

## Comparative analysis of financial performance of women-led FPO with mixed gender FPO in the Udupi district of Karnataka

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(Received: September, 2025 ; Accepted: November, 2025)

DOI: 10.61475/JFS.2025.v38i4.33

**Abstract:** Farmer Producer Organizations serve as an important platform for integrating women into the main stream development of agriculture and allied sectors. A study was conducted to evaluate and compare the performance of a women-led FPO (Kapu FPO) with a mixed-gender FPO (Nitte FPO) in Udupi District, Karnataka. Data on financial aspects of both the FPOs were collected from their balance sheets and key financial ratios such as liquidity, solvency and profitability were used as indicators of performance. Results revealed that Kapu FPO exhibited an extremely high current ratio in 2022 (191.21), indicating sufficient liquidity, which normalized in subsequent years. The debt-to-equity ratio was zero across all the years as the FPO operated entirely on equity. It showed high gross and net profitability, reflecting operational efficiency and return on fixed assets was 0.691. In contrast, Nitte FPO showed more balanced liquidity with consistently higher liquid asset to total asset ratio (0.522) and a modest use of debt (debt-equity ratio of 0.111). Despite this, it recorded lower profitability and a weak return on fixed assets (0.049), indicating underutilization of its capital investments. Overall, Kapu FPO was safer but less efficient, while Nitte FPO was riskier but more dynamic in operations.

**Key words:** Farmer Producer Organisation, Financial Performance, Liquidity Ratio, Profitability Ratio, Solvency Ratio, Women FPO

### Introduction

Over 85 per cent of India's farmers are small and marginal, facing limited access to quality inputs, credit, technology, markets and storage facilities (Anon, 2020). Traditional cooperatives introduced to address these issues failed due to political interference, corruption and lack of commercial orientation (Singh, 2022). Recognizing the limitations of supply-side measures, policymakers emphasize building farmer institutions capable of addressing local challenges. In 2002, the Producer Company model was introduced under the Companies Act, 1956, based on recommendations of economist Y. K. Alagh, enabling cooperatives to function as companies (Chauhan, 2015; Jhansi *et al.*, 2024). Producer Organisations are owned by producers who share profits and benefits. Farmers Producer Organisations (FPOs) are farmer-exclusive collectives that strengthen bargaining power, reduce transaction costs and enhance access to inputs, credit, markets and insurance (Patel *et al.*, 2023). Typically comprising 300 to 3,000 members, FPOs are governed by board of directors with financial and professional support from promoting institutions like National Bank for Agriculture and Rural Development (NABARD) and Small Farmers Agribusiness Consortium (SFAC), which provide credit guarantees and equity grants (Anon, 2015).

The first PC was registered in 2004 and as of February 2023, India had more than 16,000 FPOs. Government initiatives, such as "Year of FPOs" in 2014, NABARD's PRODUCE Fund and the central sector scheme (CSS) to promote 10,000 FPOs in 2019 have aimed to institutionalize farmer collectives, with a focus on inclusivity for small holders, women and marginalized

groups (Neti & Govil, 2022; Gowda *et al.*, 2018; Rani *et al.*, 2018).

Women contribute 75 per cent of India's farming labor, yet their participation in FPOs remains low. (Patel *et al.*, 2023). Structural barriers include lack of land titles, socio-cultural norms and minimal policy mandates for women's inclusion. Although NABARD has supported the formation over 5,073 FPOs, only 178 are women-led (Padmanand & Kharb, 2024).

As of 2024, Karnataka hosts around 1,181 FPOs promoted under schemes like RKVY, CSS, state policy and institutions such as NABARD and SFAC (Anon, 2024). However, gender main streaming remains limited, with only eight women-led FPOs in the state. Hence, in this context, the present research study was undertaken to analyze performance of women-led FPO and mixed gender FPO in Udupi district of Karnataka.

### Material and methods

A priori information indicated that out of the eight women-led FPOs in Karnataka, the women-led FPO in Kapu taluk of Udupi district was performing better compared to the other women-led FPOs. Hence, Udupi district was purposively selected for the study. To compare and contrast the performance of women-led FPO with FPO, similar data from a mixed gender FPO (Nitte FPO) located in the same district was selected for the study. Data was collected from the audited balance sheets, income statement and statement of cash flows of both Kapu FPO (Women-led FPO) and Nitte FPO (Mixed-gender FPO) for the period 2022-2024. The profiles of both the FPOs are

Table 1. Profile of Kapu and Nitte FPO in Udupi district of Karnataka

Parameters	KAPU FPO(Women-led FPO)	NITTE FPO
Year of establishment	5th July 2021	5th July 2021
CIN Number	U01100KA2021PTC149076	U01110KA2021PTC149385
Number of shareholders	986	937
Number of women shareholders	986	296
Number of men shareholders	NA	641
Total number of Farmer Interest Groups (FIGs) formed	46	42
Total number of villages covered	16	18
Number of BOD	9	12
Promoting Organization	Watershed Development Department, GoK	Atal Incubation Center (ATC)
Share amount per member	2000	2000
Type of FPO	Crop-based and horticulture-based	Horticulture and based
Total number of employees	3	2
Promoting Resource Institute	NITTE	NITTE

Note: NA is Not applicable

presented in Table 1. Financial ratios were computed to assess the performance of both the FPOs. The financial ratios used were;

#### Liquidity ratios

Liquidity ratios are used to measure the ability of FPO to possess adequate cash to meet immediate obligations.

Current ratio = Current assets/ Current liabilities

Liquid assets to total assets ratio = Liquid assets/Total assets

#### Solvency ratios

Solvency ratios are used to measure the ability of FPO to meet its long-term obligations and maintain financial stability.

Total liabilities to owned fund ratio = Total liabilities/ Owned funds

Fixed assets to owned fund ratio = Fixed assets/ Owned funds

Debt-Equity ratio = Long-term liabilities/ Net-worth

#### Profitability ratios

Profitability ratios were used to compare the return to the investment.

Net profit to total asset ratio= Net profit/ Total assets

### Results and discussion

#### Liquidity ratios

Table 2 shows the liquidity ratios of Kapu and Nitte FPO. Current ratio, which indicates a firm's ability to pay its short-term debts using its current assets, showed fluctuations across three years both for Kapu and Nitte FPO. Kapu FPO maintained a current ratio above unity in all three years, while Nitte FPOs fell below unity in 2024 (0.705), signaling liquidity concerns. A higher ratio means better short-term financial health, but an excessively high ratio in case of Kapu FPO in the first year

indicated underutilized resources. On average, both maintained current ratios above unity, showing reasonable liquidity. Liquid asset to total asset ratio which measures the proportion of total assets that are easily convertible into cash, giving it greater flexibility to meet obligations quickly, was 0.522 for Nitte FPO and 0.305 Kapu FPO. This suggested Nitte FPO had a better average liquid asset to total asset ratio as compared to Kapu FPO and increasing liquid assets in both FPOs indicated healthy working capital management.

#### Tests of solvency

Table 3 shows the solvency ratios such as the debt-to-equity ratio, total liabilities to owned funds ratio and fixed assets to owned funds ratio of both Kapu and Nitte FPO. Debt to equity ratio which shows the proportion of funds borrowed (debt) compared to owners' funds (equity) was zero for Kapu FPO while it was 0.11 for Nitte FPO. A high ratio indicates more reliance on borrowed money, which increases financial risk. The findings showed that the Kapu FPO was conservative in its approach while Nitte FPO was growth-oriented. Total liabilities to owned funds ratio, which indicates the extent to which owners' funds cover the total liabilities was low for Kapu FPO (0.197), while for Nitte FPO it was 0.597. A higher ratio suggests greater dependence on external funds, reducing financial stability and hence Nitte FPO had greater financial risk compared to Kapu FPO. Fixed assets to owned funds ratio, which measures how much of the owners' funds are invested in fixed assets was 0.028 and 0.278 for Kapu and Nitte FPO, respectively. A lower ratio in the case of Kapu FPO indicated more funds available for working capital asset-light operations while it suggested capital investment and expansion with higher exposure to financial risk in case of Nitte FPO.

Table 2. Liquidity ratios of KAPU and NITTE FPO

Year	Current ratio		Liquid asset to total asset ratio	
	KAPU FPO	NITTE FPO	KAPU FPO	NITTE FPO
2022	191.21	97.791	0.206	0.920
2023	5.978	3.553	0.379	0.223
2024	3.211	0.705	0.330	0.422
Mean	66.800	34.016	0.305	0.522

Table 3. Solvency ratios of KAPU and NITTE FPO

Year	Debt equity ratio		Total liabilities to the owned funds ratio		Fixed assets to owned funds ratio	
	KAPU FPO	NITTE FPO	KAPU FPO	NITTE FPO	KAPU FPO	NITTE FPO
2022	0	0	0.006	0.916	0.050	0.150
2023	0	0.225	0.180	0.353	0.020	0.382
2024	0	0.107	0.407	0.522	0.015	0.301
Mean	0	0.111	0.197	0.597	0.028	0.278

Table 4. Profitability ratios of KAPU and NITTE FPO

Year	Gross profit ratio		Net profit to total asset ratio		Net profit to fixed asset ratio	
	KAPU FPO	NITTE FPO	KAPU FPO	NITTE FPO	KAPU FPO	NITTE FPO
2022	0.323	0.253	0.006	0.011	0.131	0.135
2023	0.327	0.129	0.035	0.002	1.898	0.003
2024	0.085	0.106	0.001	0.002	0.045	0.008
Mean	0.245	0.163	0.014	0.005	0.691	0.049

### Tests of profitability

Table 4 shows the profitability ratios such as gross profit ratio, net profit to total asset ratio and net profit to fixed asset ratio for both Kapu and Nitte FPO. Gross profit ratio, which is the percentage of sales revenue left after deducting the cost of goods sold, indicates production and pricing efficiency and a higher ratio means better overall efficiency of asset utilization. The average gross profit ratio for Kapu and Nitte FPO was 0.245 and 0.163, respectively. The findings showed that Kapu FPO outperformed Nitte FPO in gross profitability, implying better operational efficiency or cost control in generating revenue from core activities. Kapu FPO showed slightly better overall performance in return on assets (0.014) than Nitte FPO

(0.005), though both organizations have relatively low returns, indicating potential inefficiencies in asset utilization. Net profit to fixed asset ratio shows the ability of fixed assets to generate profit and a higher ratio means better return from investments in fixed assets. Nitte FPO's return on fixed assets was relatively low, with an average net profit to fixed asset ratio of 0.049 over the three years which indicated that the Nitte FPO was generating limited profit from its investment in fixed assets. Kapu FPO's performance was significantly better in return on fixed assets, especially in 2023 with a ratio of 1.89.

### Conclusion

The findings of the study on the financial performance of women led FPO and FPO shows that, Kapu FPO is safer but less efficient, while Nitte FPO is riskier but more dynamic in operations. Kapu, the women-led FPO, has been conservative in its approach and less risky compared to Nitte FPO. Hence, the women-led FPO has to work towards entrepreneurial activities that are dynamic in nature and less risky to generate profits. Capacity-building training programmes have to be organized for women-led FPOs on entrepreneurial activities and aspects pertaining to financial management, which will enable FPO's growth and long-term sustainability.

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