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Changing dynamics of farmer producer organizations: An assessment of enterprise readiness and institutional maturity

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Abstract

Farmer Producer Organizations (FPOs) have emerged as important institutional mechanisms for promoting inclusiveness, collective entrepreneurship, and farmer empowerment in Indian agriculture. In recent years, the operational dynamics of FPOs have shifted from subsidy-driven farmer collectives toward professionally managed and market-oriented rural enterprises. In this context, the present study examines the changing dynamics of FPOs and evaluates their organizational sustainability using a Dual-Index Assessment Framework comprising Enterprise Readiness and Institutional Maturity dimensions. The study adopted a descriptive and exploratory case study approach by selecting three Farmer Producer Organizations, namely Sahyadri Farmers Producer Company Limited from Maharashtra, Hungunda Horticulture Farmers Producer Company Limited from Karnataka, and Shri Vinayaka Horticulture Farmer Producer Company Limited from Karnataka. Secondary data from institutional reports, annual reports, policy documents, and organizational records were supplemented with interactions with FPO CEOs and key stakeholders. The findings revealed substantial variation among the selected FPOs with respect to governance systems, market linkage, infrastructure, financial discipline, and business diversification. Sahyadri FPO emerged as the strongest performer under both Enterprise Readiness and Institutional Maturity dimensions due to its diversified business operations, organized value-chain integration, strong infrastructure, and professional governance systems. Hungunda FPO demonstrated relatively strong institutional systems with moderate enterprise capability, whereas Shri Vinayaka HFPCL exhibited evolving institutional and enterprise characteristics requiring further organizational strengthening. The study concludes that long-term sustainability of FPOs depends upon the simultaneous development of enterprise capability and institutional resilience. The findings emphasize the need for policy interventions focusing on professional management, digital integration, infrastructure development, governance strengthening, and market diversification to transform emerging FPOs into sustainable farmer-owned enterprises capable of contributing to inclusive agricultural and rural development in India.

Keywords: Farmer producer organizations, enterprise readiness, institutional maturity, farmer empowerment, rural enterprises, market integration

Introduction

India's agricultural sector is predominantly characterized by small and marginal farmers, who constitute nearly 86 per cent of the total operational holdings in the country (Government of India, 2023) ^[4]. These farmers operate under conditions of fragmented landholdings, weak bargaining power, inadequate inst credit access, and unstable market participation (PRS Legislative Research, 2024) ^[12]. Despite their substantial contribution to national food security and rural livelihoods, smallholder farmers continue to face persistent structural and economic challenges, including price volatility, rising input costs, climate uncertainties, and limited access to modern technologies and extension services (Government of India, 2023) ^[4]. The increasing commercialization of agriculture has further intensified these vulnerabilities, making independent participation in agricultural markets economically challenging for smallholders. Under such conditions, individual farming often becomes insufficient to ensure sustainable income generation and market competitiveness. Consequently, there is an increasing need for collective institutional mechanisms capable of strengthening farmers' access to inputs, finance,

technology, value addition, and remunerative markets (Bikkina *et al.*, 2018) ^[3].

Farmer Producer Organizations (FPOs) have emerged as an important institutional mechanism to address many of the structural challenges faced by small and marginal farmers in India. Introduced as a hybrid model combining the democratic principles of cooperatives with the professional governance structure of producer companies, FPOs aim to strengthen farmers' collective bargaining power and improve their participation in agricultural markets (Trebbin, 2014) ^[16]. The enactment of the Companies (Amendment) Act, 2002 provided a legal framework for the formation of producer companies, thereby enabling farmers to collectively engage in input procurement, aggregation, processing, value addition, and marketing activities (Alagh, 2007) ^[18]. Over the years, the Government of India has actively promoted FPOs through initiatives such as the Central Sector Scheme for Formation and Promotion of 10,000 FPOs, recognizing them as key drivers of inclusive agricultural development and rural transformation (Ministry of Agriculture & Farmers Welfare, 2020) ^[7]. Studies have shown that FPO membership contributes to improved market access, reduction in transaction costs, enhanced price realization, and increased income security among farmers (NABARD, 2022; Anand *et al.*, 2023) ^[2]. Consequently, FPOs are increasingly viewed not merely as farmer collectives, but as strategic institutions for promoting inclusiveness, capacity building, and farmer empowerment in Indian agriculture.

In recent years, the role and operational dynamics of FPOs in India have undergone a significant transformation from subsidy-driven farmer collectives toward professionally managed and market-oriented enterprises. Earlier, many FPOs primarily focused on input distribution and aggregation activities with substantial dependence on government support and promotional agencies. However, the contemporary FPO ecosystem increasingly emphasizes financial sustainability, value chain integration, digital market access, and entrepreneurial orientation (Trebbin, 2014; Bikkina *et al.*, 2018) ^[3, 16]. The emergence of digital agricultural platforms such as the Electronic National Agriculture Market (e-NAM), Open Network for Digital Commerce (ONDC), and various agri-tech solutions has expanded market opportunities for FPOs by facilitating direct market linkage, transparent price discovery, and reduced intermediary dependence (Government of India, 2024) ^[5]. Simultaneously, increasing policy attention has been directed toward women-led FPOs, climate-resilient agriculture, value addition, and rural enterprise development as part of inclusive agricultural transformation (NABARD, 2023) ^[9]. Studies indicate that market-oriented FPOs engaged in grading, processing, branding, and direct marketing often achieve higher price realization and improved income outcomes for member farmers (Singh *et al.*, 2018) ^[15]. These changing dynamics suggest that the success of FPOs can no longer be assessed merely by membership size or registration status, but rather by their ability to function as sustainable, professionally governed, and institutionally resilient farmer enterprises.

Despite the rapid expansion of FPOs across India, several organizations continue to face substantial operational and institutional challenges that limit their long-term sustainability and effectiveness. Many FPOs remain heavily dependent on external grants and promotional support, with limited capacity for independent revenue generation and business diversification (Singh *et al.*, 2018) ^[15]. Inadequate working capital, weak market intelligence, insufficient infrastructure, and poor access to formal credit further constrain their ability to scale operations

and compete in dynamic agricultural markets (NABARD, 2022). Moreover, deficiencies in professional management, governance systems, statutory compliance, and leadership continuity often weaken institutional stability and member confidence (SFAC, 2023a). These challenges indicate that mere formation of FPOs is insufficient to ensure farmer empowerment and organizational success. In this context, the concepts of enterprise readiness and institutional maturity have gained increasing relevance in evaluating the performance and sustainability of FPOs. While enterprise readiness reflects the business capability of an FPO in terms of market linkage, revenue generation, and operational efficiency, institutional maturity focuses on governance quality, compliance systems, organizational resilience, and managerial effectiveness. Together, these dimensions provide a more comprehensive understanding of whether an FPO can function both as a sustainable business enterprise and as a resilient farmer institution.

Several studies have examined the role of FPOs in improving market access, input procurement, and income enhancement among farmers, relatively limited attention has been given to assessing their long-term organizational sustainability and business preparedness in an integrated manner. Most existing studies primarily focus either on the socio-economic benefits of collectivization or on the operational constraints faced by FPOs, while comparatively fewer studies evaluate both institutional strength and enterprise capability simultaneously (Trebbin, 2014; Kumar *et al.*, 2023) ^[6, 16]. The growing emphasis on digital agriculture, value chain integration, and market-oriented rural enterprises, there is an increasing need to understand whether FPOs possess the managerial, financial, and institutional capacity required to function as resilient farmer-owned enterprises in a competitive agricultural environment. In this context, assessing FPOs through the dual dimensions of enterprise readiness and institutional maturity becomes highly relevant for understanding their evolving role in inclusive agricultural development and farmer empowerment. Therefore, the present study attempts to examine the changing dynamics of FPOs and evaluate selected FPOs using a dual-index assessment framework focusing on enterprise readiness and institutional maturity.

Objectives of the Study

- To examine the changing dynamics of Farmer Producer Organizations (FPOs) in promoting inclusiveness, capacity building, and farmer empowerment in India.
- To assess the enterprise readiness and institutional maturity of selected Farmer Producer Organizations using a dual-index framework.

Methodology

Research Design

The present study adopted a descriptive and exploratory case study research design (Yin, 2018) ^[17] to examine the changing dynamics of Farmer Producer Organizations in relation to inclusiveness, capacity building, enterprise development, and institutional sustainability. The study primarily focused on understanding how selected FPOs have evolved from conventional farmer collectives into market-oriented and professionally managed rural enterprises.

Selection of FPOs

For the purpose of the study, three Farmer Producer Organizations (FPOs) representing different operational scales, institutional structures, and business models were purposively

selected, namely Sahyadri Farmers Producer Company Limited from Maharashtra, Hungunda Horticulture Farmers Producer Company Limited from Karnataka, and Shri Vinayaka Horticulture Farmer Producer Company Limited from Karnataka. These FPOs were selected based on their business activities, market orientation, institutional functioning, and availability of operational information. Among them, Sahyadri Farmers Producer Company Limited was deliberately selected as a benchmark organization due to its large-scale operations, strong institutional performance, successful market integration, and widely recognized business model, thereby serving as a standard for comparative assessment of the selected FPOs.

Sources of Data

The study was based on primary and secondary data collected from various institutional and organizational sources. Information related to governance practices, financial performance, market linkage, infrastructure, membership structure, and operational activities was obtained from NABARD reports, SFAC operational guidelines, NAFPO publications, annual reports, official websites of FPOs, and other published literature and policy documents. In addition, interactions with FPO CEOs and key stakeholders were conducted to obtain insights into governance mechanisms, business operations, and institutional practices followed by the selected organizations.

Analytical Framework

To assess the performance and sustainability of the selected FPOs, the study employed a Dual-Index Assessment Framework consisting of the Enterprise Readiness Index (ERI) and the Institutional Maturity Index (IMI). The framework was designed to evaluate FPOs from both business and organizational dimensions. The Enterprise Readiness Index focused on parameters such as market linkage, revenue generation, infrastructure, business diversification, and operational capability, whereas the Institutional Maturity Index assessed governance quality, compliance systems, leadership structure, member participation, and institutional resilience.

The conceptual basis of the framework was adapted from NABARD's FPO grading framework, SFAC operational guidelines, and institutional performance assessment approaches used in farmer collectives (NABARD, 2025; SFAC, 2023b) ^[10]. The study assumes that sustainable FPO performance depends upon the simultaneous achievement of both enterprise capability and institutional stability.

Table 1: Enterprise Readiness Benchmark Classification

Score Range	Classification
42–50	Market Leader
35–41	Enterprise Ready
25–34	Trading Stage
Below 25	Pre-Enterprise

Source: Adapted from NABARD Performance Measurement and Lendability Assessment Framework for Farmer Producer Organizations (NABARD, 2025) ^[10].

Table 2: Institutional Maturity Benchmark Classification

Score Range	Classification
45–50	Elite / Model FPO
40–44	Mature
30–39	Evolving
Below 30	Fragile

Source: Adapted from SFAC Equity Grant Scheme Guidelines and Ministry of Agriculture & Farmers Welfare Operational Guidelines for FPOs (SFAC, 2023b; MoA&FW, 2020) ^[7].

Table 3: Final Grade Classification

Grade	Classification
Grade A (85–100)	Market Ready / Investment Ready
Grade B (70–84)	Credit Ready / Growth Stage
Grade C (50–69)	Emerging / Needs Handholding
Grade D (Below 50)	Nascent / Foundational Stage

Source: Author's classification based on integrated Enterprise Readiness and Institutional Maturity scoring framework adapted from NABARD and SFAC guidelines.

Scoring Procedure and Comparative Assessment

A structured additive scoring approach, adapted from NABARD's FPO performance grading methodology, was used to evaluate the selected FPOs across multiple indicators relating to governance, financial management, market integration, infrastructure availability, and business operations. Each parameter within the Enterprise Readiness Index (ERI) and the Institutional Maturity Index (IMI) was assigned a maximum permissible score reflecting its relative importance within the framework (Tables 4 and 5); the differential maximum marks assigned to each parameter therefore serve as the weighting mechanism, and no separate weighting coefficient is applied when parameter scores are aggregated. The raw score for each FPO was computed using the following expression:

$$\text{Raw Score} = \sum S_i \quad (i=1 \text{ to } n)$$

Where:

S_i = Score obtained by the FPO under the i -th parameter, bounded between 0 and that parameter's assigned maximum marks, M_i

M_i = Maximum marks assigned to the i -th parameter, as shown in Tables 4 and 5

n = Total number of parameters within the respective index ($n = 6$ for the ERI; $n = 7$ for the IMI)

Because the ERI and IMI raw scores have unequal ceilings ($\sum M_i = 58$ for the ERI and 76 for the IMI, as shown in Tables 4 and 5), each raw score was rescaled to a common 50-point maximum so that the two indices could be combined on equal terms:

$$\text{Standardized Score} = (\text{Raw Score} \div \sum M_i) \times 50$$

The Grand Total for each FPO (maximum 100) was obtained by summing its standardized ERI and IMI scores, giving the two dimensions equal 50:50 weight in the overall assessment. This equal weighting reflects the view that enterprise capability without institutional stability, and institutional strength without commercial viability, have each independently been identified as insufficient for FPO sustainability (Trebbin, 2014; NABARD, 2023) ^[9, 16]; the framework accordingly treats enterprise readiness and institutional maturity as equally necessary conditions rather than assigning either dimension a greater share of the overall score.

The Enterprise Readiness Index and Institutional Maturity Index were independently computed and subsequently used for comparative classification of the selected FPOs. Based on the standardized scores, each FPO was further positioned into one of four quadrants using the "Enterprise Ready" threshold from Table 1 ($\text{ERI} \geq 35$) and the "Mature" threshold from Table 2 ($\text{IMI} \geq 40$) as the two defining axes: Quadrant 1 ($\text{ERI} \geq 35$ and $\text{IMI} \geq 40$) denotes FPOs that are simultaneously market-ready and institutionally mature; Quadrant 2 ($\text{ERI} < 35$ and $\text{IMI} \geq 40$) denotes institutionally strong FPOs with evolving enterprise

capability; Quadrant 3 ($ERI \geq 35$ and $IMI < 40$) denotes commercially strong FPOs with evolving institutional systems; and Quadrant 4 ($ERI < 35$ and $IMI < 40$) denotes FPOs that are still developing on both dimensions and require the most handholding. Based on the Grand Total, the FPOs were further categorized into the performance grades shown in Table 3.

Because Sahyadri FPO was purposively selected as a large-scale benchmark organization rather than a size-matched peer, its scores are not strictly comparable in scale to those of the two smaller Karnataka-based FPOs. The comparative assessment is therefore best read as positioning Hungunda FPO and Shri Vinayaka HFPCL relative to an aspirational reference point, rather than as a competitive ranking among similarly resourced organizations.

Given the case-study design ($n = 3$) and the absence of statistical reliability or validity testing of the index itself, the present application of the Dual-Index Assessment Framework is best interpreted as an illustrative demonstration of the framework rather than as a generalizable comparative performance study; validating the framework on a larger and more diverse sample of FPOs is identified as a direction for future research.

Comparative analysis was carried out using indicators such as membership structure, women participation, governance systems, financial discipline, market linkage, infrastructure facilities, revenue diversification, and professional management practices. The comparative assessment helped in identifying organizational strengths, operational gaps, and emerging trends in the evolving FPO ecosystem in India.

Results and Discussion

The evolving role of FPOs from collective aggregation platforms to enterprise-oriented institutions reflects broader shifts in agricultural governance, market integration, and farmer empowerment in India. These changing dynamics provide the foundation for assessing institutional maturity and enterprise

readiness among selected FPOs.

The selected Farmer Producer Organizations (FPOs) were evaluated using the Dual-Index Assessment Framework comprising Enterprise Readiness and Institutional Maturity dimensions. The framework assessed the selected FPOs based on governance systems, compliance structure, infrastructure availability, market linkage, financial discipline, and business preparedness. The findings revealed considerable variation among the selected organizations with respect to institutional resilience, enterprise orientation, and commercial sustainability. The results further indicate that successful FPOs require a balance between organizational strength and business capability to sustain long-term growth in an increasingly competitive agricultural market environment (NAFPO, 2025) ^[11].

Enterprise Readiness Assessment of Selected FPOs

Enterprise readiness reflects the ability of FPOs to function as sustainable agribusiness enterprises through diversified revenue generation, commercial scale, professional management, infrastructure support, and market integration. The assessment revealed substantial differences among the selected FPOs in terms of business preparedness and commercial orientation.

Sahyadri Farmers Producer Company Limited emerged as the strongest enterprise-oriented organization among the selected FPOs. The organization demonstrated superior performance in turnover generation, business diversification, market linkage, and financial creditworthiness. The FPO has diversified into processing, exports, direct-to-consumer retailing, agri-input services, and post-harvest management, thereby strengthening its commercial resilience and reducing dependence on a single revenue source. In contrast, Hungunda FPO and Shri Vinayaka HFPCL demonstrated comparatively moderate enterprise readiness with limitations relating to market integration, business planning, and revenue diversification.

Table 4: Enterprise Readiness Assessment Scores of Selected FPOs

Parameter	Max Score	Sahyadri FPO	Hungunda FPO	Shri Vinayaka HFPCL
Professional Management & Leadership	8	8.0	8.0	8.0
Strategic Business Planning	8	0.0	0.0	0.0
Commercial Scale (Annual Turnover)	12	12.0	12.0	12.0
Business Resilience (Revenue Streams)	10	10.0	7.0	7.0
Financial Credit Worthiness	8	8.0	8.0	8.0
Market Linkage & Value Chain Position	12	12.0	2.5	2.5
Raw Score / Maximum	58	50.0	37.5	37.5
Standardized ERB Score	50	43.1	32.3	32.3

Source: Author's computation based on NABARD FPO Grading Framework and SFAC operational indicators.

The Enterprise Readiness Benchmark (ERB) classification indicates that Sahyadri FPO falls under the "Market Leader" category owing to its large-scale business operations, strong infrastructure, and advanced market integration. In contrast, Hungunda FPO and Shri Vinayaka HFPCL fall within the "Trading Stage" category, reflecting moderate enterprise capability but comparatively lower business diversification and institutional market integration. The findings suggest that enterprise readiness is strongly influenced by commercial scale, diversified revenue streams, and organized value-chain participation (Singh *et al.*, 2018) ^[15].

Institutional Maturity Assessment of Selected FPOs

Institutional maturity refers to the organizational strength, governance quality, leadership continuity, compliance systems, and administrative discipline of FPOs. Strong institutional

systems are essential for ensuring operational transparency, member confidence, organizational resilience, and long-term sustainability. The institutional assessment revealed considerable variation among the selected FPOs with respect to governance structure, compliance mechanisms, and administrative capacity.

Among the selected organizations, Sahyadri FPO demonstrated the highest level of institutional maturity with strong governance systems, compliance mechanisms, professional leadership, and administrative discipline. Hungunda FPO also demonstrated relatively strong institutional performance, particularly in administrative discipline and financial participation. However, limitations in statutory compliance reduced its overall institutional maturity score. Shri Vinayaka HFPCL demonstrated comparatively lower performance under administrative discipline, legal compliance, and institutional infrastructure.

Table 5: Institutional Maturity Assessment Scores of Selected FPOs

Parameter	Max Score	Sahyadri FPO	Hungunda FPO	Shri Vinayaka HFPCL
Member Base & Social Capital	12	12.0	12.0	12.0
Governance & Leadership Engagement	10	6.0	6.0	6.0
Financial Commitment (Share Capital)	12	12.0	12.0	12.0
Statutory Compliance (Audit)	12	12.0	6.0	6.0
Administrative Discipline & Data Integrity	15	15.0	15.0	7.5
Legal Licenses & Right to Operate	7.5	7.5	7.5	3.0
Institutional Infrastructure	7.5	7.5	7.5	3.0
Raw Score / Maximum	76	72	66	49.5
Standardized IMI Score	50	47.4	43.4	32.6

Source: Author's computation based on NABARD FPO Grading Framework and SFAC operational indicators.

The Institutional Maturity Index (IMI) classification indicates that Sahyadri FPO falls under the “Elite / Model FPO” category due to its strong governance systems, administrative efficiency, and compliance structure. Hungunda FPO falls under the “Mature” category with satisfactory institutional systems and member participation. Shri Vinayaka HFPCL falls within the “Evolving” category owing to comparatively weaker institutional infrastructure and administrative formalization. The findings suggest that institutional maturity plays a critical role in strengthening organizational resilience and enabling long-term

enterprise sustainability (Trebbin, 2014) ^[16].

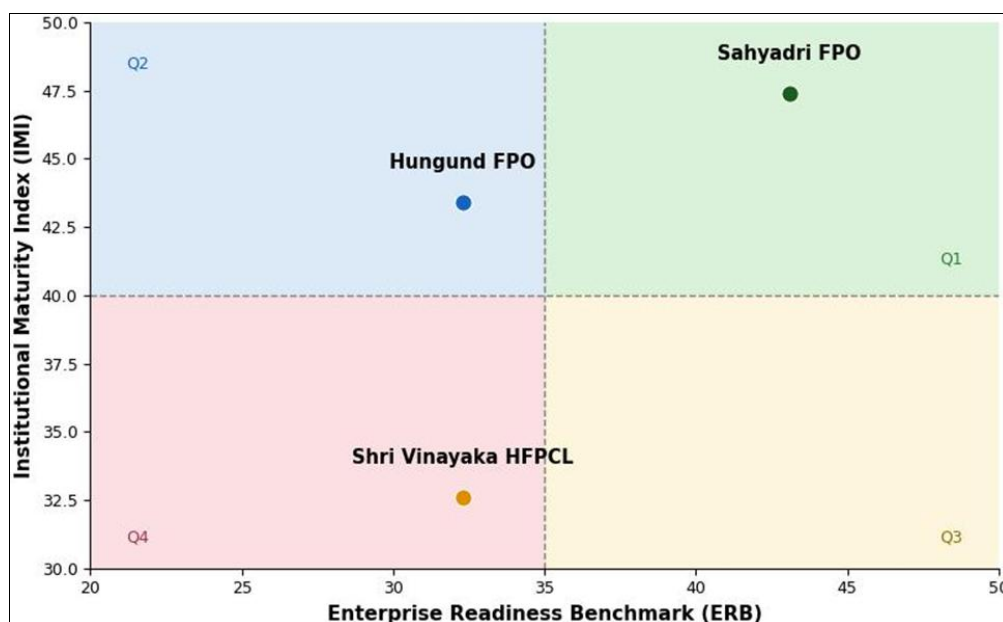
Comparative Positioning of Selected FPOs

The comparative positioning analysis revealed considerable variation among the selected Farmer Producer Organizations (FPOs) with respect to enterprise readiness and institutional maturity (Table 6 and Fig. 1). The integrated assessment demonstrated that long-term sustainability of FPOs depends not only on organizational strength but also on their ability to function as commercially viable and market-oriented enterprises.

Table 6: Comparative Positioning and Final Classification of Selected FPOs

FPO Name	IMI Score (/50)	IMI Classification	ERB Score (/50)	ERB Classification	Grand Total (/100)	Quadrant Position	Final Grade
Sahyadri FPO	47.4	Elite / Model FPO	43.1	Market Leader	90.5	Q1	Grade A (Market Ready / Investment Ready)
Hungund FPO	43.4	Mature	32.3	Trading Stage	75.7	Q2	Grade B (Credit Ready / Growth Stage)
Shri Vinayaka HFPCL	32.6	Evolving	32.3	Trading Stage	64.9	Q4	Grade C (Emerging / Needs Handholding)

Source: Author's calculation based on Dual-Index Assessment Framework.

**Fig 1:** Comparative quadrant positioning of the selected FPOs

Sahyadri FPO emerged as the strongest performer with the highest combined score of 90.5 and was classified under Grade A (Market Ready / Investment Ready). The organization achieved high scores under both Institutional Maturity Index (47.4) and Enterprise Readiness Benchmark (43.1), positioning it in Quadrant 1. The superior performance of Sahyadri FPO reflects its diversified business operations, organized value-chain integration, strong infrastructure, professional governance systems, and advanced market linkage. The findings indicate

that the organization has successfully evolved into a professionally managed farmer-owned agribusiness enterprise with strong institutional resilience and commercial capability. Hungund FPO secured a combined score of 75.7 and was classified under Grade B (Credit Ready / Growth Stage). The organization demonstrated relatively strong institutional systems with an IMI score of 43.4, indicating satisfactory governance practices, administrative discipline, and member participation. However, its moderate ERB score of 32.3 reflects comparatively

lower enterprise diversification and market integration. Consequently, the FPO was positioned under Quadrant 2, representing institutionally strong but commercially evolving organizations.

Shri Vinayaka HFPCL recorded the lowest combined score of 64.9 and was categorized under Grade C (Emerging / Needs Handholding). The organization exhibited comparatively lower scores under both institutional maturity and enterprise readiness dimensions due to limitations in infrastructure, compliance systems, and commercial diversification. Its placement in Quadrant 4 — below both the Enterprise Ready and Mature thresholds — indicates the need for strengthening governance systems, market linkage, business planning, and enterprise capability through targeted institutional and policy support.

The findings suggest that enterprise readiness and institutional maturity are highly interdependent dimensions within the evolving FPO ecosystem. FPOs possessing stronger governance systems, diversified revenue streams, and organized market linkage are more likely to achieve financial sustainability, institutional resilience, and long-term market competitiveness (Trebbin, 2014; NABARD, 2023) ^[9, 16].

Conclusion

Farmer Producer Organizations (FPOs) are increasingly evolving from subsidy-driven farmer collectives into market-oriented and professionally managed rural enterprises. The study revealed considerable variation among the selected FPOs with respect to enterprise readiness, institutional maturity, governance quality, and commercial sustainability.

The Dual-Index Assessment Framework indicated that Sahyadri FPO demonstrated the highest performance under both Enterprise Readiness and Institutional Maturity dimensions due to its diversified business operations, strong market linkage, infrastructure capacity, and professional governance systems. Hungund FPO exhibited relatively strong institutional systems with moderate enterprise capability, whereas Shri Vinayaka HFPCL emerged as an evolving FPO requiring further strengthening in infrastructure, market integration, and organizational systems.

The findings suggest that long-term sustainability of FPOs depends upon the simultaneous development of enterprise capability and institutional resilience. Therefore, future policy interventions should focus on strengthening governance systems, professional management, digital integration, infrastructure support, and business diversification to transform emerging FPOs into sustainable farmer-owned enterprises capable of contributing to inclusive agricultural and rural development in India.

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