



## Enhancing farmers income through farmers' producers companies in India: Status and roadmap

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### ABSTRACT

There is a growing optimism that the farmers' organizations can act as a potential driving force for enhancing farmers' income. India has witnessed a positive growth of producer organizations in terms of types of organization, numbers and members. The Producer Company is a special case of producer organization that is registered under Section IXA of the Companies Act, 1956. A need was felt at that time to have an independent farmers' organization which enables incorporation of producers into such an institution like the companies which will be controlled by them, having welfare and business outlook at a time while not compromising the sustainability issues. That creates the milieu for the genesis of Farmers' Producer Company (FPC) in India. The FPCs are fundamentally farmer-owned and farmer-governed micro-enterprises which can be considered as hybrids between cooperative societies and private companies. The way of participation, membership and organization is similar to that of a cooperative, while the incorporation into corporate law allows greater flexibility and professionalism in their business actions. Till date 1048 FPCs are registered in India. In this article attempt has been made to review the issues of FPC, current status and future prospects. Forecasting the growth of FPC has been done up to the year 2020 utilizing Grey Model. Emphasis has been given to critically analyse the status, prospects and potentials with future outlook of 2020 concluding with strategies and policy needs.

**Key words:** Farmers' organization, Forecasting, Grey model, Producer company

The producer company concept has emerged as a new generation farmer's organization in India. It was introduced in 2002 by introducing a new part IX A in to the Companies Act 1956 under the chairmanship of economist, Y K Alagh (Alagh 2007, Singh 2008 and NRRA 2009). Since then Indian farmers got a new opportunity to start expedition towards livelihood sustainability. The first producer company was registered in 2004 (NRRA 2009) and afterwards it has been a long journey to reach the number of 1048 up to 2017. It has flourished in almost all sectors in agriculture, viz. crop, dairy, poultry, horticulture, fishery and many more. As per the companies act, 2002, section 58 1B, the main objectives of Producer Company are procurement of inputs, production, harvesting, grading, pooling, handling, storage, marketing, selling or exporting the primary produce

of the company members or import of goods or services for them in addition, processing of produce of members, manufacturing, sale or supply of machinery, consumables, conducting training and awareness programme, insurance of crop and livestock and providing guidance for efficient natural resource management etc to members (ASA 2009, Chauhan 2015). There is a rising optimism that the farmers organizations can act as a potential driving force for agricultural and rural development. Farmers' organizations are working as 'engines' of development that can uphold the pennon of development even ahead of local level, offering benefits to the rest of society (Blokland 2007).

Agriculture sector is facing a rapidly overflowing basket of challenges. Population has increased 3.5 times from 350 million in 1947 to 1.22 billion in 2012 hence demand for food has increased while total cultivable land has shrunk. The grain area per person has been shrinking steadily for several decades from 0.22 ha in 1950 to 0.10 ha in 2010 and it is projected to be as less as 0.06 ha per person in 2050 (Larsen 2003). So the big, alarming question on food and income security has been raised.

It is being progressively recognized that the globalized nature of economies across the world is affecting the economic security of all nations. Particularly in this present era when globalization, liberalization and privatization are

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rapidly budding and creating new threats and opportunities, it is established that farmers need to be organized to participate and proliferate in the development processes (World Bank 2007). The phenomenon has triggered substantial debate as to whether globalization is positive evolution of economic action or detrimental to the interests of certain countries or specific groups (Kaplinsky 2004, Nadvi 2004).

India has witnessed a rapid alteration and uncertainty in agricultural commodity markets. Prominent among them are changes in the world trade scenario, scarcity of irrigation water, menace of wild animal, shortage of labour (Mukherjee 2015) growing inter-farm as well as inter-regional disparity, unequal household income and low productivity (Mukherjee and Maity 2015) as a combined outcome of climate change and globalization. Under these circumstances, it is mainly the small and marginal farmers who are exposed to the high risk of farming, arising from climate vagaries and uncertainties around production; lack of access to support services; alternate markets and poor infrastructure. The problems have imposed critical implications on farming community and as a result every day more than 2000 farmers have left agriculture since 1991 (Sainath 2013) and many more rural youth have migrated to cities for other professions. Although, overall economy has performed commendably in the last decade due to huge growth in service sector but sluggish agricultural growth continuously has kept millions in poverty and hunger. The 59<sup>th</sup> round of National Sample Survey Organization (NSSO 2003) survey revealed that nearly 40% of farmers would like to quit farming, if they have the option to do so. Slightly more than half (52%) of the work force is in agriculture. The whole farming community of India is burdened with these problems which need serious attention.

Smallholder farmers are dominating the landscape of developing world. In India 92 million farmers (~67% of total farming community) are marginal having less than 0.40 ha land holdings while 24 million (~18%) are small having average land holding 1.42 ha. The total number of operational holdings has increased from 71.01 million in 1970-71 to 138.35 million with an average size of 1.15 ha

in 2011 indicates the fragmentation of land increase 1.94 times in 40 years (Table 1). Small and marginal farmers may account for more than 91% of farm holdings by 2030 from 85% in 2011 naturally, the burden is gradually posed on them.

The emerging challenges of food security in recent years as a partial consequence of age long negligence of appropriate technology dissemination directed global attention at agriculture. The global pressure is continuously increasing to enhance the quality and quantity of food.

With the changing markets the subsistence farming systems are rapidly transformed to input intensive commercial entrepreneurship. With this pace of movement role of extension system has become utmost important. There is increasing demand for rapid input, service and technology delivery among the farmers, although fulfillment of these demands solely by public extension system is limited. Wide extension workers to farmer ratio, i.e. 1:5000 (Ragasa *et al.* 2013), bureaucratic and administrative workload and financial constraints has made the public extension services as supply driven rather than demand driven (FAO 1989, Sulaiman *et al.* 2005).

The role of public agricultural extension service has traditionally been providing the important link between agricultural research and farming communities, especially for technology transfer in support of agricultural and rural development (FAO 2007). Most of the developing countries are now experiencing paradigm shift from subsistence agriculture to commercial agri-business (Mukherjee *et al.* 2012a).

In this scenario the solution is possible through exploring innovative market led extension models in order to integrate the farmers, especially the small farmers; with the value chain so that the net return at the farmers end is remunerative enough for them to remain in agriculture. Several institutional models have been tried in India to integrate farmers with production and value chain like Self Help Groups, Farmers Interest Groups, and Farmers' Cooperatives etc. The recent model is Farmers Producers' Company, which enables farmers to organize themselves as

Table 1 Trends in number of holdings (in million) and average size of holdings (in ha) of Indian farmers

Category	1970-71	1976-77	1980-81	1985-86	1990-91	1995-96	2000-01	2005-06	2010-11
Marginal	36.20 (.40)	44.52 (.39)	50.12 (.39)	56.15 (.39)	63.39 (.39)	71.18 (.40)	75.41 (.40)	83.69 (.38)	92.83 (.39)
Small	13.43 (1.44)	14.73 (1.42)	16.07 (1.44)	17.92 (1.43)	20.09 (1.43)	21.64 (1.42)	22.70 (1.42)	23.93 (1.38)	24.78 (1.42)
Semi-medium	10.68 (2.81)	11.67 (2.78)	12.46 (2.78)	13.25 (2.77)	13.92 (2.76)	14.26 (2.73)	14.02 (2.72)	14.13 (2.68)	13.90 (2.71)
Medium	7.93 (6.08)	8.21 (6.04)	8.07 (6.02)	7.92 (5.96)	7.58 (5.90)	7.09 (5.84)	6.58 (5.81)	6.38 (5.74)	5.88 (5.76)
Large	2.77 (18.10)	2.44 (17.57)	2.17 (17.41)	1.92 (17.21)	1.65 (17.33)	1.40 (17.20)	1.23 (17.12)	1.10 (17.08)	0.97 (17.38)
Total	71.01	81.57	88.88	97.16	106.64	115.58	119.93	129.22	138.35

The figures in parentheses indicate average size of holdings in ha (Data Source: DAC 2014)

collective, provides them a business outlook to agriculture and links them to market. 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 business on commercial lines. Even though several states have introduced parallel cooperative laws, and the union laws, too, have been made more liberal, the pace of reform has been far too slow. Several states have resisted all efforts at reforms. There appears to be a growing awareness among policy makers that supply side solutions to agriculture (in the form of additional units of credit, seed, fertilizers, price incentives, technology supply etc.) must be balanced with investment on the demand side, i.e. in the capacity of farmers to build and manage institutions of their own, which can then develop locally relevant strategies to address problems and challenges. Farmers' Producer Companies (FPCs) have emerged as one class of institutions that hold tremendous promise in fulfilling this role. Hence, there is a need to revisit the existing farmers' organization. In this article an attempt has been taken to critically review the current status of FPCs, its prospect, potential and growth.

#### *Nature of Farmers' Producer Companies in India*

The concept of Producer Company in India blends well with the new opportunities and environment. The Producer Company, which is basically micro-enterprise formed by hybridization between private companies and cooperative societies, has emerged as Farmers Based Startup in India. The participation, organization and membership pattern are quite similar to that of a cooperative, while having company's outlook allows it to have better professionalism and flexibility in their business activities. The primary objective of the model was to link the small and marginal farmers to the market.

Any 10 or more individuals, with each being a primary producer and or any two or more primary producer's institution can form a Farmers' Producer Company (FPC) by registering it under Indian Companies Act 2002, and hence the name ends with "Producer Company Limited". The membership and ownership of the company is held by only primary producers. Members equity cannot be traded, however, it can be transferred with the permission of board of directors. Research has found that 800-1000 farmers is a good size for agriculture based PC in initial years (Chauhan, 2015) although, as the company grows to make it economically viable the membership has been increasing up to 2000. The unique feature of FPC is there is no government or private equity stake in the producer companies, which implies that PC can never become a public or deemed public limited company. It will safeguard the producers' interest by ensuring legal support.

#### *Advantages of Farmers' Producer Company*

Farmers' Producer Companies have numerous advantages and the major ones are given in Table 2.

One of the fundamental advantages of FPCs is capacity to make scale economies through even coordination,

Table 2 Advantages of Farmers' Producer Company experienced in India

Advantage	Authors
Economies of scale which reduces the cost of production	Venkattakumar and Sontakki (2012), Singh and Singh (2014), Venkattakumar <i>et al.</i> (2017)
Better negotiation and bargaining positions	Murray (2009), Venkattakumar <i>et al.</i> (2017)
Capacity building of members	DSC 2007, ASA (2009)
Vertical and horizontal coordination and value chain management	ASA (2009), Trebin (2014)
Enhance producers share in consumers rupee	Venkattakumar and Sontakki (2012), Trebin (2016)
Risk mitigation	DSC (2007), ASA (2009)
Diminish cost of seeking information	NABARD (2015)
Empowering small and marginal farmers economically and socially	ASA (2009), Murray (2009), Venkattakumar <i>et al.</i> (2017)
Provides technical help in production and creation of social capital.	DSC (2007), ASA (2009)
Can protect small farmers from ill effects of globalization	Trebin and Hassler (2012)

accumulation and advertising of the farmers produce in bulk. A similar favorable position of scale economies applies to input purchases. In the two cases, FPOs can negotiate better prices due to an improved bargaining position (Murray 2009, Venkattakumar *et al.* 2017). As to most basic purpose of supplier's capacities, FPCs helped farmers in areas of technology innovations and illuminated agriculturists of potential markets and purchasers, price and amount, quality and timely requirements (DSC 2007). Through vertical, horizontal coordination and forward and backward linkage FPCs has taken an interest in value-addition processes such as processing, grading, and packing. This has not only enhanced their dealing power but share in consumers rupee (ASA 2009, Venkattakumar and Sontakki 2012, Trebin 2014, 2016). FPCs have minimized the risk of farmers by making institutional mechanisms to promote crop and livestock insurances (DSC 2007, ASA 2009). Also, FPOs have diminished the cost of seeking information, both for their members and for potential buyers (NABARD 2015). Other contextual analyses that analyzed the FPOs and markets linkages has proposed that farmers associations are effective in connecting smallholders to more complex markets (Trebin 2014, Venkattakumar *et al.* 2017), however conditions for effective linkage cannot be summed up with only these criteria. It relies upon various other factors, for example, costs in conventional promoting channels, local and market setting, item bunches exchanged and the real terms of agreement etc. (Hellin *et al.* 2009). As indicated by these

studies (Table 2), the FPCs have provided a mechanism of cooperation with business outlook and have restored the enthusiasm of cooperative movement initiated with the aim of empowering the underprivileged.

#### *Status of Farmers' Producer Companies in India*

The state wise distribution of FPCs in India is given in Table 3. It reveals that there are 1048 Farmers' Producer Companies registered in India. The highest number is in Uttar Pradesh (204) followed by Madhya Pradesh (127), Karnataka (111), Maharashtra (85), Tamil Nadu and West Bengal (62). These five states account more than 50% of

Table 3 State wise numbers of Farmers' Producer Companies in India

States	Numbers of FPCs	
	2017	2018
Arunachal Pradesh	2	0.19
Andhra Pradesh	13	1.24
Assam	37	3.53
Bihar	19	1.81
Chhattisgarh	18	1.72
Delhi	4	0.38
Goa	2	0.19
Gujarat	34	3.24
Haryana	24	2.29
Himachal Pradesh	5	0.48
Jammu and Kashmir	2	0.19
Jharkhand	8	0.76
Karnataka	111	10.59
Madhya Pradesh	127	12.12
Maharashtra	85	8.11
Manipur	4	0.38
Meghalaya	3	0.29
Nagaland	2	0.19
Odisha	33	3.15
Punjab	7	0.67
Rajasthan	38	3.63
Sikkim	29	2.77
Tamil Nadu	62	5.92
Telangana	54	5.15
Tripura	4	0.38
Uttar Pradesh	204	19.47
Uttarakhand	45	4.29
West Bengal	62	5.92
Kerala	10	0.95
Total	1048	100

Source: SFAC 2017, the figure of Kerala is estimated.

the total numbers of FPCs in India. Out of the 1048 FPCs, most of the Producer Companies were formed quite recently, i.e. between 2011 and 2016 (Fig 1).

The Compound Annual Growth Rate (CAGR) calculated as 44.52% indicates that since the year 2004 every year the number of registration has grown at the rate of 44%. It is due to the policy support provided from central and state government along with support and assistance extended through Small Farmers Agribusiness Consortium (SFAC), National Bank for Agriculture and Rural Development (NABARD) as well as countless efforts of different Non Government Organisations (NGOs) working at the grass root level.

Although, the detailed data on the primary activities are not available for all the Producer Companies, it can be said in general that more than 50% of all Producer Companies are working in agricultural and allied activities, while only very few are active in the areas of handicrafts, bio energy, fishery and forestry (Fig 2). The greater part of FPCs in India grow high value crops; other important crops are soybeans, cotton, and nuts like coconut, cashew and groundnut; fruits and vegetables having good markets and export potential. Around 25% of FPCs are engaged in postharvest processing and about 20 per cent FPCs apply organic production methods (Trebbin 2016).

The FPC has specific organizational design which is determined by its size, scope, technology, management and ownership. According to size it can be of small (of less than 1000 members) like Grameen Aloe Producer Company (325 members), Krishi Dhan producer company (200 members); medium (1001- 10000 members) like Mahila Umang Producer company (2500 members) and large (more than 10000 members) like VAPCOL (56000 members) (Table 4).

Scope wise it can be of single commodity oriented company or multi-commodity company like Grameen Aloe Producer Company produces only Aloe Vera and VAPCOL have multi commodity business. Some companies deal in niche business like Indian Organic Farmers' Producer Company Ltd, in Kerala deals particularly organic spices. Similarly technology wise it can be classified as companies utilizes simple technology and complex technology. There are ranges of technologies utilized in several phases of product development in a producer company, viz. production, processing, post harvest management, value addition, packaging, marketing, financial management, information system management etc. Ownership wise three classifications are there (i) individual ownership, (ii) institutional ownership and (iii) both individual and institutional ownership. Producer companies promoted by District Poverty Initiative Project, Madhya Pradesh (DPIP MP) are of first category, while, VAPCOL, Mahila Umang Producer Company is of second type where these are having only institutions as a member and the third type is Rangasutra Producer Company where both members are existing (Nayak 2013).

#### *Forecasting the growth of Farmers' Producer Companies*

So far we have seen that there are 1048 FPCs registered

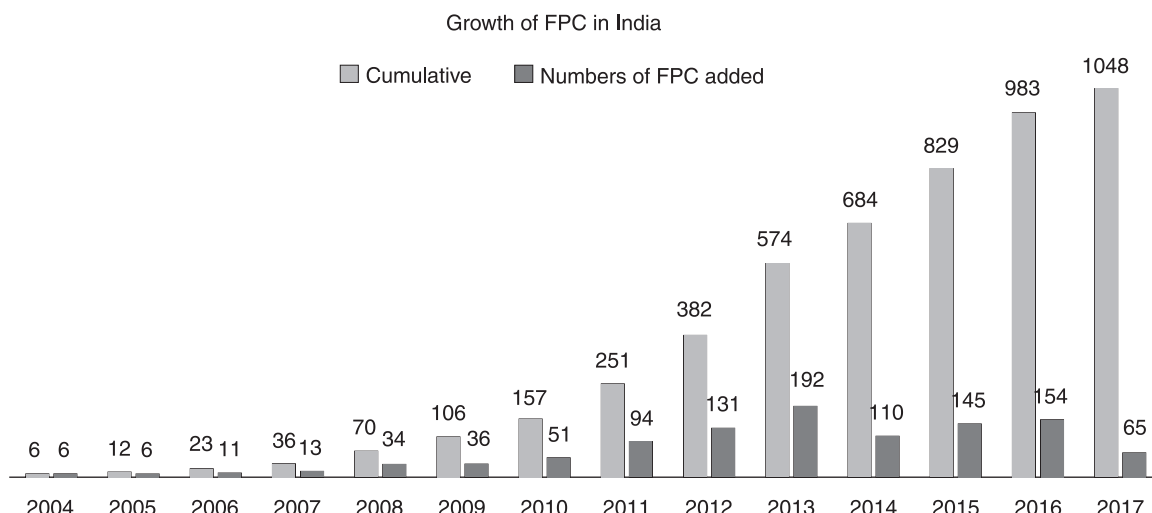


Fig 1 Growth of Farmers' Producer Company in India. (Data Source: based on Trebbin 2016 and SFAC 2017)

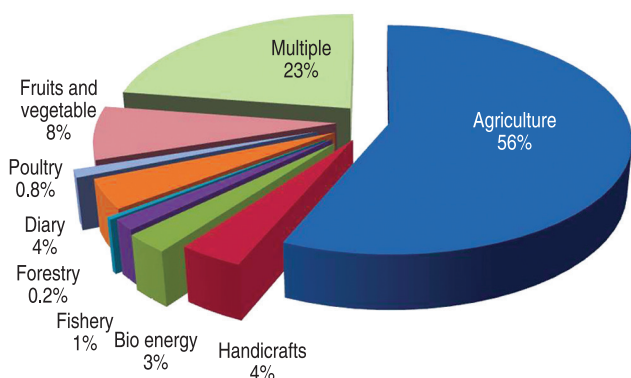


Fig 2 Types and area of Business of FPCs in India. Data Source: Trebbin 2014

officially and many more are yet to come. The FPCs need to be promoted and strengthened in order to meet the challenges of declining land holdings and farmers income. Now the question may arise that how many FPCs shall be registered in next three years? Till date it has been attained 44% CAGR in last 10 years. If it continues in present socio-political scenario what will be the actual numbers of FPCs in 2020?

To answer the question we have utilized forecasting tool for short term prediction. With this same scenario in mind where the policy makers are promoting the growth of FPCs we have forecast the number of FPCs till 2020 by utilizing Grey Model (GM).

Table 4 Farmers' Producer Company and their performance

FPC	Registration	Members	Area of operation	Products	Equity base	Avg. gross monthly turn over/member (₹)
Grameen Aloe Producer Company Ltd	2009	325	30 Villages of Ajmer, Rajasthan	Aloe Vera	250000	128
Krushi Dhan Producer Company Ltd	2005	200	4 districts of Gujarat	Agri inputs; Agri produce	100000	270
Mahila Umang Producer Company Ltd	2009	2500	Almora dist of Uttarakhand	Hand knitted woolen items, pickles, honey and spices	170800	700
Vasundhara Agri-Horti Producers Company Ltd	2004	54 PCs total 50000 producer	Chhattisgarh, Gujarat, Maharashtra, Karnataka, Madhya Pradesh, Rajasthan, Uttar Pradesh	Cashew and Mango	20000000	74
Indian Organic Farmers' Producer Company Ltd	2004	1404	3 districts of Kerala	Spices, coconut, cashew & rice	604000	833
Masuta Producer Company Ltd	2005	1937	Jharkhand, Chattisgarh and Bihar	Tasar yarns (Job work to members)	14665400	1390
Rangasutra Producer Company Ltd	2004	1025	Rajasthan	Textile garments (Job Work to members)	495000	2500

Source: Nayak 2013.

### Why Grey Model (GM)?

The majority of time series forecasting approaches have the restriction of requiring at least 50, and ideally at least 100 or more observations in order to develop the model. In case of FPC we have only 13 time series observations to forecast future situations. Hence, to forecast the number of FPC, we employ grey model, a non-conventional forecasting approach in light of limited data, which was proposed in 1982 (Deng 1982). Grey forecasting theory is an important technique in the grey theory, and it utilizes approximate differential equations to portray future tendencies for a time series. It has the preferred standpoint that can be utilized as a part of condition with as few as four observations in a prediction procedure (Chen and Chang 1998). Till date grey model has been broadly connected for various studies. For instances, forecasting output value of Taiwan's optoelectronics industry (Lin and Yang 2003), high technology industrial output (Wang and Hsu 2008), agricultural output (Ou 2012), education expenditure and school enrollment (Tang and Yin 2012), return flow of end-of-life vehicles (Ene and Öztürk 2017) and so on.

The Fig 3 shows that there will be more than 2800 companies listed in India in next three years. But the basic question is how many of these companies will sustain in the long run. The Indian experience in startups shows only 50% of the Indian companies sustain for few years and in long run 10% capture the maximum market share. If so, shall FPC be the same case of reference? That is the biggest question in upcoming days to answer. Sustainability will be the biggest issue of Farmers' Producer Companies in India.

### Sustainability of Farmers' Producer Companies

In case of FPCs sustainability has two dimensions: (i) organizational sustainability and (ii) business sustainability. Our concern will be both in future. If organization sustains the company shall work effectively for a long term, it shall enhance the human productivity and therefore sustainability of business shall be influenced. Small and marginal farmers livelihood sustainability to a great extent will depend upon that. Rising equitable access to product markets for small and marginal farmers is very important for sustainable rural livelihood development in developing countries (Dorward *et al.*

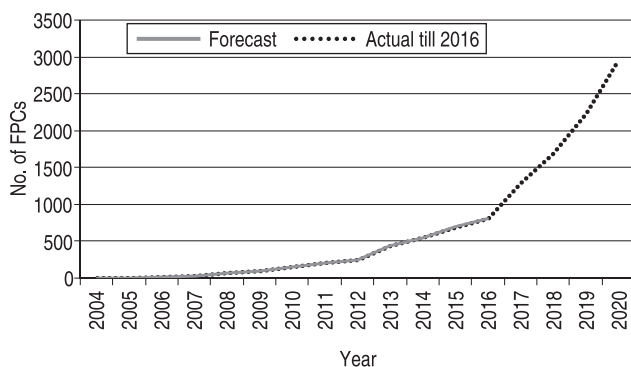


Fig 3 Farmers' Producer Companies growth forecast of in India by utilizing Grey Model.

*al.* 2003, Altenberg and Von Drachenfelds 2006). Apart from the sustainability of company and livelihood sustainability of the members, FPCs have a crucial role to play, i.e. making food accessible for poor. Accessibility of food is very much important to achieve the Sustainable Development Goals in developing countries like India. The promotion of the FPCs as agribusiness or agro-enterprises ensure asset accumulation and income diversification for small and marginal farmers and is often equated with income generation of producers and providing the consumers a wide options of choice. Organized efforts are necessary for reducing the cost of production through enhanced bargaining and therefore influencing the quality, quantity and price of commodity (Trebbin 2012). Poverty is another issue for running FPCs as less amount of equity capital is accumulated during the initial phase of business. The strategy emerged from studies in Asia and Africa for contravening such vicious cycles of poverty was to harmonize small agro-enterprise development for poor farmers with complementary interventions with positive spill-overs including technological innovation, rural credit systems, communications, human capital formation and physical infrastructure (Ruben and Pender 2004, Rigg 2006, Altenberg and Von Drachenfelds 2006, Shepherd 2007, Singh 2012).

Globalization has offered a plethora of new opportunities for companies which are investing in both retail of primary produce and processed food segment. Most of the developing countries like India are now experiencing paradigm shift from subsistence agriculture to commercial agri-business (Mukherjee *et al.* 2012a, b, c). These companies, in turn, have to depend on the supply of high quality produce on time to meet their production targets and commitments. The benefits of the same largely flow to medium or large farmers who have the resources to make new investments and undertake farming along commercial lines. Effective coordination is chiefly essential for pro-poor market linkages because a threshold level of complementary investment in several co-dependent activities is needed (*viz.* input delivery, skill development, finance, trading and marketing education), below which separate investments can all be ineffective (Dorward *et al.* 2004). The development of farmers groups is of particular relevance to the issue of overcoming "coordination failure" (Kydd and Dorward 2004). Groups help to overcome operation risks by two kinds of social capitals. First is internal social capital (faith and reciprocal group norms) that increases capability to produce or sell collectively and the second is external social capital called 'linking social capital' that straight way improves synchronization among goods and service providers such as banks, agricultural extension services, input suppliers, marketing boards or supermarkets, retail companies (Dorward *et al.* 2003, Kydd and Dorward 2004, Thorp *et al.* 2005, Katungi *et al.* 2008, Singh *et al.* 2012).

The questions that are presented for generating further discussion and deeper understanding both theoretically and empirically relate to characteristics of the producers that lend themselves to successful group cooperation; to

the fundamental conditions of the economic sectors in which small-scale producers operate profitably and finally to the issue of how to scale up grassroots organizations in order to ensure their sustained contribution to the overall competitiveness of the industry to which they belong (Trebbin 2014).

#### *Factors for high growth of Farmers' Producer Companies*

The reason for high growth of FPC as perceived by ASA (2009) are energetic management team and the board of directors, cooperation from banking institutions which provided hassle free loans to the PC for working capital, and a clearly identified business opportunity that gives a high return on investment. A tentative assessment suggests that there are multifarious benefits for member in the form of timely and easily availability of fertilizers, seeds and other agriculture inputs at a reasonable rate; bulk selling of agriculture produce for better price; extension services received by the farmers which the PC had arranged with the agriculture department or from other service providers; receiving of cash dividends from the FPC (Mondal 2010). Functional effectiveness of FPC is another broad dimension which helps high growth of organization. Functional effectiveness depends on cooperation and interaction among members, interpersonal trust, grass root decision making, inclusiveness, motivating environment in organization, group cohesiveness, goal achievement, computation efficiency and leadership. Leadership is most important factor in functional effectiveness. Venkatakumar *et al.* (2017) found cohesiveness, avoiding domination by individuals, transparency, heterogeneity, eliminating political intervention, transparency in financial transactions, adhering to rules, record maintenance efficiency, effective business plan and availing government schemes to improve the overall performance of FPC.

International experience in the promotion and management of FPOs has revealed some key enabling factors which impact these institutions. Foremost among these is conducive environment which provides space for grass-root member-based organizations to emerge and prosper. But if coordination fails in organization, growth hampers tremendously. International experiences on

farmer's organization helped to pickup factors for better coordination.

External and internal social capitals are necessary but not sufficient for overcoming the coordination failure (Table 5). Harnessing the market success required great leadership and better bargaining powers. The role of FPOs in reducing costs of financial intermediation for formal financial institutions and more effective targeting of small producers for financial services has also been favorably commented upon FAO (2007).

#### *Issues and challenges of Farmers' Producer Company*

Rising of equity capital and absence of tangible security and physical assets were the two noteworthy difficulties that a FPC faces in their initial period (Prabhakar *et al.* 2012). Producer Companies within three years of operation require a large volume of capital apart from their equity to take up the business to next level. For the capital they rely on banking systems but banks do not rely on them. It is due to this the companies may not have much else than the producer member equity to leverage borrowings. Banks will along these lines be confronted with the issue of what are the advantages for backing their credits and in what way the organization will have the capacity to raise the edge cash required to activate the advance (Bhattacharjee 2010). Unconventional methodologies would be required where credibility and reputation and the standards on which the organization works might be the main tangible assets, not physical assets. Likewise, guarantees and undertakings from the promoter organizations and purchase orders/agreements may depend on financial support.

Need margin money contribution by the PC which they cannot give because of inaccessibility of assets; issue to give the collateral security to loan (Table 6); at initial phases FPCs do not have any certification for doing effective business which makes monetary establishments awkward for financing. Government and different offices are not treating FPC on par with cooperatives regarding concessions, tax exemptions, subsidies and other benefits accessible to cooperative societies. A primary challenge facing primary producer/collector groups, and one that needs to be addressed if their process of integration into

Table 5 Factors for better coordination in Farmers Organization

Factors	Sub factors	Country	Reference/sources/authors
Internal social capital	local leadership well connected with markets and state agencies	India	Krishna (2001)
Market opportunities	connections with extra-local financial investors and technical experts	South America	Bebbington (1999)
Marketing success	better bargaining power fostered by trustworthy trading partners outside communities	Ghanaian	Lyon (2000)
External social capital	technology adoption and profitability dependant on the strength of farmers' information networks	Ghana	Conley and Udrey (2004)
External social capital	farmers with higher linking social capital better able to manage the institutional relationships and sustainable land management	Britain	Hall and Pretty (2008)

Table 6 Challenges faced by Farmers' Producer Companies in India

Challenges faced by FPCs	Authors
Huge equity capital requirements in starting FPCs	Prabhakar <i>et al.</i> (2012), Venkattakumar and Sontakki (2012)
Lack of collateral security in availing loan	Bhattacharjee (2010), Prabhakar <i>et al.</i> (2012), Venkattakumar and Sontakki (2012)
Huge tax burden (up to 30%)	Singh and Singh (2014)
Weak value chain management infrastructure	Venkattakumar <i>et al.</i> (2017)
Favourism in organization	Venkattakumar <i>et al.</i> (2017)
Lack of basic infrastructures	Singh and Singh (2014)
Lack of skill to maintain business records	Venkattakumar <i>et al.</i> (2017)
Competition with rich middlemen	Singh and Singh (2014)
Lack of hand holding from state governments	Venkattakumar <i>et al.</i> (2017)

value chains is to be sustained, is that of moving to a scale of operations that can actively engage greater number of stakeholders. Low production, little awareness about existence of FPC, socio-political influences based on caste and community are prevailing. FPC formation requires an external agent to mobilize the farmers first in a common interest group and then federate a number of such groups on to a federation. Continuous hand-holding is required to build capacities. The sustainability of the organization will be at stake without this investment of time and resource. The process of formation and registration is too complex for farmers to handle by themselves. The promoters, however, will have to be vigilant about providing support and guarding against taking over the decision-making role. Short-term gain disbursement to keep the level of motivation high are found to be detrimental for the nascent companies as the opportunity of using the dividend as capital foregoes. Lack of basic infrastructure is another bottleneck in formation of FPCs. Roads, access to power, storage, market yards are required for marketing. Another bottleneck in formation of FPCs is the large amount of complicated documentation that is required. The farmers can neither understand them nor manage to deal with them. Small farmers require immediate money - their livelihood depends on the sale of the harvest. They tie up with local traders who lend working capital funds to them and provide inputs, at a premium and purchase the produce at a discount. On the other hand it is difficult for the small farmers to compete with traders who control a large part of the value chain with their network of retail shops, access to funds and infrastructure. Government mandis are captured by local traders and small farmers are unable to penetrate them to sell their output (Singh and Singh 2014).

### Road map and strategies for effective viable profit making Farmers' Producer Companies

Effective and viable profit making the FPCs have to be competent with other companies and rivals in the market. The most competent FPC will be those who will focus the market first and produce quality products at lowest cost. Lowering cost of production shall only be possible through use of technology and scale. Value addition and marketing are the key areas for capturing a major share in consumer's rupee. Strong marketing channel is highly required to have edge in market share followed by branding and advertising the product. This is the era of e-commerce. Using e-platform, now companies are reducing their huge marketing cost. They are investing the profit using e-marketing technology to further innovations and making the company competent enough to produce high quality products in lowest cost. Ultimately a quality product makes a great brand value for a company and earns trust of consumers (Fig 4).

There is a huge potential for FPCs to enter in post harvest segment in India. This will not only help the company to earn good profit but will reduce the post harvest losses which is quite high in India 30-40% in case of fruits and vegetables. The FPCs for better profit have to capture the nice market like health and Nutri foods, organic foods, nutraceuticals, fortified foods, medicinal and aromatic plants, cash crops etc.

Four areas need to coalesce into a coherent vision if profit making FPCs are to be made: these are (i) facilitation, (ii) investment, (iii) technology and (iv) policy backed by research. Facilitation is required for organizing primary groups, skill development of farmers, changing their business outlook to form a competent company, initial market research and legal formalities to form a company. The organization of primary producers groups cannot be taken for granted, someone needs to facilitate the process. Leadership development and team building are the first step towards effective FPCs. The promoting organizations have a great role to play here. That is why this is the foremost important area followed by investment.

In FPC as investment is an issue as small and marginal farmers do not have huge capital to invest. Who will invest money in FPCs at what cost is important enough to make it successful. Is it a bank or any other financial institutions? Government has to take initiatives to help FPCs in getting loans and other financial assistance at lowest possible interest.

Technology includes production technology, processing technology, marketing technology and most important, information technology needs to be emphasized enough to make quality produce at competitive costs.

Lastly policy support that creates an enabling environment which offers the most effective incentives to the FPCs are equally important as the earlier three. But the policy should be based on research. Several ground level studies suggested that there should be same facilities and provisions for small FPCs and cooperatives, tax exemptions for all FPCs for first five years. Promoting e-market and

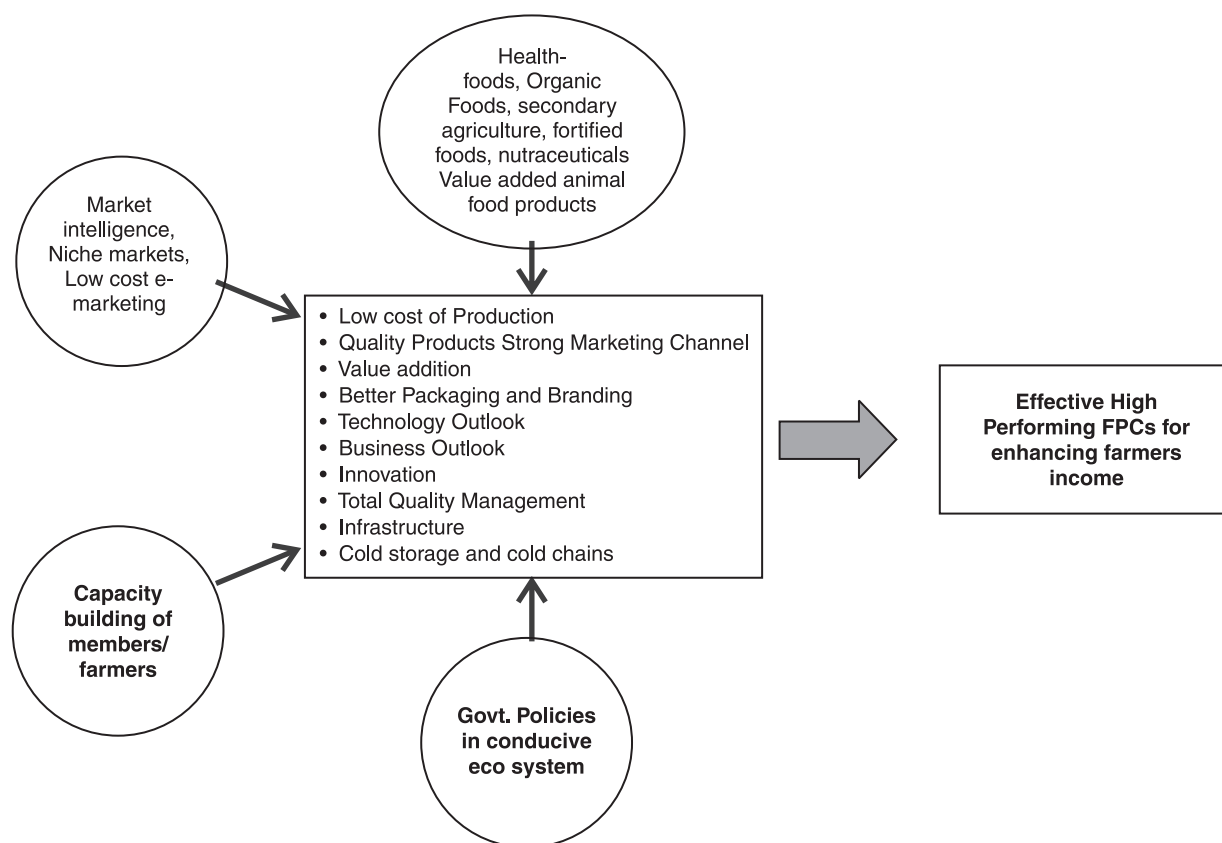


Fig 4 Strategies for effective Farmers' Producer Companies.

reducing commissions at mandis and regulated market and so on.

In order to enhance sustainable income of farming community, farmers have to be united not only to avail inputs at proper time, place and quantity but also to avail marketing facilities and link to domestic as well as export markets through the FPCs. Questions may arise about the performance, scope of replication and challenges of these FPCs. Till date some research has been conducted and much more in depth studies are required to answer the basic questions such as what is the impact of FPCs on empowerment and income security of farmers in India? What kinds of problems are they facing sector wise and in general? How can they be more effective in present context? What are the future prospects of FPCs? Emphasis have to be given in developing strategies for scaling up such enterprises particularly in developing value chains, strengthening social networking and enriching theories of cooperation and collective action.

Extension system has to play a great role in skill development and capacity building of farmers to make them good producers, leaders and businessmen. Awareness, entrepreneurial incubation, development of sector specific models and strategies through linkage and convergence are required.

In fact, social learning, collective action and interaction with a range of actors for facilitating innovation processes are some of the key roles that extension system needs to

play. FPCs can play a crucial role for making innovation possible in rural and agricultural production and marketing systems. As innovation requires the existence of networks of people as a prerequisite, creating an FPC entails a process of networking, which is crucial for innovation to take place. As a result, an FPC can generate interaction by farmers with a range of actors, 'cross-wiring' them and their organizations with other actors, strengthening the social organization of innovation, both in terms of the parties involved and in terms of content, while more effectively identifying and using windows of opportunity.

#### Conclusion

The overall conclusion is that FPCs have a huge potential to capture the future food retails not only in India but in the world. Irrespective of the form of organization being floated as a producer company, especially of small and marginal producers, concerted effort is to be made for developing and sustaining the institution. Such effort should be in the form of research, capacity building, policy and management support. It has tremendous possibility to become a model for enhancing sustainable livelihood of small and marginal farmers in India and for income enhancement

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