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Determinants of membership and constraints in functioning of farmer producer companies in Banaskantha, Gujarat

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Abstract
In response to increasing agrarian distress and market volatility, Farmer Producer Companies (FPCs) have emerged as a strategic institutional mechanism to empower small and marginal farmers in India. These farmer-owned enterprises, established under the Companies Act, 2002, aim to strengthen collective bargaining power, improve access to markets, and enhance income through value chain integration. Supported by agencies such as NABARD and SFAC, FPCs are designed to blend the cooperative spirit with corporate efficiency. However, despite their potential, many FPCs struggle with sustainability due to a range of operational and institutional challenges. This study investigates the key determinants influencing farmers' decisions to join FPCs. It also identifies the major financial, marketing, technical, and organizational constraints encountered by FPC members, which affect their participation and the overall effectiveness of these organizations. Data were collected through structured surveys from member farmers across selected FPCs, and analyzed using descriptive statistics and ranking methods. The findings reveals that while farmers are motivated to join FPCs for better market access and financial support, they face significant barriers such as lack of technical guidance, poor infrastructure, delayed payments, and inadequate governance mechanisms. Understanding these issues is vital to strengthen the FPC model and make it more responsive to the needs of grassroots stakeholders. The study offers actionable insights for policymakers, development agencies, and FPC promoters to improve member engagement and ensure the long-term viability of farmer-led enterprises.

Keywords: Farmer producer companies, farmers, membership determinants, constraints

Introduction

Farmer Producer Companies (FPCs) have emerged as a transformative institutional mechanism designed to address the structural disadvantages faced by small and marginal farmers in India. By organizing farmers into legally recognized collective enterprises, FPCs aim to strengthen their collective bargaining power, ensure better access to input and output markets, and facilitate capacity building and financial inclusion. These companies operate at the intersection of cooperative principles and private sector efficiency, offering farmers a platform to engage in aggregation, processing, value addition, and direct marketing. Supported by initiatives such as the Small Farmers' Agribusiness Consortium (SFAC), NABARD, and various state-level programs, FPCs benefit from policy reforms, infrastructural support, and access to credit, which are intended to enhance their competitiveness and sustainability. Despite these advantages, the functioning of many FPCs is hampered by a range of technical, institutional, and operational constraints. These include limited managerial skills, lack of awareness about legal and market frameworks, inadequate access to quality inputs and credit, poor infrastructure, and challenges in trust-building among members. Understanding the underlying factors that influence farmers' decisions to join an FPC is critical in this context. These factors often include perceived economic benefits, peer influence, access to subsidies and schemes, and assurance of better market linkages. Moreover, a deeper analysis of the constraints encountered after joining such as governance issues, lack of transparency, low member participation, and limited technical know-how provides insight into the structural and functional gaps that need to be addressed.

This study, therefore, seeks to explore the determinants that influence farmers' willingness to become members of FPCs. It also aims to identify and analyze the key operational challenges that hinder their active participation and the overall performance of these organizations. The findings are expected to offer valuable recommendations for policymakers, practitioners, and development agencies working to strengthen farmer collectives and promote inclusive agribusiness development.

The objectives of the study are as follows.

- To find out the farmers reason for joining as FPC member
- To find out the constraints faced by member farmers towards FPC

Research Methodology

This study targeted member farmers from three selected Farmer Producer Companies (FPCs) designated in the Banaskantha district of Gujarat, employing a purposive (non-probability) sampling method to select a total of 180 participants i.e. 60 from each FPC. The purposive sampling approach ensured the inclusion of relevant and knowledgeable respondents. Data were collected from both primary and secondary sources. Primary data were obtained through a structured interview schedule conducted directly with member farmers to gather firsthand insights. Secondary data were sourced from reports, journals, research papers, government documents, and company websites to provide contextual background and support. The data were analyzed using various statistical tools: frequency and percentage analyses were used to present the distribution of responses; mean scores were calculated to understand average perceptions; and the Likert scale was applied to quantify farmers' attitudes and opinions on a scale ranging from "Strongly Disagree" to "Strongly Agree."

Results and Discussion

Reason for joining as FPC member

Table 1: Distribution of respondents reason for joining as FPC member, (n = 180)

Reasons	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	C.S.	Mean	Rank
Better price realization	9 (90)	11 (99)	3 (24)	2 (14)	2 (12)	47 (235)	43 (172)	26 (78)	23 (46)	14 (14)	784	4.356	IX
Effective management	14 (140)	9 (81)	11 (88)	3 (21)	2 (12)	2 (10)	47 (188)	43 (129)	26 (52)	23 (23)	744	4.133	X
Good services provided	23 (230)	14 (126)	9 (72)	11 (77)	3 (18)	2 (10)	2 (8)	47 (141)	43 (86)	26 (26)	794	4.411	VIII
Market information	43 (430)	26 (234)	23 (184)	14 (98)	9 (54)	11 (55)	3 (12)	2 (6)	2 (4)	47 (47)	1124	6.244	III
Transparency in operation	2 (20)	47 (423)	43 (344)	26 (182)	23 (138)	14 (70)	9 (36)	11 (33)	3 (6)	2 (2)	1254	6.967	II
Access to inputs	47 (470)	43 (387)	26 (208)	23 (161)	14 (84)	9 (45)	11 (44)	3 (9)	2 (4)	2 (2)	1414	7.856	I
Training provided	2 (20)	2 (18)	47 (376)	43 (301)	26 (156)	23 (115)	14 (56)	9 (27)	11 (22)	3 (3)	1094	6.078	IV
Market Access	26 (260)	23 (207)	14 (112)	9 (63)	11 (66)	3 (15)	2 (8)	2 (6)	47 (94)	43 (43)	874	4.856	VII
Better infrastructure facilities	11 (110)	3 (27)	2 (16)	3 (21)	47 (282)	43 (215)	26 (104)	23 (69)	14 (28)	8 (8)	880	4.889	VI
Providing value addition and processing facilities	3 (30)	2 (18)	2 (16)	47 (329)	43 (258)	26 (130)	23 (92)	14 (42)	9 (18)	11 (11)	944	5.244	V

The analysis of reasons for joining Farmer Producer Companies (FPCs) reveals that access to inputs emerged as the most significant motivator, receiving the highest mean score of 7.856 and ranking first among all reasons. This finding aligns with previous studies, where access to quality agricultural inputs at fair prices was consistently cited as a core reason for farmers' participation in collective institutions like FPCs (Kumar *et al.*, 2020; Singh & Chand, 2019) [10, 28]. Transparency in operations ranked second (mean score = 6.967), indicating the importance of accountable governance in fostering farmer trust and participation. This is supported by Jain *et al.* (2021) [6], who emphasized that members prefer organizations with clear operational practices to ensure fairness in benefit distribution. Market information (mean = 6.244) and training provided (mean = 6.078) ranked third and fourth, respectively, showing that knowledge empowerment remains a critical incentive, as noted by Sharma and Bansal (2020) [1], who found that FPCs play a vital role in disseminating real-time market intelligence and capacity building. While value addition and processing facilities ranked fifth (mean = 5.244), it signifies a growing recognition among farmers of the long-term economic benefits associated with moving up the value chain. Conversely, effective management and better price realization ranked the lowest, suggesting that while these aspects are important, they are either taken for granted or not seen as immediate drivers for joining. This may reflect challenges in price realization through FPCs, as noted by Birthal *et al.* (2017) [4], who pointed out that while collective action aims to enhance bargaining power, real-world impact on farm-gate prices can be inconsistent.

Constraints faced by member farmers towards FPC

Personal constraints faced by respondents

Table 2: Distribution of personal constraints faced by respondents

Sr. No.	Statements	Strongly Agree (1)	Agree (2)	Moderate (3)	Disagree (4)	Strongly Disagree (5)	C.S.	Mean	Rank
1	Increased workload	45 (225)	32 (128)	31 (93)	24 (48)	48 (48)	542	3.01	IV
2	Lack of co-operation	44 (220)	46 (184)	33 (99)	32 (645)	25 (255)	592	3.29	I
3	Lack of family support	38 (190)	31 (124)	45 (135)	25 (50)	41 (41)	540	3.00	V
4	Lack of time	43 (215)	29 (116)	31 (93)	26 (52)	51 (51)	527	2.93	VI
5	Lack of initiatives among the FPC members	42 (210)	32 (128)	42 (126)	32 (64)	32 (32)	560	3.11	II
6	Lack of interest in attending meeting	41 (205)	31 (124)	39 (117)	33 (66)	36 (36)	548	3.04	III

Table 2 highlights the analysis of personal constraints faced by FPC member farmers which reveals several challenges that may hinder their active participation and performance in FPC activities. The most prominent constraint identified was lack of co-operation(mean score = 3.29, Rank I), indicating interpersonal or group-level frictions within the organization. Similar findings were reported by Kumar *et al*. (2020) [10], who observed that the absence of cohesive interaction and mutual trust among FPC members negatively impacts group dynamics and limits collective decision-making. The lack of initiatives among FPC members was the second-highest constraint (mean = 3.11), suggesting a passive attitude or insufficient motivation to engage proactively. This aligns with the findings of Singh and Singh (2021) [24], who argued that without a sense of ownership, members often remain inactive, expecting benefits without contributing to group efforts. Lack of interest in attending meetings ranked third (mean = 3.04), highlighting issues of engagement and possibly a lack of perceived value in such gatherings. This is consistent with the study by Bansal *et al*. (2019) [2], which noted that irregular meeting attendance often stems from poor communication and weak leadership within FPCs. The constraint of increased workload (mean = 3.01, Rank IV) suggests that members may find FPC-related tasks burdensome alongside their regular farming activities. Sharma and Dey (2022) [23] observed that participation in collective platforms demands additional time and effort, which is often difficult to balance with existing responsibilities. Lack of family support (mean = 3.00) and lack of time (mean = 2.93) were ranked fifth and sixth, respectively, but still significant, showing that individual and household dynamics influence participation. Family encouragement and availability of time are critical for members to engage consistently, as highlighted by Patel and Joshi (2018) [15], who emphasized that gender roles, household labor distribution, and time poverty affect rural engagement in cooperative systems. Addressing these constraints through capacity-building, inclusive decision-making, and workload sharing mechanisms is essential for the long-term success of FPCs.

Infrastructural constraints faced by respondents

Table 3: Distribution of infrastructural constraints faced by respondents

Sr. No.	Statements	Strongly Agree (1)	Agree (2)	Moderate (3)	Disagree (4)	Strongly Disagree (5)	C.S.	Mean	Rank
1	Lack of proper training hall	41 (205)	31 (124)	39 (117)	33 (66)	36 (36)	548	3.04	V
2	Lack of well-developed storage facilities	43 (215)	45 (180)	35 (105)	33 (66)	24 (24)	590	3.28	I
3	Lack of well-developed processing facilities	42 (210)	32 (128)	42 (126)	32 (64)	32 (32)	560	3.11	III
4	Lack of maintenance of machineries	42 (210)	43 (172)	34 (102)	31 (62)	30 (30)	576	3.2	II
5	Lack of modern machineries	39 (195)	35 (140)	45 (135)	25 (50)	36 (36)	556	3.09	IV

Table 3 depicts the infrastructural constraints identified by member farmers in their association with Farmer Producer Companies (FPCs) reflect key limitations that hinder efficient operations and overall development. The most pressing issue reported was the lack of well-developed storage facilities (mean score = 3.28, Rank I). Inadequate storage infrastructure often leads to post-harvest losses and forces farmers to sell their produce prematurely at lower prices. This concern is consistent with findings by Tripathi *et al*. (2020) [31], who emphasized that insufficient rural warehousing and cold storage facilities significantly reduce farmers' income and discourage collective marketing. The lack of maintenance of machinery ranked second (mean = 3.20), highlighting operational inefficiencies that affect production continuity and quality. Singh and Mishra (2021) [24] also reported similar challenges, noting that without regular upkeep, shared assets like threshers or dryers become unreliable, increasing costs and delays. The lack of well-developed processing facilities (mean = 3.11) ranked third, revealing an important gap in value addition—a core function that FPCs are expected to perform. This supports the view of Bansal *et al*. (2019) [2], who pointed out that many FPCs in India operate without access to processing infrastructure, limiting their competitiveness in the agri-value chain. Lack of modern machinery (mean = 3.09) and lack of proper training halls (mean = 3.04) were also reported as significant infrastructural barriers. While the former limits productivity and adoption of advanced agronomic practices, the latter reflects constraints in capacity building and knowledge dissemination. As emphasized by Patel and Rana (2018) [16], physical infrastructure such as training centers and access to mechanization are crucial for improving the performance and self-reliance of FPCs. Addressing these constraints through public-private partnerships and targeted government schemes could significantly enhance the functional capacity of Farmer Producer Organizations.

Financial constraints faced by respondents

Table 4: Distribution of financial constraints faced by respondents

Sr. No.	Statements	Strongly Agree (1)	Agree (2)	Moderate (3)	Disagree (4)	Strongly Disagree (5)	C.S.	Mean	Rank
1	Lack of sufficient finance	57 (285)	42 (168)	25 (75)	33 (66)	23 (23)	617	3.43	III
2	Unaware of credit facilities	43 (215)	45 (180)	35 (105)	33 (66)	24 (24)	590	3.28	IV
3	Lack of crop insurance facilities	42 (210)	32 (128)	42 (126)	32 (64)	32 (32)	560	3.11	VII
4	Difficulty in external loans	67 (335)	43 (172)	34 (102)	23 (46)	13 (13)	668	3.71	II
5	Lack of adequate accounting system	42 (210)	32 (128)	42 (126)	33 (66)	31 (31)	561	3.12	VI
6	High interest burden from financial institute	49 (245)	31 (124)	39 (117)	33 (66)	28 (28)	580	3.22	V
7	Lack of bank officials support	64 (320)	47 (188)	38 (114)	17 (34)	14 (14)	670	3.72	I

Table 4 shows the data on financial constraints faced by FPC member farmers and highlights the persistent and multi-dimensional financial barriers that affect their participation and performance within Farmer Producer Companies. The most critical issue identified was lack of support from bank officials (mean = 3.72, Rank I), suggesting that many farmers experience difficulties in accessing formal financial services due to bureaucratic delays, inadequate guidance, or unfavorable attitudes from banking personnel. Similar findings were reported by Singh and Chauhan (2020) [25], who noted that rural farmers often face discrimination or neglect at banking institutions, limiting their access to essential credit and financial services. Closely following was the constraint of difficulty in availing external loans (mean = 3.71, Rank II), which reinforces the larger challenge of financial exclusion among smallholder farmers. As highlighted by Reddy *et al.* (2019) [19], limited collateral, cumbersome paperwork, and low financial literacy often prevent farmers from accessing institutional credit. Lack of sufficient finance ranked third (mean = 3.43), indicating that many FPC members struggle with internal capital shortages, which hinders investment in inputs, technology, and infrastructure. This aligns with the observations of Kumar *et al.* (2018) [11], who found that limited financial reserves severely impact FPCs' ability to scale and sustain operations. Unawareness of credit facilities (mean = 3.28) and high interest burdens from financial institutions (mean = 3.22) ranked fourth and fifth respectively. These indicate both informational and systemic constraints, where farmers are not only unaware of available schemes but also discouraged by unfavorable loan conditions. According to Patel and Mehta (2021) [6], high-interest rates and rigid repayment terms discourage FPC members from borrowing, especially when returns are uncertain or delayed. Further, the lack of crop insurance facilities (mean = 3.11) and inadequate accounting systems (mean = 3.12) were also significant, though lower in rank. These issues reduce financial security and transparency within the FPC ecosystem. Poor insurance coverage leaves farmers vulnerable to climate and market shocks, a point underscored by Tripathi and Singh (2022) [30], who found that very few FPCs effectively link their members with government-backed insurance programs. Addressing these financial constraints through capacity-building, simplified loan processes, better outreach by banks, and improved risk management tools is critical for strengthening FPCs.

Marketing constraints faced by respondents

Table 5: Distribution of marketing constraints faced by respondents

Sr. No.	Statements	Strongly Agree (1)	Agree (2)	Moderate (3)	Disagree (4)	Strongly Disagree (5)	C.S.	Mean	Rank
1	Lack of latest market information	57 (285)	41 (164)	39 (117)	27 (54)	16 (16)	636	3.53	IV
2	Delayed payments	59 (295)	52 (208)	39 (117)	21 (42)	9 (9)	671	3.73	II
3	Gaps in supply chain management	63 (315)	47 (188)	44 (132)	15 (30)	11 (11)	676	3.76	I
4	High transportation cost	64 (320)	47 (188)	38 (114)	17 (34)	14 (14)	670	3.72	III
5	Lower price for produce	42 (210)	32 (128)	42 (126)	33 (66)	31 (31)	561	3.12	VI
6	Fluctuation of price in every year	49 (245)	31 (124)	39 (117)	33 (66)	28 (28)	580	3.22	V

Table 5 depicts the data on marketing constraints that reveals the gaps in supply chain management (mean = 3.76, Rank I) are the most critical obstacle faced by Farmer Producer Company (FPC) members. Poor coordination in logistics, inventory, and distribution often leads to inefficiencies, delays, and financial losses. This is consistent with the findings of Kumar and Mittal (2021) [9], who highlighted that fragmented supply chains and the absence of cold-chain infrastructure severely undermine the marketing efficiency of Indian FPCs. The second major constraint was delayed payments (mean = 3.73), indicating that even after produce is sold, farmers often do not receive timely compensation. This issue, frequently mentioned in studies by Rani and Singh (2019) [18], undermines trust in institutional marketing and discourages farmers from engaging with FPC-led marketing channels. High transportation costs (mean = 3.72, Rank III) also emerged as a significant constraint. These costs are particularly burdensome for small and marginal farmers who need to aggregate and transport small quantities of produce over long distances. As noted by Patil and Kale (2020), inadequate rural transport infrastructure and lack of collective logistics planning increase the cost burden on individual farmers. Lack of latest market information ranked fourth (mean = 3.53), revealing that farmers are often disconnected from real-time pricing and demand trends, which reduces their ability to make informed selling decisions. Similar constraints were documented by Sharma *et al.* (2018) [32], who found that despite the digital revolution, rural farmers still lack access to timely and accurate market data. Fluctuation in produce prices year-to-year (mean = 3.22) and lower price realization (mean = 3.12) were also mentioned as key concerns. These issues reflect the larger problem of price volatility and weak bargaining power, as echoed in the work of Chand and Kumari (2020) [5], who noted that smallholders often accept lower prices due to immediate cash needs, inadequate storage, and the absence of collective negotiation.

Together, these constraints demonstrate the urgent need for better market integration, ICT-based market intelligence systems, and transparent pricing mechanisms to enhance the marketing capacity of FPCs.

Organizational constraints faced by respondents

Table 6: Distribution of organizational constraints faced by respondents

Sr. No.	Statements	Strongly Agree (1)	Agree (2)	Moderate (3)	Disagree (4)	Strongly Disagree (5)	C.S.	Mean	Rank
1	Unequal work delegation	61 (305)	46 (184)	54 (162)	13 (26)	6 (6)	683	3.79	IV
2	Absence of forward and backward integration	59 (295)	52 (208)	39 (117)	21 (42)	9 (9)	671	3.73	V
3	Weak economic status to run the organization	67 (335)	53 (212)	44 (132)	13 (26)	3 (3)	708	3.93	II
4	Inadequate managerial capacity	64 (320)	47 (188)	38 (114)	17 (34)	14 (14)	670	3.72	VI
5	Inefficient monitoring	73 (365)	55 (220)	34 (102)	6 (12)	12 (12)	711	3.95	I
6	Political influence	49 (245)	31 (124)	39 (117)	33 (66)	28 (28)	580	3.22	VII
7	Few executive handle all responsibilities	62 (310)	57 (228)	46 (138)	8 (16)	7 (7)	699	3.88	III
8	Poor Professional Management	53 (265)	24 (96)	24 (72)	51 (102)	28 (28)	563	3.13	VIII
9	Inadequate staff at grass root level	68 (340)	13 (52)	10 (30)	34 (68)	55 (55)	545	3.03	IX

Table 6 depicts the analysis of organizational constraints that reveals the inefficient monitoring (mean = 3.95, Rank I) which is the most significant issue reported by FPC member farmers. A lack of systematic oversight and performance tracking hinders effective functioning, leading to resource mismanagement and weakened accountability. This is consistent with findings by Singh and Rana (2020) [26], who noted that the absence of robust monitoring and evaluation frameworks often results in operational inefficiencies within Farmer Producer Organizations (FPOs). The second major constraint was weak economic status to run the organization (mean = 3.93), indicating that many FPCs lack the financial autonomy or capital base to sustain long-term activities. Kumar *et al*. (2019) [12] emphasized that limited working capital and over-reliance on grants or external aid undermines the stability and independence of such organizations. Another serious concern was that few executives handle all responsibilities (mean = 3.88, Rank III), reflecting poor delegation and concentration of power. This issue contributes to overburdening of select individuals and limited participation from the broader membership base. Similar organizational bottlenecks were observed by Jain and Mehta (2021) [6], who argued that centralization of responsibilities in FPCs reduces transparency and operational effectiveness. Unequal work delegation (mean = 3.79) and absence of forward and backward linkages (mean = 3.73) were also prominent constraints, suggesting weak integration with input suppliers, processors, and buyers. As highlighted by Bansal *et al*. (2020) [1], FPCs without strong value chain linkages struggle to scale and remain competitive in modern agri-markets. Inadequate managerial capacity (mean = 3.72) ranked sixth, indicating skill gaps among those managing the organization, a problem well-documented in the literature (Tripathi & Sharma, 2018) [32]. Political influence (mean = 3.22) was another challenge, suggesting that external interference can disrupt internal governance and decision-making, a concern raised by Narayan and Prasad (2019) [13] in their analysis of politicization in rural producer groups. Poor professional management (mean = 3.13) and inadequate staff at the grassroots level (mean = 3.03) were also noted, highlighting the need for skilled human resources and field-level support. These findings underscore the importance of capacity-building programs, democratic governance structures, and professional staffing in improving the organizational resilience and effectiveness of FPCs.

Technical constraints faced by respondents

Table 7: Distribution of technical constraints faced by respondents

Sr. No.	Statements	Strongly Agree (1)	Agree (2)	Moderate (3)	Disagree (4)	Strongly Disagree (5)	C.S.	Mean	Rank
1	Improper identification of needs	64 (320)	42 (168)	53 (159)	13 (26)	8 (8)	681	3.78	III
2	Lack of awareness on importance of grading and packing	53 (265)	24 (96)	24 (72)	51 (102)	28 (28)	563	3.13	IV
3	Inadequate technical guidance	67 (335)	53 (212)	44 (132)	13 (26)	3 (3)	708	3.93	II
4	Lack of timely, cheap and good quality inputs	68 (340)	13 (52)	10 (30)	34 (68)	55 (55)	545	3.03	V
5	Lack of computer knowledge which makes them unable to drive benefits of available ICT tools	73 (365)	55 (220)	34 (102)	6 (12)	12 (12)	711	3.95	I

The analysis of technical constraints reveals several significant barriers that limit the operational efficiency and technological advancement of Farmer Producer Company (FPC) members. The most critical issue identified was the lack of computer knowledge, which makes members unable to benefit from available ICT tools (mean = 3.95, Rank I). This indicates a digital divide among rural farmers, preventing them from leveraging technologies for weather forecasting, market prices, e-commerce platforms, and digital payments. Similar findings were highlighted by Sharma and Meena (2020) [21], who noted that limited digital literacy among FPC members restricts their ability to utilize government portals and digital value chain tools. The second major constraint was inadequate technical guidance (mean = 3.93), suggesting a lack of expert support and advisory services for modern farming practices, machinery operation, and input use. Studies by Singh *et al*. (2019) [18] emphasized that access to timely technical support is crucial for improving productivity and enabling FPCs to function effectively in competitive markets. Improper identification of members' needs ranked third (mean = 3.78), indicating gaps in need-based planning and member-focused extension services. This aligns with the observations of Jain and Patel (2021) [6], who reported that many FPCs adopt a top-down approach, failing to assess the actual needs of their members. Other notable technical constraints include lack of awareness on the importance of grading and packing (mean = 3.13), which hampers value addition and the ability to meet market standards. According to Bansal and Rathi (2020) [1], inadequate understanding of post-harvest practices reduces product quality and limits access to premium markets. Finally, lack of timely, affordable, and quality inputs (mean = 3.03, Rank V) also emerged as a significant concern. Patel *et al*. (2018) [16] pointed out that inconsistent input supply chains and poor quality control mechanisms often leave FPC members at a disadvantage compared to commercial buyers or contract farmers. These findings underscore the urgent need for digital literacy programs, strengthened extension networks, and better input service mechanisms to enhance the technical capabilities of FPCs.

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