Indian Institute of Insolvency Professionals
of ICAI (IIIPI)

FINANCIAL SOLVENCY AND BANKRUPTCY ANALYSIS OF FARMER PRODUCER COMPANIES IN NORTH EASTERN REGION AND WEST BENGAL

A Research Report sponsored by IIIPI

Dr. Partakson Romun Chiru

Foreword

The Research Committee of the Indian Institute of Insolvency Professionals of ICAI (IIIPI) is pleased to present its Research Report on "Financial Solvency and Bankruptcy Analysis of Farmer Producer Companies (FPC) in Nort Eastern Region And West Bengal" developed by Dr. Partakson Romun Chiru and sponsored by IIIPI.

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Farmer Producer Companies (FPCs) have emerged as a transformative institutional model for empowering small and marginal farmers through collective action, improved market access, economies of scale, and enhanced bargaining power. As India strives to build a more resilient, inclusive, and market-oriented agricultural sector, FPCs play a pivotal role in improving farmers' incomes, promoting value addition, strengthening rural enterprises, and advancing sustainable agricultural development.

This report provides an insightful assessment of the financial health and operational performance of Farmer Producer Companies, with a special focus on the North-Eastern Region and West Bengal separately. The report provides a comprehensive evaluation of the opportunities and challenges faced by these farmer-owned enterprises.

The findings reveal that while many FPCs have demonstrated encouraging progress, several continue to face challenges relating to financial solvency, access to institutional finance, market linkages, managerial capacity, regulatory compliance, and business sustainability. The report also recommended to strengthen these institutions through improved financial management, capacity building, stronger market integration, technological adoption, and supportive policy interventions.

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Dr. Ashok Kumar Mishra,
Chairman, IIIPI-Governing Board

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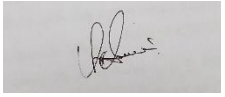

Dr Partakson Romun Chiru
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EXECUTIVE SUMMARY OF FPC'S FINANCIAL PERFORMANCE IN THE NORTHEASTERN REGION

Introduction

This Executive Summary presents the consolidated outcomes of the research titled "Financial Solvency and Bankruptcy Analysis of Farmer Producer Companies in the North-Eastern Region and West Bengal." The summary was made separately for the Northeast region and West Bengal so that decision-makers, policymakers, funding agencies, and institutional stakeholders could receive a clear, concise, and evidence-based overview of the study's goals, methods, main findings, and strategic implications.

The research was undertaken in the context of India's broader developmental agenda under Vikshit Bharat 2047, which emphasises profitability-led growth, inclusive rural development, and sustainable livelihood creation. Farmer Producer Companies have been positioned as critical grassroots institutions capable of integrating small and marginal farmers into organised markets, strengthening bargaining power, and improving farm-level income. Despite substantial policy support from the Government of India and institutions such as NABARD and SFAC, concerns persist regarding the financial viability, solvency, and long-term sustainability of FPCs, particularly in structurally constrained regions such as the Northeastern states.

The Purpose and Scope of the Study

The main goal of this study was to look at the financial health, solvency, risk of bankruptcy, and long-term viability of Farmer Producer Companies in Northeast and West Bengal. The study also aimed to identify and prioritise the key operational challenges affecting FPC performance, including establishment procedures, marketing constraints, financial management issues, demand–supply bottlenecks, and human resource limitations.

Geographically, the study covered eight northeastern states and West Bengal, capturing both region-specific constraints and comparative insights between relatively mature and emerging

FPC ecosystems. The temporal scope of the financial analysis spans 2016–17 to 2023–24, allowing assessment of performance trends over time.

Methodological Overview

The research adopted an exploratory and analytical design, combining secondary financial data with extensive primary field-based evidence. A purposive sampling technique was employed to select FPCs with available audited financial statements filed with the Ministry of Corporate

Affairs. The final analytical sample comprised 46 farmer producer companies (26 from Northeast India and 20 from West Bengal). In addition, 182 structured questionnaires were administered to CEOs, board members, and employees across 61 FPCs in the Northeast region to capture ground-level operational realities.

Financial performance was evaluated using Altman's Z-Score Model to assess insolvency and bankruptcy risk and the Sustainable Growth Rate (SGR) model to determine the internal growth capacity of FPCs. Operational challenges were analysed and ranked using the Relative Importance Index (RII) to ensure the objective prioritisation of constraints.

Key Financial Findings

Table 1: Key Findings on Financial Solvency and Bankruptcy of FPC in North East India

Z-Score Range	Zone	No. of FPCs	Financial Condition	Decision	Key Reasons	Strategic Recommendations
$Z < 1.23$	Red Zone	20	Severe financial distress	High bankruptcy risk	Low profitability, weak liquidity, high leverage, poor market access	Financial restructuring, debt renegotiation, governance reform, targeted subsidies, intensive capacity building
$1.23 \leq Z \leq 2.90$	Grey Zone	16	Moderate financial risk	Watch & stabilize	Seasonal revenue, operational inefficiencies, high input costs	Improve financial controls, diversify markets, enhance working capital access, continuous monitoring
$Z > 2.90$	Green Zone	10	Financially stable	Sustain & scale	Strong liquidity, efficient asset use, better governance	Growth consistency strategies, reinvest surplus, innovation, mentorship to weaker FPCs

Table 2: Key Finding on Sustainable Growth Rate (SGR) Assessment of FPCs – North East Region

SGR Status	Interpretation	No. of FPCs (Trend)	Decision	Key Observations	Recommendations
Positive / Marginal Growth	Internally sustainable but slow growth	8 FPCs	Maintain & strengthen	Low leverage, cautious management, limited scale	Value addition, market diversification, reinvestment of surplus
Zero / Stagnant Growth	Operational survival without expansion	14 FPCs	Needs intervention	High costs, weak reinvestment, limited markets	Improve asset utilization, cost control, access to affordable finance
Negative Growth	Financially unsustainable	24 FPCs	Critical intervention required	Recurring losses, high debt, weak governance	Financial overhaul, equity infusion, professional management, market linkage support

Table: 3. Factors Influencing Operational Efficiency of FPCs – Level of Challenges, Reasons, and Way Forward in North East India

Factor	Effect on FPCs	Level of Challenge	Key Reasons	Recommendations
Establishment Challenges	−0.256 → 40 FPCs' Challenges	Moderate (Negative Impact)	Procedural complexity, documentation burden, certification delays, and policy compliance issues reduce organizational flexibility and slow early-stage efficiency. The negative coefficient indicates that unresolved establishment issues aggravate overall challenges.	Simplify registration and certification procedures; provide handholding support during incorporation.
Marketing and Production Challenges	0.350 → 46 FPCs' Challenges	High	Weak market linkages, inadequate branding, limited digital presence, and production inefficiencies significantly increase overall FPC challenges.	Develop market intelligence systems; promote collective branding and digital marketing platforms.
Product Demand and Supply Challenges	0.391 → 42 FPCs' Challenges	High	Poor warehousing, seasonal demand fluctuations, inadequate storage and logistics infrastructure disrupt supply consistency and revenue stability.	Invest in warehousing, cold storage, and aggregation infrastructure.
Human Resources Challenges	0.535 → 46 FPCs' Challenges (Strongest)	Very High / Critical	Lack of skilled manpower, weak leadership, low motivation, absence of retention and performance appraisal systems significantly intensify operational challenges.	Capacity building for CEOs, board members, and staff; introduce performance-based incentives.
Overall FPCs' Challenges	**0.432- 46 FPCs**	**Substantial Influence**	The combined effect of establishment, marketing, demand–supply, HR, and financial factors explain 43.2% of the variance in overall challenges, indicating strong structural impact.	Adopt an integrated, multi-dimensional intervention strategy rather than isolated solutions.

Major Operational Issues Identified

The field-based analysis identifies various levels of constraints that directly affect financial outcomes. Establishment-related challenges, especially certification requirements and complexity of processes, proved to be the most significant of all hurdles. In the area of marketing, decreasing buying power, evolving purchasing behaviours, high competition in the market, and a lack of product promotion abilities significantly limit revenue growth. Financial constraints—particularly budgets, working capital, and debt management—were pegged as the most serious barriers to sustainability. On the supply chain front, inefficient warehouse infrastructure and packaging limited the quality of products as well as market reach. Human resource challenges, particularly poor retention policies and performance appraisal systems and low employee motivation at the organisational level, also limit organisational effectiveness.

Strategic Implications and The Way Forward

The findings emphasise that it's time for differentiated and targeted policy interventions rather than an overarching support approach. Financially distressed FPCs need immediate restructuring, governance reforms, and working capital support. Grey Zone FPCs require stability in terms of better financial management, diversification of the markets, and capacity building. Green Zone FPCs must be supported in the areas of scale-up, innovation, and weakening the FPCs in their clusters. Institutionalising financial health diagnostics, such as the Altman Z-Score, strengthening market linkages, improving access to financially tailored products, and investing in professional management systems are all crucial for achieving high resilience in FPC ecosystems. This Executive Summary brings together the evidence obtained by performing a rigorous financial analysis and extensive field engagement. The conclusion states that while Farmer Producer Companies possess a strong institutional framework that could serve as an effective model for inclusive agricultural development, their financial sustainability in Northeast India and West Bengal is highly precarious and inconsistent. Strategic interventions that are informed by data and clubbed with region-specific realities are an imperative to changing the face of FPCs from vulnerable groups of farmers living in rural areas to sustainable enterprises owned and operated by farmers for agribusinesses, which can contribute to the sustainable development agenda of India in a meaningful way.

EXECUTIVE SUMMARY OF FPCS' FINANCIAL PERFORMANCE IN WEST BENGAL

This executive summary presents the key outcomes of the study on the financial performance and sustainability of Farmer Producer Companies (FPCs) in West Bengal. Using the Altman Z′-Score model, the study evaluates solvency and bankruptcy risk, while the Sustainable Growth Rate (SGR) assesses the capacity of FPCs to achieve self-financed growth. The results show that the financial situation is mixed: only a few FPCs are financially stable, while most are in moderate to high financial trouble. Persistent negative or stagnant growth rates indicate structural weaknesses in profitability, reinvestment capacity, and financial governance. The results indicate that there is an urgent need for targeted financial restructuring, capacity building, and continuous financial monitoring to ensure the long-term sustainability of FPCs.

Table 4: Financial Performance of FPCs Based on Altman Z-Score

Z-Score Category	Z-Score Range	No. of FPCs	Financial Status	Decision	Key Remarks
Green Zone (GZ)	> 2.99	6 FPCs	Financially stable	Sustain & safe Zone	Strong profitability, efficient asset utilization, better governance
Grey Zone (GRZ)	1.81 – 2.99	4FPCs	Moderately risky	Stabilize with Less risk	Fluctuating income, working capital stress, uneven cash flows
Risk Zone (RZ)	< 1.81	10 FPCs	Financial distress	Immediate intervention	Low profitability, high leverage, weak market access

Table 5: Sustainability Growth Rate (SGR) of FPCs

SGR Status	Nature of Growth	Representative FPCs	Decision	Key Remarks
Positive / Near-Zero SGR	Marginally sustainable	2 FPCs	Maintain discipline	Conservative growth, low debt dependence, operational balance
Stagnant (Low Negative SGR)	Survival without expansion	8 FPCs	Improve efficiency	Low sales turnover, underutilized assets, weak reinvestment
Highly Negative SGR	Unsustainable growth	10 FPCs	Restructure urgently	Poor profit margins, high leverage, weak financial governance

*Strong solvency in earlier years but weak sustainability due to poor reinvestment.

While a few FPCs demonstrate short-term financial stability, most are unable to sustain growth internally. Altman Z-Score and SGR together confirm that solvency does not automatically translate into sustainability, indicating the importance of integrated financial governance, reinvestment planning, and institutional support.

REPORT ON EVALUATION OF FINANCIAL PERFORMANCE OF FPCs IN NORTH EAST AND WEST BENGAL

1. Introduction

1.1. Introduction to Farmer Producer Companies

India's agricultural policy has progressively shifted from a narrow focus on productivity to improving farm-level profitability, recognising collective action as a key enabler. In this context, Farmer Producer Companies (FPCs) emerged as an important institutional innovation, formally recognised through the insertion of Part IX-A into the Companies Act, 2003. Since then, the FPC model has expanded rapidly, with more than 7,000 FPCs operating in India by 2021, supported by agencies such as SFAC, NABARD, and state governments.

The Government of India has further strengthened this approach by targeting the formation of 10,000 farmer-producer organisations (FPOs), reflecting its commitment to employment generation, sustainable rural livelihoods, and doubling farmers' incomes. FPCs are envisioned as grassroots institutions that enhance farmers' market access, bargaining power, and income stability, thereby playing a critical role in sustainable agricultural development.

Rooted in the long tradition of the cooperative movement—both globally and in India—FPCs represent an evolved organisational form that combines cooperative principles with corporate efficiency. Successful cooperative experiences, particularly in India's dairy sector, demonstrate the potential of collective models, while challenges in other sectors point to the value of strong governance and financial discipline.

Against this backdrop, assessing the financial performance and sustainability of FPCs is essential. This study evaluates the financial health of selected FPCs using ratio analysis and Altman's Z-score model to identify financial strengths, vulnerabilities, and bankruptcy risks. The findings aim to support evidence-based policy formulation, strengthen regulatory frameworks, and enhance public trust in FPCs, thereby reinforcing their role in achieving inclusive and sustainable agricultural growth in India.

1.2. The Important Role of NABARD in Farmer Producer Companies in India

As of 2021, SFAC and NABARD promoted FPOs through two major funding initiatives: the Producer Organization Development Fund (PODF), launched in 2011–12 with a corpus of ₹50 crore, and the Producer Fund, introduced in 2014–15 with a corpus of ₹200 crore, together targeting the promotion of 2,000 FPOs (NABARD, 2018; 2019).

NABARD has empaneled 795 Producer Organisation Promoting Institutions (POPIs)—including NGOs, banks, government agencies, cooperatives, and federations—to strengthen FPC capacity. These POPIs support FPOs across the entire lifecycle, covering cluster identification, feasibility studies, business planning, producer mobilisation, registration, resource mobilisation, operational support, and performance assessment.

Among NABARD-promoted FPOs, 82% of members are small and marginal farmers, with women constituting 32%. Operationally, 724 FPOs hold input dealership licences; 1,298 are market-linked, and 3,249 are credit-linked. NABARD has also digitised FPO data and developed a performance monitoring tool to track and evaluate FPO performance.

Financial support is extended through NABKISAN Finance Ltd., a NABARD subsidiary, which provides working capital and term loans with or without collateral under NABARD's Credit Guarantee Scheme. As of April 2019, NABKISAN had directly supported 275 producer companies and an additional 225 PCs through on-lending mechanisms.

1.3. Glimpse of FPO in the Northeastern Region

The concept of farmer producer organisations has started gaining popularity in the Northeastern Region recently. While the concept of producer companies has the potential to change the agricultural economy of the region, the understanding of the subject is poor among the target population, i.e., the farmers. The aggregation of producers, especially small and marginal farmers, into producer organisations has emerged as one of the most effective pathways to address the many challenges of agriculture; most importantly, it has improved access to investments, technology, inputs, and markets. The Department of Agriculture Cooperation and Farmers Welfare, Ministry of Agriculture and Farmers Welfare, Government of India, has identified farmer-producer associations registered under the special provisions of the Companies Act, 1956, as the most appropriate institutional form around which to mobilise farmers and build their capacity to collectively leverage their production and marketing strengths. According to the National Bank for Agriculture and Rural Development (NABARD), a producer company is a hybrid between a private limited company and a cooperative society. Therefore, it enjoys the benefits of professional management in a private limited company as well as mutual benefits derived from a cooperative society.

1.4 Challenges of FPCs in Northeast India

Northeast region farmers experience poor connectivity, lack of marketing, modern technology, agricultural infrastructure, and awareness among the farmers; the farmers often fail to capitalise on the rich natural resources. Both union and state governments are providing special support for the promotion and formation of Farmer Producer Companies (FPCs). Farmers in the region generally work in isolation and in unorganised ways, and the scarce physical infrastructure significantly hinders the mobilisation of farmers' collectives and their connection to modern markets. Significantly, the unfavourable attitude of farmers who see themselves as beneficiaries of FPCs, not shareholders, remains a major reason why the FPC model fails in the Northeast Region. There is a lack of research on FPCs; few studies were conducted in the Northeast region (**Kakali & Roy 2019 & Gurung and Choubey 2021),** and those works are initiated mainly on Assam state FPCs and Manipur FPCs with limited sampling numbers of FPCs. Companies commonly use financial ratios as tools to measure their overall performance. The primary focus on companies' solvency and bankruptcy, which impact their intrinsic value, is absent. Therefore, we will solely focus on the issues and challenges related to FPCs in the Northeast region. Based on the previous studies' assessment, the success rate of Northeast FPO was lower than the rest of the country. Therefore, recognising the issues and challenges faced by FPOs in the Northeast region is significantly relevant, as it also helps determine the company's solvency and bankruptcy based on the financial reports.

1.5. Core Operational Activities and Functions of FPCs

Farmer Producer Companies' (FPCs) aim to transform small and fragmented holdings into organised, market-oriented enterprises, thereby promoting the collective economic advancement of farmers. Their operations span the entire agricultural value chain, from input procurement to marketing and value addition.

1.5.1. Input Procurement and Supply: FPCs collectively procure and distribute quality inputs, such as seeds, fertiliser, pesticides, and farm machinery. Bulk purchasing enables cost reduction, timely availability, and reduced dependence on intermediaries, thereby improving farm-level productivity and input efficiency.

1.5.2. Production Support and Post-Harvest Management: FPCs facilitate access to extension services, technical training, and modern farming practices, including soil testing, crop planning, and integrated pest management. Shared infrastructure—such as harvesters,

threshers, and storage facilities—helps minimise postharvest losses and enhances operational efficiency.

1.5.3. Aggregation, Marketing, and Value Addition: By aggregating members' produce, FPCs achieve scale and quality consistency, enabling direct market linkages with wholesalers, processors, and retailers. Many FPCs also engage in value addition through grading, packaging, processing, and branding, thereby improving price realisation and diversifying income.

1.5.4. Market Expansion and Export Linkages: FPCs increasingly explore e-commerce platforms and export markets, supported by initiatives focused on quality standards, certification, and compliance. This integration into higher-value and global markets strengthens farmers' market access and competitiveness.

The FPCs generate economies of scale, enhance market access and price transparency, and improve collective resilience by sharing risks. They function not only as marketing entities but as comprehensive agribusiness institutions that combine entrepreneurship with farmer empowerment.

1.6. Capital Formation and Financial Structure

Farmer Producer Companies (FPCs) design their financial structure to strike a balance between commercial viability and social inclusivity. Unlike profit-maximising firms, FPCs emphasise mutual benefits, with earnings reinvested in the enterprise or shared equitably among active members. **Member equity** is the basis for capital formation. Farmers put in nominal share capital, which confers them ownership, participation, and collective responsibility. However, the limited nature of these contributions often necessitates additional financial support for business expansion. FPCs follow a **patronage-based return system**, where surpluses are distributed based on members' business participation rather than shareholding. This ensures fairness, rewards active engagement, and prevents speculative ownership. Institutional support from agencies such as **SFAC, NABARD, and state governments** plays a vital role through grants, equity assistance, concessional loans, and schemes like the **Equity Grant and Credit Guarantee Fund**, which strengthen capital bases and ease access to credit.

As legally registered companies, FPCs enjoy enhanced **creditworthiness, transparency, and access to institutional finance**, including working capital and term loans. However, challenges persist in the form of inadequate capital, delayed grants, and limited financial literacy. Long-term sustainability therefore depends on prudent financial management, diversified revenue

streams, and gradual reduction of subsidy dependence. The financial architecture of FPCs represents a **blend of community ownership, institutional support, and corporate discipline**, enabling small farmers to transition toward sustainable, market-orientated entrepreneurship.

1.7. Borrowing Patterns of Farmer Producer Companies (FPCs)

Access to institutional finance is central to the growth and sustainability of Farmer Producer Companies (FPCs), as they require capital for input procurement, working capital, infrastructure, and value addition. However, factors like collateral availability, creditworthiness, managerial capacity, and policy support shape borrowing patterns.

1.7.1. Sources of Borrowing: FPCs primarily access credit from Scheduled Commercial Banks, Regional Rural Banks (RRBs), and Cooperative Banks, supported by schemes such as the Agriculture Infrastructure Fund (AIF) and NABARD's Producer Organization Development Fund (PODF). NBFCs and Agri-NBFCs are emerging as flexible lenders through products like warehouse receipt finance and equipment leasing, though often at higher interest rates. Development institutions such as NABARD and SFAC play a catalytic role through equity grants, credit guarantees, and capacity-building support.

1.7.2. Borrowing Across Growth Stages:

1. Early-stage FPCs rely mainly on member equity, grants, and subsidised credit due to their weak balance sheets and limited collateral.
2. Growth-stage FPCs diversify borrowing with short-term working capital and medium-term asset loans, often engaging cooperative banks and NBFCs.
3. Mature FPCs access term loans, overdrafts, and project finance, and in some cases attract private agribusiness partnerships and structured finance.

1.7.3. Key Constraints: Major barriers include inadequate collateral, perceived lending risk, limited financial literacy, weak documentation, and poor business planning. These factors restrict credit access and reinforce lenders' risk aversion.

1.7.4. Support for policies and new trends: Government interventions, such as the Credit Guarantee Fund Scheme for FPOs (CGFS-FPO), the SFAC Equity Grant Scheme, and the AIF interest subvention, have improved bankability. Government interventions such as the Credit Guarantee Fund Scheme for FPOs (CGFS-FPO), the SFAC Equity Grant Scheme, and the AIF

interest subvention have improved bankability. Recent trends include blended finance, value chain financing, FinTech-based digital lending, and ESG-linked credit, which are gradually diversifying funding options. The FPC borrowing shows a gradual but uneven transition from grant dependence toward formal institutional finance. To fully realise the potential of FPCs in driving sustainable rural and agrarian transformation, it is important to improve financial management, create credit products that meet the needs of each FPC, and coordinate policy support.

1.8 FPCs' Distinction from Other Farmer Organisations

Farmer Producer Companies (FPCs) occupy a unique institutional position in India's agrarian framework by combining collective ownership with market-orientated business operations. Unlike traditional farm collectives, FPCs are designed as agribusiness entities that integrate farmers into organised value chains.

Self-Help Groups (SHGs) primarily focus on savings, credit, and social empowerment, with limited commercial scale and weak market linkages. Farmers' service societies and cooperatives, while important for input and credit delivery, often face challenges such as bureaucratic rigidity, politicisation, and limited operational flexibility under state cooperative laws. In contrast, FPCs are registered under the Companies Act, providing a strong corporate governance framework with greater transparency, autonomy, and access to institutional finance. They can raise equity, enter contracts, and engage professional management while retaining a member-centric, non-profit-maximising orientation. FPCs have their own legal status and limited liability, which enables members better access to markets and protects them from risk. This system is different from Joint Product Groups (JPGs) and informal collectives, which don't have legal identity or financial access. The FPCs represent a hybrid model, blending the democratic principles of cooperatives with the efficiency of corporate governance. This structure enables farmers to move beyond welfare-based participation toward active ownership and entrepreneurship in agribusiness.

1.9 Suitability and Advantages of the FPC Model

The Farmer Producer Company (FPC) model is well suited to India's agricultural context, as it integrates collective strength, professional management, and legal legitimacy within a single institutional framework. It directly addresses structural challenges such as small farm sizes, fragmented markets, weak bargaining power, and limited access to finance. A key advantage of FPCs is their ability to achieve economies of scale across procurement, production,

processing, and marketing. Collective aggregation enables bulk purchases and sales, improves price realisation, and reduces dependence on intermediaries. The corporate governance structure of FPCs—through a Board of Directors and professional management—introduces accountability, managerial efficiency, and informed decision-making, enhancing competitiveness compared to informal collectives or traditional cooperatives.

As entities registered under the Companies Act, FPCs enjoy greater market credibility and can enter formal contracts, partnerships, and value-chain linkages with both public and private stakeholders, including exporters and e-commerce platforms. This makes it easier to enter into both national and international markets. From a developmental perspective, FPCs represent a shift from welfare-orientated collectives to farmer-owned agribusiness enterprises, generating tangible economic gains through cost reduction, value addition, and access to premium markets. However, these advantages depend on an enabling ecosystem of capacity building, financial literacy, and policy support. When effectively supported, the FPC model offers a balanced and sustainable pathway for strengthening smallholder agriculture through inclusive, market-orientated growth.

1.10. The Social and Developmental Role of FPCs

Farmer Producer Companies (FPCs) extend beyond economic objectives to play a significant social and developmental role in rural areas. While their primary mandate is to enhance farmers' income and market competitiveness, the legal framework allows FPCs to engage in capacity building, education, health, and community welfare activities, enabling holistic rural development.

FPCs contribute to human capital development through training in modern agriculture, financial literacy, digital skills, and leadership, fostering rural entrepreneurship and self-reliance. Many FPCs also collaborate with government agencies, NGOs, and CSR initiatives to support healthcare, insurance, sanitation, and nutrition programmes, improving the quality of life in rural areas.

By stabilising incomes and reducing market risks, FPCs indirectly strengthen household financial security, enabling greater investment in education, health, and livelihood diversification. Their hybrid structure—combining cooperative values with corporate efficiency—allows them to deliver social outcomes with transparency and sustainability. Overall, FPCs act as agents of inclusive rural transformation, integrating economic empowerment with social well-being.

1.11. Legal Foundation and Operating Structure

The Farmer Producer Company is a hybrid institutional model that blends cooperative principles with corporate governance to overcome the limitations of traditional cooperatives. Governed by Chapter XXIA of the Companies Act, 2013), FPCs enjoy corporate status with an independent legal identity, limited liability, perpetual succession, and contractual capacity, while remaining member-centric.

Membership is restricted to primary producers, ensuring farmer control and preventing external commercial dominance. A minimum of ten individual producers or two producer institutions can form an FPC, which makes it easy for small farmer groups to join.

Governance follows a democratic corporate structure, with an elected Board of Directors providing strategic oversight and a CEO handling operations. The principle of one member–one vote ensures fairness, but the Articles of Association provide some flexibility in voting rights.

Legally mandated audits, disclosures, and annual meetings promote transparency and accountability, improving access to institutional finance and market linkages. However, effective functioning depends on strong governance, professional capacity, and sustained member participation. When supported by an enabling ecosystem, the FPC framework empowers farmers to operate as entrepreneurs and strengthens their integration into modern agricultural value chains.

1.12 Ease of Doing Business: What Helps and What Still Hurts (North-East Context)

The Producer Company framework has improved the ease of doing business for farmer collectives, including in the Northeast, by providing a clear legal identity under the Companies Act. This enables FPCs to access banking services, enter contracts, and participate in formal procurement systems, reducing transaction costs compared to informal groups.

Government initiatives, notably the 10,000 FPO Program, have strengthened this ecosystem through equity grants, collateral-free credit guarantees, and institutional support from SFAC, NABARD, and NCDC. Cluster-based business organisations (CBBOs) provide critical handholding in governance, capacity building, and business planning—particularly valuable in the Northeast, where infrastructure and skill gaps are pronounced.

However, challenges persist. Poor connectivity, high logistics costs, limited storage infrastructure, and seasonal production constrain market access. Compliance with corporate requirements and scheme eligibility norms remains difficult due to limited professional support in remote areas. Smaller and newer FPCs often fail to meet thresholds for membership, equity, or governance, restricting access to full benefits.

1.12.1 Entry: Formation Process

FPC formation follows a structured process: farmer mobilisation, the drafting of the Articles of Association, and incorporation through the MCA portal. Registration typically takes 2–4 weeks. Post-incorporation steps include opening a bank account, depositing member equity, and applying for scheme benefits via SFAC or NABARD. Initial salary support for a CEO and accountant is often provided to ensure compliance and professional management.

In the Northeast, common challenges include limited awareness of governance obligations, weak documentation, and non-compliance with scheme eligibility conditions, leading to delays or disqualification.

1.12.2 Exit: Winding-Up and Deregistration

FPCs may exit through voluntary winding up (for solvent entities), compulsory winding up via the NCLT (in cases of insolvency or public interest), or strike-off by the RoC for dormant entities. However, strike-off is not suitable for FPCs with outstanding loans or grants.

Before closure, all scheme obligations and liabilities must be settled, as agencies like SFAC or NABARD may recover dues post-deregistration. Transparent records and experienced liquidators are essential to ensure a compliant and orderly exit, particularly in the Northeast context.

1.12.3 Insolvency and Recovery: Application of IBC to FPCs

Farmer Producer Companies (FPCs), as registered corporate entities, fall under the Insolvency and Bankruptcy Code (IBC), 2016, and may be treated as corporate debtors in case of default. Creditors or the FPC itself can initiate insolvency proceedings, which then lead to the Corporate Insolvency Resolution Process (CIRP) under the NCLT's supervision. Defaults typically arise from bank loans or supplier dues, including those covered under Credit Guarantee Funds, where agencies like SFAC or NABARD may later pursue recovery. The cooperative nature of

FPCs complicates resolution, as members may simultaneously be shareholders and creditors. If restructuring fails, liquidation follows as per statutory priorities.

1.12.4 Special Considerations for North-East FPCs

FPCs in the Northeast face added complexity due to their heavy reliance on grant-based funding. In cases of insolvency or closure, funding agencies may seek to recover unutilised or misused grants, along with formal liquidation. Limited financial literacy, governance gaps, and risk-averse lending further increase vulnerability. As a result, sound financial planning, compliance, and transparent records are critical for sustaining credibility and access to finance in the region.

1.12.5 IBC and Lessons from MSMEs

The IBC has significantly improved insolvency resolution for MSMEs through time-bound processes, higher recovery rates, and restructuring-focused mechanisms. Reforms such as Section 240A exemptions and the Pre-Packaged Insolvency Resolution Process (PPIRP) allow MSMEs to retain management control while negotiating with creditors. Given the structural similarities between MSMEs and FPCs—such as limited capital and high market risk—these mechanisms provide important lessons for the agricultural sector.

1.12.6. Expanding the IBC Framework for FPCs: A Critical View

Although FPCs face MSME-like financial stress, there is **no tailored insolvency framework** for them. Extending the IBC to FPCs with suitable customisation could provide a structured resolution while preserving their social and cooperative character. Key proposals include:

1. Distinct legal recognition of FPCs under IBC with procedural flexibility
2. Pre-packaged resolution mechanisms for early, low-cost restructuring
3. Active role of NABARD, SFAC, and guarantors as development stakeholders
4. Capacity building in financial governance and insolvency preparedness
5. Lower thresholds and simplified procedures suitable for small producer entities
6. Integration of ESG and value-chain financing to support sustainable agriculture

1.13 Critical Evaluation and Way Forward

Introducing an IBC-based framework for FPCs would strengthen financial discipline, transparency, and business resilience in the agricultural sector. However, a graded and cautious approach is essential to avoid overburdening smaller FPCs. Drawing from MSME experience, a well-adapted insolvency mechanism can function as a tool for revival rather than liquidation, safeguarding farmer livelihoods while enhancing institutional trust. Extending the IBC to FPCs thus represents a strategic opportunity to align agrarian enterprises with modern financial governance while preserving their inclusive development mandate.

2. Objectives of the Study

1. To analyse the financial solvency and bankruptcy of farmer-producer companies for the period 2016–17 to 2023–24.

2. To determine the issues and challenges encountered by Farmer Producer Companies in the Northeast Region.

3. Review of Literature

Recent research underscores the increasing significance of farmer-producer companies (FPCs/FPOs) in enhancing farmers' economic outcomes, while simultaneously exposing enduring structural and financial challenges.

Studies from diverse regions show that diversification, scale, and professional management are critical for FPC performance. Roy et al. (2023), Prabhavathi et al. (2022), and Chauhan et al. (2019) found that although many FPCs improved asset bases and liquidity, profitability remained uneven due to high costs, logistics constraints, and shocks such as COVID-19. Similarly, Dhineshwari et al. (2021) reported that several FPCs were financially distressed, emphasising the need for external financing and long-term capital investments.

Entrepreneurial orientation and capital strength strongly influence outcomes. Kumar et al. (2021, 2023) and Anand et al. (2023) demonstrated that FPCs engaged in multiple business activities achieved higher turnover and profits, with paid-up capital emerging as a key determinant of performance. Neti et al. (2019) further observed that while FPCs improve market access and pricing for small farmers, many suffer from low capital bases and high rates of deregistration.

Numerous studies delineate operational and institutional constraints. Mukherjee et al. (2022) and Das and Mandal (2021) highlighted challenges related to finance, infrastructure, skilled manpower, storage, and marketing. Amitha et al. (2021) emphasised leadership and governance, while Soniya (2021) noted that many FPOs perform only at average levels due to weak financial indicators.

From a regional perspective, research on the Northeast underscores' unique vulnerabilities. Kakali and Roy (2019) and Kakalti and Roy (2017) found that farmers' weak ownership perception, isolation, and poor infrastructure limit FPC effectiveness. Gurung and Choubey (2021, 2023) stressed that inadequate focus on solvency, marketing, and productivity constrains FPC sustainability in hilly and organic-farming regions.

Innovation and collaboration also matter. Krishnan et al. (2021) showed that collaboration within FPO supply chains enhances innovation and sustainability, while Singh (2023) advocated for robust business planning and integration with high-value markets such as organic and fair trade.

Overall, the literature suggests that while FPCs have strong potential to enhance income, market access, and rural livelihoods, their success depends on capital adequacy, diversification, professional governance, financial literacy, and supportive institutional frameworks, especially in structurally disadvantaged regions.

4. Research Questions

Q1. What is the overall financial performance of farmer-producer companies in the study area, as determined by their insolvency and bankruptcy from 2016 to 2023?

Q2. What are the main issues and challenges encountered by the farmer-producer company in northeast India?

5. Statement of the Problem

This study will provide empirical evidence for the various stakeholders in their policymaking process. There is a growing interest in managerial skills within management, and access to information enhances the reliability of decisions. Despite the government's focus on establishing 10,000 FPOs by 2025, the existing companies have challenges of existence in the market, which is also a reason few companies uploaded their financial statements to the Ministry of Corporate Affairs. The acute shortage of research, especially policymaking for

FPC, is implicated in their financial health and tendency to go bankrupt. Few studies, particularly in the Northeast Region (Kakali & Roy, 2017, 2019 & Gurung and Choubey, 2021), have focused on farmer-producer companies. The grass-roots level of all the state's actual issues and challenges with the companies was ignored. Therefore, the proposed study has the potential to introduce innovative aspects, as it will be based on firsthand knowledge of the ground realities involving farmer producer companies in all the Northeastern Regions and West Bengal. Research work will enhance the adequate empirical evidence for future references.

6. Identification of Research Gaps

Studies conducted in Tamil Nadu, Madhya Pradesh, Uttar Pradesh, Punjab, and West Bengal on FPC highlight poor financial performance in terms of solvency, efficiency, and profitability ratios. And overall, the combined performance score of all the state's FPCs was in the yellow zone. Most of the existing farmers lacked business skills, financial support from donor institutions, proper business linkage, and inventory management, which significantly influenced the financial performance of FPCs. Therefore, mapping the strategic ideas and framework to formulate the policies related to farmer producer companies at this stage is essential. The farmer-producer companies fail to create avenues to generate funds. The farmers are generally working in isolation and in unorganised ways. The limited physical infrastructure hinders the ability of farmers' collectives to connect with modern markets. The lack of sentimentality, awareness, and unfavourable attitudes among farmers are major reasons why the FPC model has not advanced in India, particularly in the northeastern region.

7. Hypotheses of the Study

H01: Significant financial efficiency and effectiveness are absent among all the selected farmer producer companies.

H02: There are no significant issues and challenges encountered by the farmer producer.

Companies in Northeast India.

8. Framework and Methods for Research

8.1 Type of Research

The study was based on both exploratory and descriptive nature.

8.2. Data

The data on FPO supported by the National Bank for Rural Development (NABARD) and the Small Farmers Producer Organisation (SFAC) under various programmes are considered. To maintain a database of their name, location, commodities, and business activity, their websites were considered. The study is largely based on secondary data; companies' annual audited financial statements filed with the Ministry of Corporate Affairs were the main source of data. Primary data was collected through a structured questionnaire mainly focused on Northeast Region FPOs.

8.3. Sampling

The study aimed to achieve its objectives by examining eight from the Northeast Region. The study used the purposive sampling method to select the sample area in the eastern region. According to the NABARD and SFAC registration records, the study initially considered 61 FPCs from the northeast region and considered only those FPCs who had submitted reports to the Ministry of Corporate Affairs (MCA) for more than two years. However, after deriving data from the Ministry of Corporate Affairs portal, we found that only 28 FPCs from the Northeast region had filled out their financial statements; 14 FPCs only had a Certificate of Incorporation recorded on the MCA-21 Portal; and the remaining 19 FPCs from the region had not filled out their financial statements at all. Therefore, we limited the study to 28 FPCs from the Northeast Region. The main sources of data are audited financial statements, filed with Form No. AOC-4 using XBRL on the Ministry of Corporate Affairs website for 2016–17 to 2022–23.

1.1. Determination of Sample Size for Objective I

Sample area (Region)	State-Wise	Selected FPC	Total FPC
North Eastern	Arunachal Pradesh	3	28
	Assam	8	
	Manipur	3	
	Meghalaya	4	
	Mizoram	5	
	Nagaland	2	
	Sikkim	0	
	Tripura	3	
Total			28

Source: Compiled by the researcher

The study implemented a different design to meet objective No. 3, collecting 183 (61 x 3) structural questionnaires through face-to-face interviews, mail, or telephonic conversations

with the CEO or board of directors of each company, as well as members or employees in the north-eastern region. Despite only 28 companies uploading financial statements to the Ministry of Corporate Affairs Portal, the study determined the sample size based on the operational existence of the FPCs in the region, which is also why it included all 61 FPCs in the northeastern region.

1.2. Determination of Sample Size for Objective II

Sample area Region	State	Selected FPC	Total FPC	Respondents (CEO/Director + 2 employees)	Total Respondents
North Eastern	Arunachal Pradesh	8	61	8 x 3 =24	183
	Assam	15		15 x 3 = 45	
	Manipur	5		5 x 3 = 15	
	Meghalaya	10		10 x 3 = 30	
	Mizoram	5		5 x 3 = 15	
	Nagaland	9		9 x 3 = 27	
	Sikkim	4		4 x 3 = 12	
	Tripura	5		5 x 3 = 15	

Source: Compiled by the researcher

8.6. Statistical tools

The financial statements from 2016–17 to 2022–23 were analysed using the Altman Z-score model to understand the company's insolvency and bankruptcy **(Garg, 2012) and the Sustainability Growth Rate (SGR) to understand FPC's financial sustainability**. The study also adopts a performance score method to measure the performance of 48 FPCs, considering their financial ratio. The study prepared a performance scorecard inspired by the research of Kakili & Roy (2019), which categorises companies' performance into three levels: a score lower than 1.23 indicates that the company is in financial distress with a high probability of bankruptcy. A score ranging from 1.23 to 2.90 signifies the company's position in the intermediate zone, indicating a moderate risk of bankruptcy. On the other hand, a score of 2.9 and above means that the company is in a safe zone and is unlikely to file for bankruptcy.

9. ANALYSIS AND INTERPRETATION BASED ON OBJECTIVE I

"To Analyse the Financial Solvency and Bankruptcy of Farmer Producer Companies for the Period of 2016-17 to 2023-24."

An attempt was made to evaluate the companies' solvency and bankruptcy using the Z Altman Score. Five linear combinations of business ratios make up Altman's Z-score model (1968), which employs Multiple Discriminate Analyses (MDA) to gauge a firm's business performance. Altman's Z-score model (1968) equation considers five financial variables: liquidity, profitability, leverage, solvency, and sales activity.

Altman's formula,

Z=0.0012X1+0.014X2+0.033X3+0.006X4+0.999X5

Z = Cumulative values.

Altman's formula classified the firms into three categories based on their sustainability. It extended the Z-score technique to other industrial sectors, including private manufacturing companies. As a result, Altman updated the original Z-score formula in X4 to replace equity book value with market value in order to match different parameters. This revision leads to changes in the classification standards and Z-score results. Finally, the updated Altman Z-score formula takes the following form:

Z=0.717 ***X1+0.84*** **X2+3.107*X3+0.42** ***X4+0.99*****X5**

$$X1 = \frac{\text{Current Assets} - \text{Current Liabilities}}{\text{Total Assets}} \qquad X2 = \frac{\text{Retained Earning}}{\text{Total Assets}}$$

$$X3 = \frac{\text{Earning Before Interest and Taxes}}{\text{Total Assests}} \qquad X5 = \frac{\text{Sales}}{\text{Total Assets}}$$

$$X4 = \frac{Total\ Assets\ -\ Total\ Liabilities}{Total\ Assets}$$

This model measures the financial health of the business. A private company oversees farmer producer companies, and their shares do not trade freely in the open market. Therefore, this study employs the Altman Z-Score (1983) rather than the Altman Z-Score (1968) to assess the financial health of the farmer-producer companies.

Table 1.3. The Details of Farmer Producer Companies Using Altman's Z-Score Model

FPCs	ALTMAN Z-SCORE = $Z= 0.717 *X_1+0.84 *X_2+3.107*X_3+0.42 *X_4+0.99*X_5$							Remarks based on Balance Score Sheet
	2016	2017	2018	2019	2022	2023	2024	
AMAIPARA	-	-	-	-	0.91	0.77	0.79	RZ
AMPRI ORANGE	0.43	1.38	0.33	0.42	0.21	0.08	0.05	RZ
BAGMA	-	-	-	0.83	5.14	5.91	4.65	GZ
BRAHMAPUTRA	-	1.64	0.96	0.57	0.26	0.16	-	RZ
DIYARA MILK	-	-	-	5.64	4.35	7.88	4.08	GZ
DJHAMALI	-	-	-	4.71	3.41	3.50	0.57	GZ
FIDAM	1.02	1.63	1.85	1.28	1.06	-	-	GRZ
HOUBEE CHING	1.01	1.63	1.17	1.84	-	-	-	GRZ
GREATER KALAIN	-	-	0	10.35	-	-	-	RZ
IRAMDAM LTD	1.31	1.42	-	-	-	-	-	GRZ
JUNAK ARGO	0.03	0.39	0.09	-	-	-	-	RZ
KISHALAY	-	-	-	-	4.55		-	GZ
KRISHISANYOGA	-	-	-	-	-	2.85	-	GZ
LANGEI PROD	0.40	0.14	0.20	0.16	-			RZ
MERAPANI ARGO	0.06	1.46	0.76	-	-	-	0.31	RZ
MOHASHAKTI	-	-	-	0.98	0.99	2.54		RZ
NARJUL	-	0.01	1.68	4.13	2.20	2.49	3.23	GZ
PATKAI	-	-	1.04	0.27	1.79			GRZ
TANTISAL	-	-	-		2.06	6.74		GZ
TARASANKAR	-	0.04	4.84	5.58	5.14	5.89	3.89	GZ
UDBOB	-	-	-	5.66	6.13	4.96	-	GZ
AREINU	-	-	-	0.73	2.07	-	-	GRZ
IREIMA	-	3.78	7.50	3.74	4.59	3.73	-	GZ
KANGLEPAK	0.04	0.03	0.23	0.05	0.99	1.88	2.89	RZ
SHEPOUMARAMTH	-	-	-	1.02	1.43	-	-	RZ
THINGTANGPA	-	-	-	1.35		-	-	GRZ
TAMELONG	-	-	-	-	1.14	0.76	-	RZ
ZO THLAI THAR PC LTD.	-	-	-	-	0.67	0.28	0.23	RZ

Source: Computed from MCA Data Base

RZ – Red Zone, ***GRZ – Grey Zone****, and* ***GZ – Green Zone***

Table 1.3 determining whether a farmer producer company, notably in the product producing space, is headed for bankruptcy. To understand the company solvency and bankruptcy, a stepwise analysis of the Altman Z-score was run, taking into account company profitability, leverage, liquidity, solvency, and activity ratios. The various financial ratios have been calculated and substituted into the Altman Z-score formula (1983), yielding a score for predicting each company's insolvency. Revised Altman's Z-scores of sample companies were further grouped into three categories as described above. The details of FPC that come under different categories of Altman's Z-score are presented in the above table.

If Altman's Z-score value is lower than 1.23, it means that the company is in financial distress and has a high probability of going bankrupt. On the other hand, a score of 2.9 and above means that the company is in a safe zone and is unlikely to file for bankruptcy. A score of 1.23 to 2.90 indicates that the company is in the grey region and has a moderate risk of bankruptcy.

Critical Analysis of the FPCs' Z-Score Results

(A) Red Zone – Financial Distress and Structural Weakness

FPCs such as *AMIPARA, AMPRI ORANGE, BRAHMAPUTRA, LANGEI PROD, MERAPANI AGRO, JUNAK AGRO, KANGLEPAK, TAMELONG, and ZO THLAI THAR fall into the red zone with Z-scores below 1.8, signalling* a high likelihood of insolvency.

These FPCs exhibit systemic weaknesses across all five financial indicators. Liquidity constraints (low X_1) are evident due to poor working capital management—caused by slow receivables turnover, unsold inventory, and irregular member contributions. Retained earnings (X_2) remain negligible, as profits are either reinvested minimally or used to cover immediate operational expenses. The low EBIT-to-asset ratio (X_3) exposes inefficiencies in operations and limited value-addition capacity. Furthermore, high leverage (low X_4) shows over-reliance on short-term loans from cooperatives or NBFCs, without corresponding growth in asset productivity. Weak sales turnover (low X_5) reflects narrow market linkages and the absence of competitive marketing channels.

Practical Implications: Red Zone FPCs face imminent financial fragility, often struggling to pay creditors, procure inputs, or maintain cash flow stability. These entities are at risk of operational shutdown, reputational loss, and exclusion from formal finance networks. Without intervention, they may become non-viable in the medium term.

Strategic Interventions

1. Short-term: Implement strict working capital controls—reduce inventory buildup, accelerate receivables, and prioritise cash budgeting.
2. Medium-term: Diversify income sources through small-scale processing units, collective marketing, or service-based activities (e.g., agri-input distribution).
3. Long-term: Seek financial restructuring under NABARD's Producer Organization Development Fund (PODF) or SFAC's equity grant scheme. Invest in professional management to enhance accounting and financial planning systems.

(B) Grey Zone – Transitional Stage with Volatile Stability

FPCs such as *FIDAM, HOUBEE CHING, IRAMDAM LTD, PATKAI, AREINU,* and *THINGTANGPA* fall within the Grey Zone, with Z-scores between 1.8 and 2.99. These firms show intermittent profitability and liquidity, often balancing between financial survival and potential growth.

The key challenge for Grey Zone FPCs is instability rather than insolvency. While they manage to remain operational, their financial indicators fluctuate due to seasonal variations, input cost volatility, and managerial turnover. Their moderate EBIT margins (X_3) suggest some operational efficiency, but inconsistent cash flows limit reinvestment in growth. Moreover, their debt-to-equity ratios (X_4) are tolerable yet sensitive to external market shocks.

A notable strength is that these FPCs generally maintain basic governance systems and community-level trust, giving them a social capital advantage over distressed entities. However, the lack of structured financial control, poor forecasting, and overdependence on grants or subsidies undermine their financial independence.

Practical Implications: Depending on their managerial and market adaptability, Grey Zone FPCs can either progress towards financial stability or regress into distress. Institutional lenders view them as *cautious borrowers*, often requiring collateral or partial guarantees.

Strategic Interventions:

1. Stabilisation Measures: Adopt budget-based planning and establish reserve funds to manage off-season liquidity shortages.
2. Risk Management: Utilise crop insurance, forward contracts, or commodity hedging to mitigate agricultural price fluctuations.
3. Operational Strengthening: Introduce internal audits, ratio-based financial analyses, and capacity-building programmes to strengthen decision-making.
4. Diversification: Encourage vertical integration into agro-processing or branding to increase asset turnover and profitability (X_5).

(C) Green Zone: financially stable and growth-orientated

High-performing FPCs such as *BAGMA, DIYARA MILK, DJHAMALI, NARJUL, TANTISAL, TARASANKAR, UDBOB, IREIMA, KISHALAY,* and *KRISHISANYOGA* are positioned in the

Green Zone with Z-scores exceeding 2.99. These organisations demonstrate resilience, profitability, and scalability.

Green Zone FPCs exhibits strong working capital positions (high X_1) and sustained profitability (X_2, X_3), signifying efficient cost management and consistent cash flow. Their balanced leverage ratios (X_4) reflect prudent borrowing, often using credit as growth capital rather than survival finance. Additionally, high sales-to-asset ratios (X_5) indicate effective resource utilisation and strong market access—often supported by branding, cooperative marketing, or tie-ups with agritech platforms.

These FPCs typically benefit from professionalised management, digital recordkeeping, and diversified revenue models, such as processing, logistics, or input retailing. Their operational structure supports both the well-being of members and the growth of the business, which is in line with the principles of sustainable cooperatives.

Practical Implications: Green Zone FPCs serve as role models within their clusters, attracting investor confidence, institutional credit, and government collaboration. They are often eligible for equity matching grants, export promotion schemes, and impact investments. However, complacency and lack of continuous innovation can pose latent risks.

Strategic Interventions:

1. Reinvest surplus profits in technology upgrades, value chain integration, and marketing expansion.
2. Strengthen transparency and member participation through digital platforms.
3. Collaborate with distressed FPCs to provide peer learning and capacity building, creating ecosystem resilience.
4. Explore partnerships with agri-startups, fintech platforms, and e-commerce aggregators to scale operations and reduce transaction costs.

9.2. Sustainable Growth Rate

A sustainable growth rate was evaluated for farmer-producer companies in the eastern region, which includes all northeastern states. An attempt was made to understand the growth rate, the requirement of additional financial assistance, and the backing of investors and other lending companies in order to expand the business. The formula is as follows:

$$SGR = \frac{\text{Retention rate} * \frac{\text{Net Profit}}{\text{Sales}} * \left(1 + \frac{\text{Debt}}{\text{Eguity}}\right)}{\frac{\text{Total Assets}}{\text{Sales}} - \text{Retu on Equity (r)} * \frac{\text{Net Profit}}{\text{Sales}} * \left(1 + \frac{\text{Debt}}{\text{Eguity}}\right)}$$

SGR = Sustainable Growth Rate

Table 1.4. The Details of the Sustainable Growth Rate of Farmer Producer Companies of Eastern India

Name of the Company	SUSTAINABILITY GROWTH RATE = $\frac{Retention\ rate * \frac{Net\ Profit}{Sales} * (1 + \frac{Debt}{Equity})}{\frac{Total\ Assets}{Sales} - Return\ on\ Equity\ (r) * \frac{Net\ Profit}{Sales} * (1 + \frac{Debt}{Equity})}$							Remarks based on Balance Score Sheet
	2016	2017	2018	2019	2022	2023	2024	
AMAIPARA	-	-	-	-	-6.34	-	-	NG
AMPRI ORANGE	-	-0.10	-	-1.03	-1.20	-	-	NG
BAGMA	0.00	0.02	-0.30	-0.37	-0.20	-0.06	-0.04	NG
BRAHMAPUTRA	-	-	-	-0.82	-1.00	-1.35	-	NG
DIYARA MILK	-	0	0	-0.42	-0.35	-	-	NG
DJHAMALI	-	-	-	-5.15	-4.13	-7.31	-3.87	NG
FIDAM	-	-	-	0.98	-1.68	-1.34	-1.17	NG
HOUBEE CHING	-	0.27	-2.51	0.00	-1.56	-1.74	-0.74	NG
GREATER KALAIN	0	-1.29	-1.24	-1.80	0	0	0	NG
IRAMDAM LTD	0.12	0.09		-	-	-	-	PG
JUNAK ARGO	0.00	0.24	0.00	-	-	-	-	PG
KISHALAY	-	-	-	-	0.00	-	-	NG
KRISHISANYOGA	-	-	-	-	-	2.38	-	PG
LANGEI PROD	-0.17	-0.17	-0.24	-0.19	-	-	-	NG
MERAPANI ARGO	0.00	0.09	0.00	0.00	0.00	0.02	0.02	PG
MOHASHAKTI	-			0.13	-1.37	-4.33		NG
NARJUL	-	0.00	0.00	-4.51	-2.03	-2.48	-3.09	NG
PATKAI	-		0.00	0.00	0.00			PG
TANTISAL	-	-	-	-	-2.13	-6.49	-	NG
TARASANKAR	-	-	-	-9.34	-4.94	-5.76	-3.99	NG
UDBOB	-	-	-	-11.43	-6.92	-4.60	-	NG
AREINU	-	-	-	-0.62	-1.53	-	-	NG
IREIMA	-	0.00	-5.98	-3.36	-4.15	-3.65		NG
KANGLEPAK	0.00	0.00	0.00	0.00	0.00	-1.82	0.00	NG
SHEPOUMARAMTH	-	-		-0.63	-1.09	-	-	NG
THINGTANGPA	-	-	0.00	-	-	-	-	NG
TAMELONG	-	-	-	-	1.96	0.34	-	NG
ZO THLAI THAR PC LTD.	-	-	-	-	0.32	0.28	-	NG

Source: Computed from Financial Statement available on MCA-21

NG - Negative Growth ***PG - Positive Growth***

Table 1.4 assess of the Sustainability Growth Rate (SGR) among the selected Farmer Producer Companies (FPCs) reveals distinct differences in financial health, profitability, and operational stability across entities. IRAMDAM FPC records a small but positive SGR of about 0.5–1.0%, indicating limited internal growth supported by moderate profitability and low leverage, while JUNAK AGRO and PATKAI FPC also show marginally positive SGRs (below 1%), sufficient only for operational continuity. KRISHISANYOGA FPC performs comparatively better with a positive SGR of 2.38%, driven by balanced leverage and better market access, whereas MERAPANI AGRO maintains very low yet consistent positive SGR values (0.02–0.09%), reflecting financial discipline but weak expansion capacity. In contrast, AMAIPARA and BRAHMAPUTRA FPC exhibit negative SGRs (around –1% to –3%) due to weak liquidity, declining revenues, and inefficient asset use. Severe financial distress is evident in TARASANKAR and DJHAMALI, with highly negative SGRs between –5% and –9%, and most critically in UDBOB, which records an extreme –11.43%, signalling unsustainable operations. HOUBEE CHING shows fluctuating SGR around zero, while LANGEI PROD, NARJUL, and AREINU remain in the negative range (-1% to -3%). DIYARA MILK, GREATER KALAIN, and KANGLEPAK exhibit near-zero to marginally negative SGRs (-0.5% to 0%), indicating stagnation, and FIDAM and MOHASHAKTI display volatile SGRs (±1%) due to inconsistent revenues and debt pressures. Overall, while KRISHISANYOGA and IRAMDAM demonstrate relatively sustainable internal growth, the majority of FPCs show negative or near-zero SGR, indicating weak profitability, high leverage, inefficient asset utilisation, and poor reinvestment discipline, thereby calling for targeted, company-specific financial and governance interventions.

Table: 1. 5. Factors Influencing Operational Efficiency of FPCs – Level of Challenges, Reasons, and Way Forward in North East India

Factor	R Value - Effect on FPCs	Level of Challenge	Key Reasons	Recommendations
Establishment Challenges	−0.256 → 40 FPCs' Challenges	Moderate (Negative Impact)	Procedural complexity, documentation burden, certification delays, and policy compliance issues reduce organizational flexibility and slow early-stage efficiency. The negative coefficient indicates that unresolved establishment issues aggravate overall challenges.	Simplify registration and certification procedures; provide handholding support during incorporation.
Marketing and Production Challenges	0.350 → 46 FPCs' Challenges	High	Weak market linkages, inadequate branding, limited digital presence, and production inefficiencies significantly increase overall FPC challenges.	Develop market intelligence systems; promote collective branding and digital marketing platforms.
Product Demand and Supply Challenges	0.391 → 42 FPCs' Challenges	High	Poor warehousing, seasonal demand fluctuations, inadequate storage and logistics infrastructure disrupt supply consistency and revenue stability.	Invest in warehousing, cold storage, and aggregation infrastructure.
Human Resources Challenges	0.535 → 46 FPCs' Challenges (Strongest)	Very High / Critical	Lack of skilled manpower, weak leadership, low motivation, absence of retention and performance appraisal systems significantly intensify operational challenges.	Capacity building for CEOs, board members, and staff; introduce performance-based incentives.
Overall FPCs' Challenges	0.432- 46 FPCs	Substantial Influence	The combined effect of establishment, marketing, demand–supply, HR, and financial factors explain 43.2% of the variance in overall challenges, indicating strong structural impact.	Adopt an integrated, multi-dimensional intervention strategy rather than isolated solutions.

Table 1.5 reveals that the challenges faced by Farmer Producer Companies (FPCs) are structural, interconnected, and cumulative, with varying degrees of influence across establishment, marketing, demand–supply, and human resource dimensions. Together, these factors explain 43.2% of the total variation in overall FPC challenges, indicating that operational inefficiencies are not incidental but rooted in systemic constraints.

Human resource challenges emerge as the most critical determinant ($\beta = 0.535$), exerting the strongest influence on overall FPC performance. The acute shortage of skilled professionals—particularly competent CEOs, accountants, marketing personnel, and supply chain managers—severely undermines operational efficiency. Weak leadership, limited managerial vision, and the absence of structured performance appraisal and incentive systems result in low staff motivation and high turnover. Since FPCs operate as member-owned enterprises, insufficient human capital directly affects decision-making quality, financial discipline, and strategic planning, making HR constraints the single most destabilising factor.

Marketing and production challenges also exert a high impact ($\beta = 0.350$). Weak market linkages, limited branding, the absence of digital marketing platforms, and production inefficiencies significantly restrict FPCs' ability to realise remuneration prices. Many FPCs continue to depend on local traders or informal markets, which reduces bargaining power and exposes them to price volatility. Production inefficiencies—arising from inconsistent quality, fragmented supply, and a lack of standardisation—further weaken the market's competitiveness, reinforcing revenue instability.

Product demand and supply challenges represent another high-level constraint ($\beta = 0.391$). Seasonal demand fluctuations, inadequate warehousing, lack of cold storage, and poor logistics infrastructure disrupt supply consistency and cash flows. Without storage and aggregation facilities, FPCs are forced into distress sales during peak harvest periods, undermining income stability. These supply-side limitations also restrict FPCs' ability to enter forward contracts, institutional procurement, or export markets that require volume consistency and quality assurance.

Establishment-related challenges show a moderate but negative effect ($\beta = -0.256$), indicating that procedural and compliance burdens during formation indirectly intensify overall difficulties. Complex registration procedures, extensive documentation requirements, certification delays, and frequent policy compliance obligations all reduce organisational flexibility, especially in the early stages. When these issues remain unresolved, they slow

operational take-off, delay access to finance and markets, and exacerbate subsequent marketing and financial challenges.

The collective findings indicate that addressing FPC challenges in isolation is not feasible. If the capacity of human resources and governance systems stays weak, changes in marketing or finance will have little effect. Similarly, simplifying establishment procedures without strengthening market access and supply chain infrastructure will not ensure sustainability. The findings strongly support an integrated intervention strategy that includes building HR capacity, developing markets, investing in infrastructure, and making procedures easier. Coordinated efforts from NABARD, SFAC, state governments, and institutions that promote these goals should support this strategy. Such a holistic approach is essential for transforming FPCs from structurally constrained collectives into financially resilient and professionally managed agribusiness enterprises.

Table 1.6. Relative Reflective Index Related to Establishment of Company

Challenges	RII	RANK
I. *Establishment of the Company:*		
Documentation	0.6912	4
Process	0.7684	2
Govt. Policies	0.7245	3
Certifications	0.8017	1

Source: Author Computation

Table 1.6 shows the Relative Importance Index (RII) and ranks various challenges in establishing a company. According to the analysis, certifications ranked first with an RII value of 0.8017, indicating that obtaining certificates is one of the most critical and primary challenges among farmer producer companies in the region. The process of establishing a company is ranked second with an RII of 0.7684, highlighting the need for efficient procedures. Government policies, ranked third with an RII of 0.7245, represent another substantial concern, emphasising the introduction of farmer-produced, company-friendly policies. Finally, documentation, ranked fourth with an RII of 0.6912, is considered the least challenging but still an important factor to address.

Table 1.7. Reflective Relative Index Related to Marketing of Product

Challenges	RII	RANK
II. *Marketing products*		
Digital Transformation	0.7684	5
Changing Consumer Behaviour	0.8017	2
High Competition	0.8017	3

Targeting the Right Audience	0.7350	7
Choosing Right Marketing Channels	0.7350	8
Changing Audience Trends	0.7596	6
Product Promotion	0.7929	4
Decrease in Purchasing Power	0.8087	1

Source: Author computation

Table 1.7 displays the Relative Importance Index (RII) and ranks the challenges in marketing products. The most critical challenge, with the highest rank and RII of 0.808772, is the decrease in purchasing power, which significantly impacts marketing efforts. Changing consumer behaviour, ranked second, and high competition, ranked third, have an RII value of 0.8017, suggesting a more profound understanding of consumer preferences and the presence of high competition in the market. Product promotion ranked fourth with an RII of 0.7929, suggesting marketing strategies. Digital transformation, ranked fifth with an RII of 0.7684, indicates the need for digital innovation integration. Changing audience trends, ranked sixth with an RII of 0.7596, highlight the current shift in consumer interests. Targeting the right audience ranked seventh, and choosing the right marketing channels ranked eighth, with an RII of 0.7350, indicating the effectiveness of audience targeting strategies.

Table 1.8. Reflective Relative Index Related to Financial

Challenges	RII	RANK
III. *Financial*		
Cash Flow Management	0.7421	5
Debt Management	0.7438	3
Cost Control	0.7438	4
Regulatory Compliance	0.6333	12
Investment Decisions	0.6491	11
Access to Capital	0.6824	9
Budget Constraints	0.7929	1
Working Capital	0.7771	2
Digital Payment	0.5859	13
Profit	0.7368	7
Financial Institution	0.6824	10
Govt. Subsidies	0.7105	8
Corporate Social Responsibility	0.7403	6

Source: Author Computation

Table 1.8 shows the Relative Importance Index (RII) and rankings related to the financial challenges faced by companies. Budget constraints dominate the list, ranking first with an RII of 0.7929, making them the most significant financial challenge. Working capital ranked second, with an RII of 0.7771, emphasising the need for funds to manage daily operations.

Debt management ranked third, and cost control ranked fourth with an RII of 0.7438, indicating their crucial roles in financial stability. Cash flow management, ranked fifth with an RII of 0.7421, highlights the importance of maintaining a steady inflow and outflow of funds. Corporate social responsibility (CSR), which came in sixth with an RII of 0.7403, shows how important it is to contribute back to the community. Profitability, which came in seventh with an RII of 0.7368, is necessary for long-term growth. Government subsidies, ranked eighth with an RII of 0.7105, underscore the equitable distribution of government support, while access to capital, ranked ninth with an RII of 0.6824, demonstrates the value of external financial support. Financial institutions, ranked tenth with an RII of 0.6824, underscore the crucial role of these institutions. Investment decisions, ranked eleven with an RII of 0.6491, and regulatory compliance, ranked twelve with an RII of 0.6333, are vital for long-term planning and legal adherence. Digital payment, ranked thirteen with the lowest RII of 0.5859, indicates the need to improve digital access.

Table 1.9. Relative Reflective Index Related to Product Demand and Supply

Challenges	RII	RANK
IV. *Product demand and supply*		
Reduce in Demand	0.6807	4
Reduce On Supply	0.6807	5
Warehousing	0.7754	1
Excess Demand	0.7245	3
Packaging	0.7403	2
Product Quality	0.6631	8
Availability	0.6649	6
Customisation	0.6649	7
Reduction in Demand	0.6807	4

Source: Author computation

Table 1.9 illustrates the Relative Importance Index (RII) and ranks the challenges associated with product demand and supply. Warehousing emerges as the most critical challenge, ranking first with an RII of 0.7754 and emphasising the importance of effective storage solutions. Packaging, ranked second with an RII of 0.7403, underscores its significant product presentation. Excess demand, with an RII of 0.724561, ranks third, highlighting the challenges of meeting high customer demand. Challenges related to reduced demand ranked fourth, and reduced supply ranked fifth with an RII of 0.6807, indicating meeting market demand with robust supply. Availability was ranked sixth, and customisation was ranked seventh, each with an RII of 0.664912. This highlights the importance of ensuring product availability and meeting

specific customer requirements. Product quality ranks eighth with an RII of 0.6631, indicating the importance of maintaining customer satisfaction and brand reputation.

Table 1.10. Relative Reflective Index Related to Human Resource

Challenges	RII	RANK
V. *Human resource*		
Decision Making	0.6473	8
Leadership	0.6473	9
Motivation	0.7140	3
Salary	0.6964	4
Training and Development	0.6771	5
Work Environment	0.6771	6
Job Satisfaction	0.6596	7
Performance Appraisal	0.7210	2
Retention Policy	0.7473	1

Source: Author Computation

Table 1.10 displays the Relative Importance Index (RII) and ranks it in relation to the challenges faced by human resources. The retention policy stands out as the most critical challenge, ranking first with the highest RII of 0.7473, indicating that maintaining employee satisfaction and retention is crucial. Performance appraisal, ranked second with an RII of 0.7210, indicates that employers must implement effective evaluation systems to ensure employee performance. Motivation ranked third, with an RII of 0.7140, emphasising the importance of maintaining high levels of employee enthusiasm. Salary ranked fourth, with an RII of 0.6964, which indicates that employers must provide competitive compensation. Training and development, ranked fifth, and the work environment, ranked sixth with an RII of 0.6771, highlight the importance of continuous skill enhancement and a supportive workplace. Job satisfaction, ranked seventh with an RII of 0.6596, is critical to guaranteeing that employees are satisfied with their roles. Decision-making ranked eighth, and leadership ranked ninth with an RII of 0.6473, highlighting the challenges related to effective management and guidance.

11. Major Findings on Objective I

11.1. Insolvency and Bankruptcy of FPCs

The Altman Z-Score analysis classifies the sampled Farmer Producer Companies (FPCs) into three categories—Red (distressed), Grey (transitional), and Green (stable)—reflecting different levels of solvency and operational sustainability. This classification highlights significant

financial disparities among FPCs in the product-producing sector, indicating the need for tailored policy and managerial interventions.

A majority of FPCs, such as AMAIPARA, AMPRI ORANGE, BRAHMAPUTRA, MERAPANI AGRO, and others, fall in the Red Zone with Z-scores below 1.1, showing liquidity shortages, low profitability, and high leverage. These financially distressed entities suffer from poor working capital management, limited market access, and dependence on short-term loans, exposing them to a high risk of insolvency.

FPCs like FIDAM, HOUBEE CHING, IRAMDAM LTD, PATKAI, AREINU, and THINGTANGPA belong to the Grey Zone, indicating moderate but unstable financial health. Their performance fluctuates with seasonal and market conditions. Though supported by social trust and basic governance, weak financial controls and reliance on subsidies limit their long-term sustainability.

In contrast, BAGMA, DIYARA MILK, DJHAMALI, NARJUL, TARASANKAR, UDBOB, IREIMA, and others in the Green Zone display strong profitability, sound liquidity, and efficient asset use. Professional management, diversified income streams, and market integration contribute to their success, establishing them as models for replication within their clusters. The financial distress of most FPCs is structural, stemming from inadequate managerial capacity and limited institutional finance. The Grey Zone companies are a key group that could either grow or shrink depending on strategic intervention. Green Zone FPCs can help weaker ones by working together.

From a policy standpoint, a differentiated support strategy is vital—restructuring for Red Zone FPCs, stabilisation for Grey Zone FPCs, and innovation-driven scale-up for Green Zone FPCs. Adding the Altman Z-Score to annual audits can help hold people accountable and improve financial governance by giving an early warning. Strengthening capacity building, management systems, and market linkages will transform FPCs from fragile rural ventures into sustainable, farmer-led agribusiness enterprises.

11.2. FPC's Sustainable Growth Rate

The analysis of the Sustainability Growth Rate (SGR) among the selected Farmer Producer Companies (FPCs) reveals a highly uneven pattern of financial performance, with only a few demonstrating positive and stable growth while the majority experience stagnation or decline. The findings highlight deep structural, operational, and financial disparities across the sector.

FPCs such as **IRAMDAM**, **JUNAK ARGO**, **KRISHISANYOGA**, **MERAPANI AGRO**, and **PATKAI** exhibit **marginally positive SGRs**, indicating limited but sustainable internal growth. Their modest success stems from prudent financial management, low debt-equity ratios, and disciplined cost control. But their growth potential is limited by small operational scales, little reinvestment, and weak market expansion. These firms require strategic diversification and reinvestment in value-added activities to strengthen long-term self-sustainability.

In contrast, several FPCs—including **AMAIPARA**, **BRAHMAPUTRA**, **TARASANKAR**, **DJHAMALI**, **UDBOB**, and **LANGEI PROD**—fall into the **negative SGR category**, reflecting significant financial distress. Their weak liquidity positions, inefficient asset utilisation, and over-reliance on debt financing have led to recurring losses and declining solvency. Among them, **TARASANKAR**, **DJHAMALI**, and especially **UDBOB** face severe insolvency risks, with SGRs ranging from −5 to −11. Such entities demand immediate financial restructuring, debt management support, and governance reforms to avoid collapse.

A few firms like **HOUBEE CHING**, **FIDAM**, and **MOHASHAKTI** demonstrate **fluctuating SGR trends**, alternating between small gains and losses due to inconsistent revenue flows and weak financial planning. Their inconsistent performance shows that they need better budgeting, market risk management, and institutional mentoring. Similarly, **DIYARA MILK**, **GREATER KALAIN**, and **KANGLEPAK** exhibit near-zero SGRs, suggesting operational stagnation driven by high costs and lack of reinvestment mechanisms.

In general, the results show a clear difference between financially disciplined FPCs that are growing steadily and those that are stuck in a cycle of decline or structural decline. The majority of FPCs suffer from **low profitability, excessive leverage, and inefficient asset management**, limiting their ability to achieve sustainable expansion. Targeted policy interventions, such as concessional finance, equity grants, and capacity-building programs, are essential to revive distressed entities and enhance the long-term viability of the FPC ecosystem.

12. A major finding based on Objective II

"To determine the issues and challenges encountered by farmer producer companies in the Northeast Region."

The study has identified five (5) significant factors that contribute to the major issues and challenges faced by farmer-producer companies in the northeast. Based on the analysis, the study's main findings are as follows:

The Relative Importance Index (RII) ranks the challenges associated with product demand and supply. It was found that warehousing emerges as the most critical challenge, ranking first with an RII of 0.7754, emphasising the importance of effective storage solutions, whereas product quality ranks lowest with an RII of 0.6631, indicating the importance of maintaining customer satisfaction and brand reputation.

12.5. Findings based on Relative Importance Index (RII)

The Relative Importance Index (RII) ranks the challenges associated with product demand and supply. It was found that warehousing emerges as the most critical challenge, ranking first with an RII of 0.7754, emphasising the importance of effective storage solutions, whereas product quality ranks lowest with an RII of 0.6631, indicating the importance of maintaining customer satisfaction and brand reputation.

12.1. Challenges Related to Human Resources

The Relative Importance Index (RII) ranks it in relation to the challenges faced by human resources; it was found that retention policy stands out as the most critical challenge, ranking first with the highest RII of 0.7473, indicating that maintaining employee satisfaction and retention is crucial. Leadership ranked last with an RII of 0.6473, which highlights the challenges associated with effective management and guidance.

13. Conclusion

A Farmer Producer Company (FPC) is a collective of farmers that aims to improve their income and livelihood by leveraging economies of scale, better market access, and enhanced bargaining power. Recovering from a financial distress zone requires a strategic and multifaceted approach. Initially, the FPC should conduct a thorough financial assessment to identify the root causes of distress. Implementing a robust financial restructuring plan, including debt management and cost reduction strategies, is essential. Additionally, improving operational efficiency by optimising resource usage and reducing waste can significantly enhance financial health. Diversifying revenue streams through market expansion and value-added products helps mitigate risks and stabilise earnings. Strengthening relationships with stakeholders such as financial institutions, government bodies, and other FPCs can provide

access to necessary support and funding. Initially, the study concentrated on assessing the financial solvency and bankruptcy of companies in a stepwise manner. The Z Altman score results indicate that 18 companies are in the red zone, experiencing financial distress and on the verge of insolvency and bankruptcy, while 15 FPCs are in the grey zone, indicating moderate risk, and only 13 FPCs maintain stable financial performance, placing them in the green zone with minimal likelihood of insolvency and bankruptcy. Next, the underlying structural concerns highlighted by the consistently negative growth rates for many of these organisations might be addressed by targeted initiatives meant to improve financial health, enhance operational efficiencies, and build a more supportive economic climate for these producer companies. According to the statistics, some companies might need to reevaluate their plans to increase their financial sustainability, while others might profit from stronger financial procedures or advantageous market circumstances to continue or accelerate their growth. Lastly, the study focused on identifying the issues and challenges encountered by the farmer-producer companies. The investigation results revealed that there are five factors, such as company incorporation procedures, marketing of products, financial aspects, product demand and supply, and human resources, that significantly influence the operations of the farmer-producer companies in the Northeastern Region.

14. Recommendations

i. To overcome insolvency and bankruptcy, a company has to gain market share, product availability, warehousing, and competitive pricing and implement tailored financial products and subsidies to support small and marginal farmers.

ii. Organised workshops, awareness programmes, and comprehensive training programmes to enhance the technical and managerial skills of FPC members and market linkages to improve productivity and profitability.

iii. Using sustainable practices can greatly improve the performance and impact of Farmer Producer Companies in Northeast India. This will lead to higher agricultural productivity, better access to markets, and higher incomes for farmers, all of which will help the region's economy grow.

15. Limitation of the study

i. Most of the companies in the Northeast region do not upload their financial statements on a regular basis to the Ministry of Corporate Affairs website, MCA-21, so the current study

deals with only a few companies. It is not possible to generalise or make the findings representative.

ii. The significant challenge for FPCs is the limited access to finance, as many struggle to secure adequate credit and investment due to stringent lending criteria and lack of collateral, and many FPCs suffer from insufficient technical and managerial skills among their members, leading to suboptimal operational and financial management. Market linkages are often weak, with FPCs lacking the necessary connections to secure profitable and stable markets for their produce.

iii. The present study includes only West Bengal and the Northeast region; the majority of the geographical regions are excluded. Therefore, the findings do not represent the whole country's FPC financial performance.

16. Scope for Future Study

1. To expand the sample size and population across regional, national, and international levels, it is necessary to conduct an investigation using innovative financial models that can enhance FPCs' access to credit. Explore the potential of microfinance, cooperative banking, and fintech solutions tailored to the needs of FPCs in Northeast India.
2. Comparative analysis of the financial performance of farmers' production companies based on domestic and overseas aspects.
3. Using advanced tools and a broader methodology to ascertain reliable and accurate outcomes and exploring the role of digital technologies, such as mobile apps and blockchain, in improving the efficiency of FPC operations.

CRITICAL ANALYSIS ON FPC FINANCIAL SOLVENCY AND BANKRUPTCY OF WEST BENGAL

2.1 Introduction

Farmer Producer Companies (FPCs) in West Bengal have evolved as crucial institutional models for strengthening small and marginal farmers through collective action, aggregation, and cooperative market linkages. These entities play a vital role in bridging the gap between farm-level production and market integration by enhancing bargaining power, ensuring fair prices, and promoting sustainable agricultural practices. Despite their important role, many FPCs in the state are facing significant financial challenges, such as insufficient working capital, low profits, and difficulties in financial management, which raises concerns about their ability to remain viable and succeed.

The financial data indicates that a considerable number of FPCs, envisioned as self-sustaining farmer-owned enterprises, struggle to maintain operational stability. Chronic liquidity issues, low returns on equity, and dependence on external grants and credit facilities have eroded their financial resilience. As a result, many FPCs are at risk of going bankrupt or becoming insolvent, which makes it harder for them to help improve rural livelihoods and develop the agricultural value chain. The problem calls for a systematic financial evaluation to identify risk patterns and propose corrective measures aligned with the national development vision of Vikshit Bharat 2047.

2.2. Objective of the Study

The primary objective of the study is to evaluate and compare the financial solvency and bankruptcy risk of selected Farmer Producer Companies in West Bengal over the period 2016–2024. The study seeks to assess the financial health, growth sustainability, and institutional viability of FPCs to inform policy and managerial interventions.

2.3. Research Methodology

The research adopts a quantitative analytical framework based on secondary financial data collected from the audited financial statements of selected FPCs. Supplementary data were obtained from XBRL Form No. 4 filings accessed through the Ministry of Corporate Affairs (MCA) database. The study emphasises longitudinal data analysis to elucidate financial trends over a nine-year period, thereby facilitating a thorough understanding of solvency performance and bankruptcy risk.

2.3.a. Data and Sampling

A purposive sampling method was used to select 20 FPCs representing various zones of West Bengal, covering diverse agro-climatic and operational contexts. The sample includes both performing and underperforming FPCs, facilitating a comparative analysis of financial solvency patterns across different organisational structures and market conditions.

2.3.b. Analytical Tools

Two well-known financial models were used to assess the selected FPCs' solvency and long-term viability: Altman Z-Score Model – applied to estimate the probability of financial distress and bankruptcy by integrating profitability, leverage, liquidity, solvency, and activity ratios. The Sustainability Growth Rate (SGR) – used to determine each FPC's capacity to expand its operations internally without relying on external financing, reflects efficiency in reinvestment and profit retention. These models together provide a robust evaluation of financial stability and growth potential.

2.4. Limitations and Scope for Future Study

The study is subject to certain limitations, including a restricted sample size (20 FPCs), partial or inconsistent financial disclosure among companies, and limited longitudinal data availability for certain years. Furthermore, variations in accounting standards and reporting formats across FPCs may influence the comparability of results. Consequently, the results, although suggestive, may not be universally applicable to all FPCs in West Bengal. The findings highlight significant disparities in financial solvency and growth sustainability among the selected FPCs. While a few demonstrate positive financial trajectories supported by prudent management and equity utilisation, many exhibit financial fragility, poor asset utilisation, and dependency on external support. The study highlights the urgent need for capacity-building programmes in financial literacy, risk management, and corporate governance to enhance institutional stability. Strengthening internal controls, improving access to financial instruments, and adopting professional management practices are critical to ensuring that FPCs become financially resilient entities capable of advancing the goals of Vikshit Bharat 2047 through inclusive and sustainable rural enterprise development.

2.5. Analysis and Interpretation Using the Z Altman Score Model of FPCs in West Bengal

An attempt was made to evaluate the Farmer Producer Companies' solvency and bankruptcy using the Z Altman Score. Five linear combinations of business ratios make up Altman's Z-score model (1968), which employs Multiple Discriminate Analyses (MDA) to gauge a firm's business performance. Altman's Z-score model (1968) equation considers five financial variables: liquidity, profitability, leverage, solvency, and sales activity.

Altman's formula,

Z=0.0012X1+0.014X2+0.033X3+0.006X4+0.999X5

Z = Cumulative values.

Altman's formula classified the firms into three categories based on their sustainability. It extended the Z-score technique to other industrial sectors, including private manufacturing companies. As a result, Altman updated the original Z-score formula in X4 to replace equity book value with market value in order to match different parameters. This revision leads to changes in the classification standards and Z-score results. Finally, the updated Altman Z-score formula takes the following form:

Z=0.717 ***X1+0.84*** **X2+3.107*X3+0.42** ***X4+0.99*****X5**

$$X1 = \frac{Current\ Assets\ -\ Current\ Liabilities}{Total\ Assets} \qquad X2 = \frac{Retained\ Earning}{Total\ Assets}$$

$$X3 = \frac{\text{Earning Before Interest and Taxes}}{\text{Total Assests}} \qquad X5 = \frac{\text{Sales}}{\text{Total Assets}}$$

$$X4 = \frac{Total\ Assets\ -\ Total\ Liabilities}{Total\ Assets}$$

This model measures the financial health of the business. A private company oversees farmer producer companies, and their shares do not trade freely in the open market. Therefore, this study employs the Altman Z-Score (1983) rather than the Altman Z-Score (1968) to assess the financial health of the farmer-producer companies.

Table 2.1. Evaluation of Farmer Producer Companies Using Altman Z' score Model

Name of the Company	ALTMAN Z-SCORE = $Z = 0.717 * X_1 + 0.84 * X_2 + 3.107 * X_3 + 0.42 * X_4 + 0.99 * X_5$							Remarks based on Balance Score Sheet
	2016	2017	2018	2019	2022	2023	2024	
INDRAMALATI CO.	0.50	0.50	0.40	0.48	0.16	-	-	RZ
AHMADAPUR	-	-	0.8	4.94	2.98	3.01	1.96	GZ
BAKSA	-	0.27	0.68	0.82	2.34	-	-	RZ
NBPO	-	-	-	4.01	2.44	1.51	1.77	GZ
AKHRIGANJ	-	-	-	-	1.16	2.92	0.52	GRZ
ALOJUGMO	-	-	-	-	5.37	-	-	GZ
AMLAREM	0.02	0.19	-	-	-	-	-	RZ
ALMIGHAT	0.026	0.109	-	1.066	0.651	-	-	RZ
BENGAL KRISHI	-	-	5.89	4.59	1.04	1.68	0.82	GZ
BHUIHARA	-	-	-	0.89	1.06	1.40	-	RZ
BURWIDWISA	-	0.13	0.28	0.40	0.60	-	-	RZ
DEUJORA	-	1.62	0.05	0.45	0.38	-	-	RZ
GORESWAR POULTARY	-	2.74	3.25	0.09	1.64	2.24	1.00	GRZ
MANAKAMANA ARGO	-	-	1.17	0.10	0.10	-	-	RZ
PURBAMALLICKPARA	-	-	-	1.99	-	-	-	GRZ
SANKAR AZAN	0.42	1.38	1.22	1.88	1.57	1.86	1.77	GRZ
SRIJANEE GRAM	-	-	-	-	5.24	-	-	GZ
SATBANI POTATO	0.05	1.54	1.85	0.48	0.21	0.01	0.01	RZ
SONAR CHALUN	-	-	-	0.01	1.44	0.00	2.81	RZ

Source: Computed from the Secondary Source

RZ- Red Zone, GRZ – Gray Zone, & GZ – Green Zone

Table 2.1 highlights the financial solvency and bankruptcy status of the selected Farmer Producer Companies (FPCs) from West Bengal, offering a clear understanding of their financial health and long-term viability. The analysis, based on the computed Sustainability Growth Rate (SGR) and complementary indicators such as leverage ratio, profitability margin, and Altman Z-score, reveals a diverse financial landscape across the FPCs.

The Altman Z-Score analysis reveals clear differences in the financial solvency of Farmer Producer Companies (FPCs) in West Bengal. **Ahmadapur FPC** shows strong financial health, recording a peak Z-score of **4.94 (2019)** and remaining solvent at 1.96 in 2022, reflecting efficient asset utilisation and sound governance. **Alojugmo FPC** demonstrates exceptional stability with a Z-score of **5.37 (2020)**, while **Srijanee Gram FPC** also exhibits strong solvency with a Z-score of **5.24 (2020)**, indicating high profitability and operational efficiency. In contrast, **Bengal Krishi FPC** declined sharply from **5.89 (2018)** to **0.82 (2022)**, and **NBPO FPC** fell from **4.01 (2019)** to **1.77 (2022)**, signalling emerging financial stress despite earlier strengths.

FPCs in the **Grey Zone** show fluctuating performance. **Akhriganj FPC** improved from **1.16 (2020)** to **2.92 (2021)** before deteriorating to **0.52 (2022)**, reflecting unstable income flows.

Goreswar Poultry FPC fluctuated between **2.74 and 3.25 (2017–2018)**, collapsed to **0.09**

(2019), and later stabilised around **1.0–2.0**, indicating high volatility. **Sankar Azan FPC** shows gradual improvement from **0.42 (2016)** to around **1.77–1.86 (2019–2022)**, suggesting slow but steady financial strengthening, while **Purbamallickpara FPC** recorded a borderline Z-score of **1.99 (2019)**, indicating early-stage potential with moderate risk.

A significant number of FPCs fall in the **risk zone,** reflecting severe financial distress. **Indramalati FPC** consistently records very low Z-scores between **0.50 and 0.16**, while **Baksa FPC** remains weak with values between **0.27 and 0.82**, despite a temporary improvement to **2.34 (2020)**. Other FPCs—**Amlarem, Almighat, Burwidwisa, Deujora, Manakamana, Satbani Potato, Sonar Chalun, and Bhuihara**—consistently report Z-scores below 1.81, indicating chronic vulnerability, weak profitability, poor asset utilisation, and high insolvency risk.

The evidence shows that only a **small group of FPCs with Z-scores above 3.0** are financially stable, while many remain in the **grey or distress zones**. This pattern demonstrates the pressing need for **targeted financial restructuring, governance strengthening, and continuous Z-score–based monitoring** to enhance the long-term sustainability of FPCs in West Bengal.

2.6. Analysis Based on Sustainable Growth Rate

A sustainable growth rate was evaluated for farmer-producer companies in the eastern region, which includes all northeastern states. An attempt was made to understand the growth rate, the requirement of additional financial assistance, and the backing of investors and other lending companies in order to expand the business. The formula is as follows:

$$SGR = \frac{\text{Retention rate} * \frac{\text{Net Profit}}{\text{Sales}} * (1 + \frac{\text{Debt}}{\text{Eguity}})}{\frac{\text{Total Assets}}{\text{Sales}} - \text{Retu on Equity (r)} * \frac{\text{Net Profit}}{\text{Sales}} * (1 + \frac{\text{Debt}}{\text{Eguity}})}$$

SGR = Sustainable Growth Rate

Table 2.2. The Sustainable Growth Rate of Farmer Producer Companies of West Bengal India

Name of the Company	SUSTAINABILITY GROWTH RATE = $\frac{Retention\ rate * \frac{Net\ Profit}{Sales} * (1 + \frac{Debt}{Equity})}{\frac{Total\ Assets}{Sales} - Return\ on\ Equity\ (r) * \frac{Net\ Profit}{Sales} * (1 + \frac{Debt}{Equity})}$							Remarks based on Balance Score Sheet
	2016	2017	2018	2019	2022	2023	2024	

INDRAMALATI CO.	-	-30.99	-38.87	45.99	-13.93	-	-	NG

AHMADAPUR	-	-30.99	-38.87	45.99	-13.93	-	-	NG
BAKSA	-	-	-0.79	-10.17	-13.17	-2.94	-1.81	NG
NBPO	-	0	-0.03	0.03	0.08	-	-	PG
AKHRIGANJ	-	-	-	-9.18	-2.25	-3.92	-1.59	NG
ALOJUGMO	-	-	-	-	-1.14	-2.86	0.00	NG
AMLAREM	-	-	-	-	-0.89	-0.76	-0.79	NG
ALMIGHAT	0	-	-	-	-	-	-	NG
BENGAL KRISHI	-	-	-	-1.27	-14.38	-23.89	-16.47	NG
BHUIHARA	-	-	0.00	-4.50	-2.73	-2.48	-3.40	NG
BURWIDWISA	-	-	0	0	-0.55	-0.24	0	NG
DEUJORA	-	0	0	-0.36	-0.38	-	-	NG
GORESWAR POULTARY	0.01	-1.53	0.00	-1.55	-1.27	-	-	NG
MANAKAMANA ARGO	-	-	0.00	0.00	0.00	-	-	PG
MOHASHAKTI	-			0.13	-1.37	-4.33		NG
PURBAMALLICKPARA	-	-	-	-1.64	-	-	-	NG
SANKAR AZAN	0.00	-0.45	-1.12	-1.72	-1.41	-1.79	-1.72	NG
SRIJANEE GRAM	-	-	-	-	-10.65	-	-	NG
SATBANI POTATO	0.00	0.00	0.00	0.00	0.00	-	-	PG
SONAR CHALUN	-	-	-	0.00	0.00	0.00	-2.81	NG

Source: Computed from Financial Statement available on MCA-21

NG - Negative Growth ***PG - Positive Growth***

The Sustainability Growth Rate (SGR) analysis of all selected Farmer Producer Companies (FPCs) in West Bengal indicates a **predominantly weak and unsustainable growth pattern**. A large majority of FPCs record **negative SGR values**, reflecting limited internal capital generation and high dependence on external finance. **Indramalati Co.** shows extreme volatility, with SGR falling to **–30.99 (2017)**, rising sharply to **45.99 (2019)**, and again declining to **–13.93 (2020)**, indicating unstable profitability and reinvestment practices. **Ahmadapur FPC** follows a similar pattern, dropping to **–38.87 (2018)**, briefly improving in **2019**, and reverting to negative growth thereafter. **Baksa FPC** stays negative, with SGR going from –0.79 to –13.17 (2018–2022). Akhriganj FPC, on the other hand, stays under stress, going from **–9.18 (2019)** to **–1.59 (2022)**. **Alojugmo** and **Amlarem FPCs** exhibit relatively mild but consistently negative SGR values (around **–1.14 to –0.79**), signalling stagnation. **Almighat, Bhuihara, Burwidwisa, Deujora, Sonar Chalun, and Mohashakti** remain close to zero but negative across most years, reflecting very low profitability and minimal reinvestment. **Bengal Krishi FPC** shows a sharp deterioration from **–1.27 (2019)** to **–23.89 (2021)**, despite earlier solvency, while **Srijanee Gram FPC** records a notable decline with **–10.65 (2020)**. **Goreswar Poultry FPC** maintains weak negative SGR

between **–1.53 and –1.27**, and **Sankar Azan FPC**

shows stable but negative growth from **–0.45 (2017)** to **–1.72 (2022)**. In contrast, only a few FPCs demonstrate relative stability: **NBPO FPC** improves marginally from **0.00 (2017)** to **0.08 (2020)**, while **Manakamana Agro** and **Satbani Potato FPCs** maintain **near-zero SGR (≈0.00)** over multiple years, indicating financial equilibrium without expansion. Overall, the SGR scores confirm that **almost all FPCs lack sustainable, internally funded growth, highlighting structural weaknesses in profitability, retained earnings, reinvestment discipline, and emphasising** the need for targeted financial restructuring, capacity building, and policy support.

Practical Implications

The findings from the sustainability growth rate analysis highlight critical challenges and strategic directions for FPCs in West Bengal. The widespread negative SGR values suggest that most FPCs lack the financial capacity to expand operations without external funding. This indicates that there is an urgent need for policy-level changes to help FPC management teams learn more about money, plan for reinvestment, and handle debt. Institutional support through **NABARD**, **SFAC**, and **State Cooperative Development Programs** can help design targeted schemes focusing on profitability enhancement and capital formation.

For companies in the negative zone, improving **retained earnings** and reducing debt dependency are essential. Better cost control, improved marketing strategies, and diversification of income sources can achieve this. FPCs with near-zero or slightly positive SGR values, such as NBPO, Manakamana Agro, and Satbani Potato, can serve as models for adopting balanced growth strategies that emphasise internal funding and operational efficiency. Furthermore, capacity-building initiatives that promote **entrepreneurial leadership, business forecasting, and financial planning** are critical for transforming loss-making FPCs into self-sustaining enterprises.

On a broader scale, consistent monitoring of SGR trends should be institutionalised as part of annual financial reporting for all FPCs. Regular evaluations can serve as early warning indicators for financial distress and help policymakers identify vulnerable organisations that require intervention. Creating a financial sustainability index that includes SGR, profitability, and solvency measures could present a better overall picture of how healthy each FPC is.

The analysis of the sustainability growth rate for West Bengal's FPCs portrays an overall scenario of fragile financial sustainability, with only a few exceptions showing signs of stability. Persistent negative growth among most FPCs indicates a structural dependence on

external financial assistance and weak internal capital formation. The evidence suggests that while several FPCs have achieved operational viability, their inability to convert earnings into reinvestable capital severely limits their capacity for long-term self-financed growth. To encourage long-term growth, it is important to improve the internal financial management framework, the skills of managers, and the connections between the company and the market. Without strategic restructuring and proactive institutional support, most FPCs in West Bengal may continue to struggle with low profitability, limited scalability, and declining financial sustainability.

2.7. Finding Based on Solvency and Bankruptcy – Using the Z Altman Score Model

The Altman Z-Score analysis of selected Farmer Producer Companies (FPCs) from West Bengal reveals three distinct financial zones—**Growth Zone (GZ)**, **Grey Zone (GRZ)**, and **Risk Zone (RZ)**—reflecting varied levels of solvency, profitability, and operational efficiency. A few FPCs demonstrate strong financial health, while the majority remain vulnerable to financial distress due to structural weaknesses.

2.7.a. Growth Zone (Financially Stable FPCs)

The financially stable FPCs include Ahmadapur, Alojugmo, Srijanee Gramme, Bengal Krishi (until 2018), and NBPO (until 2019).
Findings: These FPCs show strong Z-scores (above 2.99), indicating financial stability and growth potential. They maintain profitability through efficient asset usage, diversified operations, and prudent financial management.

2.7.b. **Reasons for Stability:** Strong market linkages, low debt exposure, effective reinvestment of profits, and good internal governance.

2.7.c. Recommendations:

- Expand value-added activities and product diversification.
- Strengthen digital finance management and branding.
- Share best practices with weaker FPCs through mentorship programmes.

2.7.d. Grey Zone (Moderately Risky FPCs):

These entities show fluctuating Z-scores (1.81–2.99), reflecting moderate solvency with inconsistent earnings, such as Akhriganj, Goreswar Poultry, Sankar Azan, and Purbamallickpara.

2.7.e. **Reasons for Instability:** Volatile income sources, limited working capital, and weak cash flow management.

2.7.f. **Recommendations:**

1. Improve financial planning and adopt digital accounting tools.
2. Strengthen market networks and cooperative linkages.
3. Introduce training programmes in cost control, marketing, and business planning to help shift toward the Growth Zone.

2.7.g. Risk Zone (Financially Distressed FPCs):

These FPCs have low Z-scores (below 1.81), indicating severe financial distress and potential insolvency risks, such as Indramalati, Baksa, Amlarem, Almighat, Burwidwisa, Deujora, Manakamana, Satbani Potato, Sonar Chalun, and Bhuihara.

2.7.h. **Reasons for Distress:** High leverage, weak profitability, poor cost control, and lack of capital reinvestment. Many depend heavily on external aid or seasonal operations.

2.7.i. **Recommendations:**

Ø Implement financial restructuring and debt management through NABARD/SFAC support. Ø

Provide managerial training, financial literacy, and institutional mentoring.

Ø Strengthen access to affordable credit and market-orientated value chains to rebuild solvency.

The FPC ecosystem in West Bengal reflects both promise and peril—while a few cooperatives like Ahmadapur and Srijanee Gram demonstrate the potential of member-driven agribusiness, most others struggle due to limited capital, managerial inefficiencies, and inadequate market integration. Strategic policy interventions, capacity building, and continuous financial monitoring are essential to strengthen these enterprises and ensure long-term sustainability.

2.8. **Findings Based on Objective I (Sustainable Growth Rate)**

The Sustainability Growth Rate (SGR) analysis of the selected Farmer Producer Companies (FPCs) in West Bengal reveals that most entities operate under financial strain, with persistent negative or near-zero growth rates during 2016–2022. Only a few FPCs demonstrate marginally positive SGRs, indicating limited capacity for self-financed growth. The results highlight structural weaknesses in profitability, reinvestment, and financial discipline across the sector.

2.8.a. Stable or Positive SGR

These FPCs show near-zero to slightly positive SGRs, reflecting modest internal growth and operational stability, such as NBPO, Manakamana Agro, and Satbani Potato.

2.8.b. **Reasons:** Efficient cost management, low debt dependency, and effective use of retained earnings.

2.8.c. **Recommendations:**

- Continue prudent reinvestment and maintain debt discipline.
- Expand into value-added production and strengthen branding.
- Use digital monitoring tools for long-term financial tracking.

2.8.d. Stagnant SGR

These FPCs maintain low but stable negative SGRs, showing stagnation without significant decline, such as Sankar Azan, Alojugmo, Amlarem, Goreswar Poultry, Bhuihara, Burwidwisa, and Deujora.

2.8.f. Reasons: Limited sales turnover, underused assets, and weak profitability margins.

2.8.g. **Recommendations:**

1. Enhance working capital efficiency and sales growth.
2. Strengthen managerial capacity through training and financial literacy programmes.
3. Diversify income streams via allied agricultural activities or cooperative marketing.

2.8.g. Highly Negative SGR

These FPCs record consistently negative SGRs, indicating severe financial distress and inability to sustain internal growth. The FPCs in this category include Indramalati Co., Ahmadapur, Baksa, Akhriganj, Bengal Krishi, and Srijanee Gramme.

2.8.h. Reasons: Poor profit margins, excessive reliance on borrowed funds, inconsistent reinvestment, and weak financial governance.

2.8.i. Recommendations:

1. Implement immediate financial restructuring and debt reduction plans.
2. Introduce cost-control mechanisms and improve return on assets.
3. Seek institutional support from NABARD, SFAC, and cooperative banks for revival assistance.
4. Adopt transparent financial reporting and external auditing to rebuild investor confidence.

2.9. Way Forward

1. Policy and Institutional Support: State and national agencies must design targeted funding and capacity-building programmes focusing on profitability enhancement, debt management, and reinvestment planning for weak FPCs.
2. Institutionalise training programmes on bookkeeping, business forecasting, and cooperative leadership to enhance managerial efficiency and decision-making.
3. Market Diversification and Linkages: FPCs should collectively pursue value-chain integration, market networking, and diversification into high-value agribusiness sectors to improve cash flow stability.
4. Monitoring and Evaluation: Annual SGR analysis should be incorporated into the financial assessment framework of all FPCs as an early warning tool for detecting financial distress.
5. Peer Mentorship and Collaboration: Stronger FPCs like NBPO and Satbani Potato can mentor weaker ones through inter-FPC partnerships, facilitating knowledge sharing and financial discipline across clusters.

The overall analysis underscores that most FPCs in West Bengal are struggling with unsustainable financial growth due to weak profitability, limited reinvestment, and overdependence on external funding. Strengthening financial governance, promoting self-financed expansion, and enabling institutional support mechanisms are essential to transform these FPCs into financially resilient and self-sustaining rural enterprises.

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ANNEXURE-: QUESTIONNAIRE

	A Survey Questionnaire on Farmer Producer Companies						
	Section-A: Profile f Farmer Producing Company						
1.	Name Of Farmer Producer Company:						
2.	Location Of Company	State:			District:		
3.	Year Of Establishment:						
4.	Total Number of Members:						
5.	Legal Structure: Cooperative	☐	Cooperative	☐	Company	☐	Society
6.	Does the FPC Have a Board of Directors or Governing Body			☐	Yes	☐	No
7.	Composition Of Board of Directors (Number of Members and Role):						
8.	How Are the Members Elected or Appointed:			☐	Elected	☐	Appointed
9.	Are There Any Committees Within the FPC:			☐	Yes	☐	No
10.	Do You Have Any External Stakeholders or Partners:			☐	Yes	☐	No
	Section-B: Prospective of Farmer Producing Company						
	Marketing Prospective						
11.	How Does the FPC Market its Product:						
		☐	Digital Marketing				
		☐	Public Relation				
		☐	Traditional Advertising				
		☐	Event Marketing				
		☐	Promotions and Discount				
12.	Describe the Primary Target Market for the Product:						
		☐	Geographical Target Market				

		☐	B2B Targeting
		☐	Product Specific Targeting
		☐	B2C Targeting
		☐	Community Supported Agriculture
			Restaurants and Cafes
13.	Any Marketing Strategies Employed:		
		☐	Direct To Customer (DTC)
		☐	Community Engagement
		☐	Farm Tours and Open Houses
		☐	Partnership With Farmers
		☐	Environmental And Ethical Branding
		☐	Seasonal Promotion
		☐	Farmers' Market and Roadside Stands
14.	How Do You Assess Customer Needs and Preference:		
		☐	Surveys
		☐	On-Side Interactions
		☐	Collaborate With Local Business
		☐	Pilot Programs
		☐	Analyse Sales Data
		☐	Create A Customer Advisory Board
15.	Key Competitors in Your Market and Your Competitive Advantages:		
	_____		
	Financial Prospective		
16.	Annual Revenue:		
17.	Sources Of Revenue:		
		☐	Sale Of Product
		☐	Value Added Products
		☐	Agro-Tourism
		☐	Farm To Table Collaborations
		☐	Rental Of Firm Facilities
		☐	Governmental Grands
		☐	Seed And Plant Sales
		☐	Live Stock Sales
18.	Profitability Trends Over the Last Few Years:		
		☐	Upward Trend
		☐	Downward Trend
		☐	Flat Trend

		☐	Irregular Variation		
19.	Use Of Financial Technologies or Tools for Accounting and Budgeting:				
	Products (Demand and Supply)				
20.	List The Main Products Produced by Your FPC:				
		1.			
		2.			
		3.			
		4.			
		5.			
21.	Which Certifications or Standards Guidelines do you Follow:				
22.	How do you Manage Product Supply to Meet Demand:				
23.	Are there any Seasonal Variations in Demand and Supply for fhe Product				
		☐	Yes	☐	No
	Human Resource Prospective				
24.	Total Number of Employees:				
25.	Salary:				
		☐	Below Rs. 10000/-		
		☐	Rs. 10000 – 25000/-		
		☐	Rs. 25000 – 50000/-		
		☐	Rs. 50000 and above		
26.	Whether your company conducting training and skill development programs for employees:				
		☐	Yes	☐	No
27.	if yes, mention the number of training and skill development programs for employees in a year:				
28.	Whether your company follow any policy on employee performance appraisal:				
		☐	Yes	☐	No
29.	if yes, mention the appraisal strategies:				
30.	What are the company's strategies on employee engagement and retention:				

	Section-C: Issue and Challenges of Farmer Producing Company				
	Rate The Following in a 5 Rating Scale				
	Not At All	Very Low	Low	High	Extremely High
	1	2	3	4	5
31.	**Challenges Related to Establishment of the Company:**				

	A.	Documentation	(1)	(2)	(3)	(4)	(5)
	B.	Process	(1)	(2)	(3)	(4)	(5)
	C.	Govt. Policies	(1)	(2)	(3)	(4)	(5)
	D.	Certifications	(1)	(2)	(3)	(4)	(5)

Rate The Following in a 5 Rating Scale					
Not At All	Very Low	Low	High	Extremely High	
1	2	3	4	5	

32.	**Challenges faces in Marketing your Product:**						
	A.	Digital Transformation	(1)	(2)	(3)	(4)	(5)
	B.	Changing Consumer Behaviour	(1)	(2)	(3)	(4)	(5)
	C.	High Competition	(1)	(2)	(3)	(4)	(5)
	D.	Targeting The Right Audience	(1)	(2)	(3)	(4)	(5)
	E.	Choosing Right Marketing Channels	(1)	(2)	(3)	(4)	(5)
	F.	Changing Audience Trends	(1)	(2)	(3)	(4)	(5)
	G.	Product Promotion	(1)	(2)	(3)	(4)	(5)
	H.	Decrease In Purchasing Power	(1)	(2)	(3)	(4)	(5)

Rate The Following in a 5 Rating Scale					
Not At All	Very Low	Low	High	Extremely High	
1	2	3	4	5	

33.	**Financial Challenges:**						
	A.	Cash Flow Management	(1)	(2)	(3)	(4)	(5)
	B.	Debt Management	(1)	(2)	(3)	(4)	(5)
	C.	Cost Control	(1)	(2)	(3)	(4)	(5)
	D.	Regulatory Compliance	(1)	(2)	(3)	(4)	(5)
	E.	Investment Decisions	(1)	(2)	(3)	(4)	(5)
	F.	Access To Capital	(1)	(2)	(3)	(4)	(5)
	G.	Budget Constraints	(1)	(2)	(3)	(4)	(5)
	H.	Working Capital	(1)	(2)	(3)	(4)	(5)
	I.	Digital Payment	(1)	(2)	(3)	(4)	(5)
	J.	Profit	(1)	(2)	(3)	(4)	(5)
	K.	Financial Institution	(1)	(2)	(3)	(4)	(5)
	L.	Govt. Subsidies	(1)	(2)	(3)	(4)	(5)
	M.	Corporate Social Responsibility	(1)	(2)	(3)	(4)	(5)

Rate The Following in A 5 Rating Scale					
Not At All	Very Low	Low	High	Extremely High	
1	2	3	4	5	

34.	**Product Demand and Supply Related Challenges:**						
	A.	Reduce In Demand	(1)	(2)	(3)	(4)	(5)
	B.	Reduce On Supply	(1)	(2)	(3)	(4)	(5)

	C.	Warehousing	(1)	(2)	(3)	(4)	(5)
	D.	Excess Demand	(1)	(2)	(3)	(4)	(5)
	E.	Packaging	(1)	(2)	(3)	(4)	(5)
	F.	Product Quality	(1)	(2)	(3)	(4)	(5)
	G.	Availability	(1)	(2)	(3)	(4)	(5)
	H.	Customisation	(1)	(2)	(3)	(4)	(5)

Rate The Following in a 5 Rating Scale					
Not At All	Very Low	Low	High	Extremely High	
1	2	3	4	5	

35.	**Human Resource Related Challenges:**						
	A.	Decision Making	(1)	(2)	(3)	(4)	(5)
	B.	Leadership	(1)	(2)	(3)	(4)	(5)
	C.	Motivation	(1)	(2)	(3)	(4)	(5)
	D.	Salary	(1)	(2)	(3)	(4)	(5)
	E.	Training And Development	(1)	(2)	(3)	(4)	(5)
	F.	Work Environment	(1)	(2)	(3)	(4)	(5)
	G.	Job Satisfaction	(1)	(2)	(3)	(4)	(5)
	H.	Performance Appraisal	(1)	(2)	(3)	(4)	(5)
		Retention Policy	(1)	(2)	(3)	(4)	(5)