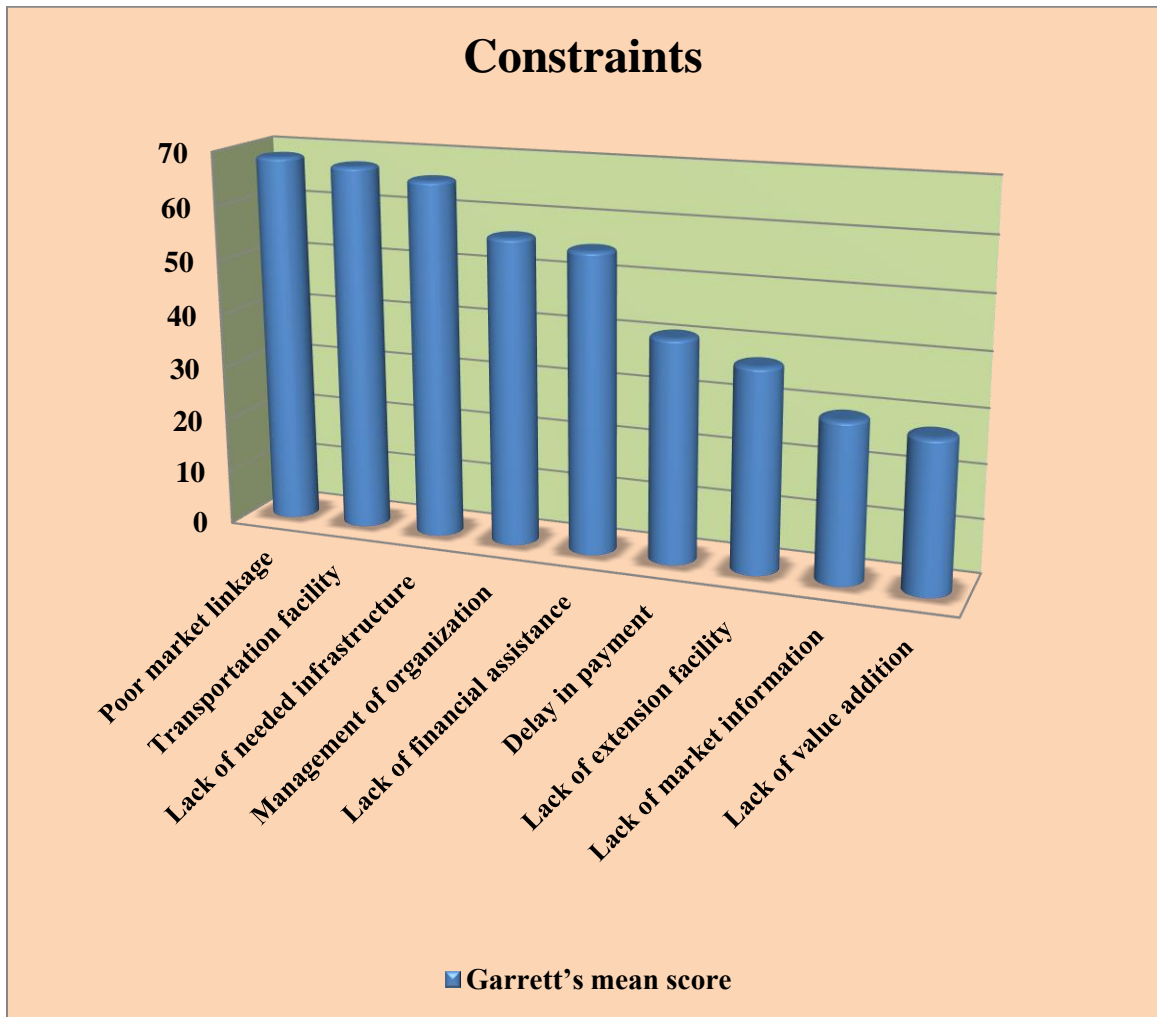


Fig. 7: Constraints faced by members of FPO

V SUMMARY AND CONCLUSION

Agriculture has been remaining an important sector of Indian economy, which bears the responsibility to meet the food and nutrition needs of the country's large population. Farmers and Agriculture in India have been going through a very dynamic process during the last few decades. More than 90 per cent of the small and marginal farmers (SMF) are dependent on rain for their crops. In absolute numbers, there are about 90-100 million SMF in India who depend on agriculture for income and employment. Due to the continued phenomenon of land fragmentation, the number of SMF is ever increasing. There has been a rapid change and uncertainty in agricultural commodity markets in India in the recent past due to several reasons like changes in the world trade scenario with the implementation of WTO guidelines, greater integration of the domestic market with the global market, changes in consumer taste and preferences, etc. On the other hand, globalization has offered a plethora of new opportunities for expanding the market in the food sector. Hence, there is an urgent need for solutions that mark a break from the past and significantly improve the terms of smallholder access to the market. To deal with the numerous uncertainties in agriculture among smallholder farmers, organizing farmers to form producer cooperatives, collectives, and producer organizations have been well understood globally and in India for a long time.

To enable the small and marginal farmers to hold collective bargaining power, the Government of India in 2002, amended the Companies Act to provide for a new class of institutions called "Producer Companies". These companies would enable incorporation of primary producers into companies to be controlled by themselves and conversion of existing cooperatives into companies to operate along the lines of corporate entities.

Department of Horticulture, Government of Karnataka has started this pilot programme for promoting member-based Farmers' Producer Organisations (FPOs) during 2014-15 in association with Small Farmers' Agribusiness Consortium (SFAC), New Delhi a nodal agency for FPO identified by Ministry of Agriculture Co-operative and Farmer Welfare, Govt. of India.

Business performance of the FPO should be evaluated for efficiency and financial sustainability and scope of the business venture is needed. It is important to move in advance of only financial turnovers to incremental performance, based on the degree of value addition, diversity of product portfolio and total additional profits incurred by farmer members due to FPO. Percentage of produce that the farmer member sells to the FPO is an interesting indicator to track the utility of business to the member.

The FPO is considered as a formal rural organization whose members organized themselves with the objective of improving farm income through improved production, marketing and local processing activities.

The empirical results from this analysis suggest that members perceive FPO as a positive means for improving their economic welfare. In general, members participate in FPOs because they view it as an institution that can help them to reduce production and marketing risks and ultimately it enhances their business operations and ultimately boost their income level.

The study was examined with the main objective of documenting the participation of members, role, support, performance and constraints of members of Farmers' Producer Organizations in Chamarajanagar.

Methodology

Chamarajanagar district was selected for the study because it is the fifth largest district which is having more number of small and marginal farmers (88%). The majority of the farmers come under marginal and small farmers and functioning in the state since 2016 and no systematic study has been carried out to assess their performance. Both primary and secondary data were used in the research study. The secondary data were obtained from the concerned financial statements of the FPOs. The primary data were wrested by structured interviews with the selected members, organization CEO, BoDs and Chairman. The data collected was analyzed using techniques such as continuum scale, averages, percentage, Garrett's ranking and most important financial ratio.

The major findings of the study are as follows

1. Half of the members (50%) belonged to the middle age group.
2. Majority of them were male (85.56%) followed by 14.44 per cent were female.
3. The education level of the respondents indicates that 28.89 per cent of the members completed high school followed by PUC (22.22%).
4. In the case of land holding, the majority of them were small (37.77%) and marginal farmers (48.89%).
5. The study revealed that 67.77 per cent members belong to nuclear family followed by joint family (32.23%).
6. Majority of the members (60%) possessed 11-20 years of farming experience.
7. In respect of the year of joining the study highlighted that most (75.55%) of them became members of the company in its establishment year (2016-17).
8. Services offered by the organization (66.77), better price realization (63.94), quick payment settlement (47.94), storage facility (39.16) and credit facility from Organisation (32.33) are the main reason for joining the FPO.
9. Most of them i.e., 47.78 per cent of members sold more (76-100 Kg) quantity of produce annually to the organization.
10. More than one third (37%) of the respondents had a medium level of participation followed by 34.45 and 28.89 per cent having a high and low level of participation respectively.
11. Among liquidity ratio current, quick and liquid assets to total ratio were satisfactory.
12. Solvency ratios were satisfactory but, the debt-equity ratio was not desirable mainly because of the fact that the FPOs were dependent on Government funds.
13. Total assets to turnover ratio and working capital turnover ratios were satisfactory but efficiency and profitability ratio of the company was not satisfactory due to less profit compared to owned funds and higher external funds, indicating lower returns on investment.
14. The net worth and net capital ratios showed improvement. Since the company is in operation for a short period. It did not have much-fixed assets of its own and hence the fixed asset ratio was very low.

15. It could be highlighted that an efficiency ratio it is revealed that the organization had a medium level of efficiency.
16. Timely availability of inputs (69.06), increase in production (66), increase in net return (60.45), enhanced knowledge of production and marketing (51.30), decreased transaction time (41.40), increase in savings (35.57) and reduction in marketing cost (27.20) emerged as the most important roles of FPO in enhancing the performance of members.
17. It could be vividly observed that 42.22 per cent of the respondents had a medium level of satisfaction followed by 33.33 and 24.45 per cent having a high and low level of satisfaction respectively.
18. About 41.11 per cent of the members opined that they had a medium level of satisfaction with respect to services followed by 28.89 per cent and 30 per cent having a high and low level, respectively.
19. Some of the support needed by members for effective functioning of FPO were transport and other infrastructural requirements (73.64), assistance for business planning (67.43), easy procedure for registration and formation of the FPOs and access to Kisan credit cards (66.86), brand establishment (63.70), research/extension fund supporting the FPOs (54.32) and group certification for seed production (49.62).
20. The important constraints faced by members were Poor market linkage (68.51), transportation facility (67.53), lack of needed infrastructure (65.81), management of organization (56.60), lack of financial assistance (55.31) delay in payment (41.13), lack of extension facility (37.47) and lack of market information (29.55).

FPOs were providing various services to the members such as input supply, financial and extension services. The quality of inputs supplied was recognized as good with over half the respondents opining it as better quality. Financial services provided by the company were not appreciated by the members; it is understandable as the company itself does not have sufficient capital. This service did not get such an appreciation as the assistance was extended to avail institutional loans in the beginning and thereafter follow up was low. Extension services afforded by the organization were appreciated by the majority of the members.

Most of the respondents opined their living standards have improved considerably after becoming members of the FPO. Overall satisfaction level of members regarding management of company evoked a mixed response because of the procurement policy of the company which procured only seeds and not the grains. The members preferred to join the company, due to the provision of different services by the FPO. The members faced problems with quality and quantity of input supplied, lack of financial assistance and market information.

Implications

On the basis of the findings of the study, the following policies are recommended for improving the performance of the FPO.

- ❖ A weak position in terms of competing with the existing market, negotiating prices, volumes and delivery terms were found due to dependency for marketing on a few select buyers, rather than an alternative parallel channel to market. Widening marketing strategies as to be implemented.
- ❖ To enhance participation, the Government should increase its efforts in promoting and publicizing member participation in FPOs.
- ❖ Responses of the members showed that stringent measures have to be taken to increase the effect of FPOs in terms of reduction in marketing cost, increase in savings by providing additional credits, decreased transaction time by connecting nearby markets.
- ❖ Inorganic certification, costs and establishment of internal control systems are a major challenge faced due to the costs and risks entailed in technical support and monitoring.
- ❖ Farmers' Producer Organization has not been able to make significant growth in terms of expansion of services to meet the diversified needs of the members, thus, it is necessary that they should come up with a proper plan and viable project for the betterment of members.
- ❖ Organizations are heavily dependent on Government funds. It is necessary that the organization has to generate its own fund instead of depending on external sources so as to sustain in the long run.

- ❖ The financial performance was the most noted challenge due to dependency on supporting organization for funds and services i.e., lack of working capital, availability credit after a successful operation for three years and collateral security issues. The organizations need a huge amount of working capital for procurement, value addition and marketing as well as extending credit, loan and advances. There is a need for financial support from the Central and State Governments for further effective functioning.
- ❖ The FPOs has to expand its marketing activities and develop its own brand which will help them to fetch better contracts and price.
- ❖ Registration and establishment procedures are very cumbersome and time taking. Hence, simplifying the registration procedure and capacity building of members of organizations on these lines may be of utmost importance.

Suggestion for further research

The experience of Farmers' Producer Organizations in India is relatively young, and very few of the companies were actually able to evolve into independent self-sustainable business entities. Further in-depth research is needed on several aspects of Farmers' producer organization now and in the future, when some of the Farmers' producer organizations reach their maturity. The following are some of the possible avenues for such research:

- ❖ Membership strategies: The selective membership affects the standing of certain population groups in local communities and affects their well-being; a comparative study of two producer organizations with different membership strategies could reveal how this influences internal, inter-intra-group dynamics and organizations governance, and what link this potentially has with the economic performance of the organizations.
- ❖ Economic benefits for the small farmers: how farmer members of producer organization compare to farmers trading outside of the company or involved in contract farming.
- ❖ Farmers' Producer Organizations form in comparison to other forms: The producer organizations perform compared to other producer organizations, for

example, cooperatives or public unlisted organizations with similar membership and similar produce.

- ❖ Organic vs. conventional farming: A comparative study of producer organizations that assist farmers in transition to organic farming practices and introduce organic certification and producer organizations involved with conventional farming
- ❖ Linkages and network governance: A detailed study is needed on how producer organizations work on creating linkages with various institutions and actors in the value chain, and what are the outcomes of such governance.

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Plates reflecting the researcher collecting data form different sources



Plate 1: Udigala HFPC Ltd. office



Plate 2: Data collection by the researcher from the Managing Director- Udigala HFPC Ltd.



Plate 3: Gundlupete HFPC Ltd. office

APPENDICES



University of Agricultural Sciences, Bengaluru
Department of Agricultural Marketing, Co-operation and Business
Management, GKVK, Bengaluru-65

Research topic: Performance Analysis of Farmers' Produce Organizations in
Chamarajanagar District of Karnataka State

1. Members details:

- a) Name of the farmer(member) : _____
- b) Age : _____ Years
- c) Gender : Male Female
- d) Education
(Literate/Illiterate)(BM, M, G, AG): _____
- e) Village : _____
- f) Taluk : _____
- g) Contact No. : _____
- h) Experience in farming : _____
- i) Type of land : Irrigated Dry land
- j) Size of land holding : <1 ha 1-2 ha 2-4 ha 4-10 ha
>10 ha
- k) No. of dependent in family : _____
- l) Name of the Crop that are grown

<u>Kharif</u>	<u>Rabi</u>
1.	1.

2.	2.
3.	3.

m) Share amount paid : _____

n) Group name you belongs to : _____

2. Cost of cultivation of the crop

3. When you have become the member of the Organization?

4. Do you sell your whole produce to FPO? Yes/ No

5. Where do you sell your products?

- a. APMC
- b. Traders
- c. Commodity exchanges
- d. Direct marketing
- e. Others

6. Do you have any savings after joining FPO?

Yes / No

How much?

7. What type of Services Organization offers to you and service level?

Particulars	Very poor	Poor	Fair	Good	Very good
Input					
i. Seed					
ii. Fertilizer					
iii. Pesticide					
iv. Other					

Financial					
Extension					
Any other, specify					

8. When Organization informs you about the procurement price of your produce?

- i. Before sowing
- ii. Mid-season
- iii. At the of harvesting
- iv. At the time of sale

9. The procurement price that Organization offers to you is more than market price or less?

Yes /No

If yes please specify by how much?

10. The distance between procurement Centre and your farm?

- i. <5Kms
- ii. 5-10Kms
- iii. 10-20Kms
- iv. >20Kms

11. Do organization advice you regarding the crops and cropping practices?

Yes / No

If yes then what is your satisfaction level regarding

12. Have you ever attended Organization awareness program regarding Cropping practices?

Yes/ No

13. Do you regularly attend Organization General Body meeting?

Yes/ No

14. Have you raised any issue in Organization meeting?

Yes/ No

If yes then about what please specify,

15. Are you satisfied with the management of Organization?

Yes/ No

If no then what is the problem:

Please Rate the satisfaction level regarding:

Particulars	Not Satisfied	Somewhat Satisfied	Satisfied	Very Satisfied	Excellent
Knowledge gain through Awareness Programme					
General Body meeting					
Management of Organization					
Services of Organization					
Procurement Price of Organization					

16. How do you rate the change in terms of your living standard before and after joining the Organization?

- a) Worst
- b) Fair
- c) Good
- d) Very good
- e) Excellent

17. Describe the benefits that you received after joining the Organization:

- i. Increase in production
- ii. Increase in net return
- iii. Reduced gap in availability of inputs increase in savings
- iv. Increase in educational level
- v. Marketing cost reduction

18. Reason for joining the Organization:

- I. Better price realization
- II. Due to services offered by Organization
- III. Credit facility from Organization
- IV. Quick payment settlement
- V. Storage facility
- VI. Any other

19. The Problems which you are facing?

- i. Delay in payment
- ii. Transportation facility
- iii. Lack of market information
- iv. Lack of financial assistance
- vi. Lack of extension facility

- vii. Management of Organization
- ix. Lack of Value addition.
- x. Any other, Please specify

20. Your Future expectations from the Organization?

Thanks For your Kind response